

**YOUTH PARTICIPATION IN AGRICULTURE IN THE WA WEST
DISTRICT OF GHANA: BENEFITS, CHALLENGES AND PROSPECTS**

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UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE

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BY

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ABSTRACT

Successful and sustainable agriculture mainly depend on people's participation, particularly the involvement of the most active and creative section of the population such as the youth. Nevertheless, issues relating to the youth and agriculture still remain largely unknown, especially in the Wa West District of Ghana. This study examined, inter alia, the benefits, challenges and prospects of youth participation in agriculture in the Wa West District by the application of the theory of planned behavior and mixed-method approach. Primary data were collected from 300 respondents aged 18 to 35 years using questionnaire. The respondents were selected randomly from five communities in the district through the multi-stage sampling technique. Descriptive, inferential and narrative methods were employed to analyze the data. The results showed that farming in the study area remains largely traditional and subsistent. It was found that the youth engage in agriculture mainly through family farms. Also, the young people were involved in land preparation, planting, crop maintenance and harvesting/post-harvesting roles. The majority of the youth associated the main benefit of their participation in agriculture to achieving food security for themselves and their families. The findings also revealed that most young people faced varying degrees of constraints ranging from their personal negative attitudes towards agriculture (such as work with low financial returns, little respect and high risk) to lack of access to resources (including storage and credit facilities, agricultural inputs, and modern technology). All the same, majority of the youth intend to continue to partake in farming. The study concludes that though there is a high prospect of continued youth participation in agriculture in the study area, without providing the young people with storage facilities, allaying their fears that farming is a high risk work as well as treating them differently based on their beliefs on the benefits of their involvement in farming, a significant number of them are more likely to exit farming sooner than later.



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DEDICATION

To my dearest friends and family Christin J. Marshall, Sarah E. Hailey and the Bells.



DECLARATION.....	i
ABSTRACT.....	ii
ACKNOWLEDGEMENT.....	iii
DEDICATION.....	iv
TABLE OF CONTENTS	v
LIST OF TABLES/FIGURES	vii
LIST OF ACRONYMS	ix
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background to the Study.....	1
1.2 Statement of the Problem.....	7
1.3 Research Questions	9
1.4 Research Objectives.....	10
1.5 Significance of the Study	10
1.6 Scope of the Study	11
1.7 Limitations of the Study.....	12
1.8 Organization of the Study	12
1.9 Conclusion	13
CHAPTER TWO	14
LITERATURE REVIEW	14
2.0 Introduction.....	14
2.1 Conceptual Framework.....	14
2.2 Theoretical Framework.....	22
2.3 The Practice of Agriculture.....	24
2.4 Youth Participation in Agriculture.....	29
2.5 Benefits of Youth Participation in Agriculture	31
2.6 Challenges Facing Youth in Agriculture	34
2.7 Prospects of Youth Participation in Agriculture.....	43
2.8 Conclusion	45



CHAPTER THREE	46
RESEARCH METHODOLOGY	46
3.0 Introduction.....	46
3.1 Research Design.....	46
3.2 The Population	47
3.3 Sample Size and Determination.....	48
3.4 Sampling Technique	49
3.5 Sources of Data	51
3.6 Data Collection Instrument.....	51
3.7 Field Data Collection	54
3.8 Data Analysis	55
3.9 Ethical Considerations	56
3.10 Conclusion	57
CHAPTER FOUR	58
RESULTS AND DISCUSSION	58
4.0 Introduction.....	58
4.1 Background Characteristics of Respondents	58
4.2 The Practice of Agriculture in the Study Area.....	62
4.3 Youth Participation in Agriculture in the Study Area	75
4.4 Benefits of Youth Participation in Agriculture.....	89
4.5 Challenges Facing Youth Participation in Agriculture.....	94
4.6 Prospects of Youth Participation in Agriculture.....	114
4.7 Conclusion	126
CHAPTER FIVE	127
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS	127
5.0 Introduction.....	127
5.1 Summary of Findings.....	127
5.2 Conclusion	133
5.3 Recommendations.....	134
References	138
APPENDICES	155



Tables

Table 3.1: List of study communities, number of households and sample size.....	51
Table 4.1: Gender of respondents	59
Table 4.2: Age distribution of respondents.....	59
Table 4.3 Marital status of respondents	60
Table 4.4: Educational level of respondents	61
Table 4.5: Employment status of respondents	61
Table 4.6: Purpose driving the practice of agriculture in respondents' locality	63
Table 4.7: Main indicators of crop production in the study area by respondents.....	65
Table 4.8: Main indicators of animal production in the study area	72
Table 4.9: Main ways in which youth participate in agriculture in the study area	76
Table 4.10: Benefits of youth participation in agriculture	90
Table 4.11: Attitudes of youth towards agriculture	95
Table 4.12: Social support for youth.....	102
Table 4.13: Youth access to land	104
Table 4.14: Youth access to credit	105
Table 4.15: Youth access to modern technology	107
Table 4.16: Youth access to inputs	109
Table 4.17: Youth possessing agricultural knowledge and skills	110
Table 4.18: Youth access to storage facilities.....	112
Table 4.19: Youth access to market.....	113
Table 4.20: Youth intent to continue participation in agriculture.....	115
Table 4.22: Relationship between youth intent to continue participation in agriculture and social support	119



Table 4.23: Relationship between youth intent to continue participation in agriculture and access to productive resources	120
Table 4.24: Relationship between youth intent to continue participation in agriculture and types of benefits	122
Table 4.25: Relationship between youth intent to continue participation in agriculture and background characteristics	123
Table 4.26: Suggested ways of enhancing youth participation in agriculture	125
Table 4.27: Willingness of youth to encourage participation in agriculture.....	126

Figures

Figure 2.1: Schematic presentation of conceptual framework for analyzing youth participation in agriculture	21
Figure 4.1: Main ways of youth participation in agriculture by gender	78
Figure 4.2: Main ways of youth participation in agriculture by age.....	79
Figure 4.3: Main ways of youth participation in agriculture by marital status.....	81
Figure 4.4: Main ways of youth participation in agriculture by educational level	82
Figure 4.5: Main ways of youth participation in agriculture by employment status ...	84



LIST OF ACRONYMS

AGRA	Alliance for a Green Revolution in Africa
DFID-CSO	Department for International Development-Civil Society Organization
FANRPAN	Food Agriculture and Natural Resources Policy Analysis Network
FAO	Food and Agricultural Organization
GPRS	Ghana Poverty Reduction Strategy
GSS	Ghana Statistical Service
IAC	Inter-Academy Council
IFPRI	International Food Policy Research Institute
MOFA	Ministry of Food and Agriculture
MYS	Ministry of Youth and Sports
NGO	Non-Governmental Organization
NYEP	National Youth Employment Programme
NYP	National Youth Policy
PFJ	Planting for Food and Jobs
PHC	Population and Housing Census
SACAU	Southern Africa Confederation of Agricultural Unions
SADA	Savannah Accelerated Development Authority
SPSS	Statistical Package for the Social Sciences
TPB	Theory of Planned Behavior
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
WFP	World Food Programme
YIAP	Youth in Agriculture Programme



INTRODUCTION

1.1 Background to the Study

The youth and agriculture remain important subjects in national discourses in many agrarian countries. Agriculture is not only seen as one of the most prominent sectors of any economy (Penson et al., 2006; Abdullah et al., 2012), but it also contributes about 30 percent of the gross domestic product (GDP) in most countries, and critical to economic growth, generating incomes and creating jobs (AGRA, 2015). For this and other reasons it is held that for now and the foreseeable future, agriculture will remain the primary employment growth sector for most countries. For instance, Afande et al. (2015) echo that agriculture remains a key sector where the surplus unemployed youthful labour force can be employed in Africa.

In the case of Ghana, agriculture accounted for more than half of the country's GDP in the 1970s, but declined to just over forty percent in the 1990s (GPRS, 2003). Agriculture's share of the nation's GDP in the last decades is still unimpressive as it has been dwindling from about 42 percent in 2005 to 22 percent in 2013 (GSS, 2014b) and further downward from 18.9 percent in 2016 to 18.3 percent in 2017 respectively (MOFA, 2017). Besides, the rate of growth of agriculture declined from 7 percent in 2009 to 0.8 percent in 2011 (WFP 2012) and the rate of growth continued to stay below the 2009 figure until 2017 when it went up to 8.4 percent (MOFA, 2017). Despite the drops in agriculture's rate of growth and share of GDP, it is still recognized as the mainstay of Ghana's economy (Duncan, 2004; Britwum et al., 2006; WFP, 2013; Jansen, 2017), and employs 45 percent of the national labour force and provides livelihoods for over 70 percent of the country's rural population (Jansen, 2017).



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Sustaining and spurring prosperous agriculture must therefore be a national priority in all agrarian countries. However, this cannot be attained and maintained without the active participation of people, particularly the involvement of the most active and creative proportion of the population such as the youth. Kimaro et al. (2015) argue that in many countries youth participation in agricultural activities is important for the growth of the sector. It is therefore not surprising that increasingly there appears to be a global consensus that young people must play an active role in development agendas, especially in agriculture which remains the backbone of the economy of many countries. This approach to development may be seen as driven and guided by young people who draw upon their energy, creativity and skills to create positive change which can be on a small or large scale and implicitly values young people as an asset for society (DFID-CSO Youth Working Group, 2010).

As Africa is noted for being rich in both natural and human resources (IAC Report, 2004), the dividend of having young people partake in agricultural activities is limitless. Not only are the youth the most abundant asset Sub-Saharan Africa has or will have in the near future due to the demographic transition in the region (Garcia and Fares, 2008), but also the greatest investment for any of the country's development (Olujide, 2008; Florence, 2014). Therefore, development must include the youth (MOFA, 2011a) as a means of building them to remain active participants in the society. As Aristotle long ago observed, "All advancement in society begins with the development of the character of the young" (Brian, 2010:38). In Ghana, the youth are recognized as one of the critical resources of the country considering their potentials, numbers, vitality, and capabilities as change agents for national development and transformation (MOFA, 2007; MYS, 2010).



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In terms of numbers, young people make up a great and growing proportion of the population in Africa, and about 70 percent of the continent's total population is under the age of 30 (UNECA, 2010). The number of young people aged 15 to 24 is also expected to increase to 1.3 billion by 2050, accounting for almost fourteen percent of the projected global population, and among this number, most are expected to be born in developing countries in Africa and Asia, where more than half of the population still lives in rural areas (FAO, 2014). In Ghana, the youth (15 to 35 years) constitutes an estimated 35 percent of the total population (GSS, 2012).

Studies (e.g. Brooks et al., 2013; AGRA, 2015) show that the involvement of youth all along the agricultural value chain is vital to the growth and economic development of the agriculture-based economies of most African countries – from agricultural research and development, to food production, storage and handling, to agro-processing, through to marketing and distribution in local, regional and international food markets. Ghana's Ministry of Food and Agriculture has long acknowledged that the human resource in the agricultural production and post-production activities can be improved through the attraction of the youth, especially those who receive technical training in agriculture (MOFA, 2007).



The modernization of agriculture in Africa, chiefly Sub-Saharan Africa requires an accelerated integration of information, communication and technology (ICT) in the sector's production, processing and marketing processes. The youth possess greater capacity to learn and apply these modern yield-enhancing technologies, technologies for processing, and modern management methods to apply to the entire value chain in agriculture (MOFA, 2011a; SACAU, 2013). Modern ICTs such as mobile phones and the internet are appealing to the rural youth and have high potential for facilitating



access to information to [enhance productivity](http://www.udsspace.uds.edu.gh) on the farm; enable agricultural innovation; and provide access to financial services and markets (FAO, 2014).

It has also been said that the involvement of the youth in agriculture is vital for social cohesion and political or democratic stability in Africa since the conditions that may trigger disunity and instability could be reduced as more of the youth find decent livelihood in the agricultural sector. For instance, history provides enough evidence of governments that have fallen because of the inability to supply the population with an adequate food supply (Knutson et al., 2007). There is also proof that the terrorist attacks of September 11 2001 have forced political leaders to acknowledge that a series of international security crises may be pending unless the widespread poverty, marginalization and growing inequalities that lead to frustration and despair are significantly reduced (Sagasti et al., 2004). The food price spikes of 2008 and 2010 have shown that food prices are a source of political and social tension, and food prices are expected to remain volatile (Proctor and Lucchesi, 2012). These ills can be controlled through effective youth participation in agriculture.

The need for greater contribution of the youth in agriculture in Ghana cannot be belittled, particularly in a rural area like the Wa West District where data from the GSS (2014a) show that agriculture accounts for an estimated 86 percent of the economy. And the fact that agriculture can act as the problem solver for unemployment and poverty (Abdullah et al., 2012) means that enhanced youth input in it has the potential to eliminate the high levels of poverty, food insecurity and unemployment which is rife in the district. The WFP (2012) indicates that among the districts in the three northern regions, the Wa West District has the highest proportion of either severely or moderately food insecure households (42 percent) and some 82 percent of households are in the two poorest quintiles, making it the poorest district by wealth index.

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The young people in the Wa West District are not exempted from the unemployment, high vulnerability to hunger, malnutrition, negative effects of urbanization and modernization, growing incidence of involvement in violent conflicts, and increasing juvenile crime (MYS, 2010). The 2010 PHC data also show that, all regions except the three northern regions registered double-digit youth unemployment rates (GSS, 2013). Nevertheless, the disproportionately high levels of youth unemployment, underemployment and poverty that tend to be higher among rural youth (World Bank, 2009; FAO, 2014) and other negative happenings may be worst if the young people in the Wa West District were to stay away from doing farming. Besides, youth effort in agriculture in the district is believed to be linked to improved social status, improved incomes, and food security.

Sadly, the youth continue to face many challenges in agriculture which often define their behavior in farming, including the inclination to leaving farming. Also, there are still concerns about the youth's negative personal attitudes towards agricultural activities, lack of social support for the youth to engage in farming, and their lack of access to productive resources.

To address some of the major challenges facing people in the agricultural sector and to encourage greater participation and productivity, governments have traditionally offered support (Ha-Joon, 2004; Rooney, 2007; Anyidoho et al., 2012; FAO 2015; MOFA, 2017). Besides the backing of the state, various forms of support have come from multilateral donors, bilateral donors, foreign private sector, and non-governmental organizations (NGOs) engaging in activities that involve community mobilization and extension support services (Davis and Place, 2003; Kroma, 2003; World Bank, 2007). Thus, over time NGOs have moved from being just delivery agents to performing such roles as improving quality of life of rural communities, development of replicable



modes and promotion of www.udsspace.uds.edu.gh appropriate technologies (Manju, 2007). Furthermore, collaboration between government and NGOs in interventions has yielded positive results (Fox and Liebenthal, 2006).

In addition to the general support given to all participants in the agricultural sector, governments and NGOs continue to devise ways of targeting and supporting young people to retain and improve their contribution to agriculture and other economic activities. The DFID-CSO Youth Working Group (2010) observes that since young people are the future of their countries' development, governments around the world are increasingly supporting youth ministries, youth policies and youth programmes. For instance, in Ghana the NYEP, YIAP and NYP have been initiatives aimed at addressing some of the economic (including agriculture) and social needs of the youth (MOFA, 2011a; GSS, 2013; Gyekuni-Bell, 2013; Baah, 2014; FAO, 2015). Under government's flagship programme of *Planting for Food and Jobs* (PFJ) the YIAP continue to receive support (GSS, 2017).

The importance of youth participation in agricultural activities appears to be recognized by all, including policymakers and advocates. Certainly, the promotion of youth engagement in agriculture and agribusiness value-chains should be an important part of any strategy to achieve sustainable growth and would enable Ghana to reap the dividend of demographic transition (Jansen, 2017). This study therefore seeks among other things to examine the challenges and prospects of youth participation in agriculture in the Wa West District of Ghana.



1.2 Statement of the Problem

Successful and sustainable agriculture mainly depend on people's participation, particularly the involvement of the most active and creative section of the population such as the youth. However, in many parts of Africa young people are leaving (or expressing desire to leave) farms and many are reportedly choosing not to pursue employment in the agricultural sector (Leavy and Smith, 2010; Ahaibwe et al., 2013; World Bank, 2013; FAO, 2014; AGRA, 2015; Bello et al., 2015). It is not certain if the same relates to the Wa West District, but there are indications that this may be the case (WFP, 2012; 2013). Also, subjective information obtained by the researcher suggests the conditions which warrant such situations could be present in the district.

The study on smallholder farmers in Ghana shows that the mean age of all smallholders is 45 years with 18 years and 85 years as the minimum and maximum respectively (WFP, 2013). The study also reveals that the percentage of young farmers is generally very low (less than 4 percent) and the savannah zones (the Wa West included) have the least percentage of young farmers. It has been warned that there is an ageing agrarian population yet the sector is unable to attract the youth (MOFA, 2007).

An earlier report (WFP, 2012) suggests that the youth in the study area are abandoning agriculture. The report shows that on two separate issues of migration at the beginning of rainy season and labour being the most common constraints on agricultural output, the Wa West District ranked third among all the districts in the Upper West region. This adds up to the general concerns that the agricultural sector faces collapse in that a great number of youth are turning away from farming and other agricultural activities (Daily Graphic, 2015). Leavy and Smith (2010) caution that any situation which indicates many young people are not pursuing livelihoods in the agricultural sector may have





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implications for national and international efforts to drive economic growth through investments in agriculture.

Perhaps, one of the central questions that could be asked when such unfavorable reports regarding youth involvement in agriculture come up is whether the youth are well cognizant of the importance of their contribution in agriculture. Given that the young people in the study area are mindful of the benefits of their roles in farming, it is still not clear the types of benefits majority of them associate with their involvement in agriculture. Also, the effects that these beliefs on the benefits have on their agricultural behavior are not known.

Again, the youth in the study area are believed to be facing many internal and external challenges in their farming endeavors despite the diverse supports which are being delivered to them by the state and other organizations. The researcher's own interaction with some few young people in the study area prior to the study reveals certain unproven claims. It is alleged that the youth continue to lack access to productive resources such as land, credit, market, knowledge and skills, and other agricultural facilities needed to reinforce their involvement in agriculture. It was also held that some of the youth have unfavorable attitudes towards agriculture such as unprofitable business, having few opportunities, work to be done by the aged and uneducated persons. Another constraint thought to be facing young people in agriculture is the lack of social support (disapproving comments/actions) from people closest to the youth. These constraints may contribute to youths' tendency to reduce or completely cease participation in farming activities.

Naturally, the above context would trigger systematic investigation into the matters regarding the young people and agriculture in the study area. However, to the

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researcher's knowledge no study has yet expressively addressed the issues. The studies which were cited regarding youth and agriculture were all carried out outside the study area. Though some studies (WFP, 2013; Bashiru, 2014) addressed aspects of these matters, including the challenges facing most farmers, such analyses failed to consider the youth as separate and special group. As a result, the views, experiences and concerns of the young people remain largely unknown or even lost. In particular, there is a dearth of information on how the youth are involved in farming, the benefits associated with their participation, the challenges they face, and the prospects of their involvement. These knowledge gaps need to be filled so as to assist any efforts aimed at attracting, enhancing, and retaining youth involvement in farming in the Wa West District of Ghana.

1.3 Research Questions

1.3.1 Main Research Question

What are the benefits, challenges and prospects of youth participation in agriculture in the Wa West District of Ghana?

1.3.2 Sub-Research Questions

1. How is agriculture practiced in the study area?
2. How does the youth participate in agriculture in the study area?
3. What are the benefits of youth involvement in agriculture in the study area?
4. What are the constraints facing the youth in agriculture in the study area?
5. What are the prospects of continued youth participation in farming in the study area?



1.4 Research Objectives

1.4.1 Main Research Objective

To determine the benefits, challenges and prospects of youth participation in agriculture in the Wa West District of Ghana.

1.4.1 Sub-Research Objectives

1. To ascertain how agriculture is practiced in the study area.
2. To determine how the youth participate in agriculture in the study area.
3. To examine the benefits of youth involvement in agriculture in the study area.
4. To unravel the constraints facing the youth in agriculture in the study area.
5. To ascertain the prospects of continued youth participation in farming in the study area.

1.5 Significance of the Study

Studies addressing matters concerning the youth and agriculture are believed to be generally scanty in Sub-Saharan Africa (Anyidoho et al., 2012). The result of inadequate research on issues regarding youth in agriculture as FANRPAN (2012) reveals is that policy advocates and policymakers sometimes rely too heavily on common knowledge to develop and argue policy alternatives to respond to the problem of “young people and agriculture” in Africa. This needs to be addressed through adequate scientific study.

The researcher strongly believes that since the young people are expected to play a leading role in agriculture which remains the most important and potential livelihood activity in the study area, having adequate knowledge on matters that can affect youth



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contribution in agriculture may contribute to the efforts aimed at attracting, retaining or enhancing their involvement in agriculture.

Therefore, the findings of the study can contribute to knowledge on issues of youth engagement in agricultural activities, and inform the design of interventions to change behavior for more effective participation of the youth in agriculture in Ghana, especially the Wa West district. Thus, the following specific benefits can be realized:

- The outcome of the study can contribute to research-based discussions on policy alternatives to address youth concerns in agriculture in the district and in Ghana as policymakers and social commentators may not only base the answers they proffer to youth agricultural problems on *common sense* but on scientific data.
- The information generated may be used by individuals, non-governmental organizations (NGOs) and government agencies such as the Ministry of Food and Agriculture (MOFA) to design/redesign projects, programmes and policies aimed at enhancing the capacity of the youth to improve their participation in agriculture in the Wa West district or other parts in Ghana.
- Finally, the findings from the study can benefit students and individuals who may in the future undertake research on a similar subject as it could provide relevant information on youth involvement in agriculture.



1.6 Scope of the Study

This study was carried out within five selected communities in the Wa West District of the Upper West Region of Ghana. The study captured the opinions and experiences of young people aged 18 to 35 years who were involved in agriculture up until 17th June, 2017. The information elicited covered young people's view on the practice of farming

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in the study area. It also looked at the main ways through which the youth engaged in agriculture, and the specific roles they played. However, the study mainly focused on the benefits, challenges and prospects of youth involvement in agriculture.

1.7 Limitations of the Study

This study was not completely shielded from some limitations. There was a limited financial resource which partly informed the sample size and selection of fewer communities. The study also planned to achieve an equal number of male and female respondents, but that could not be attained largely because of certain cultural issues. For example, in two households where eligible respondents were more than one, some two female respondents preferred that the male respondents (their husbands) were interviewed. Finally, the study was limited to the youth engaged in agriculture. Nonetheless, these stated limitations in no ways compromised the quality and results of the study.

1.8 Organization of the Study

This study is organized into five main chapters. Chapter one is the introduction to the study, and it comprises background to the research, statement of the problem, research questions, research objectives, significance of the study, scope of the study, limitations of the study, and organization of the study. Chapter two is the literature review. This comprises the conceptual framework, the theoretical framework and relevant issues relating to youth participation in agriculture. Chapter three is the research methodology. It involves mainly the detailed description of how the study was carried out. Chapter four is the results and discussion. Here the primary data is presented and analyzed. Chapter five closes the study with summary of the findings, conclusion and recommendations.



1.9 Conclusion

This chapter has provided the general overview of the study. The key themes discussed here involved the background to the study, statement of the problem, research questions and objectives, significance of the study, scope of the study, limitations of the study, and organization of the study. On the whole, it is shown that there is a dearth of systematic information regarding the constraints and behavior of the youth in farming in the Wa West District which needed to be tackled in order to support efforts to enhancing and retaining young people involvement in agriculture.



LITERATURE REVIEW

2.0 Introduction

This chapter reviews relevant literature relating to the study. The chapter has been structured into three main parts. Firstly, the conceptual framework of the study is presented. Secondly, the theoretical framework supporting this study is explained. Thirdly, other empirical studies relating to the questions and objectives of the study are reviewed.

2.1 Conceptual Framework

The conceptual framework defines the concepts, their attributes, and the relationship between the concepts and the attributes used in the study. The key concepts used in this study include the youth, agriculture, participation, benefits, challenges, prospects and background characteristics. The term *respondent* as used throughout the study refers to the youth unless otherwise stated.

2.1.1 Youth

The concept *youth* is both ubiquitous and fluid since it varies across and within societies, institutions, time and space. The Malaysia Council of Youth defines youth as persons whose age range between 15 and 40 (Bahaman et al., 2010). SACAU (2013) indicates how youth is defined in some countries: Madagascar (15 – 34 years, Malagasy law on National Youth Policy); Malawi (10 – 29 years, draft new National Youth Policy); South Africa (14 – 35 years, National Youth Policy); and Zambia (18 – 35 years). Tanzania defines the youth population as those between the ages of 15 and 35; Nigeria and Swaziland define youth as those between 12 and 30 years; and Botswana and Mauritius define youth as those between 14 and 25 years (AGRA, 2015).



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In Ghana, there are also disparities in the meaning of a youth across political parties, religious bodies, and even state institutions. In the case of political parties, the constitution of the National Democratic Congress (NDC) appears not to have age limit for a youth although the party has a youth wing (Gyekuni-Bell, 2013). The New Patriotic Party (NPP) defines the youth as people between the ages of 1 – 40 years and voting youth as persons between the ages 18 and 39 years (Asante, 2006). The Convention People's Party (CPP) pegs the party's youth as persons between the ages of 14 and 38 years old, and the People's National Convention (PNC) believes a person is qualified to be a youth if he or she is between 18 and 35 years (Gyampo, 2008).

The National Youth Policy of Ghana defines the *youth* as persons within the age brackets 15 and 35 years (MYS, 2010). However, in this study the youth are defined as persons who are within the ages 18 to 35 years. The age 18 years marks an important point in the life of a person in Ghana. At age 18 a person is allowed to become a fully active and responsible participant in the society. This includes the ability to fully partake in all forms of social, political (such as voting) and economic activities such as agriculture. Moreover, the study believes it would be ethically wrong to interview minors (persons below 18 years) without parental/guardian consent; so the age 18 was considered to avoid any inconveniences and unnecessary delays in data collection when parental approval could not be readily obtained. These reasons largely informed the study to choose a starting age of eighteen years.

2.1.2 Agriculture

The term *agriculture* comes from Latin, *agricultura*, which is made up of two words: *Ager* (field or land) and *cultura* (cultivation) (Kimaro et al., 2015). Thus, agriculture simply means field or land cultivation. Encyclopedia Britannica (2007) refers to agriculture as the science or art of cultivating the soil, growing and harvesting crops,



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and raising livestock. For Reader (1997), agriculture is essentially a process of manipulating the distribution and growth of plants so that greater quantities of their edible parts are available for harvesting and consumption.

Bello et al. (2015) argue that today the definition of agriculture goes beyond what is traditionally known, and it includes farming, forestry, dairy, fruit cultivation, poultry, and bee-keeping, mushroom, and others. Also, the processing, marketing and distribution of crops and livestock products etc. are all acknowledged as part of the current agriculture. Bagania (2004) defines agriculture to include activities such as cultivation of food and export crops, raising of poultry and livestock, fishing, forestry, picking of cola and shea nuts.

In Ghana, agriculture (or farming) generally consists of the production of crops, livestock, fisheries, cocoa and forestry (MOFA, 2007; Zakaria et al., 2015). The MOFA (2011a) also acknowledges that modern agriculture is more than tilling the soil and rearing animals; the sector today offers career opportunities in research, environment, financial management, engineering and other technical areas for the youth to explore. Thus, the concept of agriculture as used in this study involves both on-farm activities (crops, livestock and poultry production) and off-farm activities that people engage in order to attain a certain purpose. However, particular attention is paid to the on-farm activity involving the production of crops since it is the core of agriculture in the study area.



2.1.3 Participation

The concept *participation* means different things to different people, societies, and institutions. Campbell and Douglas (1999:124) contend that, “Participation can take many forms, serve a variety of purposes, involve different groups of people, and operate at different levels, from the strategic to the day to day service.” Mohan (2002) seems to share similar view when he argues that participation may entail striving for inclusion and realization of interest of shades of people and communities in development instead of treating everybody as uniform objects of development. Participation is conceptualized by political scientists as involvement of people in decision-making process; economists see it in terms of people sharing in benefits of development projects and programmes; and development administrators concentrate on people assuming roles in the implementation of policies (Abdulai and Quantson, 2009).

In terms of types, Homan (2008) identifies six forms of participation in relation to opportunities available: leadership (the core group participants), workers (ongoing active participants), assisters (occasionally active participants), one-shot participants, advisors, and inactive participants (general supporters). Several other forms of participation have also been identified (Arnstein, 1969; Pretty, 1994; Campbell and Douglas, 1999).

The DFID-CSO Youth Working Group (2010) conceptualizes participation as the active, informed and voluntary involvement of people in decision-making and the life of their communities. Thus, it perceives participation from what it terms *the three-lens approach to youth participation*. The first lens, *working for youth as beneficiaries*, mainly see youth as beneficiaries who are a target group of development. The second lens, *engaging youth as partners*, is based on collaborative interventions, and recognizing that young people generally need experience working before progressing





www.udsspace.uds.edu.gh to becoming leaders and initiators of development. The third lens, *supporting youth as leaders*, involves enabling youth-initiated and directed interventions; and opening up a space for youth-led decision-making within existing structures, systems and processes. The overall goal of participation is therefore to develop youth as partners and leaders in development which is based on youth having their capacity to act, their skills and capabilities and their ability to change their own lives.

The concept, as reviewed so far, may be summarized in three ways. Firstly, that every definition of participation involves at least the notions of contributing, influencing, sharing or redistributing power and of control, resources, benefits, knowledge and skills to be gained through beneficiary involvement in decision-making and/or activity (Cohen and Uphoff, 1977). Secondly, participation involves a social process whereby specific groups with shared needs living in a defined geographic area actively pursue identification of their needs, take decisions and establish mechanisms to meet these needs (Ndekha et al., 2003). Thirdly, “Participation (or non-participation, as the case may be) is merely a means to one or more ends, and the only valid ends are those of the individuals concerned” (Campbell and Douglas, 1999:124).

Learning from the reviews, the study conceives participation generally as the process and practice whereby a person or group of persons engage in the everyday practical business (commercial or non-commercial activity) at the micro level of personal business, family business and other persons’ business so as to achieve one or more ends. Campbell and Douglas (1999:122) refer to “micro level” of participation as where individuals or groups can be involved at a practical level in the day to day services which they need and/or receive. In this study, participation refers primarily to the involvement, contribution and role of the youth in agriculture through family farms,

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personal farms and other persons' farms in order that certain benefits may be attained or shared.

2.1.4 Background characteristics

Although the study defines the youth as persons between ages 18 to 35 years, the youth are not only defined by age but also other differing characteristics. These differing characteristics are believed to have varying effects on the behavior and actions of the youth in agriculture (Sharma, 2007; MOFA, 2007; Defrancesco et al., 2008; Tanwir and Safdar, 2013; AGRA, 2015; Kimaro et al., 2015). The assumption of this study is that these different background characteristics, namely, age, gender, marital status, level of education, and employment status, can inform the decisions youth make about participation in agriculture.

2.1.5 Benefits

The term *benefit* as used in this study refers to the tangible and intangible positive returns or outcomes which individuals, herein called the youth, attain, share and experience by being involved in agriculture. Thus, the benefits help identify “one or more ends” (Campbell and Douglas, 1999:124) which youths' engagement in agriculture have resulted or achieved for themselves, family, society and the agricultural sector. In the context of the study area, the specific benefits presumed included improved incomes, food security, and social recognition due to improved agricultural productivity.

2.1.6 Challenges

In this study, *challenges* refer to both internal and external sources of constraints which are experienced directly or indirectly by the youth engaged in agriculture and the same are likely to affect the youth's future involvement in agriculture. The study has



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classified the sources of the challenges into three: negative personal attitudes, lack of social support, and lack of access to productive resources. This classification was largely informed by the study's theory and the assertion of the NYP of Ghana that, "Young people generally tend to have limited access to resources, information, and control over their lives" (MYS, 2010:17). Negative personal attitudes denote youths' unfavorable evaluation of agricultural activities such as, an enterprise for the aged, uneducated, unskilled, and risky enterprise with extremely low economic returns. Here, lack of social support refers to any form of disapproval (such as discouraging words or demeanors) that may affect youth involvement in agriculture and which may come from persons close to the youth such as parents, friends, peer groups, and other social networks. Lack of access to productive resources relates to limitations in access to and/or control of critical resources which have been found to influence agricultural participation including land, credit, inputs, knowledge and skills, technology, market, and storage facilities.

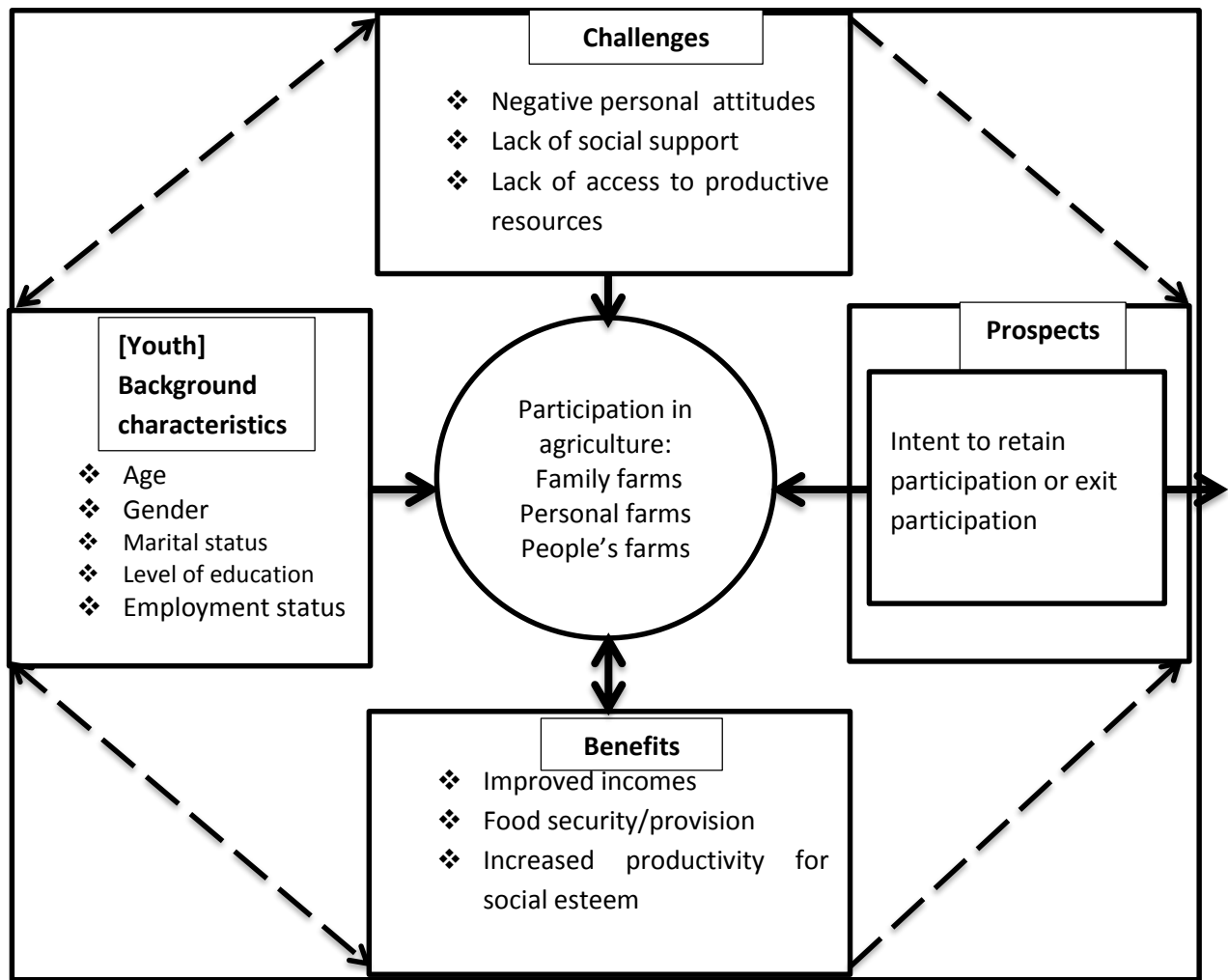
2.1.7 Prospects

In a narrow sense, this study conceives *prospects* as characterizing the potential that the young people who are engaged in agriculture plan/intend to maintain their involvement in farming. But broadly, prospects also look at youths' willingness to encourage their peers to engage in the cultivation of crops and rearing of animals. It again takes into account the existing factors (such as the challenges faced by the youth in farming) that can affect the continued youth involvement in agriculture. Thus, there could be a high or low prospect of youth partaking in farming. A high prospect means that majority of the young people plan/intend to retain their participation and/or encourage others to participate in agriculture. Conversely, a low prospect indicates where majority of the



youth plan/intend to discontinue their participation in agriculture and/or unwilling to encourage others to contribute in agriculture.

Figure 2.1: Schematic presentation of conceptual framework for analyzing youth participation in agriculture



Source: Author's Construct, 2017

Figure 2.1 summarizes the conceptual framework used for analyzing youth participation in agriculture in the study. From the diagram, the youth, defined by different *background characteristics* participate or tend to participate in agriculture through varied levels (family farms, own farms and other people's farms) as a means



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to achieving/contributing to one or more ends, *benefits*. The youth are constantly inclined or assumed to desire to engage in agriculture due to the benefits. However, the youth are faced with *challenges* which may directly or indirectly affect their daily decisions regarding involvement in agricultural activities. The youth can therefore be said to be in daily decisions whether to continue or exit agriculture, *prospects*. In this case, holding all variables/factors constant, the interaction of the *benefits* and *challenges* would predict the future participation of young people in agriculture, *prospects*. For example, the youth who have unfavorable attitudes towards farming, lack social support, lack access to productive resources and/or less pleased with the benefit of their involvement in farming are more likely to [intend/plan to] discontinue participation in agriculture, and vice versa.

2.2 Theoretical Framework

The study is supported by the theory of planned behavior (Ajzen, 1991). The theory of planned behavior (TPB) is an extension of the theory of reasoned action (TRA) which provides a framework to study a wide range of human behavior. The central assumption of the TPB, as in the original theory of reasoned action (Fishbein and Ajzen, 1975) is that human beings are essentially rational organisms, who use the information at their disposal to make judgments, form evaluations, and arrive at decisions. Also important to the theory of planned behavior is the idea of beliefs. The theory posits that the totality of a person's beliefs serves as the informational base that ultimately determines his or her attitudes, intentions and behaviors.

In this study, youth involvement in farming is seen as a rational behavior which is essentially influenced by relevant beliefs of the youth about agriculture. Thus, the beliefs young people hold about agriculture, including the beliefs about their own



capacity to engage, resources available and the benefits which accrue from their involvement in agriculture, affect their daily decisions and actions concerning participation or non-participation in agriculture. In the view of Cropanzano and Mitchell (2005), a rational action has two parts: an end of value maximization and a means of logic. Indeed, the notion of rationality is an essential part of the theory of planned behavior.

The theory of planned behavior, as applied to the study, therefore suggests that young people's conducts and decisions in agriculture can be understood by looking at the beliefs that regulate their attitudes, intentions and behaviors in farming. The first is *behavioral belief*, and it relates to the attitudes of the youth towards agriculture. That is, the favorable (positive) or unfavorable (negative) evaluation of being involved in farming. The second is *social belief*, and it indicates the youth's perception of social support or approval concerning their involvement in agriculture. In other words, it refers to the beliefs of the youth that persons and social relations that are important to them think that they should or should not do farming. The third is *control belief*, and indicates the young people's beliefs about their capacity or presence of resources that may facilitate or hinder participation in agriculture. Bhattacharjee (2012) thus affirms that the theory of planned behavior presumes that individual behavior represents conscious reasoned choice, and is shaped by cognitive thinking and social pressures. The fourth is *benefit belief*, which Cropanzano and Mitchell (2005:881) indicate as "an end of value maximization." It is the outcomes or benefits derived from participation. The benefit belief is not explicitly expressed as a belief in the theory although it seems to be implicitly captured in the behavioral belief as positive attitude or evaluation towards the behavior. However, it is highlighted here as a fourth belief because the study considers it an important factor to influence young people's actions in agriculture.





Ajzen (1991) agrees that the [theory of planned behavior](http://www.udsspace.uds.edu.gh) is, in principle, open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior after the theory's current variables have been taken into account.

A major advantage of the TPB is that it can be applied flexibly and in a number of ways to examine virtually any human behavior. Ajzen (1991) reveals that TPB provides a useful framework for dealing with the complexities of human social behavior. So, while some researchers have applied the theory to study behaviors that are linked with high risks and deviant behavior, others have applied the theory to more normative and rational types of action (Fishbein and Ajzen, 2010; Bartholomew et al., 2011; Orr et al., 2013). Nevertheless, the theory has been criticized just as Solow (1956) argues that every theory depends on assumptions which are not quite true. In this case, the TPB has been criticized that it is based on cognitive processing and is overly rational, and that people can make decisions based on emotions.

As a theory is a foundation for human action (Oquaye, 2004), so it is hoped that with its validity, flexibility, and eclectic applicability, the theory of planned behavior can be better applied to this study to examine a nearly all issues relating to youth participation in agriculture in the Wa West District of Ghana. But also, the use of this theory will enable the study make contributions to scientific knowledge as Neuman (2012) asserts that making the connection between your specific study and a larger theory explicit will strengthen and clarify your study and its contributions to knowledge.

2.3 The Practice of Agriculture

Globally, the practice of agriculture has fundamentally moved from simply hunting and gathering of few crops and animals to a more sophisticated ways of cultivating the soil,



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growing and harvesting variety of crops, and raising livestock and other agricultural products to fulfill human ends. Equally, circumstances such as people's practical experiences, environmental conditions, spiritual direction (Millar et al., 2008) and purpose of production have informed how agriculture is practiced. Though the way agriculture is practiced can be described as complex, contextual and dynamic, it may be summarized in two: traditional (often linked with subsistence production) and modern (associated with commercial/profit-making production). Traditional or subsistence agriculture is based on hoe and cutlass (Aphunu and Atoma, 2010).

According to the GPRS (2003), the structure of Ghana's agriculture remains relatively unchanged for years. Thus in many rural areas, which the Wa West district may not be an exemption, agriculture is still believed to be practiced in the traditional/subsistence way as producers cultivate small plots of land, and adopt different traditional methods to produce crops and raise livestock and poultry. Also, the practice is seen to be characterized by the use of less efficient technology, inputs, and storage procedures.

Agriculture is practiced on subsistence bases when people produce often in small-scale mainly to feed themselves and their dependents and provide a small surplus for exchange or sale. On the other hand, commercial production usually involves relatively large size cultivation and the primary goal is to produce for the market or profit-making.

Morgan and Pugh (1973:66) note that:

The West Africa cultivator like his counterpart elsewhere in inter-tropical Africa is not a farmer in the European or North American sense but a gardener. His holding of scattered plots is rarely more than five acres in extent, often considerably less, and must produce fairly high total returns per acre to feed himself and his dependents and provide a small surplus for exchange or sale. ... Production is mainly, although in only rare cases entirely, for subsistence or highly localized exchange or sale.



Undoubtedly, Ghana's agriculture is characterized by a large smallholder sector or subsistence and a very small commercial sector (MOFA, 2007; Martey et al., 2012). Britwum et al. (2006) argue that rural agriculture constitutes the largest portion of the rural informal sector, while formal agriculture operates in the form of plantations which are mainly foreign owned. The majority of the informal sector which is overwhelmingly dominated by smallholders may have farm sizes less than five acres (WFP, 2013).

In terms of particular products, Ghana's agriculture produces many commodities within the sub-sectors of food crops, livestock, fisheries, cocoa, and forestry (MOFA, 2007; Zakaria et al., 2015). The leading crops cultivated include maize, cassava, yams, plantain, rice, peanut (groundnut), millet and sorghum, cocoa (IFPRI, 2011; WFP, 2013; Zakaria et al., 2015). Also, livestock (cattle, goats, sheep, pigs, and donkeys) and poultry (fowls, guinea fowls, ducks, and turkeys) are produced. For example, poultry (chicken) rearing is said to be popular in the Wa West district constituting 33.4 percent (GSS, 2014a). Nevertheless, production may differ across different ecological zones. The main document of SADA (2010) reveals that the state of agriculture in the three northern regions is characterized by a number of dynamics including the comparative advantage in the production of particular crops, untapped potential for livestock production, and a developing trend towards commercialization. In terms of crops, the savannah zones are more inclined to the production of maize, rice, millet, sorghum, groundnut, cowpea, soybean (WFP, 2013). In the Wa West district it is believed as high as 91.6 percent of households in the district are engaged in agriculture and majority of households in the district (97.2 percent) are involved in crop farming like maize, millet, cowpea and groundnut (GSS, 2014).

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Agriculture may be carried out on different fields and with varied methods. There are compound farms (farms within settlement area or “fenced” farms) and distance or bush farms (farms which are some distance from settlement area). For MOFA (2011b) both compound and bush farm exist in the Wa West district. Morgan and Pugh (1973) call the compound farms as fields on compound land and the bush farms as fields on the main cropland. Cultivation may be done on the same field for as long as the farmer is able to maintain the fertility of the land through various practices, otherwise the farmer will keep changing fields provided land is available and he or she can have access. Usually cultivators practice mixed cropping, where two or more crops are grown on the same piece of land at the same time or one crop season. Similarly, animals (livestock and poultry) may be raised in the extensive system, semi-intensive system, and intensive system (Asiedu, 2007). In the intensive method, animals are kept and properly catered for (such as provision of feed, water and medicine) their whole life in housing units. The semi-intensive method allow animals to spend part of their time in the open (confined area) and part in housing units so that they can be catered for. In the extensive (free range) system, animals are generally not properly looked after; they are mainly permitted to move about freely on their own in search of food and water.



The use of modern technology and implements such as tractor services (including the plough, harrower, planter, combine harvester) and computer technology (such as mobile phones) are a part of modernized agriculture. For example, the use of ICTs along the agricultural value chain has changed the way agriculture is being practiced (FANRPAN, 2012). However, the dominant implements used in many rural communities are the hoe, the digging stick, the machet or cutlass and sickle (Morgan and Pugh, 1973). Thus, the government of Ghana initiated the Agricultural Mechanization Service Centers (AMSEC) program so that agricultural mechanization

services can be made readily available in a timely and affordable manner to the majority of rural farmers (Benin et al., 2011).

The application of inputs such as seed, feed and manures also define the way agriculture is practiced. For example, in crop production organic manure (such as animal manure) and inorganic manure (fertilizer) can be used. Other inputs like improved and certified seeds, pesticides, and weedicides are needed to ensure high yields. However, many agricultural producers in the study area seem not to use inorganic fertilizer, certified seeds and improved animal breeds due to varied reasons. Thus, Benin et al. (2011) indicate that fertilizer subsidy program has been introduced by government of Ghana so as to increase crop yields and production, to raise the profitability of farm production, and to improve private sector development in the fertilizer market.

Crop storage may be done in modern facilities like silos or warehouses and also in traditional ways. Morgan and Pugh (1973) indicate that in West Africa, particularly rural areas, crop storage is usually done in three main ways: storage in woven grass bins, clay bins, and pits. This appears to be case for the Wa West district. Food crops may be stored in woven grass bins for only a few weeks to offset temporal shortage or keep until favorable time for marketing. Besides, storage can be done in clay bins for grain or on racks for yams as a short-term storage for some months or even a year in order to keep a supply of the main crop and retain some food against the “hunger” season. Then, storage can be in pits as long-term storage for several years to offset the danger of famine due to loss of crop with failure of the rains or devastation by locusts or birds.



2.4 Youth Participation in Agriculture

The involvement of young people in farming can be broadly looked at from two different pathways. One dimension is to have insight into how the youth become a part of agriculture in their localities. The other way is to understand the diverse roles they play to ensure that crops and animals are made available for use.

In terms of how the youth join agriculture, three main channels may be involved. They may participate through: (i) family farms, (ii) by operating personal (individual) farms, and (iii) by way of working as laborers in other people's farms for wages. This categorization may be similar to the DFID-CSO Youth Working Group's (2010) three-lens approach in which young people can participate in development as beneficiaries, partners, and leaders. A study by Kimaro et al. (2015) involving rural youth in Tanzania shows that 49.3 percent of the respondents participate in agriculture through investing in their own farms, 35.8 percent participate through selling their labor power and 14.9 percent participate through working in their family farms.

The youth in many rural areas are seen working in family farms or agricultural enterprises. This usually involves the youth who still live with their parents, and being part of the family means they should contribute to the production of food and income for the family. They may contribute to the production of crop, livestock, poultry and other agricultural products just as the youth who work in their own farms. The youth who participate in family farms may not have much control over the enterprise and the decisions regarding the operation of the farm. However, young people working in family farms may be considered partly as beneficiaries and partners in development (DFID-CSO Youth Working Group, 2010) as they contribute to farm output and also



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feed from same. This may be expected since youth involvement in the family agricultural enterprise is seen as moral, social and cultural duties.

Besides, youth participate in agriculture as general laborers usually by offering paid labor. Although the youth also offer unpaid labor, it mostly occurs in family farms. According to Garcia and Fares (2008) the youth may be working in family farms or agricultural activities to support food and incomes of the family or just to gather experience for future employment prospects. The youth can work as casual or “permanent” wage earners in farms, usually other people’s farms and the types of activities they engage in may not be different from those involved in their own farms or family farms. Thus, a significant number of unskilled laborers in the rural areas of Northern, Upper East, Upper West and northern parts of Volta region in Ghana obtain their income from agriculture (WFP, 2013). This mode of participation is similar to what Pretty (1994) describes as participation for material incentives, where people participate by offering labor in return for food, money and other material incentives. Here, we can also liken youth participation in agriculture as described by DFID-CSO Youth Working Group (2010) as partners in development.

There are youth who participate in their own agriculture in rural areas. This can be on full-time where youth may spend more days and hours in farms (agriculture), or part-time as a business. Normally, youths operate their own agricultural activity (enterprise) in order to change their lives and/or that of their society. Here the youth participate in agriculture as leaders (DFID-CSO Youth Working Group, 2010). Youth involve in agricultural activities such as the production of crops, livestock, and poultry. This way of participation is most compatible with Pretty’s (1994) *self-mobilization*, whereby people take initiatives independently of others to change systems or their situation. In



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this case, the youth are more likely to maintain control over their initiatives and the outcomes. The youth are also likely to apply new technology, innovations and certified inputs when they operate their own farms. This is because they take most of the agricultural decisions when they own the farms and the products.

Conversely, young people may play different roles in agriculture whether they are into family, personal or other people's farms. The youth may provide services including land preparation, planting, crop maintenance (such as weeding, earthen up and fertilizer application) and harvesting/post-harvesting duties in crop production. In terms of animal production, they may provide feed, water, and other animal keeping roles. FAO (2011) indicates that the youth may contribute in agriculture by producing agricultural crops, tending animals, processing and preparing food, harvesting and post-harvesting activities, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing. These roles may be contingent on many factors and contexts such as gender, work opportunities and even the participating channels available to the youth in agriculture. For example, with regards to gender aspects, male youths are said to be the ones who work much in farms especially in clearing farms, watering, weeding and other farm activities while female youths are involved in planting and harvesting (Kimaro et al., 2015).

2.5 Benefits of Youth Participation in Agriculture

The benefits of youth participation in agriculture are limitless and have been perceived differently. Their involvement can lead to outcomes that profit the agricultural sector, individuals (the youth and their families) and the society at large. AGRA (2015) points out that the youth dividend can be invested in agriculture to increase productivity, incomes, and economic growth. Also, Aphunu and Atoma (2013) indicate that the youth





www.udsspace.uds.edu.gh contribute towards attaining food security. The energy, skills and competences that young people expend in farms to ensure increased production of crops and animals may also bring social esteem to young people and their families.

Youth contribution is vital in ensuring sustainable and prosperous agriculture in order that agriculture can perform its central roles for society. Thus, “Given its central role in generating income and providing subsistence for majority of the people as well as its potential to lead the transformation of the economy, agriculture is expected to drive the new development agenda” in Ghana (NDPC, 2010:38) and the youth have the potential to bring this vision to fruition (MOFA, 2007; MYS, 2010). Perhaps, there may never be a better way to live up to this dream than adhering to the promise that, “The State shall take appropriate measures to promote the development of agriculture and industry” (Constitution of Ghana, 1992: Article 36 [3]). One of such processes is to ensure a continued youth participation in agriculture.

Presently at the local level, particularly in the Wa West, it is believed that a sizable number of the young people are engaged in agriculture with the expectation that it can enable them earn incomes and provide food for themselves and their families. There is also the belief that youth participate in agriculture for the reasons of contributing to increased agricultural productivity and efficiency in the sector’s activities. Thus, youth involvement in agricultural activities helps to maintain the local agrarian economy. The GSS (2014a) data show that agriculture accounts for an estimated 86 percent of the economy of the Wa West district.

It is therefore held that when agriculture is promoted through youth participation, the youth and the society become the ultimate beneficiaries. The growth in the agricultural sector stimulates higher rates of growth in the economy through forward linkage

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activities such as processing and transportation, and backward linkages to the provision of services to the sector with further growth spurred as a result of spending of incomes earned from all these productive activities (MOFA, 2007). Increased productivity in agriculture thus ensures food security and contributes immensely to the health and well-being of the people (MYS, 2010). The Ministry of Food and Agriculture of Ghana outlines the primary roles of agriculture in Ghana (MOFA, 2007). These include provision of food security, supply of raw materials for industry, creation of employment and generation of foreign exchange earnings. Furthermore, agriculture is recognized to have a greater impact on poverty reduction than other sectors. Other roles are social stabilization, buffer during economic shocks, support to environmental sustainability, and cultural values associated with farming.

In the view of Cropanzano and Mitchell (2005:881), the benefits of people participation in development or an activity may be summed up as “economic outcomes and socioemotional outcomes.” The economic outcomes are explained to mean those that address financial, food and other needs which tend to be tangible. On the other hand, the socioemotional outcomes are those that address one's social and esteem needs, and are often symbolic and particularistic. Thus, Naamwintome and Bagson (2013) argue that farm output may determine one's status or personality.

Sumberg and Okali (2013) argue that the youth may seek protective, preventive, promotive, and transformative returns by working in agriculture. These have been reclassified by others as: last resort work options, temporary strategies, side-hustles, and agribusiness strategies (AGRA, 2015:71). The last-resort work options are those agriculture-based livelihoods that young people pursue as a kind of ‘protective’ work. They provide relief from immediate deprivation and sometimes can be part of the broader social safety net (Sumberg, et al., 2014). Temporary work strategies include



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‘preventive’ work that forestalls deprivation (Sumberg, et al., 2014). Here, it is said when stuck between school and formal work, young people may engage in farming activities with an intention of raising quick income to meet an immediate need, such as providing for their families, and paying school fees. The side-hustles and agribusinesses fall in the ‘promotive’ and ‘transformative’ categories of work, which allows real incomes and capabilities to be enhanced and the accumulation of capital. The full-time agribusinesses are sometimes registered small to medium scale enterprises characterized by innovation, financing and other business infrastructure. It allows for diversification into off-farm work opportunities. These businesses are considered ‘transformative’ when they address such social issues as gender equity, personal development, and job-guarantee schemes (Sumberg, et al., 2014).

Arguably, the most important benefits that can be associated with youth partaking in agriculture must be those experienced and identified by the youth who participate in agriculture. The study therefore values what the young people consider as benefits of their involvement in agricultural activities.

2.6 Challenges Facing Youth in Agriculture

The challenges perceived and experienced by the youth who participate in agriculture are many and varied, but in this study they are classified into three, namely; negative personal attitude, lack of social support, and lack of access to productive resources.

2.6.1 Negative personal attitudes

The youth are said to have negative attitudes towards agriculture and this is believed to be a major hindrance to their effective participation in agricultural activities. Attitude refers to a person’s favorable (positive) or unfavorable (negative) evaluation of an object or activity (Fishbein and Ajzen, 1975; Bahaman, et al., 2010). Fishbein and



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Ajzen (1975) believe that people learn to favor behaviors they believe have largely desirable consequences but form unfavorable attitudes towards behaviors they associate with mostly undesirable consequences. The attitude of youth towards agriculture has been variously linked to their involvement in the whole value chain of the agricultural sector (D'Silva et al., 2010; Aphunu and Atoma, 2010; Proctor and Lucchesi, 2012; Abdullah and Sulaiman, 2013; Noorani, 2015; Kimaro et al., 2015; Bello et al., 2015).

Generally, it is said that agriculture is perceived by the youth as an ageing, unprofitable and undervalued work which young people should not engage in (Amalu, 1998; Jeffrey et al., 2010; Aphunu and Akpobasa, 2010; SACAU, 2013). The Ministry of Food and Agriculture of Ghana asserts that the youth have a negative perception that agriculture is an enterprise with extremely low economic returns, work for uneducated and unskilled, and that the poor image of persons involved in agriculture, especially in rural communities is a major reason of youths' negative attitudes toward agriculture (MOFA, 2011a). Moreover, the risks in the agricultural sector (MOFA, 2007; FAO, 2012; Choudhary et al., 2015) make the youth perceive agriculture as a work to avoid. Zakaria et al. (2015) indicate that students' intention to engage in self-employment in agribusiness is influenced by their perception of risks.



The negative attitude of the youth towards agriculture is also recognized as a hindrance to their participation in agriculture in countries like Madagascar, Malawi, South Africa, Zambia and Zimbabwe (SACAU, 2013). For example, in South Africa, it is reported that the youth have negative perceptions of agriculture, especially farming, due to the historical past experiences of their parents. As a result of this, many youth continue to hold negative perceptions about farming which serve as a hindrance to participating in agriculture. Indeed, perceptions inhibit young people's ability to see the potential that the agricultural sector presents in terms of employment opportunities (AGRA, 2015).

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Perception includes not only a process whereby individuals organize and interpret their sensory impressions in order to give meaning to their environment (Robbins, 2003), but “perceptions affect identity, motivation and action” (Narayan and Petesch, 2007:250).

2.6.2 Lack of social support

The fact that social influences shape every person’s practices, judgments and beliefs is a truism to which everyone will readily assent (Aronson, 2004). Gilovich et al. (2006) broaden the effects of social influence when they argue that social influence involves the myriad ways that people impact one another, including changes in attitudes, beliefs, feelings and behavior that result from the comments, actions, or even the mere presence of others.

Social support (such as words of encouragement and information sharing) for the youth to engage in agriculture may be weak among certain areas of the society. The national youth policy of Ghana recognizes that one of the main challenges facing the youth is that there is, “Erosion of traditional social support systems for young persons and weakened role of the family leading to deviance” (MYS, 2010:6). The society can serve as social capital (Fukuyama, 2001; Adler and Kwon, 2002) where its effects flow from the information, influence, and solidarity it makes available to the individuals (Adler and Kwon, 2002). Sadly, the social pressure urging the youth to leave agriculture or not to participate in it comes from the social networks and groups close to the youth including the family, friends, peer groups, and other associates. This disapproval may be expressed overtly and covertly. The youth often take decisions to conform with what their significant others approve, and as Gilovich et al. (2006) argue, people do this to avoid disapproval, harsh judgments, and other social sanctions of significant others.



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The lack of social support for youth to participate in agriculture in some localities in Ghana may not be different from what is perceived to exist in other communities and especially in India:

... agriculture is regarded as socially unviable, and associated with lack of self-esteem, living hand to mouth, and is not respected by society: 'To marry a farmer is something families would prefer their daughters not to do ... low income, drudgery, low societal standing ... no dignity left in farming today.' Farming is a difficult life and offers no attraction to the youth. It is considered high risk as it is dependent on rainfall and has marginal returns. Young people see their parents struggling, which is demotivating. Even if young people wanted to go into farming, they are discouraged by the family. Thus, there is large-scale migration out of farming (Proctor and Lucchesi, 2012:29).

Aragaw (2014) reveals that social environment close to rural youth (such as family) influence youths to aspire beyond agriculture. Again, parents have been found to be the greatest influencing factor of youth involvement in a livestock program (Weikert, 2014). Other studies reveal that young people's general disinclination to involve in agriculture is directly or indirectly in consonance with social influence, especially parental aspirations for their children (Anyidoho et al., 2012; Noorani, 2015; Zakaria et al., 2015).

2.6.3 Lack of access to productive resources

The productive resources mentioned and discussed include access to land, access to credit facilities, access to agricultural inputs, agricultural knowledge and skills, access to modern technology, access to market, and access to storage facilities.



Access to land

Land is an important resource in agricultural production. For example, it is required for the cultivation of crops and rearing of animals. Available agricultural land in Ghana is declining due to population pressure and urbanization (MOFA, 2007). Even though agricultural land is in large quantity in the three northern regions (SADA, 2010) the youth are still having difficulties accessing land for agricultural activities. Land for agriculture may come from renting, personal land, family land, or community land. Proctor and Lucchesi (2012) note that renting or borrowing land is somewhat higher in Ethiopia and Ghana than in the other countries in their study. The constraints to youth accessing land may come from various sources such as finances and sociocultural factors. Usually the decisions on land use are taken by elders, particular the men. Young women may even face more problems accessing the land than their men counterpart. Thus, unlike males, more females in agriculture have limited access to productive resources such as land due to cultural and institutional factors (MOFA, 2007; Tanwir and Safdar, 2013). Bezu and Holden (2014) indicate that young people tend to abandon agriculture as they lack access to land.

Access to credit facilities

The availability and access to finance encourages and enhances youth participation in agriculture, and the reverse is equally true. Sadly, access to credit remains a big difficulty for young people in the agricultural sector (Adekunde, 2009). The specific options for credit may include government (example SADA, block farms under YIAP), NGOs, relatives, friends, personal savings, and money lenders. The difficulty of accessing credit facilities may be a result of high cost of borrowing, lack of information on where to find the credit, long distances to credit facilities, and cumbersome procedure and requirement for obtaining the facility. Young people have been viewed





as high-risk clients because they have little security or assets that can be used as collateral to access credit or loans (AGRA, 2015). Bashiru et al. (2014) reveal that in Ghana most financial institutions offer credit to economic agents in other sectors than those in crop production.

Access to technology and implements

It is held that, the “Youth do not want to practice agriculture the way their fathers and mothers did, but rather in a modern way, with an appropriate image that speaks to their aspirations as natives of the digital age” (AGRA, 2015:38). The use of modern technology and tools such tractor services (harrower/plough, planter, and combine-harvester) help reduce the drudgery associated with agriculture. Also, the use of communication technologies such as mobile phones and devices have also become a part of modern agriculture as they assist in sourcing timely information about agricultural practices, weather condition and market. The introduction of agricultural mechanization service centers (AMSEC) program by the government of Ghana was expected to lead to reduction in the drudgery and tedium associated with agriculture, increased production and productivity, increased rural employment, and reduction in post-harvest losses (Benin et al., 2011). However, the youth lack access to many of these modern tools used in agriculture (Adekunde, 2009). As a result the youth may still rely on obsolete and inefficient tool such as the hole, digging stick, cutlass and sickle to undertake agriculture.

Access to inputs

The provision of and access to agricultural inputs is one of the important means to encourage participation in agriculture. In spite of this, youth find it difficult to obtain improved planting materials, seed and livestock breeds. In a study Afande et al. (2015) reveal that youth have limited access to herbicide, fertilizer, and pesticide. It is

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acknowledged that in Ghana, particularly rural areas, livestock breeds are of low quality and there are no interventions that effectively address problems of lack of feed and water, particularly in the dry season (MOFA, 2007). The findings by Benin et al. (2011) suggest the fertilizer subsidy program introduced by government of Ghana in order to increase crop yields and production, to raise the profitability of farm production, and to improve private sector development in the fertilizer market has not significantly improved youth access to agricultural inputs. Thus, there is little adoption of improved livestock management systems, including proper housing, feeding and health care. The lack of access to certified inputs therefore decreases crop and animal yield, and does not help the youth to produce better products that the market demands so as to enhance their incomes.

Possession of knowledge and skills

Having requisite agricultural knowledge and skills can build the capacity of the youth to actively and efficiently participate in agriculture (FARA, 2001; King and McGrath, 2004). Generally, knowledge is a body of information (Buford and Lindner, 2002) and skill is a present, observable ability to perform a learned psychomotor act (Lindner et al., 2003), and they form part of internal resources that a person needs to successfully participate in an activity (Ajzen, 1991).

AGRA (2015) argues that capacity at the individual level is the most fundamental element and refers to the will and ability of an individual to set objectives and to achieve them using her or his own knowledge and skills. Thus, “capacity at the individual level includes knowledge, skills, values, awareness and, most importantly, attitude” (AGRA, 2015:151). It further indicates that capacity can be developed through various ways, such as formal, non-formal and/or informal education, training, on-the-job-training, and independent reading.



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However, it appears a sizable proportion of the youth in the study area lack or has inadequate knowledge and skills to effectively participate in agriculture. For example, they may lack knowledge and skills on the application of required and certified inputs. Benin et al. (2011) indicate that in Ghana, contrary to expectation, the youth have not been a strong focus of the block farms program (a component of YIAP) as it was conceived, because, being relatively inexperienced, the youth are considered a riskier venture in terms of being able to properly manage the farm and inputs and services given to obtain decent yields and be able to pay back. On the contrary, Muhammad-Lawal et al. (2009) observed that about 86 percent of the respondents in Youth in Agricultural Program (YIAP) in Ondo State in Nigeria were operating at about 80 percent level of technical efficiency.

The situation is worsened by the youth's lack of access to extension services and other sources of information. In a study conducted in three rural communities in Ghana, youth farmers themselves acknowledged that they have limitations in certain domains of knowledge for which they perceived researchers and extension agents who visited with them as important resources (Kroma, 2003). Agricultural knowledge (information) and skills can be obtained through radio, television, the internet, and mobile services ranging from early warning services to agricultural production and market access (AGRA, 2015). Without doubt, the youth who lack the knowledge and skills necessary for successful farming will continue to avoid farming (Mwangi et al., 2003).

Access to storage facilities

The storage of crops after harvesting is done for a number of important reasons. When crops are properly stored it serves the purpose of preserving them against harsh weather conditions, pests and rodents, and thereby maintaining their quality and market value. Crops are also kept until favorable time for marketing. Further, crops may be stored so



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that there will be some food against the “hunger” season, and to offset the danger of famine. In terms of facilities, crops may be stored in woven grass bins, clay bins for grain or on racks for yams, in pits. Sometimes too crops, such as maize, peanuts and beans are treated with chemical and stored in jute or nylon bags. The use of silos or modern warehouses facilities is a better way of crop storage. Unfortunately, the youth keep complaining about lack of facilities or improved facilities to keep their products until a better time to sell them. This contributes to huge post-harvest losses, and selling of crops in unfavorable time. The cumulative effect is that the youth who engage in agriculture incur huge production costs and decreased market profitability.

Access to market

The youth often lack adequate access to physical markets as well as stable and good prices for the agricultural products and services they provide. Poor payment for the labour the youth offer to the agriculture sector can discourage them from further engagement. Choudhary et al. (2015) argue that price volatility poses the most important market risk facing agricultural participants. Poor road network limits opportunities and access to markets, raises costs to producers and the predominantly self-employed women in the distributive trade, and serves as disincentives to those who wish to invest in the agricultural sector (GPRS, 2003). Other constraints limiting market access are lack of marketing skills, inadequate product development for effective utilization of farm produce, and generally weak commodity value chains (MOFA, 2007). AGRA (2015) believes investments in rural infrastructure, such as improved roads and markets, as well as extended mobile coverage in rural areas, can do much to improve agricultural productivity, to reduce transaction costs and increase market efficiencies. This in turn will attract, or help to retain, young people in agriculture and transform it from a subsistence lifestyle into a business.



2.7 Prospects of Youth Participation in Agriculture

The youth in Africa are expected to play a leading role in agriculture now and the future. Not only must the current number of youth in agriculture be retained and increased, but also the youth must have reasons to enthusiastically and actively participate in agriculture. This is so important because to fail in having youth excited about agriculture and energetically involve in it is to condemn Africa to food insecurity, poverty and continued reliance on costly imports and charitable food aid (SACAU, 2013).

The findings of a study in Ethiopia show that only nine percent of the rural youth planned working in agriculture, and that between 2007 and 2013, 15 percent of the youth in the sample had migrated with rates as high as 31 percent in one area (Bezu and Holden, 2014). A study by Aragaw (2014) also reveals that majority of the rural young people at East Gojjam Zone in Ethiopia aspire to non-agricultural occupations. Similarly, a study regarding agricultural students of the University for Development Studies in Ghana show that less than 45.5 percent of the students interviewed prefer agribusiness as an avenue for self-employment after graduation (Zakaria et al., 2015). On the contrary, Naamwintome and Bagson (2013) reveal in a study that majority (69.0 percent) of the youth show willingness to participate in agriculture in the Sissala East and West districts of Ghana.

For Ayidoho et al. (2012), the axiom of young people's presumed lack of interest in, even disdain for, agriculture has little empirical basis since there are few studies into the perceptions and the aspirations of young people towards agriculture. Their analysis of youth aspiration in participation in agriculture, with emphasis on the cocoa sub-sector, reveal that majority of young people plan to engage in agriculture. While some



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aspire to be direct participants (engage directly in farm work), others have ambition of becoming owners of farms (own the farm but employ others to work).

Presently, the possibility of retaining the majority of the youth in agriculture in the study area is unknown. However, new opportunities for youth in agriculture and along the production and marketing value chain need to be identified and promoted to create wealth and achieve pro-poor economic growth (AGRA, 2015). The youth should be steered towards those fields of agriculture where financial returns are quick (such as poultry, piggery, and horticulture) or towards segments of the value chain where this is also the case (like marketing, and some types of processing) (SACAU, 2013). Anyidoho et al (2012) argue that young people may seek distant opportunity when they believe leaving home to farm elsewhere holds prospects of greater cash income and other resources than they might have in their places of origin.

Currently, off-farm agriculture seems not only to be increasing in rural agriculture, but that it is likely to change in the near future. Anyidoho et al. (2012) indicate that against the background of rising urbanization in Sub-Saharan Africa, over time there will be more employment opportunities throughout the agrifood sector, not just in primary production but also processing, catering and retail. Agricultural produce traders in Ghana are mostly women (MOFA, 2007) so the creation of new opportunities along agricultural trading can enhance young women participation in off-farm agriculture.

The NYP of Ghana acknowledges that there is the need to develop more strategic interventions and approaches to attract the youth to agriculture, particularly youth in the informal sector. Therefore, the policy has the goal to promote youth participation in agriculture, through the following policy objectives:



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- Promotion of the participation of the youth in modern agriculture as a viable career opportunity for the youth and as an economic and business option.
- The provision of resources for the participation of the youth in modern agriculture (MYS 2010:12).

The prospects of continued youth involvement in farming activities can always be controlled and made high. Thus, “There is hope for reversing youth disinterest in agriculture in rural areas” (AGRA, 2015:49) provided concrete measures are taken to address particular concerns and challenges facing the youth in agriculture. For example, Ajzen (1991) indicates that the more resources and opportunities individuals believe they possess, and the fewer obstacles or impediments they anticipate, the greater should be their intention to participate in the behavior.

2.8 Conclusion

This chapter has addressed key themes comprising the conceptual framework and theoretical framework guiding the study, and the various dimensions linking youth participation in agriculture. The literature suggests that youth participation in agriculture should at all times be sustained and enhanced as it is important for income generation, food security, and social esteem due to increased agricultural productivity. Nevertheless, certain beliefs and experiences of the youth such as lack of access to productive resources have the potential of affecting their continued participation in agriculture.



RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the research methodology of the study. The methodology, defined as the philosophy, approach or the general principle which guides a research (Dawson, 2002) for the study is the mixed-method approach. This approach was preferred mainly because it allowed the collection and use of both quantitative and qualitative data that offered remarkable insight into young people and agriculture in the study area which could not be “available from either types of data alone” (Bhattacharjee, 2012:35). The study however shares the view of Creswell (2012) that, studies may contain some elements of the characteristics of quantitative research and some elements of qualitative research, but studies do tend to lean toward one approach or the other. Thus, the study largely leaned toward the quantitative research approach. In the sections that follow, the elements of the methodology are provided. Though the parts are presented as separate themes (as if one process must end before the other begins), in practice they are highly interactive. The research design for the study is first given. This is followed by the detailed description of the study population, sample size and its determination, sampling technique, sources of data, data collection instrument, field data collection and method of data analysis. Finally, the ethical considerations of the study are provided.

3.1 Research Design

The study adopted a survey design, specifically cross-sectional survey design with narratives (Creswell, 2012; Neuman, 2012). A cross-sectional design produces a snapshot (one-shot) of a situation or population at a particular point in time (Cohen et al., 2007; Bhattacharjee, 2012). This design was considered most appropriate for the



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study not only because it permitted the concurrent gathering and use of quantitative and qualitative data within the given limited time and financial resources, but also it could better address the research questions which were about self-reported beliefs, opinions, experiences and expectations of young people involved in agriculture and the variables could be measured. For Neuman (2012), surveys are good choice when the research question is about self-reported beliefs, opinions or behaviors and the variables can be measured by having people answer questions. Specifically, the qualitative data were collected by way of field texts or narratives (narratives from the individual respondents that reflected their personal and social experiences) (Creswell, 2012) and some degree of personal observations.

3.2 The Population

The population of Wa West District, according to the 2010 PHC is 81,348 representing 11.6 percent of the region's total population, with 49.5 percent male and 50.5 percent female representations of all age groups (GSS, 2014a). It is further revealed that the district is entirely rural, and the population is youthful (45.5 percent) depicting a broad base population pyramid which tapers off with a small number of elderly persons (5.8 percent).

However, the target population defined as any group of persons that possesses one or more characteristics in common that are of interest to the researcher (Best and Kahn, 1995) for this study comprised the youth (18 to 35 years) who live in households in the Wa West district and are involved in agriculture. Data from the GSS (2014a) show that as high as 91.6 percent of households in the district are engaged in agriculture. It is therefore assumed that a vast majority of the young people who lived in households at the time the study was conducted engaged in some form of agriculture. The study population included male and female, educated and uneducated, skilled and unskilled,



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and in-school and out-of-school (MYS, 2010) young farmers in the study area. Also, the youth who were included in the study should have been living in the district for at least twelve months prior to the study. The study population excluded the youth who lived (or are confined) in school hostels or boarding houses, police quarters, health centers (hospitals, clinics or healing centers) and similar facilities. Based on the 2010 PHC, the study estimated the target population to be 25 percent of the total household population of 80,382.

3.3 Sample Size and Determination

The sample size as used here denotes the number of persons (respondents) whose views were sought or collected out of the total target population. This may be determined using statistical formula or a rule of thumb (where a sample is often chosen based on past experiences) (Neuman, 2012).

In this study, a statistical formula was employed. The Yamane's formula (Singh and Masuku, 2014) for calculating sample sizes was used. This formula is expressed as:

$$n = N / [1 + N (e)^2]$$

Where n is the sample size, N is the population size, and e is the level of precision. The precision level (e) tells of the level of confidence or permissible risk of error.

Usually researchers use the precision levels or confidence levels ranging from as high as ± 1 percent (or 99 percent confidence level) to as low as ± 10 percent (or 90 percent confidence level). For example, Singh and Masuku (2014) indicate that the risk of error is reduced for 99 percent confidence levels and increased for 90 percent or lower levels of confidence. With this study's estimated target population (N) of 20,096 and the precision level (e) of ± 5 percent (95 percent confidence level) chosen, the formula was applied to obtain a sample size (n) of approximately 392. Hence:



$$\text{Sample size (n)} = \frac{\frac{\text{www.udsspace.uds.edu.gh}}{20096}}{[1 + 20096 (0.05)^2]} = \frac{20096}{51.24} \approx 392$$

However, the sample size was kept at 300 due to resource constraint and other factors. That notwithstanding, some reviewed literature (Carmen and Betsy, 2007; Israel, 2013; Kimaro et al., 2015) showed that the sample size chosen for this study is sufficient for both descriptive and inferential analyses. On the whole, the size of the sample used in the study was largely influenced by the cost of data collection, desired accuracy (Israel, 2013; Singh and Masuku, 2014) and the supposition of a high level of homogeneity in opinion among the population.

3.4 Sampling Technique

The study used a multistage sampling procedure (Fox et al., 2009; Creswell, 2012; Neuman, 2012; Singh and Masuku, 2014) to sample respondents. The choice of this sampling method was mainly informed by the wide geographical spread of the study population which made it difficult to have a single sampling frame, and also because of the cost involved in getting to the respondents.

There were three stages leading to the selection of the respondent. In the first stage, all the communities in the District covered in the 2010 PHC (GSS, 2014a) were listed and five were selected based on these three criteria. Firstly, the study considered communities that had a total population of not less than 1,400. Secondly, the number of households in the community should be at least two hundred. The first and second criteria were to ensure that there was a maximum number of a target population potentially available within confined locality for final selection. Thirdly, it should be found on the district map (see Appendix B) used in the 2010 PHC. The use of the district map as a criterion for community inclusion in the sample selection was principally to allow for easy identification, access and location of selected communities. A selected



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community must meet at least all the above conditions. Besides these criteria, the selection of few communities was influenced by the limited financial resources of the study and the supposition that there is a high level of homogeneity in opinion among the youth irrespective of the community they lived in in the district. In all, nine communities met the selection criteria. And five communities selected through a simple random sampling.

The second stage involved the systematic sampling of a total of three hundred households from the five communities sampled in the first stage. Household here refers to all persons who live in a specified house and eat from a common “pot” or share the same house-keeping schedules. A minimum of 45 and maximum of 80 households were allocated to the selected communities based on the total number of households in the particular communities. The 2010 PHC data show that the district has a household population of 80,382 with a total number of 11,486 households and an average of seven persons per household. Thus, the households also served as the sampling frame as well as sampling element.

In the third stage, one eligible respondent was sampled through a simple random process for the interview in each of the households. The study estimated an average of two youths (eligible respondents) per household. The sample size assigned to each community by this study was determined using a simple proportion in relation to the number of households in the communities. This implies that a community with many households had more respondents as compared to a community with a smaller number of households. In all, a total number of 300 respondents (youths), but two, was sampled randomly from all the five communities for the study. Table 3.1 gives the list of the communities selected, the number of households (HH) in the communities and the number of respondents sampled from the communities.



Table 3.1: List of study communities, number of households and sample size

District	Community	Number of HH	Sample Size
	Ga	309	68
Wa West	Wechiau	367	80
	Vieri	201	45
	Dorimon	212	47
	Tanina	273	60
	Total		1362

Note: Number of HH per community was obtained from the 2010 PHC (GSS, 2014)

3.5 Sources of Data

There are primary sources and secondary sources of data (Lokesh, 1997; Dawson, 2002). Primary data sources involve data that are collected directly or at firsthand from the field or respondents for a study. On the other hand, secondary data sources include the previously collected and documented data from other researchers (Dawson, 2002; Kumar, 2005). This study relied on primary data source obtained from respondents for the analysis.

3.6 Data Collection Instrument

To be able to collect appropriate primary data for the study, a questionnaire (interview schedule) was developed and administered. The questionnaire consisted of mostly closed-ended and open-ended questions. The closed-ended questions required respondents to choose from the fixed alternative responses. On the other hand, the open-ended questions allowed interviewees to freely express their opinions and share their





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The questionnaire was structured into six sections, namely background characteristics (socio-economic variables of respondents), the practice of agriculture, youth participation in agriculture, benefits of youth participation in agriculture, challenges facing youth participation in agriculture, and prospects of youth participation in agriculture. The background characteristics of respondents were measured through respondents’ gender (male/female), age (in years), marital status, level of education and current employment status.

To measure the practice of agriculture, the study adapted certain indicators used by Morgan and Pugh (1973) to define and describe the practice of agriculture in West Africa. The indicators include the main purpose driving the practice of agriculture, major crops and animals (livestock and poultry) produced, technology and inputs used in production, methods of production, and size of production (size of farm and number of animals kept) and location of farm. The following should be considered in using the indicators. For example, a particular crop or animal (livestock and bird) is considered as “major” if it constitutes at least 30 percent of the total production. Also, the size of field cultivated must be at least half acre (0.5 acre) to be considered as a farm. Farms located near respondents’ settlement/houses (often fenced/protected from domestic animals) are referred to as compound farm and those outside the settlement area (often involved a walking distance of at least 0.5 kilometers) are called bush farm.

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Youth participation in agriculture was mainly measured from two levels. Firstly, using Kimaro et al. (2015) classification of youth participation in agriculture; namely, participation in family farms, participation by selling labor in other people's farms, and involvement in personal/own farms, the study determined how youths become involved in farming in their localities. Secondly, the youth were asked to describe the roles they play in the production of crops and rearing of animals. The expected farm duties of young people include land preparation, planting of seed, crop maintenance, and harvesting/post-harvesting activities. These techniques of measuring youth involvement in agriculture ensured that the specific ways youths get to participate in farming activities and their specific roles are captured.

To measure the benefits of youth participation in agriculture, the study used a measure that may be termed as benefit awareness indicator (BAI). It is assumed that respondents were cognizant of at least one key benefit commonly associated with young people's involvement in farming activities. Thus, the respondents were asked to specify the foremost gain they or their families experience as young people engage in agriculture. The main benefits were extracted from literature and categorized into, but not limited to improved incomes (income generation), food security (provision of food) and social recognition due to increased agricultural productivity (increased crop yield as well as efficiency in executing farm roles). The benefits recognized by the respondents served as key indicators of benefits of youth involvement in agriculture.

In measuring challenges faced by the youth in agriculture, a number of possible variables or factors from literature if present or absent can affect youth participation in agriculture were given to respondents to respond. This was done along three dimensions: personal attitudes towards agriculture, social support (non-material support such as approval of family and friends), and access to productive resources.



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Attitude towards agriculture was measured based on a five-point Likert scale with ratings of strongly agree (5) to strongly disagree (1). Both the social support and the access to productive resources were mostly measured by asking respondents to respond to questions on binary responses, that is *yes* and *no* questions. Here, *yes* indicates that the respondent believes he/she has the social support or resources required to participate in agriculture, and *no* indicates that an individual does not have the social support or resources to effectively engage in farming activities.

Finally, a combination of *yes* and *no* questions were mainly used to measure prospects of continued youth participation in agriculture. The respondents were asked whether they plan/intend to leave or continue their involvement in agriculture; those intending to leave agriculture were to specify when they planned to leave and why? For those intending to maintain their participation in agriculture they were to indicate how they planned doing it. Besides, the study sought respondents' view on what can be done to enhance their engagement in agriculture. Lastly, the willingness of respondents to recommend their peers to take up or remain in agriculture was inquired using *yes*, *no*, and *don't know* question format. To determine the specific factors that are most likely to affect the prospects of youth continual involvement in agriculture, respondent's intent to or not to maintain their participation were compared with the variables that have been measured (such as the challenges faced by the respondents in farming).

3.7 Field Data Collection

The fieldwork or data collection involved two main stages: pre-testing of questionnaire and actual data collection (administration of the questionnaire). Prior to the actual data collection, the questionnaire was pre-tested. Pre-testing of the questionnaire was done at Ponyentanga on 2nd June, 2017. There were only ten (10) questionnaires used in this pre-test exercise. The pre-test helped the study to reword, recode and adjust some





questions. For example, www.udsspace.uds.edu.gh many open-ended questions were converted into closed or partially open questions (these are questions which contain fixed alternative answers as well as a last open option called “other”) after the pilot-testing. It also helped the researcher to improve on the skills and speed of questionnaire administration. This was followed by the actual questionnaire administration in all the planned communities, from 5th to 17th June, 2017, to collect both quantitative and qualitative data.

3.8 Data Analysis

The study employed descriptive and inferential statistics and narrative method to analyze the data. Data collected from the field were properly coded, carefully entered, cleaned (rechecking of coding to remove errors) and categorized before proceeding with the detailed analysis. The Statistical Package for the Social Sciences version 20 (SPSS Statistics 20) was used to analyze the quantitative data. The SPSS was used for this analysis not just because it is said to be the most commonly used program for statistics in the social sciences, but also “it includes many ways to manipulate quantitative data, and it contains most statistical measures” (Neuman, 2012:287). Specifically, the quantitative data used frequencies, percentages and charts for the analysis whereas qualitative data mainly relied on the narrative method (description that reveals the individual respondent’s beliefs and experiences in farming) (Neuman, 2012).

The Chi-square tests (χ^2) which is labeled Pearson Chi-square in the SPSS was used for both the measure of association between variables, and in testing relationships or differences between the variables to make inferences. The Chi-square test is appropriate for descriptive statistics and inferential statistics, and as a measure of association, it can be used for nominal and ordinal data (Neuman, 2012). The major reasons that informed the choice of χ^2 test as a form of measure of both relationships and inference are that

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the method of sampling respondents was random sampling, the data being analyzed were categorical (nominal and ordinal), and the variables involve two or more categorical groups. Moreover, expected frequencies were at least 5 for the majority (80 percent) of the cells (Kent State University Libraries, 2017).

In testing for relationships and differences, a p-value ($p < 0.05$) is inferred as statistical significance at 5 percent. Thus, a p-value of 0.000 is interpreted as being significant at 1 percent, not zero. However, if a p-value is found to be larger ($p > 0.05$), then the relationship is taken as not significant or no relationship exists between the variables. The reviewed literature, particularly the theoretical and conceptual frameworks, provided bases for formulating a set of hypotheses or assumptions on variables that needed to be tested for relationships.

3.9 Ethical Considerations

This study was guided by the basic principles of ethics in social research (Neuman, 2012; Creswell, 2012). The study did not exploit research participants (respondents) for personal gains. It ensured all guarantees of privacy, confidentiality, and anonymity to respondents during data collection and analysis. Further, it made sure interpretations of results were consistent with the data. It also used high methodological standards and strived for accuracy.

In addition, the study recognized local protocols during the primary data collection period. This involved mainly seeking the consent of the local authorities or chiefs at each of the five selected localities before the start of questionnaire administration. Also, where parents (guardians) or household heads' were present, their approval was sought before questionnaire was administered to respondents. Even though a respondent may be more than eighteen years but once he or she still lives with their parents, parental



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consent was necessary as part of local courtesy. The acknowledgement of local etiquettes among other things ensured that the researcher(s) enjoyed greater level of safety, cordiality, and acceptance during questionnaire administration.

3.10 Conclusion

This chapter focused on the methodology of the study. The “mixed method” approach as adopted by this study was to ensure that both quantitative and qualitative strategies were used to gather and analyze the data. Important details about the components of the methodology such as the population, the sample size and its determination, the sampling procedure, and the data collection and analysis procedures have been provided. There was a strict adherence to the fundamental ethics espoused above in the choice and application of every phase of the research approach.



RESULTS AND DISCUSSION

4.0 Introduction

This chapter involves the results and discussion of data obtained from the respondents. The presentation, description, explanation and interpretation of results involved both quantitative and qualitative forms which are structured into six main sections, with the last five sections addressing each of the study's objectives. The section one (4.1) presents the background characteristics of respondents. Section two (4.2) looks at the practice of agriculture in the study area by focusing on some key indicators which define crop and animal production. In section three (4.3), the subject of youth participation in agriculture (how they get into it and their roles) in the study area are provided. The results on the benefits of youth participation in agriculture are captured in section four (4.4). Section five (4.5) discusses the challenges faced by the youth in agriculture. The final section, section six (4.6), involves the prospect of continued youth participation in agriculture.

4.1 Background Characteristics of Respondents

The background characteristics of respondents presented here include gender, age, marital status, level of education and employment status.

4.1.1 Gender of respondents

The gender distribution of the respondents is presented in the Table 4.1. The male respondents constitute 154 (51.3 percent) of the total respondents and female make up 146 (48.7 percent). The slightly larger number of male respondents is largely attributed to certain "cultural issues." There were two instances during the questionnaire administration, where two households had more than one eligible respondent; the



female respondents preferred that the male respondents (who were their husbands) were interviewed.

Table 4.1: Gender of respondents

Gender	Frequency	Percent
Male	154	51.3
Female	146	48.7
Total	300	100.0

Source: Field survey, 2017

4.1.2 Age of respondents

The age distribution of the respondents is shown in Table 4.2. Out of the total number of the respondents, 142 (47.3 percent) are within the age bracket 18 to 23 years, 95 (31.7 percent) are between age 24 to 29 years and the remaining 63 (21 percent) belong to age 30 to 35 years. The age distribution of the findings points to the direction that the population involved in agriculture in the study area could be as youthful as the structure of the total population of the district. The GSS (2014a) reveals that the district's population is youthful depicting a broad base population pyramid which tapers off with a small number of elderly persons.

Table 4.2: Age distribution of respondents

Age group (in years)	Frequency	Percent
18 – 23	142	47.3
24 – 29	95	31.7
30 – 35	63	21.0
Total	300	100.0

Source: Field survey, 2017



4.1.3 Marital status of respondents

The marital status of the respondents is given in Table 4.3. The figures in the table reveal that the respondents categorized as *single*, that is, those who were not married, form the majority 173 (57.7 percent), this is followed by 121 (40.3 percent) respondents who were married and the remaining six (2.0 percent) were either divorced or separated.

Table 4.3 Marital status of respondents

Marital status	Frequency	Percent
Single	173	57.7
Married	121	40.3
Divorced/Separated	6	2.0
Total	300	100.0

Source: Field survey, 2017

4.1.4 Level of education of respondents

Table 4.4 below shows the level of formal school attained by respondents. From the table, 162 (54 percent) of the respondents have some form of education classified as *basic education* (primary school/junior high school), 78 (26 percent) have *secondary school education* (senior high school/technical/vocational school), and 10 (3.3 percent) have *tertiary education* (universities/post-secondary training colleges). The table also shows that, 50 (16.7 percent) of respondents have not attained any form of formal education, thus *no education*. On the whole, majority (83.3 percent) of respondents have experienced one form of formal schooling or education.



Table 4.4: Educational level of respondents

Level of education	Frequency	Percent
No education	50	16.7
Basic education	162	54.0
Secondary education	78	26.0
Tertiary education	10	3.3
Total	300	100.0

Source: Field survey, 2017

4.1.5 Employment status of respondents

The employment status of the respondents is presented in Table 4.5. Out of the total number of respondents, 187 (62.4 percent) are unemployed, 91 (30.3 percent) are self-employed in agriculture or non-agriculture, 14 (4.7 percent) work as government employees (public employees), and only eight (2.6 percent) are employed as private employees (agriculture or non-agriculture).

Table 4.5: Employment status of respondents

Employment status	Frequency	Percent
Public employee	14	4.7
Private employee	8	2.6
Self-employed	91	30.3
Unemployed	187	62.4
Total	300	100.0

Source: Field survey, 2017

The data (62.4 percent) in Table 4.5 suggest that youth unemployment could be high among the respondents. It could also mean that many of these respondents are not



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satisfied with their current position. Unemployment here refers to the respondents who said they were without jobs even though their involvement in farming was not in doubt as the study found. This situation could be likened to what Garcia and Fares (2008) describes as young people working in family farms or agricultural activities to support food and incomes of the family but only see it as means to gather experiences for future employment and income prospects. As a result many may consider their participation simply as moral or social duty to fulfill. Most of these young people who mentioned that they were unemployed actually engaged in agricultural activities through family or household farms and they do not consider it as employment in its true sense. Curiously, there were even others who involved in personal farms as well as people's farms for pay yet they see themselves as unemployed. The 2010 PHC data show that, all regions except the three regions in the northern part of Ghana registered double-digit youth unemployment rates (GSS, 2013). The data (Table 4.5) could further add to the observation that "unemployment is the most pressing social and economic problem of our time" (UNCTAD, 2010: i). Indeed, the fact that majority of the youth perceived themselves not to be employed, including those involved in their own farms and other people's farms for pay should be of interest to all since it may have negative implications for the individual's motivation and actions. As Narayan and Petesch (2007) observe that perceptions affect identity, motivation and action.

4.2 The Practice of Agriculture in the Study Area

The findings in this section generally show the practice of agriculture in the study area. It is achieved by using certain indicators which define farming practices such as crop, livestock and poultry production. With the use of these key pointers, understanding of the ways farming is practiced becomes easier and simpler. This section also helps to reveal the respondents' understanding of how agriculture is carried out in their area.



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The young participants in agriculture first give their views on what they consider as the main purpose driving the practice of agriculture in their localities (Table 4.6). Again, they provide details about the production of crops (Table 4.7). Finally, Table 4.8 contains the respondents' opinions on animal production.

4.2.1 Purpose driving the practice of agriculture

Table 4.6 shows that an overwhelming 285 (95 percent) of the respondents believe that the main purpose driving the practice of agriculture in their locality is to produce to feed themselves and their dependents, while only 15 (5 percent) say the primary goal is to produce for the market or profit-making. The result corroborates Morgan and Pugh's (1973) conclusion that in the West Africa like elsewhere in inter-tropical Africa, production is mainly, although in only rare cases entirely, for subsistence or highly localized exchange or sale.

Table 4.6: Purpose driving the practice of agriculture in respondents' locality

Purpose	Frequency	Percent
Subsistence purpose	285	95.0
Commercial or profit-making purpose	15	5.0
Total	300	100.0

Source: Field survey, 2017

The data may also offer some explanation on why Ghana's agriculture is said to be characterized by a large smallholder sector or subsistence and a very small commercial sector (MOFA, 2007; Martey et al., 2012) as agricultural producer's behavior in production may be influenced by the purpose that drives the practice of agriculture. While the assertion that the state of agriculture in the three northern regions is characterized by a developing trend towards commercialization (SADA, 2010) may



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still be valid, the results reveal that majority of respondents in this study perceive their practice of agriculture as more of subsistence.

4.2.2 Crop Production

Crop production remains the core of agriculture in many rural communities in Ghana, particularly the study area. As a result, crop farming is commonly used synonymously with the concept *agriculture* in the study area. It is the most important source of food for the rural and urban populace. Thus, the assertion that increased productivity in agriculture ensures food security and contributes immensely to the health and well-being of the people (MYS, 2010) largely relates to crop production.

Table 4.7 presents key indicators used by the study to help understand and measure how agriculture (crop production) is generally practiced in the study area. The indicators being used were adapted from Morgan and Pugh (1973) which include average size of farms (measured in acres), location of farms, method of growing crops, implements being used for crop production, inputs being used for crop production and crop storage methods. Traditional or subsistence agriculture is practiced with hoe and cutlass (Aphunu and Atoma, 2010). It is important to note that, crop production in the study area is done without the support of any irrigation facilities. The Table 4.7 shows that all the 300 respondents were involved in the production of one or more crops.



Table 4.7: Main indicators of crop production in the study area by respondents

Indicators	Frequency	Percent
Major crops grown*^a		
Maize	237	36.3
Groundnut (peanut)	169	26.0
Millet	42	6.5
Sorghum	69	10.6
Beans	44	6.8
Rice	36	5.5
Yam	41	6.3
Other crops	13	2.0
Total	651	100.0
Farm size (in acres)		
0.5 – 2.9 ac.	167	55.7
3 – 4.9 ac.	103	34.3
≥5 ac.	30	10.0
Total	300	100.0
Farm location		
Compound land/farm	9	3.0
Bush farm	291	97.0
Total	300	100
Method of cultivation		
Mono-cropping	71	23.7
Mixed cropping	229	76.3
Total	300	100.0
Implements used*^b		
Tractor plough	126	17.4
Hoe	300	41.3
Cutlass	300	41.3
Total	726	100.0
Inputs used		
Certified seeds and fertilizer	83	27.7
Uncertified seeds and no fertilizer	217	72.3
Total	300	100.0
Crop storage method		
Silo/warehouse/storeroom	23	7.7
Traditional methods	15	5.0
Storage in bags/sacks	262	87.3
Total	300	100.0

Source: Field survey, 2017. *Multiple responses applied.



4.2.2a Major crops grown

The findings in Table 4.7 show that among the major crops cultivated by the respondents, maize, groundnut and sorghum appear to be the three leading crops cultivated in the study area. Out of the 651 responses given by the 300 respondents, maize constitutes the majority 237 (36.3 percent) of the responses, followed by groundnut 169 (26.0 percent), sorghum 69 (10.6 percent), beans 44 (6.8 percent), millet 42 (6.5 percent), yam 41 (6.3 percent), rice 36 (5.5 percent) and other crops 13 (2.0 percent). The respondents assigned a number of reasons for their preference for the cultivation of the crops, especially maize and groundnuts. In the view of many, maize was their staple food as it could be used to prepare variety of meals. Also, it was said that groundnut helped to fight hunger easily because it could be consumed in its raw or cooked forms. Again, some respondents held that they liked cultivating groundnut because it often served as a complementary meal to the main meal when prepared as soup, paste or roasted nuts. It was also revealed that maize could be easily intercropped (grown together) with other crops including groundnut and beans. Maize and groundnuts were also said to have easy market thus making it more preferable to cultivate. Others claimed that maize, and groundnut in particular, could still give some yield when there is minimal rainfall. According to the GSS (2014a), the economy of the Wa West District is mainly agrarian, with 91.6 percent of households engaged in the cultivation of food crops such as millet, sorghum and maize; roots and tubers, particularly yams and legumes, including groundnuts and beans.

4.2.2b Farm sizes

In terms of farm size, the study found that 167 (55.7 percent) respondents cultivated farm sizes ranging from 0.5 acre to 2.9 acres, 103 (34.3 percent) had farm sizes between 3 acres to 4.9 acres and only 30 (10.0 percent) cultivated 5 acres and more. The data



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show that 90 percent of respondents cultivate farms with total size less than 5 acres. This confirms the findings that most farmers in the country operate farms below five acres (WFP, 2013). Also, as Morgan and Pugh (1973) argue, the West African cultivator's holding of scattered plots is rarely more than five acres in extent, often considerably less. The majority of respondents indicated that they could not cultivate large farms mainly because they relied on their own strength or manual labor. They lack financial resources to hire tractor to plough their field. There were also some respondents who said if they could get proper places to store their produce or get people to buy their crops on time they would increase the sizes of their farms.

4.2.2c Location of farms

Farm locations of respondents based on the crops cultivated is shown in Table 4.7. The table presented two main forms of farm location, namely; farms located around or just close to the respondent's house/settlement (compound farm/land) and farms located some distance away from the settlement of the respondents (bush farm/land). The results of the study show that nine (3.0 percent) of respondents have their farms on compound land and 291 (97.0 percent) have theirs sited on bush land. The existence of compound and bush farms is acknowledged (MOFA, 2011b). Although a sizeable number of respondents said they cultivated crops near their settlements which were often fenced or protected against destruction by domestic animals (mainly goats, sheep), such "cultivations" did not meet the study's half-acre (0.5 acre) threshold to be classified as farms. Even most of the respondents did not consider the petty cultivations as farms, but gardens. A respondent said, *I have my farm in the bush, and I have a small garden here too [pointing to the direction of the garden]*. Majority of the cultivations on the compound lands were said to be only supplementing the production on the bush farms. On the whole, the study found that the main crop/farmland of majority of



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respondents was the bush farms and “minor” cropland being compound farms. As Morgan and Pugh (1973) describe the compound farms as fields on compound land and the bush farms as fields on the main cropland. The result also supports the observation that cultivators hold scattered plots (Morgan and Pugh 1973), but this does not mean that individual producers had farms dotted in both bush and compound lands at the same time. Instead, it was found that the scattered farms were still located within the bush lands. The two major reasons given by many respondents for the siting of farms were land availability and land fertility. Nearly all respondents said they have no space near/around their settlement or the space is so small (less than 0.5 acre) to make a farm, whereas a few respondents mentioned that they have lands near their settlement but were no longer fertile or fit to produce crops.

4.2.2d Methods of cultivating crops

Table 4.7 shows that respondents use mono-cropping and mixed cropping as methods of growing crops. It is clear from Table 4.7 that 73 (23.7 percent) of the respondents employ mono-cropping as a main system of growing crops. In mono-cropping, farmers grow only one kind of crop on the same piece of land at one time or crop season. A substantial number of respondents said they usually divide the same piece of land into sections in the mono-cropping. The remaining majority 229 (76.3 percent) of respondents employ mixed cropping, where two or more crops are grown on the same piece of land at one crop season. The respondents share the view that mixed cropping serves as an insurance against crop failure in times of unfavorable climate changes (extreme or infrequent rains) and plant disease outbreak that may affect production of a particular crop. They also claim that mixed cropping allows for efficient use of land and scarce resources. These reasons given could explain why majority of respondents prefer the mixed cropping method.



4.2.2e Implements used in crop production

On the types of technology used in the farms, the data show that the hoe, cutlass and tractor are the most commonly implements used. The total multiple responses (762) provided by the 300 respondents, as shown in Table 4.7, reveals that the hoe constitutes 300 (41.3 percent) of the responses, cutlass equally received 300 (41.3 percent) of the responses and tractor had 126 (17.4 percent) of the responses. This implies that all the 300 respondents relied on hoe and cutlass as the main implement for crop production, and only about 42 percent of the total respondents use tractor in addition to the hoe and cutlass. It strengthens the view that traditional or subsistence agriculture is based on hoe and cutlass (Aphunu and Atoma, 2010). Even among the respondents who use tractor, a significant number of them disclosed that they only hire it for partial ploughing. The *partial ploughing* is where the farmer (respondent) employs the services of a tractor to till a portion of the farmland or cultivated field and then use hoe and cutlass for the remaining portion. Many of the respondents said they regularly relied on the hoe and cutlass for their farming activities, particularly for land preparation, planting of seeds and harvesting of crops. The respondents disclosed that the key reasons for their reliance on hoes and cutlasses were that, compared to the tractor, the hoes and cutlasses were readily available and affordable. This outcome is largely similar to Morgan and Pugh's (1973) findings that the dominant implements used in agriculture in the West Africa are the hoe, the digging stick and the cutlass.

4.2.2f Inputs used in crop production

The study inquired about the use of inputs such as fertilizer (inorganic) and seeds. The analysis on seeds were separated into “certified/improved seeds” and “uncertified seeds or seeds from own/other's farms” mainly to estimate the extent to which respondents could be using improved seeds in production. The certified/improved included seeds





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from the government, NGOs or acquired from approved sources, whereas seeds from own/friend's farm comprised seeds that could not be identified by respondents as improved/certified. As shown in Table 4.7, the use of certified seeds and fertilizer appear not to be widespread. Out of the 300 respondents, 217 (72.3 percent) were found not to using certified seeds and not applying fertilizer on their farms. The remaining 83 (27.7 percent) of the respondents mentioned that they applied inorganic fertilizer (61.4 percent) or certified seeds (26.5 percent) or both fertilizer and improved seeds (12.1 percent). Besides, there were some respondents who mentioned that they also used agrochemicals (herbicide/insecticide) on their farms. The results thus suggest that the use of inorganic fertilizer was very low, and also the seeds being used by majority of respondents were likely to be low yielding. Indeed, some of the respondents revealed that they were not getting the amount of crop yield they anticipated from the farms they cultivated because they were not using fertilizer for their farms. A number of the respondents indicated that the main factor determining the application of inputs like fertilizer and herbicides was their access to capital (money). They believed if they had the financial resources they could have purchased all the inputs needed for their farming activities. The respondents who had cultivated small plots of land and farms on compound lands indicated that they sometimes had access to organic fertilizer (animal dung) and that helped improve crop yields. However, they said the animal manure was woefully inadequate to cover the entire compound farms let alone extend to the bush farms.

4.2.2g Crop storage methods

The data on crop storage methods are presented in Table 4.7. These methods may be grouped into three, namely; the traditional methods (clay bins, woven grass bins, pits), “improved” methods (Silo/warehouse/storeroom) and “trending” methods (storage in

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bags/sacks). Out of the total respondents, 15 (5.0 percent) stored in the traditional way, 23 (7.7 percent) stored in improved method, and majority 262 (87.3 percent) stored in trending methods. The 87.3 percent respondents who stored the crops (cereals and peanuts) in sacks/bags revealed that they usually treat the crops with chemicals and put in bags/sacks and then keep in their personal rooms or any convenient place. The main reasons influencing the majority of respondents to adopt this method of storage are that it was convenient, and it requires less financial resources to buy sacks/bags. In the case of yams, storage is usually done in barns or grass sheds. The data show that crop storage in woven grass bins, clay bins and pits which Morgan and Pugh (1973) found to be dominating in West Africa may be waning in the study area.

4.2.3 Animal Production

Animal (livestock and poultry) keeping are seen as important aspects of Ghana's agriculture, yet they are treated as auxiliary activities in the study area. As compared to crop production, farmers tend to devote less resources, time and energy to the rearing of animals. This situation of making animal rearing a secondary activity arises from some of the reasons given by the respondents. The respondents mentioned that crop farming, but not animal farming, served as the fundamental source of food to the people. Again, the respondents believed that animal keeping is more financially demanding. Others also held that animal rearing can easily generate conflict and misunderstanding between neighbors, especially where animals are not confined. Notwithstanding all this, nearly every respondent acknowledged that animal rearing offers a better income source to farmers than crop farming, and it should be given equal attention as crop farming. The issue of livestock breeds being of low quality (MOFA, 2007) was a big concern to a lot of the respondents which they believed needed to be addressed.



The Table 4.8 below shows the kinds of dominant animals (livestock and poultry) that are kept by respondents, the average number of livestock kept and the methods used in keeping the animals. The table reveals that out of the 300 respondents, 261 (87 percent) respondents engaged in the rearing of small animals and the remaining 39 did not keep either livestock or poultry (13 percent). Regarding the 261 respondents who reared animals, 122 (46.7 percent) respondents kept livestock and 139 (53.3 percent) were into poultry production. The livestock and poultry production are analyzed together since they share common methods of being raised.

Table 4.8: Main indicators of animal production in the study area

Indicators	Frequency	Percent
<i>Livestock Production</i>		
Major livestock kept *a		
Goats	103	68.2
Sheep	38	25.2
Other livestock	10	6.6
Total	151	100.0
Number of livestock kept		
≤ 10	108	88.6
11 – 20	10	8.2
21 – 30	2	1.6
≥31	2	1.6
Total	122	100.0
Method of keeping livestock		
Extensive/free range	113	92.6
Semi-intensive	7	5.8
Intensive	2	1.6
Total	122	100.0
<i>Poultry production</i>		
Major poultry kept *b		
Chicken (fowl)	133	75.6
Guinea fowl	31	17.6
Other poultry	12	6.8
Total	176	100.0



Number of poultry kept		
≤10	76	54.7
11 – 20	58	41.7
21 – 30	4	2.9
≥ 31	1	0.7
Total	139	100.0
Method of keeping poultry		
Extensive/free range	134	96.4
Semi-intensive	2	1.4
Intensive	3	2.2
Total	139	100.0

Source: Field survey, 2017. *Multiple responses applied.

4.2.3a Major livestock and poultry kept

The total multiple responses (151) on major livestock reared by the respondents as presented in Table 4.8, shows that goats rearing constitute the majority 103 (68.2 percent), followed by sheep 38 (25.2 percent) and the remaining 10 (6.6 percent) belongs to “other livestock” such as pigs and rabbits. The goats were most preferred livestock to be reared because they were seen by farmers to be more resistant to most livestock diseases, more prolific (can reproduce more quickly), can easily fend for food on their own and easily marketable. On the other hand, the total responses (176) on major poultry kept by respondents indicate that, chicken form the majority 133 (75.6 percent), trailed by guinea fowls 31 (17.6 percent) and “other poultry” such as turkeys and ducks form 12 (6.8 percent). The major reasons given by respondents as to why the chicken were the favorite poultry to be kept were that they could easily be hatched, controlled and made available (caught and sent) to the market when they are mature. The results thus show that in terms of animal production, chicken is the most preferred, followed by goats and then sheep. This findings point to the direction which may partly vary from the GSS’s (2014a) figures that indicated that goat rearing (34.1 percent) is



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dominant in the District, followed by chicken (27.5 percent) and sheep rearing (11.6 percent).

4.2.3b Number of livestock and poultry kept

The Table 4.8 above further shows the average number of livestock and poultry reared by respondents. On livestock, the data show that out of the 122 respondents, 108 (88.5 percent) of respondents kept not more than 10 livestock, 10 (8.1 percent) of respondents kept between 11 and 20 livestock, and two (1.6 percent) of respondents kept 21 to 30 livestock and the remaining two (1.6 percent) respondents kept 31 or more livestock. In terms of poultry, the results indicate that out of the 139 respondents, 76 (54.7 percent) kept not more than 10 birds, 58 (41.7 percent) of respondents kept between 11 and 20 birds, and four (2.9 percent) of respondents kept 21 to 30 poultry and the remaining one (0.7 percent) respondents kept 31 or more birds. As can be seen from the data, majority of respondents kept fewer animals. The main reason adduced for this phenomenon was that they lacked the financial resources to produce in large scale.

4.2.3c Methods of keeping livestock and poultry

As shown in Table 4.8, the respondents adopted extensive (free range), semi-intensive and intensive methods to produce livestock and poultry. The data indicate that in keeping livestock, majority 113 (92.6 percent) of respondents mainly allowed their animals to move about in the locality in search of food, water and other nourishment, and the animals have no proper housing units (extensive or free range method). Besides, seven (5.8 percent) kept and catered for their animals in housing units but also permitted animals to look for additional food in a restricted/fenced area (semi-intensive method), and only two (1.6 percent) ensured that animals (example rabbits) are kept for their entire life in housing units. Those who practice the intensive and semi-intensive systems complained of inadequate food and water during the dry season. As it is



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acknowledged that in Ghana, particularly rural areas, there are no interventions that effectively address problems of lack of feed and water, particularly in the dry season (MOFA, 2007). That notwithstanding, some of the respondents who practice the free range system revealed that sometimes they are compelled to tie their animals with ropes to prevent them from destroying their neighbors' crops on the field. This is where the farms or gardens are around settlements but is not fenced. Similarly, the data show that the majority 134 (96.4 percent) of respondents who kept poultry used the extensive or free range method, two (1.4 percent) employed semi-intensive method and three (2.2 percent) relied on intensive method. Most of the respondents indicated that although they are motivated to adopt the free range method of keeping the animals because it is less expensive, it does not allow them to properly monitor their animals. As some respondents complained that their animals (especially the birds) are easily stolen or become prey to other animals such as snakes and dogs.

4.3 Youth Participation in Agriculture in the Study Area

This section focuses largely on youth involvement in farming activities in the study area. It examines firstly the main ways by which the young people get to involve in agriculture, and secondly the specific contributions they make in agricultural production. The different background characteristics are also compared with the main ways youth participate in agriculture to identify the differences (if any).

4.3.1 Main ways in which youth participate in agriculture

Table 4.9 below presents the main ways through which youth get involved in farming activities in the study area. These ways have been categorized into family farms, personal farms and people's farms (or other people's farms). The family farms are deemed to be owned by the entire household, though it is typically controlled by the household heads who are mostly parents of the youth. Also, the personal (individual)



farms are owned and controlled by the young people themselves. Finally, the other people's farms involve those farms which the respondents actively partake in them (mostly as hired labour) and the farms are held and controlled by persons other than the respondents themselves or their families (households).

Table 4.9: Main ways in which youth participate in agriculture in the study area

Participation in agriculture	Frequency	Percent
Family farm	226	75.4
Personal/own farm	64	21.3
People's farm (Sale of labour in others' farm)	10	3.3
Total	300	100.0

Source: Field survey, 2017.

The data (Table 4.9) show that majority 226 (75.4 percent) of respondents participate in agriculture through working in family farms. The next is 64 (21.3 percent) of respondents who mainly do agriculture by operating their own farms and the remaining 10 (3.3 percent) join agriculture by working for wages in other people's farms (sale of labour in others' farms). Though the study found that the respondents have one principal way of being engaged in farming, it also established that the young people may have multiple (additional) means of participating. For instance, some respondents mainly involved in personal farms but they also help in family farms. A respondent put it right when he stated that, *I have my own farm but I still help my parents in their farm. In this village we the young people can have our own farms but we also help our parents in their farms or do jobs in people's farms. If I don't help my parents, then they will look for somebody who will work and take some money.* However, the findings clearly suggest that the youth expend most of their energies, time and other resources in the



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family farms than in any other way. As a respondent remarked, *I have been mainly working in my family farm from when I was a child till now, and most of my friends are doing the same. But one day when I am not living in my father's house and I am still in this village I will have my own farm.* This finding differs significantly from that of Kimaro et al. (2015) who reveal that among the rural youth who participate in agriculture in the Kahe East Ward in Moshi district in Tanzania, 49.3 percent mainly participate in agriculture through investing in their own farms, 35.8 percent participate through selling their labour power and 14.9 percent participate through working in their family farms.

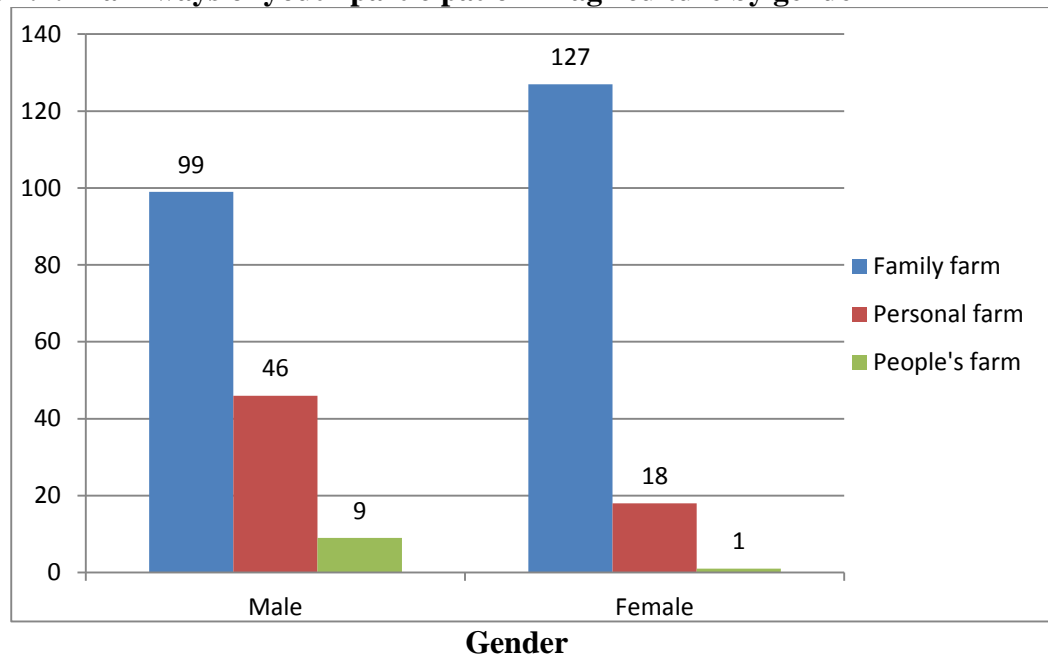
4.3.1a Main ways of participation by gender

Among the 154 male respondents, 99 (64.3 percent) participate in family farms, 46 (29.9 percent) engage in personal family farms, and nine (5.8 percent) involve in farming activities by selling their labour in other people's farms. The results in Figure 4.1 also indicate that within the 146 female respondents, 127 (87.0 percent) are in family farms, 18 (12.3 percent) have their personal farms and only one (0.7 percent) is into farming mainly by selling labour in other people's farms. The data shows that more females take part in family farms, whereas individuals operating their personal farms and the persons who offer labour for pay in others' farms categories are dominated by males. Chi-square test was done which shows this difference is significant at the 1 percent level (p-value 0.000). This means that females' involvement in farming in the study area is more likely to come through the family farms than males. There are cultural reasons that possibly will explain a major part of the observed difference in the study area. Culturally, males (mostly household heads) may hold titles or tend to lay claim to possessions (including farms) that belong to the members of a family. Also,



some females could not obtain the permission of their husbands to operate their own farms. As a result of these, it should not be surprising to have this result.

Figure 4.1: Main ways of youth participation in agriculture by gender



Source: Field survey, 2017

4.3.1b Main ways of participation by age

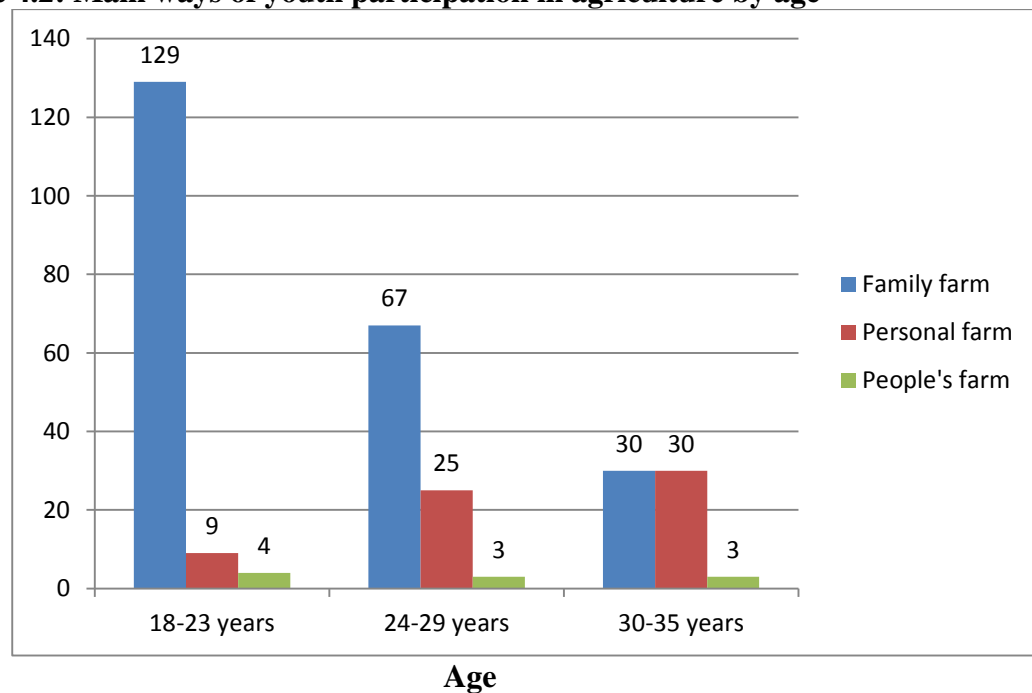
Figure 4.2 shows the participation of the youth according to age group. Out of the 142 respondents who are of ages “18 to 23 years”, 129 (90.8 percent) participate in family farms, nine (6.4 percent) engage in personal farms and four (2.8 percent) participate through selling of labour in other people’s farms. Among the 25 respondents of age “24 to 29 years”, 67 (70.5 percent) are involved in family farms, 25 (26.3 percent) participate in personal farms and three (3.2 percent) contribute through selling of labour in other people’s farms. Finally, of the 63 respondents of age “30 to 35 years”, 30 (47.6 percent) engage in family farms, another 30 (47.6 percent) are into personal farms, and only three (4.8 percent) join agriculture through selling of labour in other people’s farms. The findings reveal that young persons between “18 to 23 years” of age are more likely (90.8 percent) engaged in family farms than those within the age “24 to 29 years”





www.udsspace.uds.edu.gh and “30 to 35 years”. On the other hand, the older youth within the age “24 to 29 years” (26.3 percent) and “30 to 35 years” (47.6 percent) respectively tend to be involved more in personal farms. These differences result mainly because the majority of these young people (aged 18 to 23 years), unlike the other age groups, tend to be more subjected to parental controls and influences to help in the family farms. Again, culturally the older youth, especially the males, have greater chances of getting certain resources and privileges to undertake their own farms. Chi-square test was done that shows that the differences observed within the age brackets concerning their involvement in farming are significant at the 1 percent level (p-value 0.000). Thus, older youth may prefer to have their individual farms because of these cultural and practical reasons.

Figure 4.2: Main ways of youth participation in agriculture by age



Source: Field survey, 2017

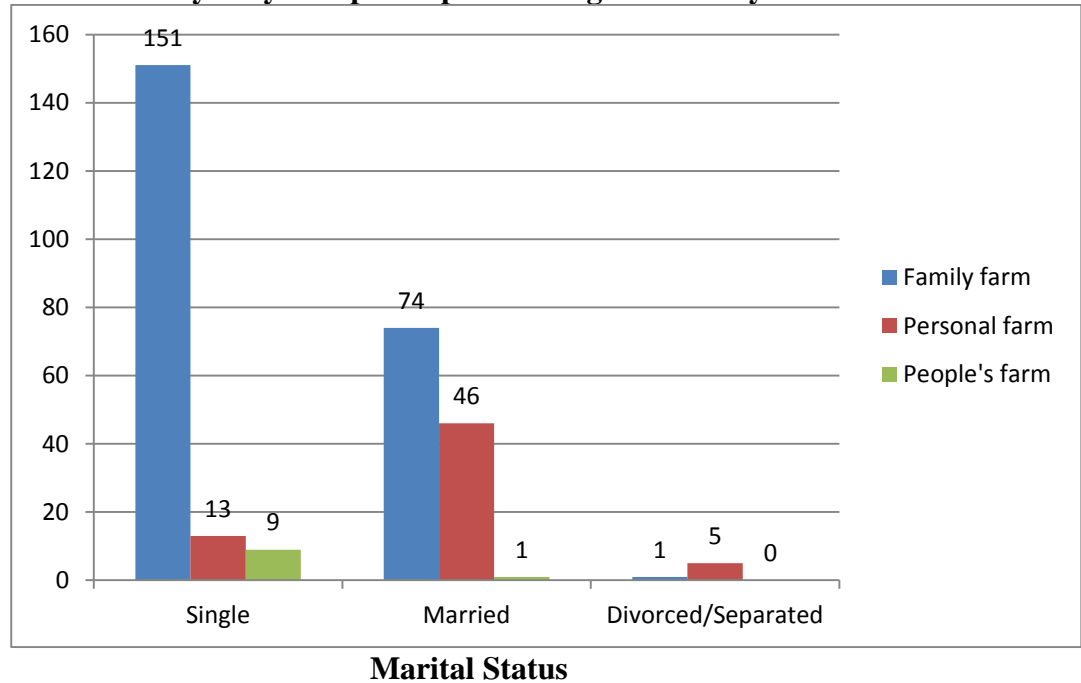
4.3.1c Main ways of participation by marital status

The distribution of how the respondents participate in agriculture by marital status is presented in Figure 4.3. Out of the 173 respondents classified as *single*, 151 (87.3 percent) participate in family farms, 13 (7.5 percent) participate in personal farms and

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nine (5.2 percent) participate by selling of labour in other people's farms. Also, of the 121 *married* respondents, 74 (61.2 percent) participate in personal farms, 46 (38.0 percent) participate in personal farm and only one (0.8 percent) participate by selling of labour in other people's farms. Then among the six respondents who are *divorced/separated*, one (16.7 percent) participate in family farms and the remaining five (83.3 percent) participate in personal farms, and none of them sell labour in others' farms. The results show that both the "married" and "divorced/separated" are inclined to operate their own farms and the youth who are not married (singles) involve in family farms. From the Chi-square test, the difference that has been noticed is significant at the 1 percent level (p-value 0.000). There are several reasons that may account for this difference. It was observed that most of the singles (mostly 18 to 23 year-olds) customarily live with their parents who exercise much control and influence over their undertakings. This group of respondents also tends to be the worst affected in terms of accessing resources such as land, credit, modern technology and storage facilities. Some of these conditions seem to make it very difficult for the singles to undertake their own farms even when they desire to. Though being married does not automatically lead the youth to operate their own farms, it seems to provide certain leverage for some of the youth (particularly the males) to do so.



Figure 4.3: Main ways of youth participation in agriculture by marital status

Source: Field survey, 2017

4.3.1d Main ways of participation by educational level

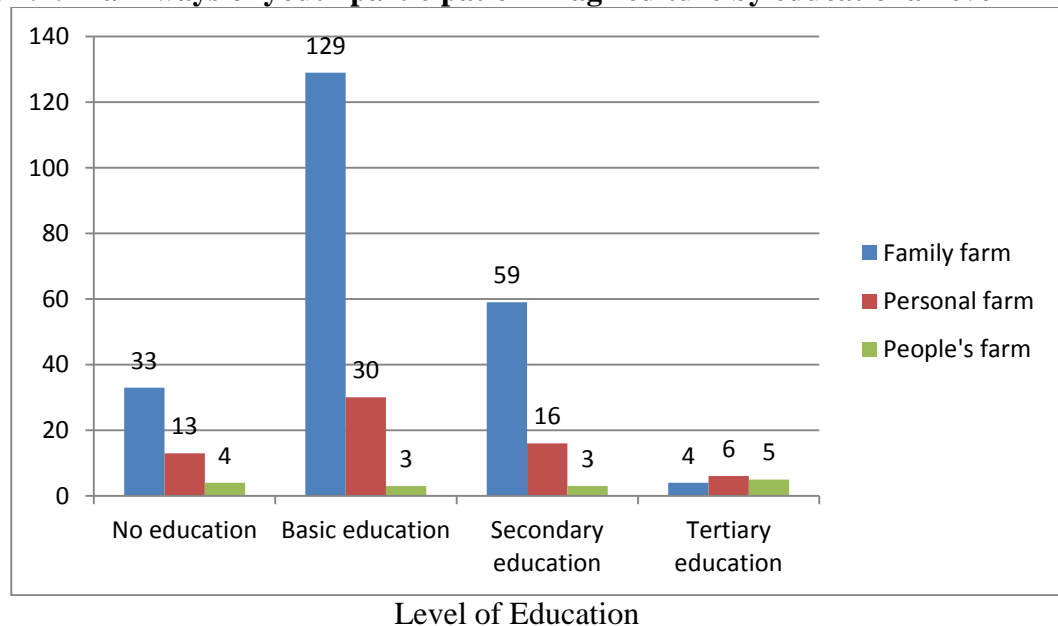
Figure 4.4 shows that out of the 50 respondents who belong to *no education*, 33 (66.0 percent) participate in family farms, 13 (26.0 percent) are operating personal farms and four (8.0 percent) participate by selling their labour in other people's farms. Within the 162 respondents with *basic education*, 129 (79.6 percent) participate in family farms, 30 (18.5 percent) have their personal farms and three (1.9 percent) engage in by selling labour in other people's farms. For the 78 *secondary education* respondents, fifty-nine (75.6 percent) participate in family farms, 16 (20.5 percent) are into personal farms and only three (3.8 percent) involve farming activities by offering their labour for pay in other people's farms. Regarding the 10 respondents of *tertiary education*, four (40.0 percent) partake in agriculture mainly through family farms and the remaining six (60.0 percent) involve in personal farms, and none of them join by selling their labour in other people's farms. The results show that most tertiary education respondents engage in personal farms, while most of the no education, basic education and secondary



education respondents are in family farms. However, the findings reveal that as the respondents attain basic education and move up the ladder of education their involvement in agriculture mainly through family farms tend to decrease. Chi-square test was done that shows that the relationship between respondents' education and the way they get into agriculture is significant at the 5 percent level (p-value 0.021). One of the reasons likely to have resulted in this outcome is that some of the youth (especially the males) with secondary and tertiary education said having their personal farms have always proved more profitable to them. For example, some respondents claimed that while in school they had to undertake their individual farms, even if they had to help in family farms, in order that they could raise additional resources to cater for their educational needs. Again, the majority of the respondents with education above the basic level (particularly the tertiary education level) were married males who naturally have the advantage of operating their own farms.



Figure 4.4: Main ways of youth participation in agriculture by educational level



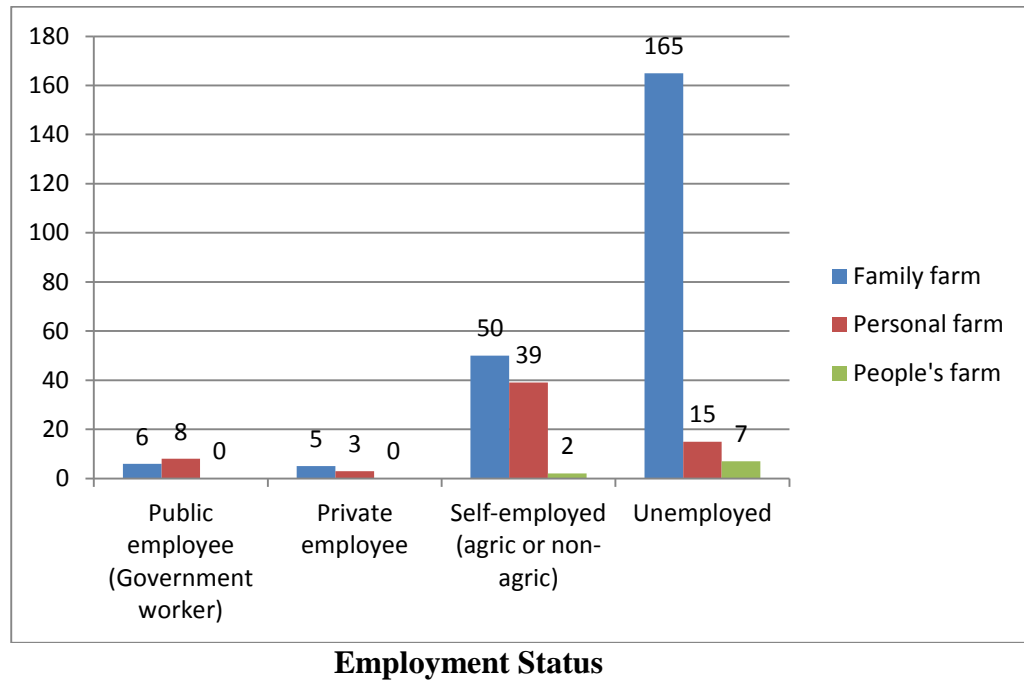
Source: Field survey, 2017

4.3.1e Main ways of participation by employment status

Among the 14 *public employees*, six (42.9 percent) involve in family farms, eight (57.1 percent) operate their personal farms, and none of them participate by selling labour in other persons' farms. Again, of the eight *private employees*, five (62.5 percent) participate in family farms, three (37.5 percent) have their personal farms, and none of them join agriculture by selling labour in other people's farms. Out of the 91 *self-employed*, 50 (54.9 percent) participate in personal farm, 39 (42.8 percent) are into their personal farms, two (2.3 percent) involve in farming by selling of labour in other people's farms. Lastly, among the 187 *unemployed*, 165 (88.2 percent) participate in family farms, 15 (8.0 percent) have their individual farms, and the remaining seven (3.7 percent) get into farming by selling of labour in other people's farms. The findings reveal that most public employees are into their personal farms, whereas most of the private employees, self-employed and unemployed are concentrated in family farms. Most of the public employees were married men and as explained above (Figures 4.1 and 4.3), they have the natural and cultural advantage in the study area to establish their own farms or claim title of the farms. This primarily may account for most public employees involved in farming through personal farms. Equally, the majority of the unemployed are found in family farms mainly because most of them make up the age group (18 to 23 years) who largely live on the guidance of their parents and naturally contribute much to the running of family ventures such as the farms. Chi-square test which was done confirms that employment status is significantly related to the type of participation at the 1 percent level (p-value 0.000).



Figure 4.5: Main ways of youth participation in agriculture by employment status



Source: Field survey, 2017

4.3.2 Roles played by the youth in agriculture

The youth constitutes an important section of the population in the study area whose energies and skills are expended to engender a more prosperous and sustainable agriculture. It was discovered that although young people carry out diverse roles to spur the production of agricultural commodities, the preponderance of these functions are concentrated in the day-to-day practical or field processes of crop production.

4.3.2a Role in crop production

Young people perform various roles in the cultivation of crops including land preparation, planting, crop management, harvesting and post-harvesting activities.



Land preparation

Land or soil preparation makes up an essential initial process which is required for the cultivation of crops. It involves mainly the clearing of bushy lands and making them ready for seeding or planting. The making of mounds, beds or tilling of soil for the planting of crops such as yams and groundnuts are all categorized under soil preparation. The youth revealed that they were actively involved in land preparation duties. In terms of numbers, over 94 percent of male respondents as compared to about 45 percent of female respondents engaged in virtually all the land preparation duties in the farms. The cutlass and hoe remain the predominant tools used for these activities. It was also found that bush clearing and mounds making were male dominated work in the study area. The respondents revealed that culturally land preparation roles are meant for the male. As a result of this, male youths were dominating in soil preparation works. Unlike female youths whose minimal involvement in land preparation typically ended in family and personal farms, male youths extended their roles to other people's farms mainly to generate some income.

Planting

Planting is done after the soil has been cleared and made ready. Generally, it involves the sowing of seeds or parts of a plant. The hoe, cutlass and stick are implements used for sowing depending on the type of seed being sown. There were a lot of female youths who said they involved in seed sowing than male youths. Apart from the planting of yams, all other forms of sowing were done mainly by the females. Nearly ninety-six percent of female respondents involved in planting while the males were about sixty percent. Many of the youths revealed that it was the females' duty to plant seeds in their family or individual farms after the males have prepared lands. Besides, most of the female youths said that they were able to make money for themselves and family during



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the planting period when they take additional responsibility of working in other persons' farms.

Crop maintenance

The youth undertake a variety of crop maintenance roles to ensure proper growth of the crop plants. This helps to increase crop yield and achieve quality of yield. The majority of respondents said the main crop care activities they carried out on the farms are weeding and earthen-up. Weeding involves the removal of weeds that tend to impede the growth of plants by reducing their intake of water and nutrients, whereas earthen up is the breaking up and loosening the soil surface to allow for proper circulation of air, water and nutrients for the crop plants. Apart from the few respondents who said they controlled the weeds with herbicides (by using knapsack spray), majority said it is done manually by the use of hoes and cutlasses. A small number of respondents (mostly males) mentioned that their roles also included fertilizer application and insect, pests and rodent control on the farm. There was almost the same proportion of male and female youths who said they engaged in the crop management roles in their family farms and personal farms. It was discovered that ninety-five percent of male respondents and ninety percent of female respondents involved in weeding and earthen up in the farms. A number of male youths revealed that they are hired by other persons to do weeding in farms. Some of the respondents revealed that because crop maintenance activities are required to be completed within a particular time frame to bring about good yield on the farm every member of the household is encouraged to perform a role. It was also disclosed that the act of breaking up and loosening the soil surface or removing weeds from the farm could not be considered a strenuous work for any person.



Harvesting and post-harvesting

The youth were found to be actively involved in harvesting and post-harvesting activities in the study area. Harvesting is the practice of removing or gathering the mature crops on the farm (field). The respondents revealed that harvesting of most crops, except yams, are mainly done by the females. This implies more female youths than male youths engaged in crop harvesting. The data showed that over ninety two percent of female respondents energetically involved in many harvesting and post-harvesting roles relative to the nearly sixty percent of male respondents. The following are the leading post-harvesting activities carried out by the youth. Youths help in carting or carrying the harvested crops to the house or place of storage or market. In the cases where access to bicycles, motorcycles, tricycles, and tractors are limited, the youth carry the loads in pans, baskets and sacks to the house, place of storage or market. The respondents also mentioned that they are involved in other post-harvesting roles such as sorting, threshing, de-husking and all other activities included in crop processing for immediate consumption, storage or market.

The information provided by the respondents concerning their roles in crop production in the study area confirms the views that young people are great asset to the agricultural sector (DFID-CSO Youth Working Group, 2010; MYS, 2010; Brooks et al., 2013; AGRA, 2015). It also affirms the findings of Kimaro et al. (2015) that male youths work much in farms especially in clearing farms, weeding and other farm activities while female youths are mostly involved in planting and harvesting. Again, the study discovered that male youths spent more hours and days working in farms than the females due to the nature of farming and some cultural issues. For instance, it was found that during farming season majority of out-of-school (completed or drop-out) male youths spent on average six days per week and seven hours per day respectively in



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farms, whereas most out-of-school female youths spent on average five days per week and six hours per day respectively in farms. The disparity on time allocated to the farm work occurs largely because often female respondents perform most of the house duties like cooking, fetching water, washing clothes and taking care of children.

4.3.2b Role in animal production

As provided in Table 4.8, the production of animals (livestock and poultry) is fundamentally a supplementary activity and based on the extensive or free range method. This system allows livestock and birds to move about freely in the locality in search of food, water, and other nourishment. Also, the animals have no proper housing units. As a result of this system, most people, including the youth, always have very limited roles to play in raising animals. Nonetheless, occasionally the youth may provide food (forage/feed), water (mostly in dry season), medication, and provide other nourishment to the animals. The study found that the few youths (males) whose parents or themselves adopted intensive system of raising animals performed such roles as daily provision of feed (food) and water to the animals. They also involve in cleaning of pens and other animal management practices.

In general, the study found that the roles played by the youth in agriculture (particularly crop production) in the study area mostly differ from that of the teenagers and the aged in terms of their level of work output. As a 25-year old respondent remarked, *We the youth and all our older people and even younger ones work in the farm, but as you know we [youth] are the ones who can put more energy into the farm work.* This means that to a large extent they are all involved in many of the roles like land preparation, seed sowing (planting), crop management, harvesting, and post-harvesting activities but the young people (especially those aged 24 to 35 years) seem to exhibit more energy and efficiency in the delivery of their tasks. Another respondent said, *“I do my farm,*



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and I also help my old man [father] in his small farm. I help him a lot to weed and do other work in the farm because all my two brothers are in big cities, and if I am not helping he cannot produce much to sell and eat. This agrees with Naamwintome and Bagson (2013) that households with many youths have high possibility of increasing their farm output. The findings here also confirm FAO's (2011) assertion that the youth partake in agriculture by playing roles like producing agricultural crops, tending animals, harvesting and post-harvesting activities, working for wages in agricultural enterprises, and engaging in trade and marketing.

4.4 Benefits of Youth Participation in Agriculture

There are a lot of benefits that can be associated with the involvement of young persons in agriculture. Often these benefits accrue not only to the youth but the entire society and the whole agricultural sector. For instance, Leavy and Smith (2010) believe that where many young people are involved in agriculture it has positive implications for national and international efforts to drive economic growth through investments in agriculture.

The youth in the study area acknowledge three main benefits which are linked with their participation in farming. Thus, among the respondents, 216 (72.0 percent) said their involvement in agriculture primarily results in food security (provision of food) for themselves and their families, 44 (14.7 percent) strongly believe it chiefly leads to social esteem as a result of increased agricultural productivity and 40 (13.3 percent) associated the main importance of their contributions in farming to improved incomes (generation of incomes).



Table 4.10: Benefits of youth participation in agriculture

Benefits of participation	Frequency	Percent
Improved incomes	40	13.3
Food security	216	72.0
Increased agricultural productivity for prestige	44	14.7
Total	300	100.0

Source: Field survey, 2017

Generally, the data here agrees with AGRA (2015) that the youth dividend can be invested in agriculture to increase productivity, incomes and economic growth. Further discussion on each of the identified benefits of youth's involvement in farming in the study area is given below. The first two benefits fit well into what Cropanzano and Mitchell (2005:881) refer to as "economic outcomes" whereas the third returns can be confined to the "socioemotional outcome" of people's participation in activities such as farming.

4.4.1 Improved incomes as benefit of participation

Young people always find different ways to improve their incomes in order that they can support themselves and their families. For that reason, the majority of youths in the study area who desire to see this come through are bound to engage in farming activities. Thus, as shown in Table 4.10, 40 respondents stated that the main gain they derived by undertaking agriculture was financial benefit. According to one respondent, *I do agriculture because I get money. Last year [2016] I got more than thousand five hundred Ghana cedis from my farm, and this year I want to get more.* A further inquiry by the study showed that of these respondents who mentioned improved incomes as the main benefit of their involvement in agriculture, 12 (30.0 percent) said they generated approximately 500 Ghana cedis annually from farming activities, 17 (42.5 percent)



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generated between 500 and 1000 Ghana cedis yearly from agricultural activities, six (15.0 percent) made between GHC 1000 and GHC 1500, and only five (12.5 percent) could generate GHC 1500 and above. The data therefore suggest that majority (72.5 percent) of respondents who mainly participate in agriculture in order to generate money for themselves and/or their families are making less than GHC1000 annually. The study discovered that majority of the respondents who associated the main importance of their contribution in agriculture to improved incomes do so through personal farms. Also, all the young people whose yearly incomes from agriculture totaled or exceeded GHC 1500 are males and they have their own farms. This should be expected because unlike the female respondents, the male respondents tend to have more time, capacity and resources to invest in farms, particularly their own farms, so as to realize more produce. Therefore, as male youths are able to produce in large quantity they are also likely to make more money from the sale of the produce.

Furthermore, the respondents indicated three main ways they spent the money they generated from their agricultural activities. Based on the 107 responses given, food constituted the majority (28.0 percent) of the responses, followed by education (17.7 percent), clothing (15.9 percent), healthcare (13.1 percent), charity/gift (7.5 percent), transportation (7.5 percent), investment in farm (7.5 percent) and the least mentioned use of money was on utility/light bills (2.8 percent). The data suggest that cumulatively majority of the youth apply considerable amount of the money into meeting their immediate needs (food and clothing) rather than investing in more productive areas such as education and farms. The fact that a large amount of the incomes from farming is spent on food should not be surprising since some of the respondents complained that prices of food are always on the increase in the study area, particularly between the months of March to June. That notwithstanding, the situation where youths in the study



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area are not investing large proportion of the money they make from agriculture into farming activities should be worrying since it may indicate their lack of interest in farming as a business venture. It could also confirm young people's perception of farming as a high risk work for young people.

4.4.2 Food security as benefit of participation

It may be apt to assert that most people (including the youth) in the study area engage in agriculture with the central goal of providing adequate food for themselves and their dependents or families (Tables 4.6 and 4.10). Food crops such as maize, sorghum, millet, rice, yam, beans and groundnut are produced for consumption. A further analysis of the data revealed that the quantity of food which is produced go to feed large family sizes. Majority of the married male youths disclosed that by engaging in farming they were able fulfill an important duty of every married man which is to provide food for their spouse(s), children and all dependents. In the words of a respondent, *As for me, even if I don't get anything from doing farming I get food for my family to eat.* Thus, among the 216 respondents, 108 (50.0 percent) said six or more persons depended on the food produced, 99 (36.6 percent) indicated four to five persons relied on the produce and 29 (13.4 percent) revealed two to three persons lived on the food produced. According to the GSS (2014a) there is an average of seven persons per household in the study area.

Regarding the number of months the food/produce could last, 87 (40.3 percent) of the respondents indicated that it could last for about seven to nine months. This is followed by 75 (34.7 percent) respondents who said four to six months, 50 (23.1 percent) said ten to twelve months and only four (1.9 percent) said it lasts a maximum of three months. The data agree that the youth involved in agriculture to contribute towards attaining food security (Aphunu and Atoma, 2013). However, it appears many of the



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homes where these respondents belong may still need to get food from other sources to attain food security. The WFP (2012) identified many households in the study area as food insecure. The fact that cultivation of crops is usually on small scale (Table 4.6) and the rather large household sizes mean that food insecurity will remain a challenge in the study area unless farm productivity is greatly enhanced.

4.4.3 Increased agricultural productivity for prestige as benefit of participation

The gains that young people believe can be made from their involvement in farming go beyond the food security and improved incomes. As MYS (2010) notes that increased productivity in agriculture ensures food security and contributes immensely to the health and well-being of the people. Equally, there are cultural values associated with farming (MOFA, 2007) such as social recognition which can be made available to the participants in agriculture. In the view of some respondents, increased farm productivity which involves not only increased crop yields but also the efficiency and energy employed in delivering farming activities, come with social benefits. These respondents revealed that they and their families enjoy certain social status from farming. For example, some respondents mentioned that the social status of their family is enhanced anytime they realize plenty harvest from their farms as some community members who also engage in farming talk well about them and sometimes contact them for help (such as food and seed to plant). Typically, having a plentiful harvest or keeping many animals is interpreted as a measure of a person or family's wealth among many farmers in the study area that is highly esteemed. Additionally, a section of the respondents said that in times of abundant harvest, their parents give them portions of the crops which they sell, give out as gifts to love ones or give to the needy. Moreover, some respondents disclosed that increased production brings about solidarity (bond) among members of the community. For instance, during harvest farmers who are able to cultivate large



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farms and are blessed with increased yield invite other farmers to help in the harvest. In this way, other farmers are able to generate additional food for their families, and at the same time strengthening friendship and bringing some recognition to those generous (wealthy) farmers. As one respondent mentioned, *I feel very good and esteemed when my friends talk about how my family has plenty food to eat and give some to other people. Because of this I am motivated to do more work in our farm any time we are in the farm.* These confirm the findings of Naamwintome and Bagson (2013) that farm output may determine one's status or personality. Among these 44 (14. percent) young people who recognized the importance of their contribution in agriculture along this line, 35 (79.5 percent) revealed that they contributed about 30 percent to farm productivity whereas the remaining nine (20.5 percent) said 30 to 60 percent of agricultural output in the farm can be attributed to their efforts. None of these respondents credited hundred percent of the improved farm productivity solely to their efforts since they all engaged in family farms. Most of the respondents thus acknowledged that because they possess the physical strength and skills, they are able to complete farm tasks (such as clearing farm lands, making mounds, planting seeds, and removing weeds from farms) on time to ensure that crop yield is enhanced. Undoubtedly, these contributions by the young people in agricultural activities in the study area are essential for enhanced agricultural production which may result in "socioemotional outcomes" (Cropanzano and Mitchell, 2005:881) for the youth.

4.5 Challenges Facing Youth Participation in Agriculture

The discussion here is on the challenges faced by the respondents in farming, especially the cultivation of crops. The personal attitudes of youths towards agriculture are first presented and analyzed. This is followed by the level of social support available for young people to engage in agricultural activities. Finally, youths' access to productive



resources needed to encourage farming is presented and discussed. Generally, young people in Ghana are said to have limited access to resources, information, and control over their lives (MYS, 2010).

4.5.1 Youth attitudes towards agriculture

The attitude of the youth towards agriculture can be a major source of negative as well as positive energy for their involvement in the entire value chain of the agricultural sector. Here, attitude indicates the respondent's favorable (positive) or unfavorable (negative) evaluation of being engaged in agricultural activities. Generally, it is held that young people perceive farming in negative ways such as work for the aged, high risk enterprise (especially for the youth), work that attracts low respect, work with extremely low economic (financial) outcomes and work for the uneducated/unskilled. Table 4.11 shows that all the 300 respondents responded to each of the six statements that measured key aspects of youth attitudes towards participation in agriculture in their localities.

Table 4.11: Attitudes of youth towards agriculture

	Statements					
Response	Agriculture is an enterprise or work for the aged (elderly).	Agriculture gives extremely low financial returns.	Agriculture has few employment or work opportunities	Agriculture is a high risk work.	People who engage in agriculture are not respected.	Agriculture is a work for the uneducated or unskilled.
Strongly Disagree	23.0	2.7	2.0	6.3	4.7	24.7
Disagree	58.6	18.7	25.0	15.6	18.3	51.0
Neutral/ Undecided	2.7	2.3	10.7	13.0	3.7	6.3
Agree	13.0	52.6	54.0	46.5	54.3	15.7



Strongly Agree	2.7	23.7	8.3	18.6	19.0	2.3
Total %	100.0	100.0	100.0	100.0	100.0	100.0
Freq.	300	300	300	300	300	300

Source: Field survey, 2017

From Table 4.11, 2.7 percent of respondents strongly agree, 13.0 percent agree, 2.7 percent were undecided, 58.6 percent disagree and 23.0 percent strongly disagree that agriculture is an enterprise or work for the aged (elderly). Thus, about 82 percent of youth either strongly disagree or disagree that farming is for the aged. This implies that majority of respondents hold the view that agriculture should not be left for the aged. Generally, agriculture is said to be perceived by the youth as work for the old women and men (Amalu, 1998; Jeffrey et al., 2010; Aphunu and Akpobasa, 2010; SACAU, 2013). The following are some of the reasons for the majority of the youth dissenting the view that agriculture is for the elderly. Many of the youth believe that they are more energetic to engage in the farm work to feed their aging and weak parents and relatives. Others believe that it is the duty of every young person (particularly those who live with the parents) to help their parents in the work they do and because their parents are involved in farming they see farming as their responsibility. There were those who strongly believe that since both the young persons and old people equally depend on agriculture for their living no youth should perceive farming as an old man’s work even if it does not meet many of their needs. It is therefore natural to have only 15.7 percent of the respondents having negative attitude towards agriculture as work for the aged.

The data also reveal that, 23.7 percent of respondents strongly agree, 52.6 percent agree, 2.3 percent were undecided, 18.7 percent disagree and 2.7 percent strongly disagree that agriculture gives extremely low financial returns. It is clear here that over 76 percent of young people either strongly agree or agree that agriculture gives very little



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financial benefits. This means that most of the respondents hold negative attitude towards agriculture as offering extremely low financial rewards. This perception is evident in many of the views expressed by the young people about farming such as it gives only food, farming does not bring more money, *galamsey* (illegal mining) is profitable than farming and doing farming alone can make you poor.

According to Table 4.11, 8.3 percent of respondents strongly agree, 54.0 percent agree, 10.7 percent undecided, 25.0 percent disagree and 2.0 percent strongly disagree that agriculture has few employment or work opportunities. Evidently, 62 percent of respondents either strongly agree or agree that there is not enough employment in farming. This implies that, majority of respondents have negative attitude towards agriculture as having few employment opportunities. In the view of many of the respondents, work opportunities in agriculture in their places are very limited. Thus, agriculture is largely equated to working in the bush (farm work) or going through the drudgery to produce crops. It is therefore not surprising that many young people see themselves as unemployed (Table 4.5) and their involvement in agriculture being perceived as a transition to working life or future employment and income prospects (Garcia and Fares, 2008). A respondent commented, *All the work is in the bush; if you don't go to your farm or somebody's farm to work then there is no work here to make money or food for yourself and your family.* Accordingly, the promotion of the participation of the youth in modern agriculture as a viable career opportunity for the youth and as an economic and business option (MYS, 2010) would require more education on the available jobs and opening of more work options in the agricultural sector. For AGRA (2015), perceptions inhibit young people's ability to see the potential that the agricultural sector presents in terms of employment opportunities.



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Furthermore, Table 4.11 show that 18.6 percent of respondents strongly agree, 46.5 percent agree, 13.0 percent undecided, 15.6 percent disagree and 6.3 percent strongly disagree that agriculture is a high risk work to participate. The data clearly show that most respondents (65.1 percent) have negative attitude towards farming as a high risk work. The commonly mentioned risks experienced by the respondents include crop failure due to inadequate or irregular rainfall, frequent attacks by crop pests and diseases, and lack of guaranteed market price for farm produce. For instance, a respondent revealed that in the 2016 crop season, she cultivated a total of three acres of maize farm which she hoped to harvest about ten bags but she could only harvest approximately four bags because according to her the rains failed to come when the crops needed it most. She concluded, *I pray that this year the rain will not fail me*. Crop failure owing to issues of rains appears to be compounded as some of the respondents disclosed that they often relied on personal experiences rather than scientific information (such as those coming from meteorologist) to determine when to plant or sow seeds. On the whole the findings reveal that the risks in the agricultural sector (MOFA, 2007; Choudhary et al., 2015) seem to be well experienced and recognized by most of the youth.



Again, the data indicate that 19.0 percent of respondents strongly agree, 54.3 percent agree, 3.7 percent undecided, 18.3 percent disagree and 4.7 percent strongly disagree that people who engage in agriculture are not respected. Clearly, more than 73 percent of respondents hold negative attitude towards agriculture that people who engage in it are sometimes not respected. According to a male respondent, *If farming is the only thing you do then you may not be able to cater for many of your family needs such as healthcare, education, food and clothing*. In a situation where a male farmer fails to provide for the family needs, he is not esteemed or considered a man (“master”) of his

house. It was also indicated by a section of the respondents that some government officials who are supposed to help them improve their farm work do not pay attention to the concerns and suggestions of farmers. These happenings according to the respondents are often interpreted as lack of respect for the people involved in farming. This confirms many views, including that of the youth, that people who engage in agriculture are not respected (MOFA, 2011a; SACAU, 2013). Interestingly, among the few who hold the view that people who are engaged in agriculture are esteemed, some of them revealed that they and their families receive a lot of admiration from other farmers whenever they harvest more produce from their farms.

Finally, on youth attitude towards agriculture, 2.3 percent of respondents strongly agree, 15.7 percent agree, 6.3 percent were undecided, 51.0 percent disagree and 24.7 percent strongly disagree that agriculture is a work for the uneducated or unskilled. This implies that over 75 percent of respondents believe that agriculture is not a reserved work for the uneducated or unskilled. Only 18.0 percent have negative attitude that agriculture is a work for the uneducated or unskilled. The claim by some of the respondents was that since they have witnessed many educated or skilled persons directly and indirectly engaged in farming activities in their area then they are convinced that agriculture is not meant for only the uneducated or unskilled. Conversely, those who perceived farm work as belonging to the uneducated or unskilled believed that because there are few work opportunities in their locality and the uneducated or unskilled people have very limited work options, farming remains the only option for most of them. The claim that the youth have negative perception that agriculture is an enterprise or work for uneducated and unskilled (MOFA, 2011a) is not confirmed by the findings or at least the majority of the respondents hold different views about this perception.



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The youth attitudes towards agriculture in the study area may be reflected in a statement made by a respondent that: *The only thing you get from farming is food; there is no money in it for people like us who don't do any work. Because of this sometimes your wife and children will not respect you because you cannot take proper care of them. How can others respect you if your own house does not? But if you have some work like government work in addition to farming, then farming will be good for you, because if you didn't get much harvest from your farm because of lack of rains you can still provide food for the family.*

4.5.2 Social support

The youth, just like any other segment of the population, may need various forms of support from members of their community to effectively involve in agriculture. One of such critical support systems is the “social support.” It indicates the intense expectation or pressure from the people closest to the youth (such as parents, spouses and friends) to or not to involve in farming. This support is often expressed as words of encouragement. It may also come as an assurance of friendship and sharing of knowledge to the youth who accepts to engage in agriculture. Table 4.12 shows that 241 (80.3 percent) of the respondents think they have the support or approval of the persons closest to them to partake in farming and only 59 (19.7 percent) think otherwise. This confirms that the society can serve as social capital or support (Fukuyama, 2001) where information, encouragement, and solidarity are made accessible to its members (Adler and Kwon, 2002) to engage in socially sanctioned behavior. The assertion that there is erosion of traditional social support systems for young persons (MYS, 2010) may not hold as far as the support for the youth in farming is concerned in the study area. When respondents were asked to explain why they think their social relations approve or disapprove their participation some of these reasons



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were given and they largely relate to parental and spousal concerns. In the view of some of the young people their parents or spouses wanted them engage in agriculture since there were no alternative jobs. For example, a respondent stated, *I think my wife will like me to do different work than farming if there are jobs in this community which I can do to take care of my family.* Some of the respondents think people in the community (including parents of young people) support them since there were no or better ways for the youth to contribute to family needs (especially food provision) than through agriculture. A respondent remarked, *In this community farming is our main work and people think we the youth should be doing farming. So if you are doing your own farm or going to farm with your parents, then many people will be nice to you. They will praise you for helping your parents and tell you to continue. But if you are lazy or you are not going to farm then people and even your family members in the community will not like you at all.* Contrary, most of the respondents indicate people close to them may not want them to engage in farming because there is little financial rewards it.

When respondents were further asked to tell who most supports their involvement in agriculture, out of the 241 respondents 142 (58.9 percent) said they received support such as praise and guidance from their parents (mother/father), 75 (31.1 percent) mentioned their spouse (wife/husband), 19 (7.9 percent) said friends and the remaining five (2.1 percent) credited it to their uncles and siblings. This partly agree that young people's general inclination to involve in agriculture may directly or indirectly be in consonance with parental aspirations for their children (Anyidoho et al., 2012; Noorani, 2015; Zakaria et al., 2015). The results also suggest that respondents' parents may want their children to involve in agriculture as against what Proctor and Lucchesi (2012)



report that in some localities young people want to go into farming, but they are discouraged by the family.

Table 4.12: Social support for youth

Have social support	Frequency	Percent
Yes	241	80.3
No	59	19.7
Total	300	100.0
Source of approval		
Parents	142	58.9
Spouse	75	31.1
Friends	19	7.9
Other	5	2.1
Total	241	100.0
Source of disapproval		
Parents	4	6.8
Spouse	6	10.2
Friends	45	76.2
Other	4	6.8
Total	59	100.0

Source: Field survey, 2017

On the other hand, out of the 59 (19.7 percent) respondents who do not receive the support of their significant others to participate, 45 (76.3 percent) said the disapproval came from friends, six (10.2 percent) mentioned spouse (wife/husband), four (6.8 percent) said parents (mother/father) and four (6.8 percent) mentioned siblings. This indicates that respondents' friends mostly tend to disapprove or discourage their involvement in farming.



4.5.3 Access to productive resources

Youth access to or possessing of some productive resources such as land, credit facilities, modern technology, improved inputs, knowledge and skills, storage facilities and market in the study area are respectively analyzed as follows.

4.5.3a Access to land

Land is an important resource in almost all agricultural production. Thus, the inability of persons involved or interested in agriculture to have access to this vital resource should be seen as a serious problem. The findings of the study (Table 4.13) show that access to land is not a major problem for the youth. As an overwhelming majority of respondents 279 (93.0 percent) said they have access to land for agricultural activities. As one respondent mentioned, *I don't think land is a problem for the youth who are farming or want to farm.* Majority of the youth said their parents or family have lands that they use for farming activities. There were few respondents who said they rent land from other sources such as chiefs and friends. The fact that majority of young people believes that access to land in their localities is not a major constraint in farming is refreshing. This result perhaps confirms the claim that there is abundant land in the three northern regions (SADA, 2010). Indeed, the young people's belief about land accessibility in their areas cannot be doubted even as it aligns with the common view that there is ample land in this part of the country. However, it offers an opportunity to provide further reasons that may account for this outcome. Naturally, in a situation where many young people experience some perceptual and resource constraints, particularly regarding access to finance, storage facilities and modern farm implements, it may be difficult for them to earnestly seek to acquire new lands or expand the farms beyond the often small family lands which are easily available for use. This reflects the subsistent nature of farming; since production is mainly for consumption getting small



plots of land for cultivation may not pose a major challenge. Land acquisition often becomes somehow difficult when the motive for production is commercial as some respondents claimed. Also, majority of the youth respondents engaged in family farms so they may not bear the ultimate responsibility of acquiring land for farming activities. The results could also mean that many producers (young people and their families), other than the respondents in this study continue to cultivate small plots of land just as shown in Table 4.7; once this happens demand as well as difficulties associated with land for agricultural purposes reduces.

Table 4.13: Youth access to land

Access to land	Frequency	Percent
Yes	279	93.0
No	21	7.0
Total	300	100.0
Reason for lacking access		
Land is too expensive to rent or own	11	52.4
Land is just not available for farming	1	4.8
I am too young to have my own land	3	14.3
Other reasons	6	28.5
Total	21	100.0

Source: Field survey, 2017

The data show that only 21 (7.0 percent) respondents say access to land is a challenge. Of this number, 11 (52.4 percent) indicate the main reason for not having access to land is that land is too expensive to rent. According to some of these respondents, they or their parents always have to give at least one-third of their farm produce or its equivalent in monetary value to their landowners at each harvest. They consider this



practice of getting land for farming as very expensive since they do not make much money from farming. Proctor and Lucchesi (2012) have argued that renting or borrowing land is expensive in Ghana. Three (14.3 percent) of respondents attributed their lack of access to land to they being seen as too young to land, one (4.8 percent) said land was not just available to farm, while the remaining six (28.5 percent) gave reasons such as they do not find fertile land.

4.5.3b Access to credit

Credit, in terms of money, remains a vital resource required to effectively undertake agricultural production. Therefore, the availability and accessibility of credit facilities may lead to expansion of farm activities and increase farm profitability. Table 4.14 shows that the percentage of respondents with access to credit is very low (18.7 percent), while large majority (81.3 percent) do not have access to credit facilities.

Table 4.14: Youth access to credit

Access to credit	Frequency	Percent
Yes	56	18.7
No	244	81.3
Total	300	100
Reason for lacking access		
High cost of borrowing	124	50.8
Lack of information on where to find the credit	50	20.5
Conditions for obtaining credit are very high	55	22.5
Other reasons	15	6.2
Total	244	100.0

Source: Field survey, 2017



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The 244 (81.3 percent) respondents who had no access to credit facilities gave the following reasons for their lack of access. Majority (50.8 percent) of respondents claim that moneylenders (such as banks, credit unions and individual lenders) often ask them to pay between 40 to 60 percent interests on money they try borrowing. As a result of this, they are not able to take such credit facilities. A responded stated, *We the youth need money to farm, but you cannot collect money from bank or people who give loans. When you take the money and it is time to pay, you will sell all your crops but if you are not lucky you cannot pay back.* Additionally, 22.5 percent of respondents indicates the reason for not having access to funding is lack of information on where to find the credit, and 20.5 percent say they are unable to meet the conditions for obtaining credit such as cumbersome procedures and need for collateral. Finally, the remaining 6.2 percent give reasons including their total lack of interest in seeking credit facilities and non-availability of a bank and other financial institutions in their localities. The MOFEP (2013) acknowledges that access to credit is very difficult in the district and also the district is yet to have a bank. Most of the respondents, particularly those who operate their own farms, bemoaned the fact because they are unable to access financial resources they are not able to buy such inputs like fertilizer, pesticides and weedicides for their farms. Others also lamented that this could not allow them to cultivate large farms since they are not able to hire tractor or human labor to work for them. Moreover, some the respondents said they desired to have their own farms in addition to helping in their family/parents farms but for the lack of access to financial resources they could not do so. The results presented in Table 4.17 thus agree that access to credit remains a big difficulty for young people in the agricultural sector (Adekunde, 2009). It further suggests as AGRA (2015) reveals that young people have been viewed by financial



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institutions (like banks) as high-risk clients because they have little security or assets that can be used as collateral to access credit or loans.

4.5.3c Access to modern technology

The use of modern technology and tools such as tractor services (harrower/plough, planter and combine-harvester) and other computer technology help reduce the drudgery associated with agriculture. The appraisal of respondents' access to modern technology (Table 4.15) show that 126 (42.0 percent) of respondents have access to modern technology. The respondents indicated that the only modern technology they have access to is the tractor. The tractor is employed to till the entire farm land or part of the land being cultivated. Nonetheless, most of the respondents said tractors were not easily available and the few that were available charged fees that many people were not able to afford.

Table 4.15: Youth access to modern technology

Access to technology	Frequency	Percent
Yes	126	42.0
No	174	58.0
Total	300	100
Type of technology having access		
Tractor	126	100.0
Total	126	100.0

Source: Field survey, 2017

On the contrary, the results show that 174 (58.0 percent) of respondents do not have access to the basic form of modern technology like the tractor. The results in Table 4.15 therefore may be said to be consistent with the findings of Adekundu (2009) that



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established the youth lack access to many of the modern tools used in agriculture. Many of the respondents indicated that because they do not have tractors to clear their lands they make small farms. Others also believed that because they had to prepare farm lands with hoes and cutlasses, they were not able to have a separate farm for themselves. As a respondent asserted, *If you can get a tractor to work for you, then your parents can have their farm and you can have yours too; You will not spend all your time and energy doing only your parents farm.* This result suggests the Agricultural Mechanization Service Centers (AMSEC) program initiated by the government of Ghana so that agricultural mechanization services can be made readily available in a timely and affordable manner to the majority of rural farmers (Benin et al., 2011) need to be sustained and enhanced.

4.5.3d Access to improved inputs

Access to basic inputs like fertilizer and improved seeds is believed to be important to rural farmers. These are some of the fundamental things they often demand from policymakers. Table 4.16 indicates that only 83 (27.7 percent) of respondents have access to these agricultural inputs. Among the eighty-three respondents, the majority (61.4 percent) has access to fertilizer (inorganic), 26.5 percent have access to improved seeds, and 12.1 percent have access to both fertilizer and certified seeds. This means that the 83 respondents have access to at least one type of agricultural input, and inorganic fertilizer is the leading input respondents say they have access to. Even among those who have access to improved inputs such as fertilizer, some complained that it was not adequate. For example, some respondents said they often buy certain quantity of fertilizer which retailers repackage into smaller transparent polythene bags or sometimes measure with a container.



Table 4.16: Youth access to inputs

Access to inputs	Frequency	Percent
Yes	83	27.7
No	217	72.3
Total	300	100.0
Type of inputs having access to		
Certified/improved seeds	22	26.5
Fertilizer (inorganic)	51	61.4
Both fertilizer and certified seeds	10	12.1
Total	83	100.0

Source: Field survey, 2017.

The data also show that 217 (72.3 percent) of respondents have no access to neither fertilizer nor improved seeds or planting materials. Many of the respondents believe that because they do not have access to fertilizer they were getting small amount of yields from their farms. The findings confirm that of Afande et al. (2015) that youth have limited access to herbicide, fertilizer, and pesticide. The data also seem to echo the findings of Benin et al. (2011) that suggest the fertilizer subsidy program introduced by government of Ghana in order to increase crop yields and production, to raise the profitability of farm production, and to improve private sector development in the fertilizer market has not significantly changed the situation of youth lack of access to agricultural inputs. A respondent seemed deeply concerned when she said, *I know the government has been giving people fertilizer but I don't get some. If the government or some NGOs can help us and give fertilizer and proper seeds to us we can get a lot of profit from the farm.* Well implemented Modernizing Agriculture in Ghana (MAG) programme (GSS, 2017) may address some of these concerns.



4.5.3e Agricultural knowledge and skills

The results of the study show that, 211 (70.3 percent) of the total respondents believe they have the knowledge and skills to improve their agricultural output, and only 89 (29.7 percent) believe they do not have the knowledge and skills required to enhance farm productivity.

Table 4.17: Youth possessing agricultural knowledge and skills

Have knowledge and skills	Frequency	Percent
Yes	211	70.3
No	89	29.7
Total	300	100.0
Source of knowledge and skills		
Extension officers	10	4.7
Radio/television	11	5.2
Formal training/education	35	16.6
Parents (mother/mother)	146	69.2
Other (specify)	9	4.3
Total	211	100.0

Source: Field survey, 2017

Out of the 211 respondents who have the knowledge and skills, majority 146 (69.2 percent) obtained it from their parents, 35 (16.6 percent) from formal training, 11 (5.2 percent) from radio/television, 10 (4.3 percent) from extension officers and the remaining nine (4.3 percent) from sources like friends, personal reading and uncles. In the words of a respondent, *Yes, I have knowledge and skills in farming. I learned how to do farming from my parents, but I also learned some from school. This has helped me to manage my farm well.* The data is not consistent with the perception that majority



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of the youth in the study area lack or have inadequate knowledge and skills to effectively manage or participate in agriculture. For example, it is revealed that youth have not been a strong focus of the block farms program in Ghana as it was conceived, because, being relatively inexperienced, the youth are considered a riskier venture in terms of being able to properly manage the farm and inputs and services given to obtain decent yields and be able to pay back (Benin et al., 2011). However, the information in the table above affirms that the capacity of the youth in agriculture can be developed through various ways, such as formal, non-formal and/or informal education, training, on-the-job-training, and independent reading (AGRA, 2015). The findings in Table 4.17 suggest the youth should not always be seen as lacking experience and as riskier venture to be able to properly manage farms and inputs and services given them to realize decent returns in agriculture, rather their capacity can be enhanced just like adult farmers or cultivators.

4.5.3f Access to storage facilities

Access to improved storage facilities is important to reduce postharvest losses and preserve crop quality for market and consumption. The findings (Table 4.18) show that access to improved storage facilities is a problem. An overwhelming 227 (91.3 percent) of respondents have no access to improved facilities. Most of the respondents revealed that they store their crops (cereals and peanuts) in sacks/bags and then keep in their personal or other people's rooms or any convenient place. Some of the respondents usually treat the crops (especially maize, beans and groundnut) with chemicals before they are put in bags. This is largely done to preserve the crops for a longer time or to prevent them from being destroyed by some crop pests and rodents. Unfortunately, this method of storage and the general lack of access to proper storage facilities lead to post-harvest losses and other cost for the farmers. Many of the youth asserted that they



sometimes they observe discoloration of their produce (maize) because they do not have proper storage facilities. The respondents said this reduces the quality of the farm product and makes it unattractive to buyers. Even where traders or consumers are interested in the discolored produce, they buy it at very low prices. Thus, the respondents said they or their parents are often forced to sell off most of their farm products even when prices are low on the market since they have no proper places for storage. This situation sometimes compels some of the respondents to reduce the size of their farms in order not to produce much for it to go waste or sold cheaply. As one respondent said, *If you can't get a good place to store your crops, then you have to reduce the size of your farm. Farming is hard and it costs a lot of money. I think the government should come and help get a place to store our crops like they do to cocoa farmers so that we can sell the crops when the price is good.*

Table 4.18: Youth access to storage facilities

Access to storage facilities	Frequency	Percent
Yes	23	7.7
No	277	92.3
Total	300	100
Type of storage facility		
Warehouse/storeroom	21	91.3
Other facility	2	8.7
Total	23	100.0

Source: Field survey, 2017

Among the 23 (7.7 percent) respondents with access to improved storage facilities, 21 (91.3 percent) said they have a well-ventilated and dedicated storeroom to store crops, especially cereal crops, and the remaining two (8.7 percent) have “other facility” which





may be described as *grain-shed* (constructed with wood and roofed with thatch/zinc sheet). www.udsspace.uds.edu.gh

4.5.3g Access to market

Access to market can involve physical access to market, good prices of products and quality of products that buyers accept. From the Table 4.19, it can be seen that market accessibility is high (81.0 percent). The high level of access to physical market may be attributed to the fact that majority of respondents came from localities which have been identified among the eight marketing outlets in the district (GSS, 2014a). This is corroborated by what a respondent said, *We have a market here and market women always come to buy things. Some give low price but we take it like that.*

Table 4.19: Youth access to market

Access to market	Frequency	Percent
Yes	243	81.0
No	57	19.0
Total	300	100.0
Reason for lacking access		
Poor road network to market place	10	17.5
Low price of commodities/services	40	70.2
Low quality products	7	12.3
Total	57	100.0

Source: Field survey, 2017

Of the 57 (19.0 percent) respondents who indicate they do not have access to market, the following reasons have been given. 40 (70.2 percent) complain of low price of commodities/services, 10 (17.5 percent) point to poor road network to market place and

seven (12.3 percent) say www.udsspace.uds.edu.gh their lack of access to market is as a result of low quality products they produced. The distribution of respondents view on existence of market difficulties appear to agree with Choudhary et al. (2015) that price volatility poses the most important market risk facing agricultural participants in Ghana.

4.6 Prospects of Youth Participation in Agriculture

This final section of the results and discussion looks at the prospects of youth involvement in agriculture. Principally, youth intent regarding their continuous stay or otherwise in the farms is presented here. An analysis on the relationship between the youth intent and the challenges they face in agriculture, the benefits of being involved in farming and their background characteristics is also done. Finally, respondents' views of on how to enhance their involvement in agricultural activities as well as their willingness to encourage friends to partake in farming are given.

4.6.1 Youth intent to continue participation in agriculture

Understanding the intent of the youth regarding their future involvement in farming activities in their communities is imperative. As Ajzen (1991) concludes that barring any other conditions, people are most likely to do what they intend doing. The Table 4.20 therefore presents respondents' view on whether they plan/intend to (or not to) continue to participate in agriculture. Out of the 300 respondents, majority 188 (62.7 percent) said they plan/intend to remain involved in the cultivation of crops and rearing of animals in their locality. Among those planning to keep on doing farming, the study reveals that as high as 80.5 percent were likely to increase their activities mainly in the family farms. The personal farms followed with 15.3 percent and only 4.2 percent anticipate working in other persons' farms. Also, most of those who plan to invest in their own farms desire to engage in crop production. The results agree with the findings of Ayidoho et al. (2012) and Naamwintome and Bagson (2013) that majority of the



youth are willing to continue to engage in farming. The main reason given by most respondents for their willingness to remain engaged in farming is the fact that it offered them the best opportunity to provide food for themselves and their families.

Table 4.20: Youth intent to continue participation in agriculture

Plan/intent on continued participation	Frequency	Percent
Yes, I intend to continue participation in agriculture	188	62.7
No, I don't intend to continue participation in agriculture	112	37.3
Total	300	100.0

Source: Field survey, 2017.

Among the 122 (37.3 percent) respondents who plan to cease doing agriculture, 25 (22.3 percent) of them said they plan doing this in about two years', 18 (16.1 percent) expect to do so within three to four years' time, and 12 (10.7 percent) hope to exit farming in about five years' time. The remaining 57 (50.9 percent) of respondents said they do not know when they will stop their involvement in agriculture. Among the major reasons given by the respondents for their decision to vacate the farms were: risks associated with farming (irregular rainfall, unstable prices of produce, and destruction of farms by crop pests and diseases), lack of or inadequate storage facilities, lack of funding for farming, and that farming does not help them meet most of their financial needs. Interestingly, most of the respondents who desired to leave farming in the study area also planned to migrate and relocate to towns such as Kumasi, Accra, and Tamale. However, few of these respondents were ready to relocate to areas (particularly farming communities in the Brong Ahafo and Ashanti Regions) where they believe farming is very profitable and could be done all-year round. Thus, these respondents believe that moving to other towns will help them to secure jobs or do regular farming which will improve their lives. For Anyidoho et al. (2012), young people may seek distance



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opportunity when they believe leaving home to work or farm elsewhere holds prospects of greater cash income and other resources than they might have in their places of origin. The fact that a significant number of respondents in the study area intend to leave farming lends credence to the report (Daily Graphic, 2015) that the agricultural sector faces collapse in that a great number of youth are turning away from farming and other agricultural activities. The WFP (2012) has reported that the most common constraints on agricultural output in the study area are migration of people at the beginning of rainy season and inadequate labor in farms. The findings suggest that migration of the youth from the study area inevitably results in a significant number of the youth leaving farming.

4.6.2 Youth intent to continued participation in agriculture and their attitudes towards agriculture

Table 4.21 shows whether youth's attitudes towards agriculture have impact on their intent to continue participation in agriculture. The Chi-square tests reveal that apart from youth's attitude that agriculture is a high risk work (p-value 0.012), all other attitude indicators such as agriculture is an enterprise or work for the aged (p-value 0.124), agriculture gives extremely low financial returns (p-value 0.254), agriculture has few employment or work opportunities (p-value 0.351), people who engage in agriculture are not respected (p-value 0.712), agriculture is a work for the uneducated or unskilled (p-value 0.308) had no significant relationship with intention to or not to continue participation in agriculture as shown in Table 4.21. Only the youth who perceive agriculture as a high risk work are more likely to stop involvement in agriculture. It can therefore be inferred that youth intent to or not to stop engaging in farming activities could not be related to their attitude towards agriculture as an enterprise for the aged, giving extremely low financial returns, having few employment



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opportunities, people who engage in agriculture are not respected, and a work for the uneducated or unskilled. This may be expected because, as indicated earlier, most of the respondents consider their involvement in farming as a family duty that result in food security for the family as well. In that sense, it may be difficult for the youth to choose to leave farming merely on the bases of such perceptions as it being work for the aged or having limited work openings. Also, the analysis reveals an interesting fact that although many young people may perceive farming as proving extremely low financial returns (Table 4.11), it is only those who are involved in farming mainly for “improved incomes” (Table 4.10) that are most likely to leave farming (4.24). This further explains why many the youth perceive farming as offering extremely low financial returns yet it not necessarily related to their intent to or not continue with farming. However, the risks in the agricultural sector in Ghana (MOFA, 2007; Choudhary et al., 2015) appear to have major impact on youth’s continued stay in agriculture. The youth may try to avoid agriculture owing to the risks involved (FAO, 2012). This finding also agree with Zakaria et al. (2015) that students’ (mostly young people) intention to engage in self-employment in agribusiness is influenced by their perception of risks.



Table 4.21: Relationship between youth intent to continue participation in agriculture and attitudes towards agriculture

Attitude	Chi-square (χ^2) Test		
	Value	Df	P-value
Agriculture is an enterprise or work for the aged (elderly)	7.225	4	0.124 ^{n.s}
Agriculture gives extremely low financial returns	5.344	4	0.254 ^{n.s}
Agriculture has few employment or work opportunities	4.427	4	0.351 ^{n.s}
Agriculture is a high risk work	12.916	4	0.012*
People who engage in agriculture are not respected	2.127	4	0.712 ^{n.s}
Agriculture is a work for the uneducated or unskilled	4.806	4	0.308 ^{n.s}

Source: Field survey, 2017. *means significant at the 0.05 level; *n.s* means not significant ($p>0.05$).

4.6.3 Youth intent to continue participation in agriculture and social support

Table 4.22 shows that among the 59 respondents who lack social support to play a part in agriculture, majority (61 percent) intend to continue partaking in agriculture and only 39 percent plan to stop their contribution in agriculture. Similarly, of the 241 who have the social support, only 36.9 percent intend to stop participation in agriculture but the remaining majority (63.1 percent) plan to remain in farming. A Chi-square test, as shown in Table 4.22, found no significant difference between the youth intending to carry on with farming activities and those who do not, based on the availability of social support (p-value 0.770). This means that the tendency of the youth leaving or staying in agriculture is probably not dependent on any social support or pressure. The result does not confirm Ajzen's (1991) conclusions on the effect of social pressure on a person's intention. The central reason for this result could be attributed to the massive



encouragement or approval young people already enjoy from their significant others in the study area.

Table 4.22: Relationship between youth intent to continue participation in agriculture and social support

	Intend to continue participation		Total		Chi-square (χ^2) Test		
	Yes	No	%	Freq.	Value	df	P-value
Social support							
Yes	63.1	36.9	100.0	241			
No	61.0	39.0	100.0	59	0.085	1	0.770 ^{n.s}
Total	62.7	37.3	100.0	300			

Source: Field survey, 2017. *n.s* means not significant ($p>0.05$).

4.6.4 Youth intent to continue participation in agriculture and access to productive resources

Table 4.23 presents Chi-square tests on access to land, credit, technology, inputs, knowledge and skills, storage facilities, market and intent to or not to stay in agriculture. The results show that besides improved storage facilities (p-value 0.048), there is no significant difference between youth intending to discontinue involvement in agricultural activities and those who do not, based on access to the other productive resources: land (p-value 0.097), credit (p-value 0.738), modern technology (p-value 0.816), improved inputs (p-value 0.181), knowledge and skills (p-value 0.172) and market (p-value 0.408).



Table 4.23: Relationship between youth intent to continue participation in agriculture and access to productive resources

Productive resources	Chi-square (χ^2) Test		
	Value	Df	P-value
Access to land	2.751	1	0.097 ^{n.s}
Access to credit	0.112	1	0.738 ^{n.s}
Access to modern technology	0.054	1	0.816 ^{n.s}
Access to improved inputs	1.789	1	0.181 ^{n.s}
Knowledge and skills	1.865	1	0.172 ^{n.s}
Storage facilities	3.920	1	0.048*
Access to market	0.685	1	0.408 ^{n.s}

Source: Field survey, 2017. *means significant at the 0.05 level; ^{n.s} means not significant ($p>0.05$)

The findings thus suggest that youth access to land, credit, modern technology, improved inputs, market, and agricultural knowledge and skills are more likely to improve youth involvement in farming activities but may not be important factors for their decision to leave or remain in farming.

Thus, the view that the youth who lack the knowledge and skills necessary for successful farming will continue to avoid farming (Mwangi et al., 2003) was not supported. The results do not agree with Bezu and Holden (2014) who found that young people abandoned agriculture for their lack of access to land. Again, the supposition that the more resources and opportunities individuals believe they possess, and the fewer obstacles or impediments they anticipate, the greater should be their intention to participate in the behavior (Ajzen, 1991) could not be wholly supported by the study since the youth who had access to resources and those who did not showed almost



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similar behaviors in many of the variables except access to storage facilities. The result should not be surprising because a significant number of youths are involved in family farms where the ultimate decisions regarding farming activities rest with the parents. This is particularly so for the young people who still live with their parents and are under their control. For example, hardly will any young person involved in family farms decide on their own to stop engaging in farm work because the family has no access to certain resources like land, modern technology, inputs, market and credit facilities. Also, as revealed land is not major constraint facing young person in farming in the study area.

4.6.5 Youth intent to continue participation in agriculture and benefits types

From Table 4.24, 67.6 percent of respondents who recognize improved incomes as the main benefit of they being involved in agriculture and 52.3 percent of those who consider the main benefit of engaging in farming as contribution to increased agricultural productivity for prestige intends to stop involvement in agriculture. Only 29.0 percent of respondents from “food security” category intend to discontinue doing farming. Among the respondents who have no intent to leave agriculture, majority (71.0 percent) belongs to the category who perceives “food security” as the main benefit of contributing to the production of crops and animals.



Table 4.24: Relationship between youth intent to continue participation in agriculture and types of benefits

Benefit types	Intend to continue participation		Total		Chi-square (χ^2) Test		
	Yes	No	%	Freq.	Value	df	P-value
Improved income	32.4	67.6	100.0	40			
Food security	71.0	29.0	100.0	216	24.023	2	0.000*
Increased output for prestige	47.7	52.3	100.0	44			
Total	63.0	37.0	100.0	300			

Source: Field survey, 2017. *means significant at the 0.01 level

The chi-square test shows there is a significant difference between the youth who are planning to continue to assist in farming activities and those who do not, based on their views on the benefits of involvement in the crop growing and animal rearing (p-value 0.000). Thus, the youth who see the main benefit of their participation in agriculture in the study area as food security or provision of food are more likely to continue to engage in the cultivation crops and raising of animals whereas those who think the main benefit of they being involved in agriculture are generation of/improved incomes and contribution to increased agricultural output for social esteem are more likely to exit agriculture. The result affirms the views expressed by some of the youth that they will migrate to other localities to look for work (including farm work) that can pay them well. The findings also tend to agree with SACAU (2013) that to keep the youth in agriculture, they should be steered towards those fields of agriculture where financial returns are quick.



4.6.6 Youth intent to continue participation in agriculture and background characteristics

The effect of respondents' background characteristics on their intention to discontinue engagement in farming activities is presented in Table 4.25. Among the five related characteristics, only gender was found to be significantly related to intention to stop involvement in agriculture (p-value 0.000), and all the other characteristics, namely age (p-value 0.657), marital status (p-value 0.217), educational level (p-value 0.311) and employment status (p-value 0.232) were not significantly associated with intent of ending any contribution to the production of crops and animals. It was found that within the gender, more males (52.6 percent) intended to leave farming and 47.4 percent intended to carry on with agricultural activities. Contrary, few females (21.2 percent) planned to end their activities in agriculture while 78.8 percent intended to continue partaking in farming.

Table 4.25: Relationship between youth intent to continue participation in agriculture and background characteristics

Background characteristics	Chi-square (χ^2) Test		
	Value	Df	P-value
Gender	31.513	1	0.000*
Age	0.840	2	0.657 ^{n.s}
Marital status	3.057	2	0.217 ^{n.s}
Level of education	3.579	3	0.311 ^{n.s}
Employment status	4.291	3	0.232 ^{n.s}

Source: Field survey, 2017. *means significant at the 0.01 level; **n.s** means not significant ($p > 0.05$).



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The claim that youth with higher education are more likely to leave agriculture (Sharma, 2007) could not be supported by the study.

4.6.7 Enhancing youth participation in agriculture

The Table 4.26 below shows the views of respondents on the ways to enhance youth involvement in farming activities in their localities. From Table 4.26, a total of 514 responses were provided by the 300 respondents. The findings reveal that the most mentioned way to enhance youth participation in agriculture is access to credit (43.8 percent) while the least mentioned way to encourage contribution to farming is access to land (2.3 percent). The data (Table 4.26) provide other important details which need to be observed. Although majority of respondents acknowledge the lack of access to storage facilities as the greatest constraint facing the youth in farming in the study area (Table 4.18), it is not mentioned as the topmost thing required to enhance their involvement in agriculture (Table 4.26). Instead, the respondents prioritized access to credit, fertilizer, tractor, and good prices of farm produce. This should not be startling in that it appears the immediate concern of most farmers (including the youth) is how to increase production in order to ensure food security, improved incomes and enjoy the other benefits (such as prestige) that come with plentiful harvest (Tables 4.6 and 4.10). Therefore, most of the respondents believe that having access to capital (credit facilities) is the most important approach to boost their involvement in agriculture since this could help them hire tractor, buy the inputs and even construct improve storage facilities. Here is what one respondent said, *With money we can solve a lot of the problems we face in farming*. This may explain why majority of the responses favour the provision of credit facilities as a means to improve youth involvement in agricultural activities in the study area.



Table 4.26: Suggested ways of enhancing youth participation in agriculture

Enhancing participation in agriculture	Frequency	Percent
Access to credit	225	43.8
Access to agricultural inputs (fertilizer)	89	17.3
Access to modern technology (tractor)	72	14.0
Good market prices for agric. products/services	71	13.8
Access to storage facilities	27	5.3
Support/encouragement to the youth	18	3.5
Access to land	12	2.3
Total	514	100.0

Source: Field survey, 2017. Multiple responses applied.

Interestingly, but not surprisingly, the youth did not mention irrigation facility as a means of enhancing their participation in agriculture. This could be as result of a general wrong perception of associating irrigation facilities to the production of mainly vegetables which is not the main agricultural activity of the respondents. As shown in Table 4.7, respondents primarily engaged in the production cereal crop which is traditionally based on rain-fed. Notwithstanding the inadequate list given by the respondents to enhance their participation, the study observes and acknowledges the need to pursue other ways including the provision of irrigation and dam systems (such as One-Village-One-Dam) which could ensure intense diversified and all-year agricultural activities such as vegetable and fish production.

4.6.8 Youth's willingness to encourage participation

Table 4.27 represents the respondents view on whether they would encourage their peers to take up agriculture. The results show that out of the 300 respondents, 217 (72.3 percent) are willing and 35 (11.7 percent) are not willing to encourage others to go into



agriculture. There were 48 (16.0 percent) of the respondents are not certain (“don’t know”) whether they would encourage others to participate in farming.

Table 4.27: Willingness of youth to encourage participation in agriculture

Willing to encourage participation	Frequency	Percent
Yes	217	72.3
No	35	11.7
Don't know	48	16.0
Total	300	100.0

Source: Field survey, 2017

It can be concluded from the findings that, majority (72.3 percent) of the respondents (youth) are willing to encourage their friends to go into agriculture. This must be seen as a good indication for the prospects of youth undertaking farming activities in the study area.

4.7 Conclusion

In this chapter, data collected from the respondents on the field have been analyzed using quantitative and qualitative methods. The quantitative data were expressed mainly in frequencies (numbers), percentages, and charts. Conversely, the qualitative analysis provided in-depth descriptions of particular research objectives or situations, and also served as complementing analysis to the quantitative data. Here, the narrative method was the main tool used for the qualitative analysis. On the whole, the analysis revealed certain patterns that confirmed or contradicted previous findings or showed entirely new insights for further studies.



SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the key findings from the study (primary data analysis), the conclusions drawn and the recommendations. There was a 100 percent response rate as a result of a careful face-to-face administration of questionnaire. The conceptual and theoretical frameworks used for the study were found to be largely sufficient in providing useful information on young people and their actions and decisions regarding participation in agriculture in the study area. Though, some of the variables in the frameworks were seen to be low predictors of youth intent about their future involvement in farming. In the first section (5.1), key findings of the study are presented. These include the background characteristics of respondents, the practice of agriculture, youth involvement in agriculture, the benefits of their participation, the challenges they face in doing agriculture and prospects of youth partaking in agriculture in the study area. The next section (5.2) is the conclusion, and it captures the final remarks of the findings of the study. The last section (5.3) is the recommendations which are based on the keys findings of the study.

5.1 Summary of Findings

The key findings of the study are summarized below.

5.1.1 Background characteristics of respondents

The youth who participate in agriculture in the study area were found to be made up of different background characteristics. There were more (51.3 percent) male youth in the study than female. The majority (47.3 percent) of respondents were within the age group 18 to 23 years. On marital status, it was established that 57.7 percent were





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single/unmarried. The data also revealed that majority (83.3 percent) of the respondents had at least basic (primary) school education. The information on respondents' employment status showed that a large proportion (62.4 percent) of respondents perceived themselves as unemployed.

5.1.2 The practice of agriculture

The findings reveal that majority of the respondents believe the main purpose driving the practice of agriculture in the study area is the need to provide food for oneself and their dependents. This view is shared by 95 percent of the respondents. The results show that crop farming is the core of agriculture in the study area as all the respondents are involved in the production of one or more crops. The study found that among the top five crops grown in the study area, maize is the leading crop, followed by groundnuts, sorghum, beans and millet. Also, majority (90 percent) of respondents cultivate farms with sizes less than five acres. The majority (97 percent) of respondents operate bush farms (farms located at bush land or outside settlement/residence). Mixed cropping is found to be the most preferred method of crop cultivation in the study area. The hoe and cutlass are the dominant implements used by respondents in crop production. It was also discovered that with respect to the inputs used in crop production, majority of respondents used seeds from their own/friends farm whereas the use of certified/improved seeds, inorganic fertilizer and agrochemicals (herbicide and insecticide) is very low. The results also revealed that respondents used various methods to store crops but the much used one is the storage in bag/sacks.

Regarding the production of animals (livestock and poultry), the following results were observed. It emerged that 261 (87 percent) of the respondents engaged in the rearing of animals, with 53.3 percent of them involved in poultry production and 46.3 percent keeping livestock. Goats are the main livestock reared, followed by sheep and "other

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livestock” such as pigs and rabbits. A large majority (88.5 percent) of the livestock keepers kept not more than 10 livestock on average. Also, a vast majority of livestock keepers adopt free range/extensive method in keeping their livestock. This means livestock are allowed to move about in the locality in search of food, water and other nourishment, no proper medication, and the animals have no proper housing unit. On the other hand, chicken (fowl) is the leading poultry reared, followed by guinea fowl and other poultry including duck. Over 96 percent of poultry keepers produce not more than 20 birds on average. Moreover, free range/extensive method was found to be the most preferred mode of keeping poultry.

5.1.3 Youth participation in agriculture

The results reveal that the main way of youth participation in agriculture in the study area is through the family farms (75.4 percent). This is followed by working in personal farms and the least is the sale of labour in other persons’ farms. It is also found that more females tend to participate in family farms while males are more inclined to engage in personal farms and sell labour to others on their farms. The middle-aged youth (24 to 29 years old) and older youth (30 to 35 years old) prefer to be involved in personal farms while more younger youth (18 to 23 years old) like to be in family farms. Again, the results show that the youth who are married and divorced/separated are inclined to cultivate their own farms whereas the single or unmarried work in family farms and sell labour. Besides, the respondents with tertiary education like to engage in personal farms, but most of the respondents with no education, basic education and secondary education are more leaned towards family farms. Most of the public employees are in personal farms, whereas most of the private employees, self-employed and unemployed are in family farms.



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Irrespective of whether youths are engaged in family farms, personal farms, or sell labour in other people's farms, they always make important contributions. The young people are actively engaged in land preparation, crop/seed planting, crop maintenance, harvesting and post-harvesting roles. Male youths tend to work much in preparing land such as clearing farm lands and making mounds, while female youths are mostly involved in planting and harvesting/post-harvesting activities. However, crop maintenance roles attract virtually equal attention by male and female youths due to the special importance farmers place on these functions. The nature of farm work and cultural practices seem to be the main factors which define farm roles among the male and female respondents in the study area.

5.1.4 Benefits of youth participation in agriculture

The findings show that the respondents acknowledged the benefits of youth participation in agriculture in their localities. The most frequent mentioned benefit of youth engaging in agriculture was the food security or provision of food (72.0 percent). The food which is produced could help feed family sizes ranging from two to over six persons for a minimum of three months and maximum of twelve months. The next common mentioned benefit was youth contribution to increase farm output for social esteem (13.3 percent). It was found that, as high as 60 percent of increased productivity in family farms could be attributed to the efforts of the youth. Improved incomes or financial benefit (14.7 percent) was the least mentioned benefit of youth involvement in agriculture. These respondents revealed that through their work in agriculture they could personally make at least GHC500 to 1500 or more which they spend mostly on items such as food, education, clothing and healthcare.



5.1.5 Challenges facing youth in agriculture

The study confirms the perception that the youth in the study area are faced with varying degrees of constraints covering unfavorable personal attitudes towards agriculture, lack of social support and lack of access to productive resources. Within the personal attitudes towards agriculture, the results revealed that the leading negative attitude young people have of agriculture was that it gives extremely low financial returns (76 percent), followed by the belief that people who engage in agriculture are not respected (73 percent), agriculture is a high risk work (65.1 percent), agriculture has few employment or work opportunities (62 percent), agriculture is a work for the uneducated or unskilled (18 percent) and agriculture is a work for the aged (15.7 percent).

On social support, only 19.7 percent of respondents did not have the support of their significant others like friends, spouses, and parents to participate in agriculture, but the majority (80.3 percent) had support. As regards to access to productive resources, the most reported challenge was the lack of access to modern storage facilities (92.3 percent), followed by the lack of access to credit facilities (81.3 percent) and lack of access to improved inputs (72.3 percent). The remaining resource constraints were lack of access to modern technology (58 percent), lacking agricultural knowledge and skills (29.7 percent), lack of access to market (19 percent) and lack of access to land (7 percent). In general, these challenges confronting the youth particularly, their lack of access to storage and credit facilities as well as modern implements affect their ability to expand the existing farm and or establish new farms. As a result, the youth are not able to adequately meet most of their social and economic needs from engaging in farming activities.



5.1.6 Prospects of youth participation in agriculture

The results suggest a high prospect of continued youth participation in agriculture in the study area. It was found that 62.7 percent of respondents plan/intend to continue participation in agriculture. Among the respondents intending to remain in agriculture, most (80.5 percent) of them plan to increase participation in the family farms, followed by personal farms, and few intend to increase their involvement in other people's farms. Also, most of the respondents who plan to mainly invest in their own farms desire to engage in crop production. For those 37.3 percent of respondents planning to leave agriculture, the majority *don't know* when they are likely to exit working in agriculture whereas the remaining respondents gave time period stretching from less than two to five years or above to cease participation in agriculture.

The findings further reveal that, besides the personal attitude towards agriculture as a high risk work, all other indicators of attitude were not significantly related to youth intent to continue involvement in agriculture. There was also no significant relationship between social support and the intent to continue participation in agriculture. Similarly, youth plan to continue to involve in farming was not dependent on their access or otherwise to many of the productive resources except access to storage facilities. There was a significant relationship between the types of benefits and the intent of the youth to sustain their contribution in agriculture; the youth who acknowledged the main benefits of their taking part in agriculture as improved incomes and increased productivity for social recognition are more likely to exit involvement in agriculture than those recognizing the main benefit of their participation in agriculture as food security. With the exception of gender, all the background characteristics were also not significantly associated with the intent of the about continued participation in agriculture. Thus, the male youth are more inclined to leave farming.



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The majority of all the respondents believe that the provision of credit facilities to the youth in the study area is the topmost way to enhance their involvement in agricultural activities. The next important way to improve youth participation is access to agricultural inputs (such as fertilizer), followed by access to modern technology (tractor service), good prices for agricultural products/services, access to storage facilities, social support, and access to land. The data show that 72.3 percent of the total respondents expressed their willingness to encourage their peers to contribute to agricultural production. Finally, the findings suggest that migration of the youth from the study area due to unmet aspirations from farming inevitably results in a significant number of the youth leaving agriculture.

5.2 Conclusion

The study clearly shows that agriculture (farming) in the study area remains largely traditional. Production is mainly on subsistence bases (producing to feed oneself and his/her dependents) and its practice is generally characterized by the production of crops with animals, mixed-cropping, smaller farm sizes, and the use of less efficient technology, inputs and storage methods. The majority of the youth involve in agriculture primarily through family farms. Most of the youth are faced with varying degrees of constraints ranging from negative personal attitudes towards agriculture to lack of access to productive resources. The findings also reveal that, notwithstanding all this, the youth recognize the benefits of their participation in farming, particularly as it ensures food security for themselves and their family. As a result, most of the youth express their willingness or intention to maintain their participation in agriculture, and many plan doing so mainly by increasing involvement in family farms. This exemplifies a high prospect of continued youth engagement in farming activities in the area. The majority of the youth are prepared to encourage their peers to take part in agriculture,



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and also believe that youth access to resources, especially credit, inputs (fertilizer) and modern technology (tractor) can boost participation in agriculture. Overall, the study observes that the youth are faced with many challenges in farming which need to be addressed, yet if most of these challenges were to be solved without addressing youths' fears about the risks in agriculture, lack of access to storage facilities and treating the youth separately based on their beliefs about the benefits of participation in agriculture, a significant proportion of them (particularly the male) could still be very much inclined to leave agriculture.

5.3 Recommendations

Given the findings of the study, the following recommendations are made to all stakeholders, particularly policymakers and NGOs, who are working or want to strengthen youth participation in agriculture in the Wa West district of Ghana:

1. Agriculture in the study area needs rapid but careful modernization. This means government may have to intensify its investment in agricultural infrastructure and equipment in the study area. In the interim, there is the need to increase tractor services in the respondents' localities. The reason being that until the circumstances that define the practice of agriculture such as the low level application of efficient technology, small farm sizes and low use of better inputs (like fertilizer) are resolved, farm outputs and profits are likely to remain relatively low despite the active participation of the young people. This can thus confine the youth perceptually and practically to subsistence farming. For instance, the findings show that youth access and use of resources like technology mainly depended on the locally available technology (cutlasses and hoes).



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2. The protection, promotion and strengthening of the *family farm* system will ensure that a significant number of the youth are guaranteed participation in agriculture in the study area. It was evident from the study that family farms form the foundation upon which young people get to involve in farming, receive agricultural knowledge and skills from their parents and learn to transit into participating in their personal/individual farms or sell labour in others' farms. Perhaps, it is high time the whole concept of *youth participation in agriculture* in the study area and across the country was redefined around the family farm systems. However, this may require further research.
 3. The high level of respondents' consciousness on the benefits of their involvement in agriculture as the provision of food (food security) in the study area should be maintained. Government may need to strengthen its flagship programme of PFJ as the young people seem to be greatly in sync with government efforts. However, beyond this the youth also need to be steered towards experiencing financial gains. It implies that the young people must be made to have the genuine feelings and beliefs that their involvement in farming activities has huge financial benefits for themselves and their families. The findings suggest that the youth may be having a "false" belief that their involvement in agriculture has really resulted in improved incomes. This possibly explains why those who identify the main benefit of their engagement in farming as improved incomes or financial benefits are also more inclined to leave the farms as compared to those in food security category. Therefore, institutions of state/government and NGOs that seek to encourage active participation of the youth in agriculture should at all times consider what the



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young people recognize as benefits of being engaged in agriculture when designing policies, programs, and projects.

4. A concerted effort is required from relevant agencies and bodies to continue to improve youths' attitudes towards agriculture and their access to productive resources so as to ease their difficulties in agriculture. For example, the youth need access to credit facilities, modern technology, and improved inputs. Also, youths' belief that agriculture gives extremely low financial returns, people who engage in agriculture are not respected, and that agriculture has few employment opportunities need to be addressed.
5. Finally, any effort aimed at preventing the youth from leaving agriculture and for that reason increasing the prospects of their continued involvement in farming activities in the study area may need to address many of the constraints facing the youth in agriculture and those that encourage their migration from their communities. Specifically, the following measures may be pursued without delay. Firstly, there must be concrete and conscious efforts to allay the fears of the youth that agriculture is a high risk (like risk of crop failure owing to inadequate or erratic rainfall, frequent attacks by crop pests and diseases, and lack of guaranteed market price for farm produce) to participate. Government and NGOs may need to pay attention to "agricultural insurance" and guaranteed market for producers. Secondly, youths' concerns about the lack of access to storage facilities must be addressed. This means government should not relent on its commitment to provide warehouses to reduce postharvest losses which is a major difficulty facing agricultural producers. Thirdly, the youth who perceive the main benefit of their participation in agriculture as improved incomes and increased agricultural productivity for prestige can be identified and treated



differently from those who perceive it from the viewpoint of food security/provision. Thus, if government's programme on PFJ is carefully and efficiently implemented could impact positively on youth being retained in the farms and other agricultural activities.



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Appendix A

UNIVERSITY FOR DEVELOPMENT STUDIES
FACULTY OF INTEGRATED DEVELOPMENT STUDIES
DEPARTMENT OF AFRICAN AND GENERAL STUDIES

This questionnaire is designed in an effort to solicit information from youth (18-35 years) to help conduct a study on the topic, “**Youth Participation in Agriculture in the Wa West District of Ghana: Benefits, Challenges and Prospects.**” The study is exclusively in partial fulfillment of an award of Master of Philosophy in Development Studies. Your shared opinion will be greatly appreciated. Your identity and all information gathered will be treated in the strictest confidentiality. Thank you very much for your participation.

Questionnaire ID:

Name of Interviewer:

Date of Interview:

Name of Community:

Section A: Background Characteristics of Respondents

A1	Gender.	Code only one
	Male	1
	Female	2

A2	What is your age?	Code only one
	18 – 23	1
	24 – 29	2
	30 – 35	3

A3	What is your marital status?	Code only one
	Single	1
	Married	2
	Divorced/Separated	3



	Widowed	4
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A4	What is the highest level of education that you have achieved?	Code only one
	No education	1
	Basic education (Primary and JHS)	2
	Secondary education (SHS/post-JHS vocational school)	3
	Tertiary (University/post-secondary training institutions)	4

A5	What is your current employment status?	Code only one
	Public employee (Government work)	1
	Private employee	2
	Private employee (agriculture)	3
	Self-employed (agriculture or non-agriculture)	4
	Unemployed	5

Section B: The Practice of Agriculture

Ask all

B1	What do you think is the main purpose driving the practice of agriculture in your locality?	Code only one
	Subsistence purpose (feed oneself and dependents)	1
	Commercial or profit-making purpose	2
	Other (specify)	3

Ask all

For the following agricultural activities carried out in your locality, please share your knowledge or experience on the particular agricultural activities/production that you usually take part in.



PRODUCTION TYPE (B2- CROP; B3- LIVESTOCK; B4- POULTRY). FOR EACH TYPE OF PRODUCTION SELECTED PLEASE ASK THE QUESTIONS BELOW. CHOOSE ONLY PRODUCTION TYPE THAT APPLY TO YOU.		
B2	Crop production	Record response
B2.1	Major crops cultivated. NOTE: 1=maize; 2=groundnut; 3=millet; 4=sorghum; 5=beans; 6=rice; 7=yam; 8=others (specify)]. CODE/RECORD ALL THAT APPLY	
B2.2	Farm size (acres). NOTE: 1=1-2.9 ac.; 2=3-4.9 ac.; 3= \geq 5 ac. CODE ONLY ONE.	
B2.3	Location of farm(s). NOTE: 1= compound/settlement farms; 2= bush farms; 3=both compound and bush farms. CODE/RECORD ONLY ONE	
B2.4	Crop growing method. NOTE: 1= mono-cropping (growing only one crop on the same piece of land at one time/season); 2= mixed cropping (two or more crops on the same piece of land at one season). CODE/RECORD ONLY ONE	
B2.5	Implements used in production. NOTE: 1=tractor; 2= hoe; 3=cutlass; 4=other (specify). CODE/RECORD ALL THAT APPLY	
B2.6	Inputs used in production. NOTE: 1=inorganic fertilizer; 2=seed from certified sources (e.g. NGOs, gov't); 3=other (specify). CODE/RECORD ALL THAT APPLY	
B2.7	Crop storage methods. NOTE: 1=improved methods (silos/warehouse/storeroom); 2=traditional methods (clay bins, woven grass bins, yam	



	racks/barn); 3=others (e.g. store in sacks and keep in own room/verandas). CODE/RECORD ALL THAT APPLY	
	Any other comments? RECORD ANY ADDITIONAL INFORMATION	
B3	Livestock production	Record response
B3.1	Major livestock kept. NOTE: 1=goats; 2=sheep; 3=other (specify). CODE ALL THAT APPLY	
B3.2	Average number of livestock. NOTE: 1=1-10; 2=11-20; 3=21-30; 4= \geq 31. CODE ONLY ONE	
B3.3	Method of keeping livestock. NOTE: 1=Extensive/free range (where livestock are permitted to move about freely in search of food and water); 2= Semi-intensive (livestock are allowed to spend part of their time in the open and part in housing units in a confined area); 3=Intensive (livestock are kept and catered for their whole life in housing units). CODE ONLY ONE	
	Any other comments? RECORD ANY ADDITIONAL INFORMATION	
B4	Poultry production	Record response
B4.1	Major poultry (birds) kept. NOTE: 1=chicken (fowls); 2=guinea fowls; 3=other (specify). CODE/ RECORD ALL THAT APPLY	
B4.2	Number of poultry. NOTE: 1=1-10; 2=11-20; 3=21-30; 4= \geq 31. CODE ONLY ONE	
B4.3	Method of keeping poultry. NOTE: 1=Extensive/free range (where poultry are permitted to move about freely in search of food and water); 2= Semi-intensive (poultry are allowed to spend	



	<i>part of their time in the open and part in housing units in a confined area); 3=Intensive (poultry are kept and catered for their whole life in housing units). CODE ONLY ONE</i>	
	Any other comments? RECORD ANY ADDITIONAL INFORMATION	

Section C: Youth Participation in Agriculture

Ask all

C1	In what way(s) do you get to participate in agriculture (farming)? READ OUT LIST	Code all that apply
	Family farm	1
	Personal/own farm	2
	People's farm (Sell labor in other people's farm)	3
	Other (specify)	4

Ask if code two or more answers at C1; else if code only one at C1 then code same response here

C2	Which is the main way that you get to participate in agriculture?	Code only one
	Family farm (agriculture)	1
	Personal/own farm	2
	Sell labor in other people's farm	3
	Other (specify)	4

Ask all

C3	Describe the role(s) you play in the following agricultural activities:	Record response
	a. Crop production	
	b. Animal (livestock or poultry) rearing	



Ask all

C4	On average, how many hours in a day do you spend working in the farm?	Code only one
	1 - 2 hours	1
	3 - 4 hours	2
	5 - 6 hours	3
	≥ 7 hours	4

Ask all

C5	How many days in a week do you work in the farm?	Code only one
	1 - 3 days	1
	4 - 5 days	2
	6 - 7 days	3

Section D: Benefits of Youth Participation in Agriculture

Ask all

D2	What do you consider as the main benefit of you being involved in agriculture? DO NOT READ OUT LIST	Code only one
	Improved incomes/generation of incomes	1
	Food security/provision of food	2
	Increased agricultural output for prestige (social esteem)	3
	Other (specify)	4



Ask if code 1 at D2

D3	What is your estimated annual income from agriculture? Annual income in (GH¢)	Code only one
	< 500	1
	500 to < 1000	2
	1000 to <1500	3
	≥ 1500	4
D4	Please mention any three of the uses of the money you make from farming.	
	i.	
	ii.	
	iii.	

Ask if code 2 at D2

D5	How many persons, including you, directly depend on the food or products you produce?	Code only one
	1 person only	1
	2 - 3 persons	2
	4 - 5 persons	3
	≥ 6 persons	4
D6	How long does this food or products usually last?	Code only one
	≤ 3 months	1
	4 - 6 months	2
	7 - 9 months	3
	10 - 12 months	4



Ask if code 3 at D2

D7	What percentage of agricultural output in the farm can be attributed to your efforts?	Code only one
	≤ 30 percent	1
	31 – 60 percent	2
	61 – 90 percent	3
	100 percent	4
D8	Can you describe the prestige or social status that come with the increased farm output?	Response:

Section E: Challenges Facing Youth in Agriculture

Personal attitude towards agriculture (Question E1)

Ask all

E1	For each of the following statements, please indicate the extent to which you agree or disagree with them. Please give your answers on the following scale: 5 Strongly agree 4 Agree 3 Neutral/undecided 2 Disagree 1 Strongly disagree READ OUT EACH STATEMENT. CHOOSE ONE CODE ON THE SCALE FOR EACH STATEMENT	
	Statement	Code here
E1.1	Agriculture is an enterprise or work for the aged (elderly)	
E1.2	Agriculture gives extremely low economic (financial) returns	
E1.3	Agriculture has few employment or work opportunities	
E1.4	Agriculture is a high risk work	
E1.5	People who engage in agriculture are not respected	
E1.6	Agriculture is an enterprise or work for the uneducated or unskilled	

Social support (Questions E2-E4)



Ask all

E2	Do people who are important to you (e.g. parents, spouses and friends) approve or support your participation in agriculture?	Code only one
	Yes	1
	No	2
	Why do you think they approve or disapprove your participation?	Response:

Ask E3 if code 1 at E2, or Ask E4 if code 2 at E2

E3	Who will you say most approves your participation in agriculture?	Code only one
	Parents (mother/father)	1
	Spouse (wife/husband)	2
	Friends	3
	Other (specify)	4
E4	Who will you say most disapproves your participation in agriculture?	
	Parents (mother or father)	1
	Spouse (wife or husband)	2
	Friends	3
	Others (specify)	4

Access to resources (Questions E5 – E18)

Ask all

E5	Do you have access to land for agricultural activities?	Code only one
	Yes	1
	No	2



Ask if code 2 at E5

E6	What is the main reason for not having access to land?	Code only one
	Land is too expensive to rent or own	1
	Land is just not available for farming/agriculture	2
	They say I am too young to have my own farm land	3
	Other (specify)	4

Ask all

E7	Do you have access to credit facilities?	Code only one
	Yes	1
	No	2

Ask if code 2 at E7

E8	What major difficulty do you see in accessing credit?	Code only one
	High cost of borrowing	1
	Lack of information on where to find the credit	2
	Conditions for obtaining credit are very high	3
	Others (specify)	4

Ask all

E9	Do you have access to modern agricultural technology or implement such as tractor services	Code only one
	Yes	1
	No	2

Ask if code 1 at E9

E 10	What type of technology do you have access to?	Code all that apply
	Plough/harrower	1
	Combine harvester/thresher	2
	Planter	3
	Other (specify)	4



Ask all

E 11	Do you have access to agricultural inputs (certified/ improved seeds or fertilizer)?	Code only one
	Yes	1
	No	2

Ask if code 1 at E11

E 12	What type of input(s) do you have access to?	Code only one
	Certified/improved seeds	1
	Fertilizer (inorganic)	2
	Both certified seeds and fertilizer	3

Ask all

E13	Do you have the knowledge and skills to better involve in agriculture?	Code only one
	Yes	1
	No	2

Ask if code 1 at E13

E14	What is your main source of knowledge and skills?	Code only one
	Extension officers	1
	Radio/television	2
	Formal training/education	3
	Parents (mother/mother)	4
	Other (specify)	5

Ask all

E15	Do you have access to modern/improved storage facility?	Code only one
	Yes	1
	No	2



Ask if code 1 at E15

E16	What type of storage facility is it?	Code only one
	Warehouse/storeroom	1
	Silo	2
	Other (specify)	3

Ask all

E17	Do you have access to market for your produce and/or labor?	Code only one
	Yes	1
	No	2

Ask if code 2 at E17

E18	What is the major constraint to accessing market?	Code only one
	Poor road network to market place	1
	Low price of commodities/services	2
	Low quality products	3
	Other (specify)	4

Section F: Prospects of Youth Participation in Agriculture

Ask all

F1	Do you plan/intend to continue participation in agriculture?	Code only one
	Yes, I plan/intend to continue participation in agriculture	1
	No, I plan/intend not to continue participation in agriculture	2



Ask if code 2 at F1

F2	Can you explain why? And what you intend doing next?	Response:
F3	When do you plan to stop participation in farming?	Code only one
	≤ 2 years' time	1
	3 - 4 years' time	2
	≥ 5 years' time	3
	Don't know	4

Ask if code 1 at F1

F4	How do you intend to maintain your participation in agriculture? Please give your answers on which one of the following you are likely to increase participation: READ OUT AND CODE ONLY ONE.	
		Code only one
	Participate in family farm/agriculture	1
	Participate or invest in own farm/agriculture	2
	Participate in other people's farm (sell labor)	3

Ask if code 2 at F4

F5	What agricultural production do you intend to involve in?	Code only one
	Crop production	1
	Livestock production	2
	Poultry production	3
	Other (specify)	4



Ask all

F6	What do you or the youth in this locality need most to enhance their participation in agriculture? DO NOT READ OUT.	
		Code all that apply
	Access to land	1
	Access to credit	2
	High/good market prices for agricultural products/services	3
	Access to modern technology (tractor)	4
	Access to storage facilities	5
	Encouragement from people close to the youth	6
	Access to agricultural inputs (such as fertilizer)	7
	Other (specify)	8

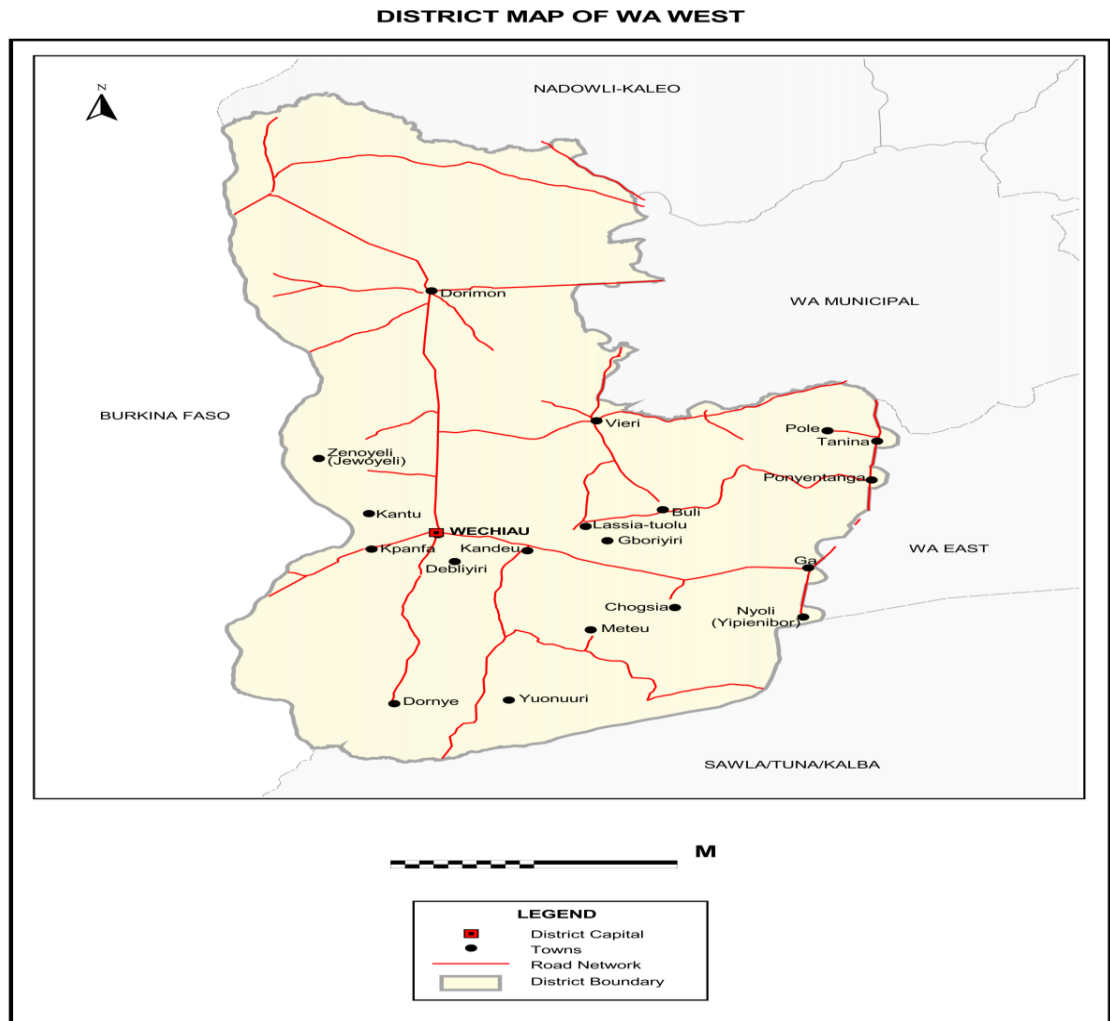
Ask all

F7	Will you encourage the youth to go into agriculture?	Code only one
	Yes	1
	No	2
	Don't know	3



THANK YOU

Appendix B



Source: 2010 PHC (GSS, 2014)

