



International Journal of Management & Entrepreneurship Research  
P-ISSN: 2664-3588, E-ISSN:2664-3596  
Volume 2, Issue 2, P.No.74-96, May, 2020  
Fair East Publishers  
Journal Homepage: [www.fepbl.com/index.php/ijmer](http://www.fepbl.com/index.php/ijmer)



## LAND CONFLICTS AND FOOD SECURITY IN AFRICA: AN EVIDENCE FROM DORIMON IN GHANA

Adams Sabogu<sup>1</sup>, Dr. Théophile Bindeouè Nassè<sup>1,2,3</sup>, Pr. Issaka Kanton Osumanu<sup>1</sup>  
<sup>1</sup>University for Development Studies, Wa Campus (Ghana)  
<sup>2</sup>Saint Thomas d'Aquin University (Burkina Faso).  
<sup>3</sup>Ouaga 2 University (Burkina Faso).

\*Corresponding Author: Adams Sabogu

<sup>1</sup>Corresponding Author Email: [adamssabogu@yahoo.com](mailto:adamssabogu@yahoo.com)

Article Received: 10-03-20

Accepted: 22-04-20

Published: 15-05-20

**Licensing Details:** Author retains the right of this article. The article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (<http://www.creativecommons.org/licences/by-nc/4.0/>) which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the Journal open access page.

### ABSTRACT

This study examined the implication of land conflicts on food security in the Dorimon Traditional Area of the Wa West District of Northern Ghana. The study used a phenomenological research design approach, employing both qualitative and quantitative methods in data collection and analysis. Primary data were sought from interviews with household heads, key informants and focus group discussions. Various methods were combined to sample a total of 221 respondents from eight communities and four institutions for the study. The study revealed the existence of numerous land conflicts in the area, prominent among them are the land boundary conflict between the Guse and Dontanga Clans, land ownership conflict between Guo-Nayiri and Guo-Katung Clans and that of land ownership conflict between Charile and Nyimbale communities. Other forms of land conflicts were user conflicts between neighbouring land users and some form of limited access due to discrimination against women and settlers. The main drivers of these land conflicts were greed and selfish interest by individuals, the lack of clear land boundaries between clans, rising population pressure and the weakening of traditional institutions. Meanwhile, the study revealed that 62 per cent of household in the Dorimon Traditional Area were food insecure. It was established that land conflicts affect food security negatively as it leads to low food production, loss of income, destruction of food systems, disruption of herbal health delivery and also depletion of food stalk as a result of sale of food staff in pursuit of conflicts. Customary system of conflict resolution is the most popular system of conflict resolution in the area. In order to improve on the efforts

at managing land conflicts and also mitigating their effects on food security, it is recommended that; alternative source of livelihoods should be provided to the people, traditional institutions should be strengthened, land boundaries between clans or communities should clearly be defined, demarcated and documented and, also, there should be strong stakeholder collaboration in land administration.

**Keywords:** Land, Conflicts, Food, Security, Ghana.

---

## INTRODUCTION

Food security issues have attracted attention of many top conferences globally. It is believed that there is more than enough food to feed everyone in the world and yet the number of people facing hunger is still unacceptably high (Bridge, 2014). The number of people facing hunger increased from 777 million in 2015 (FAO, 2017) to more than 820 million in 2018 with two billion people experiencing moderate or severe food insecurity worldwide (FAO; IFAD; UNICEF; WFP; WHO, 2019). The Food and Agriculture Organization (2017) observed that conflict is a key driver of food insecurity globally, much of which is observed in the Middle East, Sub-Saharan Africa South-Eastern Asia and Western Asia especially in countries that are plagued by conflicts.

In 2016, about 5% of the Ghanaian population was reported to be food insecure with additional two million people being vulnerable to food insecurity Darfour and Rosentrater (2016). The Wa West District was considered the district with the highest prevalence of food insecurity with 42% of households being food insecure in 2012 (WFP, 2012). In 2016, 27.1 percent of households were still food insecure in the Wa West district (WFP, 2016) and 36.64 percent of the population in the SADA Zone were either moderately or severely food insecure in 2017 (Nkegbe et al, 2017).

Meanwhile, there are numerous unresolved land conflicts involving communities in the Upper West Region (AgNRM, 2017), pockets of such unresolved land conflicts between gates serve as a source of rising tensions (Bebelleh, 2008). Prominent among these land conflicts are ownership or boundary conflicts between clans, families or communities, user conflicts between individual land users and discrimination against women and settlers (AgNRM, 2017). According to Azechum (2017), land related conflicts have been a major cause of food insecurity in northern Ghana.

The northern part of Ghana has been classified as poverty endemic (WFP, 2012) and yet it is ridiculously engulfed with numerous land related conflicts. These land related conflicts have by no means affected agricultural production and income levels of households in the area as many household food securities depend on agricultural production (WFP, 2012; Nkegbe et al, 2017). Extensive studies have been done on food security on one hand and land conflicts on the other hand in the Wa West District. However, little attempts have been made to explore the link between land conflicts and food insecurity. Like many other northern societies where land use is controlled by men landlords (Kuusaana et al., 2013), marginalized groups like women and settlers' access and control of land is seriously affected. This situation results in forced migration of the youth, loss of livelihoods, low income and food insecurity (GSS, 2014). Achieving the SDG 2 target of zero hunger will be a mirage if the current drivers of food insecurity are not looked at.

The question is: what are the implications of land conflicts for food security in the Dorimon Traditional Area? Specifically, the research sought to find answers to the following questions; what is the situation of land conflicts in the Dorimon Traditional Area? What is the food security situation in the Dorimon Traditional Area? How do land conflicts affect food security in the Dorimon Traditional Area? And, what conflict resolution mechanisms are suitable for the management of land conflicts in the Dorimon Traditional Area?

The main objective of the study is to examine the relationship between land conflicts and food security in the Dorimon Traditional Area. The specific objectives of the study are: To assess the situation of land conflicts in the Dorimon Traditional Area, to assess the food security situation in the Dorimon Traditional Area and to examine the effect of land conflicts on food security in the Dorimon Traditional Area.

## **LITERATURE REVIEW**

### **The Concept of Land Conflicts**

Like every other social concept, conflict has been viewed differently from various perspectives. As some believe conflict connotes violence or negativity; others perceive it to be functionally positive in social systems (Marfo, 2013). For Gatlung (2009), conflict is a triangle with contradiction (C), attitude (A) and behaviour (B) at its vertices. The contradiction shows the underlying conflict situation, the attitude talks about the perception and feelings that the parties have about each other and behaviour is what is exhibited by the parties in reaction to the contradictions (Gatling, 2009). Nassè (2019) defines conflict as a misunderstanding between individuals and groups due to a given misbehaviour that affect a group of people or a community.

Marfo (2013) defines conflict as variance between two parties over a perceived or objective treasured item. Land in context is a treasured item for many people as some see it as a symbol of authority, source of power prestige and natural capital which people's livelihoods depend (Auma, 2016; Kpieta and Bonye, 2014). Marfo (2013) definition of conflict did not discount the fact that conflict sometimes lead to violence, he however argues that there is nothing fundamentally wrong with conflict but the defect comes from the way and manner we manage or attempt to resolve conflicts. Jeong (2008) agrees that, although conflict tends to have negative connotations, not every conflict is harmful. He argues that conflicts stimulate growth and development which is productive and brings about changes in societies but can however be destructive if poorly managed (Jeong, 2008).

According to Awedoba (2009) Conflict is the relationship differences or disagreement, divergence, incompatibilities or clash of wills that exist between two or more parties on an issue of common interest or concern which may be characterized with antagonism and opposition. This position is shared by Rahim (2010) in describing conflict as an interactive process which manifests incompatibility, disagreement or dissonance within or between social entities.

There is convergence in most of the perspectives on conflicts mostly highlighting the existence of incompatibilities, divergence, differences or disagreement. Wahremann (2008), views land conflicts as a social fact which involves differences between two or more parties over property right to land usage, management, generation of income, receipt of compensation and the right to transfer it. It is the researchers' view that land conflicts exist when there is degeneration of

relationship, incompatibilities and differences in claims and counter claims over land ownership, control, usage, access, and the right to transfer and manage lands.

### **The Concept of Food Security**

The World Food Summit (1996), defines Food security as a situation in which all people at all times have physical and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. This definition of food security encompasses food availability, access to food; utilization of food, food stability and has gained international acceptance. The concept of food insecurity is also slightly underlined by Nassè (2012) that depicts the West African environment, by showing the lack and insufficiency of food in the context, as people often face starvation or hunger (Nassè, 2011). This situation also contributes to increase the vulnerability of children (Dalinpua and Nassè, 2020) and adults. The Ghana's Ministry of Food and Agriculture (MoFA) cited in Nkegbe et al. (2017), defines food security as the existence of good quality nutritious food hygienically packaged, attractively presented, available in sufficient quantities all year round and located at the right place at affordable prices. This definition is in synch with the argument that food security is not only concerned with the individual having access to available nutritious food but also has to do with the production, processing, and marketing systems that determines cost and shape people's food choices and concerns about acquiring food in the future as well as today (Simmons, 2013).

### **Theoretical Underpinnings.**

In order to understand why certain phenomena occur, social scientists often use theories, models and concepts to give their opinions. There is no single widely accepted theory that best explain conflict. Two relevant theories, The Relative Deprivation and the Need Based Theories were explored in analysing the relationship between land conflicts and Food Security.

### **The Relative Deprivation Theory**

The theory belongs to the sociological school of thought which is credited to Karl Max and its proponents believe that the society or an organization functions so that individuals and groups struggle to maximize their benefits, which inevitably contributes to conflicts (Yakkaldevi, 2014). Karl Marx holds the view that in every stratified society, there exist two major groups or classes: the ruling and the subject class, where the ruling class draws its power from control of the resources and in effect, exploits and oppresses the subject class. (Yakkaldevi, 2014; Folarin, 2013). Smith and Pettigrew (2015) defines Relative Deprivation as a judgment that one or one's group is disadvantaged compared to another, and such judgments often invokes feelings of anger, resentment and entitlement. The theory implies that, any human relationship which is characterized by exploitations has the tendency of degenerating into violent confrontation. Considering the phenomenon of land conflicts, using the Relative Deprivation Theory, it could be argued that land conflict erupts when an individual or group feel their right to access or control of land is being deprived or exploited.

This theory has however been criticized by Smith and Huo (2014) who argued that the idea of deprivation by individual or groups comparing themselves or their conditions to others may be misleading since such comparisons are mostly subjective and individuals subjectively interpret the availability of resources (Smith and Huo, 2014). In reality, when individuals or groups make such comparison, it is natural that they will compare their conditions to others that are better

than them and obviously, this is where the idea of class system arise with the suspicion of exploitation.

### **The Need Base Theory of Conflicts**

Another perspective from the sociological worldview of conflict is the need-based theory. This theory suggests that human beings have certain fundamental needs and the denial of such needs or restriction to access them has the tendency to spark conflicts (Danesh, 2011). These needs are often universal, ontological and non-negotiable (Burton, 1990) which are necessary for the harmonious functioning of societies. Food is an ontological need, any threat to its availability or access could invariably result in confrontation, for a hungry man is an angry man. This makes sense for people to struggle over land since it is the most important production resource and for that matter food availability hinges mostly on food productivity. It is important to emphasize here that most conflicts in the world are over scarce resources. However, the over generalization of conflict as violence by proponents of this theory is problematic, since they fail to realize the constructive nature of some conflicts.

### **Causes of Land Conflicts**

The factors driving land conflicts are multifaceted (FAO, 2016) consisting of webs of interrelated but complex factors (Hellan, 2014). In many countries, land and other resource conflicts are driven by environmental, social, political and economic factors (Idemudia, 2007). The rising population that comes with growing demand for production and commercialization of land use (Ramirez, 2002; Paaga, 2013) has also triggered competition over land and other natural resources (Ellingsen, 1998).

In Africa, land conflicts are mostly caused by contradictory or inconsistent land laws mostly instituted with little or no stakeholder engagement (WFP, 2012; Massoi, 2015; Oduro-Ofori, 2015; Auma, 2016) and weakening traditional authorities due to manipulation among others (Auma, 2016). Lack of clear land boundary demarcation and documentation coupled with the increasing land value has equally resulted in many land litigations and clashes in many parts of Africa and the Upper West Region in particular (Paaga, 2013; Gariba, 2015; Auma, 2016; AgNRM, 2017).

According to Awedoba (2009), chieftaincy and land ownership are intricately linked and for that matter most land conflicts are related to chieftaincy in northern Ghana. Many groups do not see land as only a resource but also as an ancestral heritage and god (Kpieta and Bonye, 2014), this has therefore resulted in competition by many groups to gain power of ownership and control over land in order to promote their identity (Sulemana et al., 2017; AgNRM, 2017) any attempt to alienate it from them poses as a threat to cutting their relationship with the ancestors. AgNRM (2017) further identified the vesting of lands on the chieftaincy institutions, introduction of commercial farming and urbanization as major drivers of land conflicts in the area.

### **Nexus between Land Conflicts and Food Insecurity**

Undoubtedly, the arguments supporting the potential of food insecurity being triggered by conflicts and for that matter land conflicts is plausible. The Food and agricultural Organization (FAO, 2017), reveal that conflict is the key driver of food crisis in the world and countries which were experiencing prolonged conflicts had the worst hunger situations (FAO, 2017). The effects of these conflicts are that they disrupt production (FAO, 2017; Marfo et al., 2019), lead to loss of lives and also causes displacement. Due to the influx of refugees from Yemen, Somalia and

Ethiopia as a result of conflicts, Djibouti saw an increase in the number of people who were food insecure from 5.6million in 2015 to 9.7 million in 2016 (FSIN, 2017). In early 2017, famine was declared in South Sudan, Somalia, Yemen and North East Nigeria (FAO, 2017). These are all countries experiencing protracted conflicts.

An ethnographic study conducted by Massoi (2015) on land conflicts and livelihood on pastoral women in Kilosa District of Morogoro, Tanzania revealed that land conflicts disrupt access to resources like land, water, herbal medicine, cooking equipment, food stores, income and sometimes force people to change their dietary practices and preferences. The situation is no different from the Obudu Local Government Area of Cross River State of Nigeria where communal land conflicts are reported to have exacerbated food security (Uyang et al, 2013). These land conflicts, apart from leading to loss of lives and food systems, they lead to migration of workforce out of the conflict areas disrupting agricultural activities (Uyang et al., 2013).

In Ghana, land conflicts between Fulani Herdsmen and small holder farmers in Agogo area in the Ashanti Region has resulted in loss of lives including breadwinners of families, destruction of crops and reduction of agricultural production, reduced income and destruction of health service delivery (Opoku, 2015). According to Azechum(2017), conflicts which are mostly land related have had a toll in terms of lives lost, injuries to residents, destruction of property including loss of critical social and economic infrastructure (Azechum, 2017).

### **Conceptual Framework**

The diagram below (Figure 1) provides a road map to summarize the direction of the study of land conflicts and food security. It is constructed based on the review of concepts and thus, clearly identifies the key components of the study structure and also indicates their linkages.

The framework essentially covers land tenure and land administration system in the area and attempt to establish the relationship between land conflicts (forms, nature, typologies, styles, levels and drivers of land conflicts) and food security in the area. Further linkages are drawn on the various stakeholders' interest and influence on land conflicts and food security situation in the area. The last component indicates the land conflict resolution and management mechanisms adopted by stakeholders to respond to these emerging threats of land conflicts. The people local knowledge systems were explored in reviewing each of the concepts. The arrows suggest the direction of influences of the various components and how they affect each other.

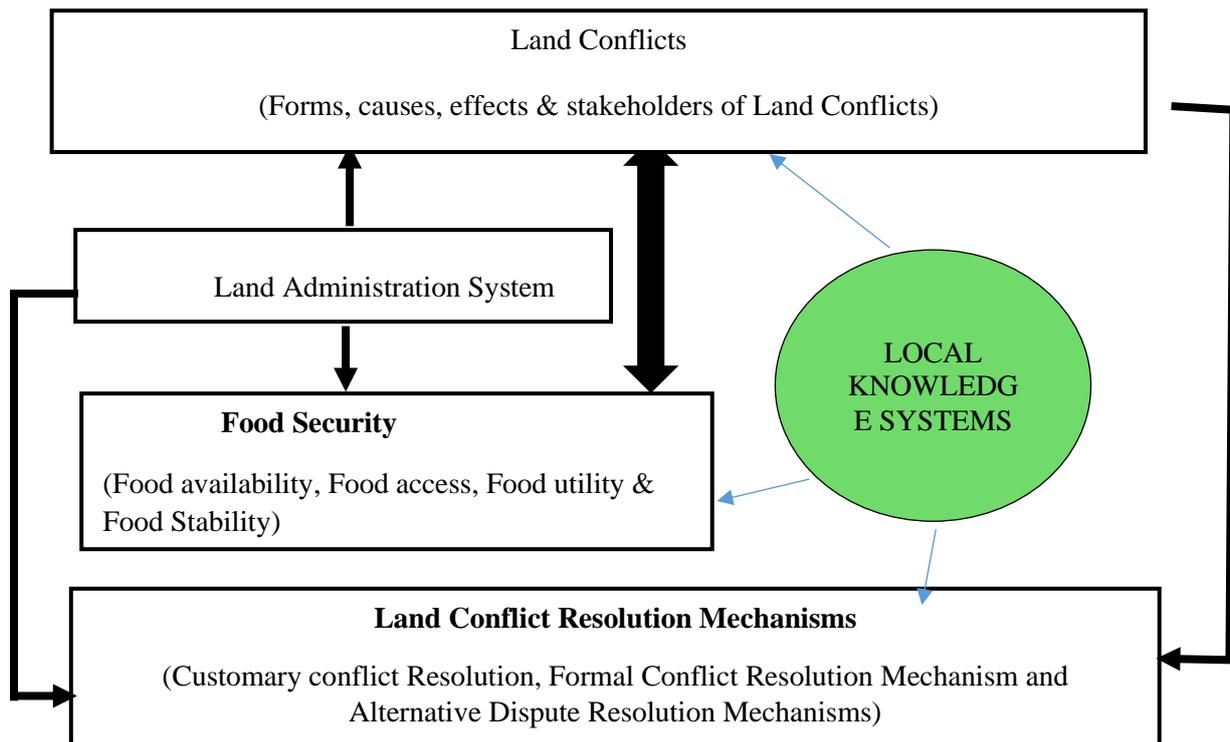


Figure 1: Conceptual Framework for Land Conflicts and Food Security  
 Authors' construct, December, 2018

## METHODOLOGY

**Research Context:** The Wa West District was carved out of the then Wa District in 2004 by a Legislative Instrument (LI 1751) under the Local Government 1993 (Act 462) with Wechiau as the District Capital headed by a District Chief Executive. The district is made up of two paramountcies; the Wechiau and Dorimon Paramountcies with the titles 'Wechiau-Naa' and 'Dorimon-Naa' respectively. There are also divisional and sub-divisional chiefs under the authority of the two paramountcies. The succession to the thrones is patrilineal. The Wa West District is located in the south-western part of the Upper West Region, approximately between Longitudes 9° 40" N and 10° 10" N and also between Latitudes 2° 20" W and 2° 50" W (GSS, 2014). It shares borders to the south with Sawla-Tuna-Kalba. District in the Savana Region, north-west with Nadowli-Kaleo District, and east with Wa Municipality, South-west with Wa East District and to the West with Burkina Faso (Figure 3.1). The total land area of the district is approximately 1,856 square km, representing about 10% of the region's total land area. The land in the district is drained by one main river, the Black Volta (GSS, 2014). The rainfall pattern is erratic with the mean annual rainfall between 840mm and 1400mm. The irregular rainfall pattern sometimes affects the farmers' crop yields.

**Research Design:** The research was conducted using mainly qualitative methods and supported by quantitative techniques employing the phenomenological design approach to explore and understand the issues under investigations which involves the meaning individuals or groups ascribe to a social or human problem (Creswell, 2009). Phenomenological studies afford the researcher to explore the lived experiences of the people involved with the issue under studies (Groenewald, 2004), thus land conflicts and food security. The quantitative methods were used

to explore quantifiable and measurable data that examines the relationship among variables (Creswell, 2009) of land conflicts and food security. This approach of examining quantitative data alongside with the largely qualitative data engenders complementarity and therefore fills in the gaps of both qualitative and quantitative approaches (Sharp et al., 2012) and address the inherent weaknesses of either qualitative or quantitative research design. That is not to lose sight of the fact that in combining the methods, it is often difficult representing people lived experiences with text or numbers and also most at times difficult drawing conclusions when there is contradiction between qualitative and quantitative data (Onwuegbuzie and Collins, 2007).

**Rationale for Selection of the Research Area:** The focus area for the research was the Dorimon Traditional Area of the Wa West District. The justification for selecting the Dorimon Traditional area was that, the area is close to the Wa Municipality and is experiencing a spill over of urbanization from the Wa Municipality. Based on the value placed on land, and the absence of clear land governance systems, there are numerous conflicts in the Dorimon Traditional Area (Bebelleh, 2008). The selection of the study communities also fits into the socio-cultural dynamics of the Dorimon Traditional Area as there are two principal gates that ascend to the Dorimon Paramountcy. They are Gangoyiri and Dakpanyiri. Each of these gates has a land domain locally called “gaara” and is managed by their land priests (Tendamba). Dorimon is the seat of the paramountcy and has people from all clans in Dorimon residing there and using land. It also serves as a base where most of the land-owning families draw their land ownership from. Donkoru and Bienye are situated in the Gangoyiri (Guse clans) lands while Dontanga and Kogle are situated in the Dakpanyiri (Dontanga clan) lands. Siriyiri, Zanko and Charile are the boarder communities to Wa, the Upper West Regional Capital and are directly experiencing the spill-over of urbanization from Wa and in effect, increasing competing demand for land, both for residential and agricultural purposes. Charile as well shares boarder with the Nadowli-Kaleo District and there have been instances of disputes of land ownership between the community and the neighbouring communities in the Nadowli-Kaleo District.

**Study Population:** The research targets land user household heads (both male and female land users), non-governmental and governmental agencies working in the land and food security sub-sectors in the study area as well as the traditional authorities (Tendamba, Chiefs, family heads and Queen mothers) in the study area. Land users were targeted based on the fact that about 91.7% of the population in the Wa West District engages in agriculture (GSS, 2014). The traditional authorities were equally targeted because lands in the district are communally owned and are vested in the traditional authorities to keep in trust for the people.

**Sampling:** A combination of methods was used to select households for interviews. Eight communities (Dorimon, Donkoru, Bienye, Dontanga, Kogle, Siriyiri, Zanko and Charlee) were purposively sampled for the study. Purposive sampling is suitable when the goal of the research is to obtain insights and maximize understanding of an underlying phenomenon or when the sample frame consist of homogenous sub-groups (Onwuegbuzie and Collins, 2007). The purposive sampling was guided by the researchers’ quest to obtain deep insights into the phenomenon of land conflicts in the selected communities and also give equitable opportunity for different identifiable groups to be selected. Purposive sampling was used to select three key informants (chiefs, land priest and women leaders) from each of the eight communities and one

each from District Assembly, DADU, the Ghana Police Service and AgNRM. Households were initially stratified into indigenes and non-indigenes and randomly selected for the survey.

**Determination of Sample Size:** The study employed the International Fund for Agriculture Development's (IFAD, 2009) sample size determination formula to derive the household sample size for the study as follows:  $Sample\ size\ (n) = [z^2 * p(1-p)] / e^2 / 1 + [z^2 * p(1-p)] / e^2 * N$   
Where: n - Desired sample size z - Confidence level set at 90% (standard value = 1.65) p - Estimated proportion of the target population with similar characteristics (standard deviation =0.5) e -Margin of error set at 5% (standard value = 0.05) and N- Number of households = (623). Household sample size of 189 was arrived at but to cater for the possibility of some respondents not responding to the questionnaires, 5 percent of respondents were added making a total of 198 households sampled. However, 196 household heads were surveyed. These respondents were sampled from the study communities proportionally according to the number of households in each community. Twenty-five (25) Key informant interviews were also conducted making the total sample size of 221.

**Sources of Data Collection:** To be able to address the research questions, the researcher gathered both primary and secondary data for analysis. Secondary data were collected through reviews of relevant literature to the topic and study area from both published and unpublished sources. Primary data were obtained from household heads, key informants (e.g. chiefs, land priests [Tendaamba], women) and focus group discussions. Methods adopted for this study were through interviews involving 25 key informants, focus group discussions in 8 communities with participants not more than seven in each case, and structured questionnaire survey making up of closed and open-ended questions.

**Data Analysis and Presentation:** Both qualitative and quantitative data were analysed concurrently and compared to determine if there was convergence, differences or combinations (Creswell, 2009). Qualitative data were categorized into themes and analysed using Content Analysis (CA) technique. Descriptive statistics, such as percentages were also obtained and analysed using SPSS. Cross tabulation was used to draw relationships between experiences of households involved in incidences of land conflicts and their food security situation as against people who did not experience land conflicts directly.

## RESULTS

### Demographic and Socio-Economic Characteristics of Households

This sub-section provides an overview of the defining socio-economic characteristics of households that are relevant for analysing the issues of land conflicts and food security. They include sex, education, livelihood activities, income level and native status. The results revealed that majority of households (64.6%) were headed by males, with (35.7) being females. The results further indicated that majority (68.9%) never had any form of formal education. This has an implication on the livelihood of the people. Majority of the people lack the requisite education and skills to get alternative employment apart from peasant farming. Therefore, as high as 86.7 percent of household heads were crop farmers while the remaining engage in petty trading with few public servants. Therefore, agriculture is the life wire of many of the people in the area. Establishing the income levels of households in the study reveals that a wide majority (80.6 percent) of households earn monthly income of GHC300 or less. This has a serious implication for food security.

### Land Conflict Situation in the Wa West District

Results from the study revealed that lands in the Dorimon Traditional Area are communally owned and the main tenure system is the customary free hold system. Contrary to reports that lands are owned and administered by land priests in the Upper West Region (Bebelleh, 2008 Kuusaana et al., 2013), majority of lands in the Dorimon Traditional Area are owned and controlled by chiefs and royal families on the basis of first settler or conquest principle (Kpieta and Bonye, 2014.). Respondents (86.7%) in all research communities are aware of the existence of land conflicts and they are affected by such incidences of land conflicts in one way or the other. About 45% of them had directly experienced land conflicts within the past one year.

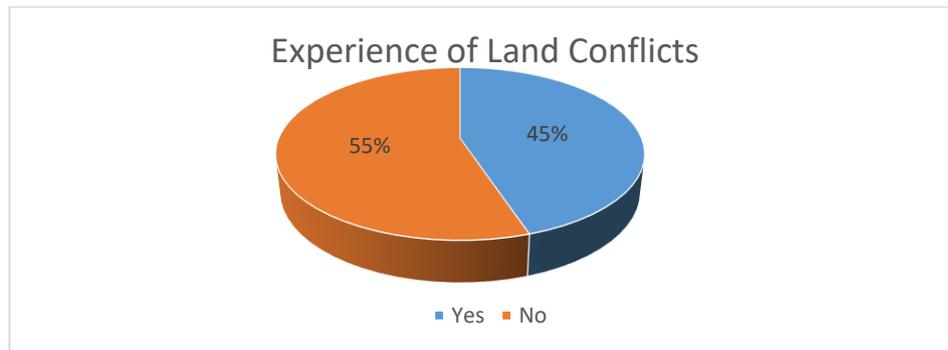


Figure 2: Respondents Experience of Land Conflicts

Source: Field Survey, 2018

Various stakeholders were identified to be involved in land conflicts in the area. The main stakeholders were the Traditional authorities (chiefs, family/clan heads and Tendamba) who are the custodians and administrators of the lands and views land as a symbol of authority. The second group of stakeholders were the land users which included; families, settlers, herdsmen and the youth. They are engaged in the day-to-day usage of land. The third group of stakeholders included government agencies (District Assembly, Department of agriculture, and the Police) and Civil Society Organizations such as the Non-governmental Organizations concerned with the overall development of communities including the maintenance of law and order and also ensuring food security.

The main forms of land conflicts that exist in the area as revealed in the study were; land boundary conflicts between clans and or villages, boundary conflicts between neighbouring land users, conflict over inheritance of farm land, conflicts between Fulani Herdsmen and crop farmers. Women and settlers in isolated cases suffer some form of discrimination. (See table 1).

Table 1

#### *Forms of Land Conflicts in the Dorimon Traditional Area*

S. No	Forms of land conflicts	Number of respondents
1	Land ownership conflicts between clans	56
2	Land boundary conflicts between clans/communities	49
3	Land boundary conflicts between individuals	34
4	Land user conflicts between crop farmers and Fulani herdsmen	29
5	Discrimination against women and settlers	11

Prominent land conflicts that featured through all discussions with household heads, key informants and Focus Group discussions were the land boundary conflict between the Guse and

Dontanga Royal Clans, land ownership conflict between the Guo-Nayiri and Guo-Katung clans and that of Charile community lands in which the Nyimbali community is claiming ownership. In an in-depth interview with a key informant from Bienye community which was corroborated by another from Donkoru, the land conflict between the Guse and Dontanga clans covers five of the survey communities; Dorimon, Donkoru, Dontanga, Kogle and Bienye and other adjoining communities with either clan claiming ownership of the surrounding lands. There have been a stand-off between the two clans as to where the actual boundary of their land is for well over a decade. According to their narrations, attempts to resolve this matter through the customary structures were not yielding the required results due to non-cooperation by the other party. A key informant from Dontanga confirmed the existence of the conflict which has been long standing between the two clans.

The land conflict between the Guo-nayiri (Royals) and that of Katung/Katume (Tendamba) is an issue of who holds the right and control of the land domains (Gaara) of Guo. While the Tendamba are arrogating ownership and control of the land to themselves, the Guo-nayire claims that the Tendamba role was to act as Land priest. The Royals (Nayire) claim their ancestors were first to settle on the land by defeating the original occupants and driving them out of the land. To them, the Katume (Tendamba) only came later to join and were given the role of land priest to be in charge of sacrificing to the gods and also leading hunting expeditions in the land territory called “gaara ngmaabo”. This was obtained from an oral account by a key informant from the Guo-nayiri. However, a key informant from the Katung faction maintain their position of being owners of the land and dispute the claim of first settlement by the Guo-nayiri. He argues that, they had settled and controlled the land long before the Nayiree came to settle. According to both respondents, after attempts to resolve the matter at the instance of the Dorimon-na through the customary way was not successful, the case went to the Wa High Court which judgement was pronounced in favour of the Katung Clan. At the time of this study, Guo-Nayiri had given notice of appeal while efforts were being made to resort back to the customary resolution processes.

On the Charile land conflict issue, it was revealed that the people of Nyimbale in the Nadowli-Kaleo District are laying claim to Charile lands and often trespass to undertake some customary rituals such as pacifying the land known as “Tengzeng peeroo” (blood cleansing) when there is an accident that results in death on the land without recourse to them. The Charile people, according to the Tendaana, have challenged the Nyimbale people to submit themselves for the ritual of “Nuo-ngmaabo” which they are not willing to comply.

In all these prominent land conflicts, the Dorimon-na, who is the paramount Chief of the Dorimon Traditional Area and supposed to be the impartial arbiter has been accused of being bias. A key informant from Guse Clan backed the allegation with a letter the Dorimon-na wrote apparently supporting the position of Dontanga clan in response to correspondences between the two gates on the issue of parties invoking the ritual of cutting fowl (nuo-ngmaabo) to determine ownership of the land. The Guo-Nayiri had also accused him of showing bias when the matter was brought to him for mediation. In the case of the Charile Land conflict with Nyimbale Community, the Dorimon-na was accused of indifference though the matter was reported to him several times.

The study further revealed that, the upsurge of land conflicts was as a result of greed and selfish interest of individuals and other stakeholders leading to the breakdown of traditional institutions

and authority such as Chiefs, Tendamba and Clan heads, as well as increasing population pressures giving rise to pressure on land (see table 2). This supports earlier findings that greed/selfishness, unclear and undocumented land boundaries are the main drivers of land conflicts in many parts of Africa (Auma, 2016; Wehrmann, 2008).

Table 2

*Main Drivers of Land Conflict in the Dorimon Traditional Area*

S. No.	Drivers of land conflicts	No. of Respondents
1	Population pressure	110
2	Selfishness and greed	167
3	Breakdown traditional institutions	87
4	Increase in land value	64
5	Unclear land boundary	144
6	Quest for chieftaincy	89

Source: Field Survey, 2018

Corroborating the position of Awedoba (2009) that chieftaincy and land ownership are intricately linked, a respondent has this to say:

*My brother, this whole issue of land conflict here and there is not necessarily about the land, it is about chieftaincy. .... The logic is that the communities do not hung on the air, but on the land. If one owns the land, then you own the community (Excerpt from key informant interview).*

This phenomenon of land conflicts led to instances of rising tensions and threat of violence over land in many of the communities and between clans. It has destroyed social systems to the extent that some conflicting parties do not participate actively in funeral rites especially burials of opponents as well as disloyalty to leaders and failure to make sacrifices to land god.

*During the heat of the conflict, when you summon a community meeting, they won't come. It is through these meetings that we can plan to see how we make sacrifices and ask for rains and bumper harvest (Excerpt from key informant interview).*

### **Food Security Situation**

Majority of people in the Wa West District understood food security as the ability of all families to be able to get enough food from either farm production or buy enough grains from the market to feed the family from the time of harvest to the next harvest.

*To say you are food secured depends on the ability of your farm produce to feed your family from one harvest to another or your ability to buy enough food to stock for the family which can feed them all year round. (51-year old man, Siriyiri community)*

It was revealed that households' food from farm production was not sufficient to feed the family all year round. About 56.1 per cent of households who cultivated crops the past year recorded poor harvest while only 43.9 per cent had good harvest. It was however revealed that there was enough food available in the market all year round. This is contrary to earlier reports that households have sufficient grains from farm production (WFP, 2012). Table 3 presents a summary of household experiences of food security at sometime within the past year.

Table 3

*Experiences of household food security within the past year*

Condition of households at some time of the year due to lack of money/resources	Yes (%)	No (%)
Worried of running out of food?	77.6	22.4
Unable to eat healthy food?	72.4	27.6
Eat less food?	82.1	17.9
Skip meals during the day?	59.2	40.8
House hold run out of food?	57.2	42.8
Hungry but did not eat at?	53.1	46.9
Eating smaller variety of food?	82.1	17.9
Household went without food the whole day?	0	100

Source: Field Survey, 2018

From the table, it is revealed that there is no sufficient food available for all households all year round. Household access to food is also affected due to lack of money and other resources. This situation has led to household inability to eat healthy food as well as varying of meals. Majority of households have also adopted some coping mechanisms such as skipping of meals (59.2%) or reduction of the quantity of food consumed (82.1%). A female household head indicated that, when it becomes critical, they prepare vegetable soup termed as “Zekore” and share as a meal as well as alcohol consumption. This she revealed is a normal coping mechanism for many households. The statement below reveals how respondents resort to excessive drinking of local beer (called pito) in place of meals.

.... One pot of pito each is able to sustain me and my old woman from morning to evening, where a meal is prepared (55 years old man, Kogle community).

However, there was no household that went without food the whole day due to lack of food or other resources. Even households that had good harvest from farm production were worried of running out of food at some time of the year and indeed actually run out of food.

Using the food consumption score, it was revealed that 22 percent of respondents were in the poor food consumption group, 40 percent in the borderline while only 38 percent were in the acceptable food consumption group. Therefore, 62 percent of households were in the unacceptable food consumption group and for that matter food insecure (See figure 3).

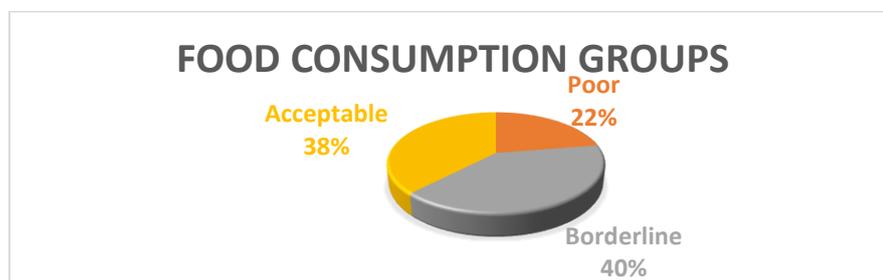


Figure 3: Household Food Consumption Groups

Source: field survey

This is higher than findings of earlier studies in the Wa West District which revealed that, 42 per cent of households were food insecure in 2012 (WFP, 2012) and 27.1 per cent in 2016 (WFP,

2016). It is also higher than the average food insecurity situation of 34.64 per cent of households in the SADA zone as at 2017 (Nkegbe et al., 2017).

**Relationship between Land Conflicts and Food Security**

Assessing the nexus between land conflict and food security, majority of respondents believed that land conflicts have negative effects on food security. The results reveal that, 78.6 percent of respondents agreed that land conflicts have negative effects on food security while 21.4 per cent disagreed that land conflicts affect food security.

**Effects of Land Conflicts on Food Availability**

On the nature of household crop production relative to their experiences of land conflicts, it was revealed that 187 household respondents cultivated crops the previous year and out of that, 88(47%) were respondents who had directly experienced land conflicts while the remaining 99 (53%) were respondents that did not experience land conflicts within the year.

Table 4  
*Land conflicts experience and household farm production*

		Household Nature of Harvest				Total
Experienced Conflict before?	Land	Very poor	Poor	Good	Very Good	
		No	9	15	40	35
Yes		36	45	5	2	88
	Total	45	60	45	37	187

Source: Field Survey, 2018

From table 4, it is observed that majority 81 (92%) of respondents who experienced land conflicts had poor or very poor harvest with only 7(8%) experiencing good or very good harvest. Meanwhile, majority 75(75.8) of respondents who did not experience land conflicts the year under review had either good or very good harvest with only 24(24.2%) experiencing poor or very poor harvest.

Using a multiple response question, Figure 4 presents a summary of respondents’ views on how land conflicts affects food availability in the area.

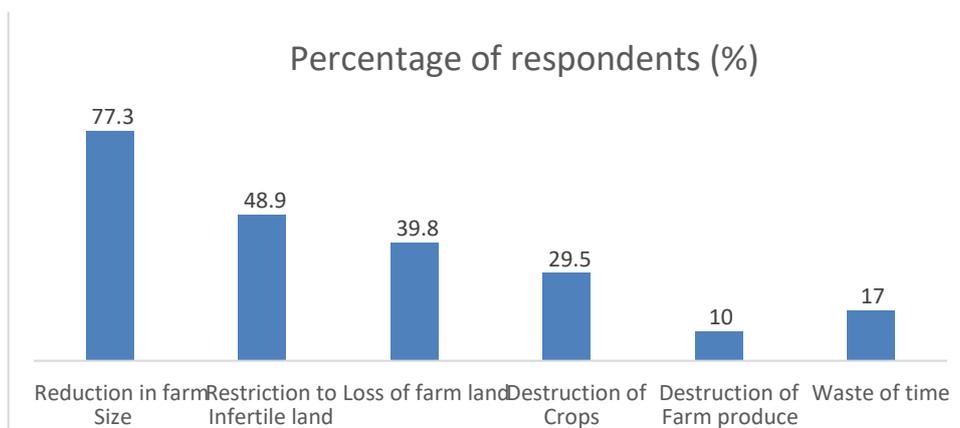


Figure 4: Effects of land conflicts on farm productivity of respondents  
Source: field survey, 2018

From figure 4 above, 68 (77.3) of respondents believe land conflicts lead to reduction in farm size, restriction to infertile land 43 (48.9%), loss of farm land 35 (39.8%), destruction of crops 26 (29.5%), destruction of farm produce 9(10.2%) and waste of time 15 (17%)

The findings from table 4 and figure 4 reveal the negative effects of land conflicts on agricultural production in the area. Like many other communities in Northern Ghana food crops constitute the biggest source of livelihood for majority of the people in the area. These people rely heavily on their farm produce to feed their families (Marfo, Musah, & Abukari, 2019). According to the key informant from the Department of Agriculture, the phenomenon of land conflicts affected government flagship program of Block Farming for Siriyiri, Dorimon and Zanko communities after the first year of implementation in 2009. There were also instances as revealed by some respondents where farmers are forced to abandon a portion of their farm land or even the whole land. This situation sometimes forces people to move out of the community.

*Just as my husband had finished clearing the land and we were waiting to get tractor to plough, he was reported to the elders by a cousin for trespassing. All his efforts to be allowed to cultivate just for the season failed. He was asked to vacate the land. He abandoned the land and left the community for galamsey.... (43 years old woman, Charile).*

Qualitative data from in-depth discussions also revealed that 65% of respondents believe that the land is a 'god' which does not like conflicts, therefore, land conflicts angers the spirits of the land. When the spirits are angered, they refuse to bless the land with bumper harvest.

*Every land deity hates conflict, when there is conflict on it, the spirits get angered and will not bless the land with bumper harvest (53 year old widow, Dorimon community).*

Corroborating the findings of Kpieta and Bonye (2014) that the people believe the gods are responsible for provision of rains and bumper harvest, respondents revealed that, at the beginning of every season, families used to come together to make sacrifices to the land gods ("Tungbama"), asking for good rainfall and bumper harvest. They will also do that at the end of the season to thank the gods for blessing them with good harvest. However, as a result of land conflicts, these practices no longer exist in some communities such as Siriyiri and Dorimon community. Apart from Bienye, Kogle and Charile, where communal labour (helping in farming) is still effective, in all the other communities, people hardly help each other in farming; *Why will your enemy help you to get food? A person in land conflict with me doesn't want me to get food. I can't also wish he gets food. (54 years old widow, Donkoru community).*

These were the words from a respondent on why conflicting farmers no longer support each other in farming. All this, the respondents believe, contribute to low production of crops in the area and for that matter result in poor food availability. Respondents in all communities during focus group discussions revealed that poor food production also affects the income of families since farming is their main source of livelihood. There were instances where Respondents reported of incidences of crops or farm produce being destroyed under the cover of darkness due to land conflicts. For instance, a respondent in Siriyiri reported of an incident where their yam barn was set on fire in the farm. This revelation confirms the globally accepted view that conflicts and, for that matter, land conflicts disrupts food production (FAO, 2017) as it leads to

loss of farm lands, waste of productive time, reduction in farm sizes, investments and forced migration by people from production areas (Simmons, 2013; Auma, 2016).

### **Effects of Land Conflicts on Food Access**

Access to food is a very important determinant of food security. As argued by Helland and Sørbo (2014), if there is abundance of food in the market or farm and one cannot access it, then you cannot say there is food security. Assessing the effects of land conflict on food accessibility, it was revealed that all respondents (100%) indicated that the experience of land conflict led to loss or reduction in income therefore affecting their set of bundles (Sen, 1986) which reduce their access to food. 23.8 percent indicated that it affects food trade in their communities as adversaries would neither sell nor buy food from their opponent. It also revealed that 34 percent of respondents indicated that land conflicts affect food gift in the communities. People who could not cultivate certain crops used to help others and receive food gifts in return. However, adversaries will not give or receive food gifts from each other. This is what a respondent has to say:

*....after fighting with me over land, why should I sell/give you food from that same piece of land? I don't also see why I should be buying/receiving food from someone who doesn't want me to farm ...my family would rather starve to death than me receiving food or buying food from my enemy (44 years old man, Zanko).*

Some families have to sell food stuff or other properties to pursue land conflicts thereby reducing their ability to access other variety of food from the market as well as loss of income. For instance, all the households of the Guo-nayiri section were levied in Siriyiri to contribute monies towards pursuing the land conflict case at the Wa High Court, the survey revealed.

### **Effects of Land Conflicts on Food Utilization**

In-depth discussions with key informants and respondents in all research communities reveal that the reduction in income as a result of conflicts has resulted in the inability of households to acquire quality nutritious food. Herbal medicine treatment is affected among adversaries as some respondents attach spirituality to some sicknesses than physical. According to a key informant, some sicknesses are blamed on spiritual attacks by enemies or as punishments for wrongdoings to adversaries in retaliation for evil intentions and for that matter people will not administer it or go to their enemies for same.

*....do you know who is responsible for the sickness? Someone, who will wish you dead, you send yourself to him? .....sometimes, you are sick, but you wouldn't even want your opponent to know you are sick (34 years old man, Zanko community).*

Another respondent also had this to say about treating opponents:

*.....healing your enemy is like giving him arrows in the battle field. .... Sometimes, the gods have a way of speaking, if you don't take time, you will entangle yourself (42 years old man, Charile community).*

This situation, therefore, affects their health since their incomes are low that they cannot access orthodox health services all the time.

### Effects of Land Conflicts on Food Stability

Respondents believed that land conflicts cause a lot of uncertainty in terms of food availability since it affects production. Respondents during focus group discussions were emphatic that land conflicts raise a lot of anxiety as to yield of crops since it is believed that it affects rains and crop yield. They also believed that it causes instability in the market resulting in high food prices. All the respondents who agreed that land conflicts affect food security also agreed that it is as well a threat to peace. They believed that, when there is breakdown of peace, food systems are affected which can lead to hoarding of food.

### Conflict Resolution Mechanisms suitable for Managing Land Conflicts

The customary system is the most popular and preferred system of land conflict resolution in the survey communities. Majority (87%) of respondents in all communities indicated their preference for customary system for resolving land conflicts. Though they also have knowledge of the formal system, especially the courts and Alternative Dispute Resolution, only 6 percent of respondents would prefer the Alternative Dispute Resolution (ADR) mechanisms while 7 percent would prefer the courts, (see figure 5).

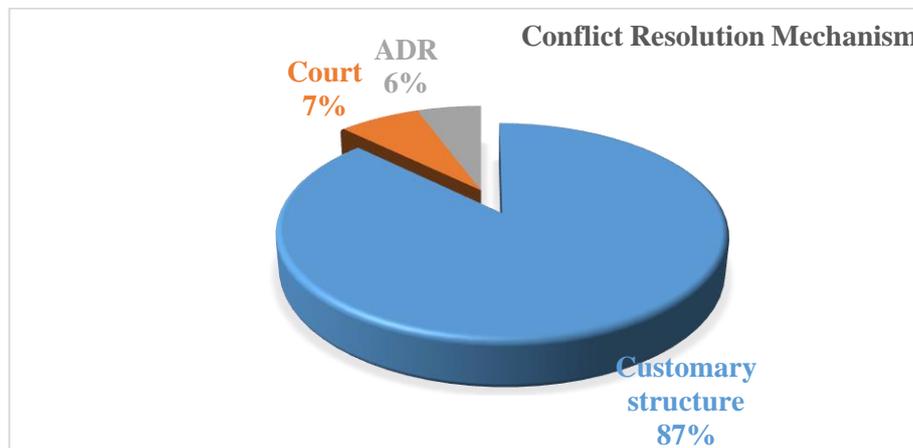


Figure 5: preferred Conflict Resolution Mechanisms  
Source: Field Survey, 2018

According to respondents, the process of customary resolution starts with negotiations among the parties involved. In the case of individuals when negotiation fails, their respective family heads are involved, if they fail, the matter is sent to the community leaders (chief, elders [Yidamba] and Tendaana). If the intervention of the chief and elders fail to find resolution, the matter is referred to the Dorimon-na, Paramount Chief of the Dorimon Traditional Area for determination. Respondents in all communities however reveal that there was no incidence of land conflict between individuals going beyond the community over the past few years.

Oral accounts from key informant interviews in all communities revealed that in resolving land conflicts between clans, it starts with negotiations amongst the parties. If it fails, the matter is sent to the Dorimon-na for mediation. If the Dorimon-na fails to resolve the matter, and there is a stalemate, there is a ritual called "*Nuo-ngmaabo*" (cutting a fowl) which is resorted to. According to the respondents, in performing this ritual, the conflicting parties will send a fowl to the disputed land. Each of them will vow that he believes the land belongs to his clan and if he was wrong the land should speak the truth, and then the fowl will be cut into two. The

consequences are strange deaths on the side of the one that is at fault until they quickly call on the other to admit and the necessary pacification done their generation stand the danger of being wiped off. These rituals, according to the respondents, have not been performed in the area before in their lifetime but they have heard it was implemented some time past and also elsewhere. However, all respondents who talked about it think it should be a last resort.

Attempts to resolve the land conflicts between the Guse and Dontanga clans; the land ownership conflict between Guo-Nayiri (Royals) and Guo-Katume (Land priests); and the land ownership conflict between Charile in Wa West District and Nyimbale in the Nadowli-Kaleo District have not been successful. Key informant accounts revealed that resolution of the land conflict between Guse and Dontanga royal clans went through negotiations between the two clans which was not successful. The matter went to the Paramount Chief (Dorimon-na) for mediation. The Guse Clan had challenged the Dontanga Clan to come forward for the rituals of *nuo-ngmaabo* but the Dontanga Clan had insisted they rather to court. The Nyimbale community will also not respond to the challenge from Charile for the rituals after negotiations had broken down. The conflict between Guo-Nayire and that of Guo-Katung has travelled to the Dorimon-na's palace after negotiations failed. It could not be resolved. The matter was sent to the Wa High Court which ruled in favour of the Guo-Katung, according to key informant reports.

Respondents attributed non-cooperation by parties, weak traditional institutions, greed on the part of traditional authority and the effects of modernization as reason why the use of the customary system in resolving land conflicts between clans have not been successful. The Guse and Guo-Nayiri clans also accused the Dorimon-na of not playing a neutral role and not speaking the truth. According to AgNRM (2017), land conflicts are first handled by the family or clan head in consultation with the council of elders and when it fails, the matter is sent to the chief as the final arbiter. However, the findings of this study did not find the chief as the final arbiter in the customary process. It is revealed that the ritual of "nuo-ngmaabo" (cutting fowl) is the final option when all the others fail. This is consistent with the structures that exist in neighbouring Wechiau Traditional Area who also resort to the ritual of "nuo-ngmaabo" as the last resort for determination of land ownership (Paaga, 2013). The limitations on the use of these rituals is the non-compliance by parties, especially those who are perceived to be at fault.

To strengthen the customary structure, there was consensus in all the focus group discussions on the need for Yidamba and Tendamba to collaborate in determining actual land boundaries between clans and/or families. These bodies, according to them should together with the chiefs collaborate in administering lands in the area. Common responses that run through the discussions on the strategies to employ in order to make the customary resolution effective include; a proposal for stiffer sanctions for offenders of land conflicts to serve as deterrent to others and those who disregard the customs should be ex-communicated. Respondents also proposed the setting up of land conflict resolution committees in the communities to assist the elders. It was proposed by respondents that regular sacrifices to the gods should also be sustained.

Though the customary system of land conflict resolution is what is largely preferred, there was divergence on the invoking of the ritual of cutting fowls (*nuo-ngmaabo*). Respondents were split on its usage. While others agree that it should be considered as the last resort when there is a standoff between two clans or communities, the other respondents think it should not be an option to be considered. One respondent described it as barbaric, evil and murderous.

Proponents of this ritual argue that it is the best way in the absence of any better alternative. They believe it preserves the sanctity of the land and their customs and those who do not support it are those who always want to cheat the system. It must be noted that no woman or settler respondent mentioned it as an option.

### **CONCLUSION AND RECOMMENDATION**

The study concludes that land conflict is pervasive in the Dorimon Traditional Area and of all the forms of land conflicts, land ownership and boundary conflicts between clans and villages, are the most intractable conflicts in the Area. The land conflicts between the Guse and Dontanga clans, Guo-Nayiri and Guo-Katung and that of the Charile and Nyimbale communities remain a threat to agriculture in general and food security in particular in the area. They further pose threat to peace and security. It was established that these conflicts were being driven by greed and selfish interest by individuals, the lack of clear land boundaries between clans and weakening of the traditional institutions. The rapid population growth in the area is also a driving force to the numerous land conflicts as there continue to be pressure on the land with competing interests. Despite the numerous interventions by both governmental and non-governmental agencies towards improving the food security situation, there is still high prevalence of food insecurity in the Dorimon Traditional Area. Notwithstanding the fact that majority of the people are food crop farmers, food from own farm production is not always enough to feed the families all year round. There is however sufficient food in the market, but a vast majority of household earn average monthly income of not more than GHC300.00 which has affected their ability to access food from the market. This is contrary to earlier findings that households have enough food from farm production (WFP, 2012), but however corroborate with the revelation that their incomes are low which often affects their ability to access quality and nutritious food from the market (WFP, 2012). It is obvious that quality nutritious food is not available, accessible and affordable to majority of families at all times in the Wa West District.

The studies conclude that, there is a strong nexus between land conflicts and food security. Hence, land conflict is one of major causes of food insecurity in the Dorimon Traditional Area. The belief that the prevalence of land conflicts has an impact on the pattern of rainfall in the area cannot be ignored though spirituality are matters that are difficult to prove scientifically. Despite the weaknesses of the customary system it remains the most potent system of land conflict resolution in the Dorimon Traditional Area, therefore a strengthened customary system would be a key to the numerous land conflicts in the district. The court has never being a proper forum and would continue not to be the proper forum for land conflict resolution in the area. This is evident in the case of the Guo-Nayiri and Guo-Katung land case which went to the High Court but could not resolve the matter. The Nkonya and Alavanyo people in the Volta Region have been in and out of the law courts so many times but that has not resolved the matter (Gariba, 2015). However, any efforts without clearly defining and documenting land boundaries and ownership titles will always push the people through the vicious cycle of counter claims. It is also important for the issues to be confronted now and the truth established than to keep on suppressing the issues in the name of peace. The researchers dare say that continuously postponing confronting the issues to unravel the truth means postponing insecurity to the future which consequences will be pervasive. The customary ritual of *nuo-ngmaabo* (cutting of fowl)

would have being the best way of scaring illegitimate claimants from igniting land conflicts in the area. However, there is no guarantee that parties will always be willing to submit themselves to it considering the consequences. The growing loss of confidence on the impartiality and honesty of elders and people in authority especially chiefs in determining land issues remain a threat to the effectiveness of customary land resolution system.

### **Recommendations**

It is recommended that, to have meaningful impact on food security in the area, the economic weaknesses of households need to be addressed as majority of people are low income earners. This can be done by providing alternative source of livelihood to the people. NGOs in partnership with the District Assembly should focus on supporting women and the youth with skills training as well as support with start-up kits for them to set up small businesses. The Department of agriculture should also expose the people to improved agricultural practices to enable them make effective and efficient use of limited land to maximize production. This can be done by introducing them to improved variety of seed, irrigation farming and mechanized agriculture. It will also address the growing demand for large track of land for food production. In order to reduce the incidences of land conflicts and minimize their impact on food security, lands should continue to be communally owned and administered through the customary system. However, in communities that are inhabited by different clans, some concessions should be extended by allocating portions of the land to the different clans or families for use with the allodia ownership remaining with the original land owners. This will resolve the structural conflicts that often arise between land owners and those described as settlers. There is the urgent need for the Dorimon Traditional Council in collaboration with land owning clans to ensure that land boundaries between clans are clearly defined, demarcated and documented. There should also be strong collaboration between the royals, chiefs and land priest in the control of land in the area. Land allocation should be jointly done by the Tendamba and Nabiisi (royals) with approval from the chiefs and benefits accruing from the land should be shared accordingly.

There is also the need for chiefs and elders to demonstrate high level of neutrality in order to be able to intervene between parties in times of conflicts over land. The customary ritual of cutting fowl should be resorted to under extreme circumstances, if that will bring lasting resolution. In addition, the government should empower the traditional institutions to deal with land conflicts. This can be done by enacting legislation which will compel all land related issues to be handled first customarily before getting to the formal court system. For further, the local authorities should ensure that an appropriate and efficient communication system is settled between different actors (Bande and Nassè, 2017) such as crop farmers and Fulani herdsmen to help towards the prevention and the resolution of conflictual situations. The legislation should recognize the customary processes of every locality. Finally, further studies is recommended to deeply interrogate the concept of land conflict and food security in other African context and compare the results.

### **References**

- AgNRM. (2017). *Land tenure and natural resource access in Northern Ghana – with a focus on women*. Tamale, TA: Agriculture and Natural Resource Management, Feed The Future Project.
- Auma, S. (2016). *Land conflict, gender and agricultural production: a case of Apac District, Northern Uganda*. Norway, NO: Norwegian University of Life Sciences.

- Awedoba, A. (2009). *Northern Ghanaian conflicts: towards a sustainable peace*. Accra, AC: Sub-Saharan Publishers.
- Azechum, A. E. (2017). *Agricultural policies and food security: impact on smallholder farmers in Northern Ghana*. Halifax, HA: Saint Mary University.
- Bande, R. & Nassè T. B. (2017). *Place of communication for development in the projects of developing countries: the case of the Regional Pastoralism Support Project (PRAPS)*. Dakar, DA: ISRA, CIRAD.
- Bebelleh, F. D. (2008). *Land tenure security for the rural poor and marginalized under Ghana's Land Administration Project (LAP): a case study of communities in the Upper West Region*. Tamale, TA: Thesis (unpublished).
- Bridge. (2014). *Gender and food security: towards gender-just food and nutrition security*. London, UK: Institute of Development Studies.
- Burton, J. (1990). *Conflict: human needs theory*. London, LO: Macmillan.
- Castro, F. G., Kellison, J. G., Boyd, S. J., & Kopak, A. (2011). A methodology for conducting integrative mixed methods research and data analyses. *Journal of Mixed Methods Research*. Author manuscript; available in PMC, 342-360.
- Constitution of the Republic of Ghana (1992). Accra, AC: Assembly Press
- Creswell, J. W. (2009). *Research design: quantitative, qualitative and mixed methods approaches*. California, CA: SAGE Publications Inc.
- Dalinpuo, E., & Nassè, T. B. (2020). Social protection and children vulnerability in Ghana: an evidence from the Wa and Jirapa Municipalities. *International Journal of Social Sciences Perspectives*, 6(2), 88-99. <https://doi.org/10.33094/7.2017.2020.62.88.99>
- Danesh, H. (2011). *Human needs theory, conflict, and peace: in search of an integrated model*. In D. J. Christie (Ed.), *Encyclopedia of Peace Psychology*. New Jersey, NJ: Wiley-Blackwell.
- Darfour, B., & Rosentrater, K. A. (2016). Agriculture and food security in Ghana. *ASABE Annual International Meeting Paper*, 1-11.
- Ellingsen, W. H. (1998). Beyond environmental scarcity: causal pathways to conflict. *Journal of Peace Research*, 35(3), 299-317.
- FAO. (2016). *Peace, conflict and food security: What do we know about the linkages?* Columbia, CO: Food and Agricultural Organization.
- FAO. (2017). *The state of food security and nutrition in the World 2017: building resilience for peace and food security*. Rome, RO: Food and Agricultural Organization.
- FAO; IFAD; UNICEF; WFP; WHO. (2019). *The state of food security and nutrition in the World 2019. Safeguarding against economic slowdowns and downturns*. Rome, RO: FAO. Retrieved from [www.fao.org](http://www.fao.org).
- Folarin, S. (2013). Types and causes of conflict. In S. Folarin, *Readings in Peace and Conflict Studies* (pp. 13-25). Covenant University.
- Forsyth, D. (2014). *Group dynamics*. Belmont, BE: Wardsworth Cengage Learning.
- FSIN. (2017). *Global report on food security crisis*. Food Security Information Network.
- Galtung, J. (2009). *Theories of conflicts*. Transcend University Press.
- Gariba, J. A. (2015). *Land struggle, power and the challenges of belonging: the evolution and dynamics of the nkonya-alavanyo land dispute in Ghana*. Leuven, LE: Onderzoekseenheid, Institute for Anthropological Research in Africa.

- GSS. (2014). *2010 Population and housing census: district analytical report, Wa West*. Accra, AC: Ghana Statistical Service.
- Helland, J., & Sørbrø, G. M. (2014). *Food security and social conflict*. Oslo, OS: CHR. Michelsen Institute.
- Idemudia, U. E. (2007). Demystifying the Niger Delta conflict: Towards an integrated explanation. *Review of African Political Economy*, 391-406.
- Kpieta, A. B., & Bonye, S. Z. (2014.). Land as a “God”: The gender dimensions of its wealth creation among the Dagaabas in North - Western Ghana. *European Scientific Journal*, 8(14), 109-131.
- Kuusaana, E. D., Kidido, J. K., & Halidu-Adam, E. (2013). Customary land ownership and gender disparity: evidence from the Wa Municipality of Ghana. *Ghana Journal of Development Studies*, 63-80.
- Kuusaana, E. D., Kidido, J. K., Appiah, M., & Mireku, K. O. (2013). Alternative dispute resolution by chiefs and tendamba: A case study of Kumasi and Wa traditional areas. *The Ghana Surveyor*, 14-27.
- Marfo, S. (2013). Human security: A key to a meaningful conflict resolution and development in a new Ghana. *Procedia Social and Behavioural Sciences*, 91(1), 545-555.
- Marfo, S., Musah, H., & Abukari, A. (2019). Chieftaincy conflicts and food and livestock production challenges: an examination of the situation in Bimbilla, Ghana. *ADRRRI Journal of Arts and Social Sciences*, 16(7), 11-34.
- Marfo, S. (2019). Chiefs as judges in modern Ghana: exploring the judicial role and challenges confronting the Ashanti regional house of chiefs. *UDS International Journal of Development*, 6(3), 160-174.
- Massoi, L. W. (2015). Land conflicts and the livelihood of pastoral Maasai women in Kilosa district of Morogoro, Tanzania. *Africa Focus*, 28(2), 107-120.
- Nassè, T. B. (2019). Alcohol consumption and conflicts in developing countries: a qualitative and a quantitative research concerning Christian consumers in Burkina Faso. *African Journal of Business Management*, 13(15), 474-489.
- Nassè, T. B. (2012). *Succeeding in Church missionarial work in West Africa: The necessity of understanding the West African environment*. Saarbrücken, SA: Lambert Academic Publishing.
- Nassè, T. B. (2011). *Kasim Borrowings from English: An Evidence from Burkina Faso*. Saarbrücken, SA: Lambert Academic Publishing.
- Nkegbe, P. K., Abu, B. M., & Issahaku, H. (2017). Food security in the Savannah Accelerated Development Authority Zone of Ghana: an ordered probit with household hunger scale approach. *Agriculture & Food Security*, 1-11.
- Oduro-Ofori, E., Ocloo, K. A., Pephrah, C., & Effah, G. (2015). Assessing natural resource use conflicts in the Kogyae Strict Nature Reserve of Ghana. *Environment and Natural Resource Research*, 5(3), 56-71.
- Onwuegbuzie, A. J., & Collins, K. M. (2007). A typology of mixed method sampling designs in social science research. *The Qualitative Report*, 12(2), 281-316.
- Opoku, P. (2015). Economic impacts of land-use conflicts on livelihoods. A case study of pastoralists-farmer conflicts in the Agogo traditional area of Ghana. *JENRM Research Article*, 2(1), 1-7.

- Paaga, D. T. (2013). Customary land tenure and its implications for land disputes in Ghana: Cases from Wa, Wechau and Lambussie. *International Journal of Humanities and Social Science*, 3(18), 263-270.
- Rahim, M. A. (2010). *Managing conflicts in organizations*. New Brunswick, NB: Transaction Publishers.
- Ramirez, R. (2002). *A conceptual map of land conflict management: organizing the parts of two puzzles*. SD Dimension- Sustainable Development Department for Land Tenure Services. Rome, RO: Food and Agricultural Organization.
- Sen, A. (1986). *Food, economics and entitlements*. World Institute of Development Economics Research, United Nations University.
- Sharp, J. L., Mobley, C., Hammond, C., Withington, C., Drew, S., Stringfield, S., & Stipanovic, N. (2012). A mixed methods sampling methodology for a multisite case study. *Journal of Mixed Methods Research*, 34-54.
- Simmons, E. (2013). *Harvesting peace: food security, conflict, and cooperation (Environmental Change & Security Program Report Vol. 14, issue 3)*. Washington (D.C.), WA: Woodrow Wilson International Centre for Scholars.
- Smith, H. J., & Huo, Y. J. (2014). Relative deprivation: how subjective experiences of inequality influence social behavior and health. *SAGE*, 1(1), 231-238.
- Smith, H. J., & Pettigrew, T. F. (2015). Advances in Relative Deprivation Theory and Research. *Social Justice Research*, 28(1), 2-80.
- Sulemana, M., Bukari, F. I., Kendie, S. B., & Galaa, S. Z. (2017). The effects of chieftaincy and land conflicts on the socio-political development of Northern Ghana. *International Journal of Social Science Research*, 5(1), 101-119.
- Uyang, F. A., Nwagbara, E. N., Undelikwo, V. A., & Eneji, R. I. (2013). Communal land conflict and food security in Obudu local Government Area of Cross River State, Nigeria. *Advances in Anthropology*, 3(4), 193-197.
- Wehrmann, B. (2008). *Land Conflicts: A practical guide to dealing with land disputes*. Eschborn, ES: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH.
- WFP. (2012). *Comprehensive food security and vulnerability analysis-focus on Northern Ghana*. Rome, RO: Food and Agricultural Organization.
- WFP. (2016). *Emergency Food Security and Market Assessment in Ghana*. Rome, RO: World Food Programme.
- World Food Summit. (1996). *Report of the World Food Summit*. Rome, RO: Food and Agricultural Organization.
- Yakkaldevi, A. S. (2014). *Sociological Theory*. Maharashtra, MA: Laxmi Book Publication.

### **Acknowledgements**

The research team wants to thank the editorial board of Fair East Publishers. The team also acknowledges here the sound support of Professor Issaka Kanton Osumanu.

### **Conflict of Interest Statement**

No conflict of interest has been declared by the authors.