CLIMATE CHANGE AND FARMER-HERDER
CONFLICTS IN THE ASANTE AKIM NORTH
DISTRICT OF GHANA

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Master’s Thesis in Peace and Conflicts Studies

DEPARTMENT POLITICAL SCIENCE

UNIVERSITY OF OSLO, NORWAY

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DEDICATION

This work is dedicated to Mr. David Takyi Abeam, Mrs. Rose Takyi Abeam, Mrs. Felicia Asomani Amankwaa, Hosaana A. Amankwaa, and F.O. Nyansa-Korabiya Amankwaa.
ABSTRACT

Like many countries in Africa, Farmer-herder conflicts are not new in Ghana. They have persisted for almost three decades now. These conflicts have been sporadic and seasonal in nature. This study aimed to find out whether any relationship exists between climate change and farmer-herder conflict in the Asante Akim North District (AAND) of Ghana in times of global rising temperatures, sea levels and melting glaciers. Earlier studies of farmer-herder conflicts in most parts of Africa were done in line with neo-Malthusian/environmental scarcity debates. Such studies identified linear relationship between environmental change and conflicts. They associated the causes of the conflicts with environmental change, resource scarcity, competition for natural resources and outbreak of violence.

In this study, I went beyond environmental change/resource scarcity debate and adopted political ecology, autochthony and stereotypes, prejudice and discrimination to understand the conflicts in AAND. I asked the question, Is climate change responsible for the conflicts in the Asante Akim North District? To answer the above research question, I collected data qualitatively through expert and semi-structured interviews and focus group discussions. Participants included farmers, pastoralists, cattle owners, local opinion leaders, the police, youth groups and government officials.

The study found that climate change or environmental scarcity is not directly responsible for the conflicts in Asante Akim North District of Ghana. Rather, a multiplicity of socio-political factors are responsible for the conflicts. The study found that the institutional failure, destruction of crops, killing of cattle, water pollution as well as the decline of chieftaincy institution and the near-collapse of the informal dispute resolution system are responsible for the conflicts. The study found that some of the violent acts could have been avoided if the Fulanis or cattle owners had compensated farmers fully and timely. This study also found that prejudices and stereotypes shape social relations which have affected the payment of compensations. The study finally found that women are more concerned about getting compensated for crop destruction than men. To ensure lasting peace in the area, I recommended the establishment of cattle ranches in the district and in other cattle-rearing areas across country by the state and other relevant stakeholders.

Key words: fulani herders, farmers, climate change, conflict.
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<td>AAND</td>
<td>Asante Akim North District</td>
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<td>AANDA</td>
<td>Asante Akim North District Assembly</td>
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<td>ATC</td>
<td>Agogo Traditional Council</td>
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<tr>
<td>CCoA</td>
<td>The Concerned Citizens of Agogo</td>
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<td>DCE</td>
<td>District Chief Executive</td>
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<td>DISEC</td>
<td>District Security Council</td>
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<td>ECOWAS</td>
<td>Economic Community of West African States</td>
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<td>FGD</td>
<td>Focus Group Discussion</td>
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<td>GFC</td>
<td>Forestry Commission of Ghana</td>
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<td>GMA</td>
<td>Ghana Meteorological Agency</td>
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<td>GoG</td>
<td>Government of Ghana</td>
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<td>GSS</td>
<td>Ghana Statistical Service</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>MEST</td>
<td>Ministry of Environment, Science, and Technology</td>
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<td>NPC</td>
<td>National Peace Council</td>
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<td>NPP</td>
<td>New Patriotic Party</td>
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<td>OCL</td>
<td>Operation Cow Leg</td>
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<td>UNDP</td>
<td>United Nations Development Program</td>
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<td>UNEP</td>
<td>United Nations Environmental Program</td>
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USA  United States of America
Chapter 1:

Introduction

Environmental security is one of the topical issues in the world today. Whether we believe it or not, we are affected directly or indirectly by global climate change. It is because of this that recently many policymakers are more concerned about climate change. Human-induced climate change has affected and will continue to affect economies and governments of the world. However, a report by the Intergovernmental Panel on Climate Change (IPCC, 2001) indicates that nations of the world would not experience the negative impacts of this phenomenon equally. The IPCC (2001) projected that developing countries including Ghana will suffer the adverse of effects climate change more than the developed due to their inability to adapt quickly to environmental changes.

Apart from nations suffering differently from the impacts of climate change, regions, districts, cities, towns, and villages would also suffer unequally. Besides, the impacts of climate change also have gender and age dimensions. That is, females suffer more than males. Similarly, children and the aged suffer more than the energetic youths. Finally, low-income earners suffer differently from the rich in the same geographical area (IPCC, 2012). The IPCC (2001) considered climate change as a political issue. This means that a lot of political commitment is needed to address the phenomenon. However, many leaders of the world are reluctant to deal drastically with global climate change for sake of their national interests. The failure of the Paris Climate Agreement under the leadership of Donald Trump is an example.

Climate change is defined as “any change in climate over time, whether due to natural variability or as a result of human activities” (IPCC, 2007, p.21). According to the United Nations Trust Fund for Human Security (2017), climate change threatens the survival, the livelihoods, and the dignities of billions of people across the globe. It is also responsible for “rapid urbanization and migration” with their associated challenges.
Statement of research problem

Ghana as a developing country is not insulated from the adverse effects of climate change. Although research findings demonstrate that the effects of climate change will be drastic on African states (IPCC, 2001) including Ghana, little attention has been given to climate change in the country. Media houses, for instance, prefer to debate more on institutional corruption and foreign sports than they do on climate change. According to the Ministry of Environment, Science, and Technology (MEST, 2010), average rainfall patterns are declining, and temperatures are rising in all the ecological zones of Ghana and these pose a serious threat to the country which relies heavily on rainfalls for hydropower, food and foreign exchange from cocoa. The Ministry projected that the trends will continue to deteriorate in future. This means that Ghana’s economy which depends heavily on cocoa export is going to suffer as production shall be affected by the phenomenon. This could eventually affect political stability, healthcare, and education (Barnett and Adger, 2007).

In other words, climate change shall threaten the survival and livelihoods many Ghanaians, more especially the poor and minority groups like the Fulanis.¹ The first evidence of research gap on environmental security in Ghana is that most previous studies on conflicts had focused mainly on the three northern regions which have had more incidents of conflicts in the past decades (Talton, 2010; Akurang-Parry, 2003; Tonah, 2000, 2002; Awedoba, 2009). Second, they refused to treat many conflicts as climate-induced. Instead, they treated them as mere tribal or chieftaincy conflicts. Third, political marginalization of minority Fulani herders had not received the attention it deserves in their studies (Awedoba, 2009; Talton ,2010).

Major previous studies on climate change and conflicts had their theoretical underpinnings in the environmental scarcity debate or Neo-Malthusianism which relate resource scarcity to climate change and population growth (Homer-Dixon, 1999; Kaplan, 1994). This work shall go beyond the environmental scarcity debate to apply political ecology, prejudice, stereotype and discrimination theories to understand farmer-herder conflicts in the Asante Akim North District. I believe this work would help bridge the knowledge gap on the adverse effects of climate change on ethnic tensions and conflicts in Ghana at least in my study

¹ Fulunis is used in this work to refers to herders from the Mali, Burkina Faso and Niger.
area. This research could create more public awareness and call for more political attention to address the adverse effects of climate change.

Farmers and herders had co-existed in many parts of the world from time immemorial. Studies showed that farmer-herder relations are characterized by both conflicts, cooperation, and peace. These relationships according to Barth (1973) are embedded in the ecological, social, economic, and political environment of the various communities they occupy. The activities of Fulani pastoralists in Ghana like other parts of West Africa are associated with migration, cooperation, patron-client relationships despite the perception of the Fulani as “strangers” by local farmers (Hagberg, 1998; Waters-Bayer and Bayer, 1994). Davidheiser and Luna (2008) noted that there are endless interactions between herders and the host communities’ leaders, farmers, local chiefs and landowners.

Breusers et al. (1998), Mritz (2010) and Turner et al. (2011) learned that the impacts of climate change have been altering the symbiotic relationship that previously existed between farmers and herders in recent times. For example, there is increased migration and pressure on land. Besides, people are becoming more individualistic and are now interested in resolving conflicts in formal courts (Idrissuo et al., 2017). Njiru (2012) and Odoh and Chilaka (2012) noted that the surge in southwards migration by Fulani had increased competition between farmers and herders. These competitions over limited and fast degrading land resources had reduced cooperation that previously existed and increased conflict between the landless Fulani “strangers” and the local people who have unlimited access to land (Hagberg, 1998; Bukari, 2017). There have been violent clashes between farmers and Fulani herders in the Asante Akim District recently like many other parts of Ghana (Dosu, 2011). It has been estimated that 68 people had lost their lives in violent clashes between farmers and herders from 2001 to 2016 in Ghana (Bukari, 2017, p.24). There had also been destructions of properties including the burning of farms, barns, and killing of livestock, verbal assaults and alleged sexual assaults by Fulani herders against indigenes. Studies by Olaniyan et al. (2015) and Bukari (2017) in the district showed that water is not the problem and the cause of the conflict, but access to land. The acquisition processes and the ownership and its usage cause conflicts between farmers and herders. The nature of the farmer-herder conflicts Asante Akim North had been both violent and non-violent. Violent forms include the killing of people, the killing of cattle, burning of food stores, farmlands, houses, and alleged rape cases. The non-violent include boycott of cattle products by locals, refusal to sell food to herders and insults (Bukari, 2017).
Research objective

The main objective of this thesis is to understand how climate change has shaped farmer–herder conflicts in the Asante Akim North District of Ghana. The second objective is to identify the non-climatic factors that have contributed to the conflicts in the AAND if there are any.

Research question:

• How has climate change affected the farmer-herder conflicts in the AAND?
• What are the non-environmental causes of the conflicts in the AAND?

To answer this question, I shall collect and analyze data qualitatively.

The thesis structure

Chapter two of this thesis shall consist of the background of the study area. This shall include demographic, political, physical, and climatic features of the study area. Chapter three shall focus on literature review and theoretical framework. Here, four main theories shall be considered apart from the general literature. Chapter four shall discuss the research methodology. Here, I will highlight on the interview and selection techniques, and justify my choice of those techniques. The difficulties I encountered during the research, as well as how I overcame them shall be treated here. Chapter five will be the presentation, analysis, and discussion of the data gathered. The final part shall enumerate the findings, recommendations.
Chapter 2:

Background of the Study Area

This chapter intends to give the readers a brief information of the research area. I shall talk about the demographic characteristics, ethnic composition, political administration, vegetation and climate, and economic activities of the study areas.

Map 1 shows the administrative area of the AAND

Source: Ghana Statistical Service, GIS (2014)

Location and area Asante Akim North District (AAND)

The AANDA shares boundaries with the Sekyere Kumawu District in the north, Kwahu East in the east, Asante Akim South District in the south and the Sekyere East District in the west. The District covers a land area of 1,126 square kilometers (GSS, 2012). Agogo is the administrative capital. The District is in the Asante Region of Ghana.
Political Structure of Study Areas

The Asante Akim North District was created in 2012 from the then Asante Akim North Municipal. The District was established by Legislative Instrument 2057 (Republic of Ghana, 2012) which falls under the Ministry of Local Government. The District Chief Executives (DCE) is the head of the Assembly. He is appointed by the president of Ghana and he is endorsed by two-thirds of the elected assembly members of the district. The assembly performs decentralized functions delegated by the central government. These include revenue collection, financial planning, education, healthcare, social welfare, agriculture, and town planning. The DCE works together with the District Security Councils (DISEC) to maintain peace and security (Bukari, 2017).

Demography

According to the Ghana Statistical Service (GSS 2014), there were 68,186 people in the district. Out of these, 33,275 (48.8%) were males and 34,911 (51.2%) females. Close to 53.5 percent of the population is rural. Population growth in the District is three percent in 2010. It is estimated that there are about two thousand herders in the District. The exact number is unknown because they have not often been included in previous population censuses (Bukari, 2017, p.79).

“Almost 98.2 percent of the population in the District are Ghanaians; comprising 95.9 percent by birth, 1.7 percent dual nationality and 0.6 percent Ghanaians by naturalization. Nationals from ECOWAS countries constitute only 0.9 percent” (GSS, 2014, p.3).

A study in the District by Bukari (2017) indicates that internal migration has been going on there. Internal migration is this case “is the movement of people from one defined area to another within a country” (The Australian Bureau of Statistics, 2009). Bukari (2017, p.82) noted that many of the ethnic minorities in the District migrated from the northern regions of Ghana in the 1970s to look for agricultural lands. They include Dagombas, Mamprusi, Frafra Kasenas and Dagaabas, Nankanis and Busangas. Apart from the above, there are Ewes from the Volta Region living in the District mainly because of farming and fishing. Some cattle owners, both Ghanaians and Fulanis from Niger, Mali and Burkina Faso live in the District. Despite the large number of migrants in the area, “ethnic belonging or autochthony remains largely important in acquiring land for farming or rearing cattle” (ibid., p.82). The records indicate that “79.2 percent are educated, and 20.8 percent are nonliterate” (GSS, 2014).
Economy

According to GSS (2014), “95.4 percent” of the economically productive population is employed while 4.6 percent are unemployed. Majority of the people are farmers.

“As high as 72.7 percent of households in the District are engaged in agriculture. In the rural localities, about eight out of ten households (79.7%) are agricultural households while in the urban localities, 64.4 percent of households are into agriculture. Most households (98.4%) in the District are involved in crop farming” (GSS, 2014, p.4).

The above shows that the livelihoods of most of the people depend on crop farming which is rain-fed. There is also large-scale cattle rearing in the district. Some of these cattle belong to people who do not live in the District. The local cattle owners and farmers compete side-by-side with the Fulani herders for land and water resources (Bukari, 2017).

Climatic conditions

Like many other districts in southern Ghana, Asante-Akim North District has a wet semi-equatorial climate. The mean annual temperature is around 26°C. The rainfall regime is double maxima with annual total rainfall between 125cm and 175cm with the peaks occurring in July and November respectively. The first rainy season starts from April/May to July. The second season begins from September to November (GSS, 2014, p.1). The dry harmattan season occurs between December and March and is associated with drought conditions. This period is characterized by relatively high and low temperatures during the day and night respectively. Streams dry up or reduce in volume during this period and crop farming comes to a halt except vegetable growing along the banks of rivers and streams (GSS, 2014, p.1).

Vegetation

The District has three types of vegetations. The first is “open forest.” This covers about (576sq. km.) of the highlands. The second is “closed forest – covering wet areas (230sq km). The third is the “wooded savannah (246 sq. km.) in the lowlands.” The three types of vegetation support livestock like cattle, goats and sheep. The availability of water resources, fertile lands and pasture had attracted many migrant farmers, cattle owners and Fulani herders (Bukari, 2017, pp.80-81).
Social and cultural characteristics

Majority of the people in the study area are Akans. The Akans are the largest ethnic group in Ghana. They constitute 47.5 percent of Ghanaians (GSS, 2012). They speak Asante Twi. Asante Twi is the major indigenous language spoken in the Asante Region of Ghana where the study area is located. The migrant minority from the northern regions and Volta also speak their mother tongues in their homes, but many of them can speak the local dialect (Asante Twi). Christians constitute 79.7 percent while Muslims constitute 10.2 percent. 1.2 percent are traditionalists. 0.7 percent of the population have other religions. Surprisingly, 8.2 percent of the people have no religion which one may doubt in an African setting (GSS, 2014, p.31).

Land tenure system in Ghana and the study area

Land tenure system refers to the ownership and the access to land and its associated resources in a given geographical areas (Maxwell & Wiebe, 1999). Dating back to the pre-colonial times, land ownership in most parts of Ghana had been communal. Thus, private ownership of land was flown upon in customary laws because people considered land as the property of the living, the dead and the unborn (Agbosu et al., 2007).

Three types of land rights had existed in Ghana for centuries. These are the alodial title, usufruct or customary law freehold and the tenancy right. The alodial title is the first and the highest land title recognized by law. This title is reserved for traditional rulers, families and the Ghanaian state (Kasanga & Kotey, 2001). In AAND, the paramount chief of the Agogo Traditional Area holds the alodial rights to much of the lands (Bukari, 2017). This is the highest title of land recognized by law. Traditional rulers and communities that have alodial title have the right and the freedom to dispose of the land in accordance with the laws regarding it. In the case of AAND, the paramount chief of Agogo has the right to lease lands to interested parties including the Fulanis. Farmers in various communities in the paramountcy can obtain farmlands through their community chief. The chiefs have no allodial power to lease lands, they therefore report all land transactions to the paramount chief, the holder of the alodial title (Bukari, 2017).

The second right is freehold. There are two types here. The first is “customary freehold.” This right allows holders of land usually individual and groups who are members the landowning community to transfer lands from one generation to another. The second type of freehold is “common law freehold.” This type unlike the first allows both natives of the community and other Ghanaian migrants to hold lands. The third is the “leasehold.” Here, land holder can lease lands to individuals often migrants and immigrants (Ghanaians or foreigners).
Leased lands have start and end dates based on the amount paid. It must include the names of the parties involved with witnesses, mode of payment and terms or renewal. In Ghana, lands can be leased to citizens for as long as ninety-nine years and fifty years to non-Ghanaians like the Fulanis (see The 1992 Constitution of Ghana, Article 266). It is important to note that the second and the third rights were derived from the allodial right (Kasanga & Kotey, 2001; Antwi, 2018, p.11). The Fulanis in AAND can acquire lands as non-Ghanaians through lease and they must follow the due process to obtain the formal documents such as site plans to support their claims for the lands they use.

The nature of land tenure system in the pre-colonial period ensured peace since all the members of various communities felt they were custodians of the land. However, colonial authorities attempt to revise the existing customary laws to suit their interests brought land tenure disputes in many parts of the then Gold Coast (Agbosu et al., 2007). Currently, three land tenure systems exist under The 1992 Constitution. The first is public lands which consists of about 20% of the total lands in Ghana. These are lands acquire by the state through the appropriate procedures and negotiations for public use. The remaining 80% of the lands in Ghana are stool lands. These lands are under the custodian of chiefs, and family heads (Ministry of Lands and Forestry, 2003, p.12). The 1992 Constitution allows private ownership of lands through appropriate means such as usufruct right, gifts, and lease (Republic of Ghana, 1992). Notwithstanding the above, the constitution bars foreigners from having freehold interest in Ghanaian lands (Antwi, 2018). About 70% of the lands in AANDA are held and managed by the Agogo stool. According to customary law, the allodial rights are vested in the paramount chief. The Agogo stool has the right and power to lease lands to farmers, herders and to agro-businesses. The natives in the District can farm on the land by applying through their respective community chiefs (i.e. the Odikro). The community chiefs oversee land use in their various communities and can allocate only up to five hectares of land. The overall power to lease land is the hands of the paramount chief of Agogo (Bukari, 2017). The paramount chief grants usufruct titles to families who use the land for agricultural activities through the family heads. These families could also sublet lands to other individuals in consultation with the stool (ibid., p.175).

Apart from stool lands, the Government of Ghana (GoG) owns portions of the lands in the AAND. The public lands in the District are used for afforestation projects (i.e. as forest reserves). These forest reserves are managed by the Forestry Commission of Ghana (GFC).
Depending on the land size, the Fulani cattle owners and herders had acquired lands from the Agogo Traditional Council (ATC) (Bukari, 2017). Lands are can also be owned by families. The communal ownership system of land had led to overgrazing, and over-exploitation of natural resources due to the negative attitudes towards public assets (Tonah, 2000).

**The history of Fulani herders in Ghana**

The Fulani are scattered across many countries in West Africa and even beyond where they live as an ethnic minority and as “protagonists” in conflicts over water and land (Moritz, 2006, p.2). They are marginalized and discriminated in terms of political power and access to natural resources. National policies and laws give priority to crop farmers at the expense of herders and these increase the chances of land use conflicts (Tonah, 2005; Benjaminsen & Ba, 2009). The Fulani are well known as cattle herders (Stenning, 1959). Tonah (2005) noted that the migration of Fulani into Ghana started somewhere in the 20th century. According to him, the first population census in the then Gold Coast in 1911 captured some Fulani people along the White Volta in northern Ghana. To some authors like Adisa (2012), the Fulani pastoralists use migration as a coping strategy to the changing climatic conditions. Tonah (2005a) believes that the Fulani migrated southwards to Ghana before the British came to the Gold Coast. Their migration was due to expansion in the cattle trade, the establishment of Colonial farms and the seasonal drought in the Sahelian region (ibid.). Bukari and Schareika (2015) therefore think that the presence of Fulani in Ghana is due to “economic and ecological” reasons. Today, one could see that the Fulani are engaged in several aspects of the Ghanaian society (Oppong, 2002), more especially in the cattle rearing. The Fulani migrated into the AAND in search for pasture and water for their cattle (Bukari, 2017).

This chapter has provided insight on the background of the study area. These include the political, socio-economic and geographical features of the District. These details shall later make the analysis of this work meaningful.
Chapter 3

Literature Review and Theory

What is a conflict?

Conflicts are part of all human societies. We find conflicts between couples, friends, siblings and ethnic or religious groups. The likelihood of conflict is high when individuals, groups or nations have diverse and opposing values, interests, and needs (Jeong, 2008; Coser, 1956). Conflict may be deemed as a form of competition for both tangible and intangible things such as power, freedom and natural resources. When parties in conflict realize that both cannot obtain their goals, they attempt to get rid of the other using different means (Coser, 1956).

Hocker and Wilmot (1985) and Fisher (2000) both talked about conflict as involving some forms of incompatibility of goals or values existing between groups. To Antwi (2018), the "incompatibility" may or may not exist, but each group would try to use a different approach to achieve the same goal which would often lead to violence. Conflicts are not caused by a single factor. They have both primary and secondary causes which depend on the nature of our politics, economy and societal structures (Ginty & Williams, 2009).

To operationalize the definition conflict in this project I would borrow the words of Rafael Reuveny (2007) who used conflict to denote “violent conflict.” To Reuveny (2007, p.1),

“Conflict covers many hostile interactions, including insults, threats, and violent actions such as theft, beating, armed scuffles, appropriation of resources and property, murders, civil strife, insurgencies, militarized disputes, and interstate or intrastate war.”

Conflict escalation and violence

Moritz (2010, p.138) defined escalation as "the transformation of disagreement, argument, or dispute between a single pastoralist and a single farmer, for example over crop damage, into widespread violence between communities that results in multiple fatalities.” Antwi (2018, p.21) observed that the term “conflict is not violent, but if not managed well and resolved, it has the tendency of assuming a violent nature.” That is, every conflict tends to escalate if it is not properly and timely handled. Bukari (2017, p.37) also added that mere disagreements between people can escalate into full-scale violence if it is resolved immediately.
Violence according to Honderich (2003: p.15) is a use of physical force which causes injuries, damages and violates or destroys people or things. Farmer-herder violent conflicts can transform into other forms of conflicts if not handled well (Moritz, 2006b). For example, a small disagreement between a farmer and a herder over damaged crop or animal could spread through the entire community and even beyond. Disagreement between groups over resources or power may increase in severity with time to the extent that a simple non-violent conflict may grow into a violent conflict. This increase in severity is called conflict escalation (Kriesberg, 1998).

To better understand the farmer-herder conflict in Asante Akim North it is important to consult Mitchell (1981) for the four phases of conflict escalation, more especially the third and fourth phases. These are the “latent and manifest phase” respectively. At the “latent phase”, the conflicting parties become aware that they both have incompatible goals. At the manifest stage the parties who are now aware of their incompatibility attempt to use different means to achieve their goals which may involve violence (Bukari, 2017, p.37).

Zartman and Faure (2005), Pruitt et al. (2004) and Brecher (1996) all believe that power asymmetry between parties changes the number of actors, group dynamics and the involvement of third parties. The relationships between the conflicting parties would determine the level of escalation. For example, friendships, kinship, positive attitudes, and shared faith may promote peace and stability. In other words, where these things are lacking conflicts could quickly escalate, especially when political institutions are not vibrant.

To Pruitt et al. (2004), increased involvement of external actors or third parties will lead to escalation as we recently saw in the Syrian crisis. Brecher (1993, p.150) noted that “more actors in a crisis lead to more disruptive interaction, with a consequent greater likelihood of violence including war.” This is because more and different actors come on board with different values (Van Keer et al., 2015). In farmer-herder conflicts where many actors such as the media, security agencies, local administrators, chiefs, herders and cattle owners come on board there is the likelihood of violent escalation because these different and many actors come on board with different goals, and with means of achieving them.

**Drivers of farmer-herder conflicts and escalation**

Competition over natural resources such as land, fresh water, and pasture have been attributed to the causes of farmer-herder conflicts in many of the literature (Adano et al., 2009;
Breusers et al., 1998). Their explanations were linked to Malthusianism which associates scarcity with conflict. Bassett (1988), Hagberg (2000) and Moritz (2010) argued that the causes of farmer-herder conflicts should not be limited only to competition over scarce resources. Moritz (2010, p.139) for instance, argued that to understand conflicts between farmers and herders, "A general theory of herder-farmer conflicts must include both structural and processual variables. Structural variables are necessary to explain the causes of conflicts, while processual variables can explain the outcomes of conflicts."

Moritz (2010) blamed the structural causes of conflicts on the failures of socio-political institutions and systems. He noted that symbiotic relationships exist between farmers and herders in many communities we find them. First, the relationship begins with the exchange of small gifts which later grows into the exchange of more substantial things like cattle. According to Moritz, these host-client relationships are necessary for integrating the herders into the host community and for preventing and resolving conflicts. Breusers et al. (1998) argue that such symbiotic relationships helped farmers and herders to negotiate compensation for damages and to resolve conflicts peacefully. However, Breusers admitted that the symbiotic relations could not resolve all conflicts, and sometimes clashes do occur.

**What is climate change?**

In this work, Climate change is

"an alteration in the state of the climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer … Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or land use" (IPCC, 2012, p.29).

Climate change is associated with several uncertainties in different areas of the world. It has been projected that human-induced climate change shall continue in this century and even beyond (IPCC, 2012).

**The link between Climate change and Conflict**

IPCC (2001) and Barnett and Adger (2007, p.641) have noted that climate change does not affect all nations equally. That is, people’s vulnerability depends on their reliance on natural resources and their ability to adapt to changes to these resources. They added that climate change undermines human security in association with other social factors such as poverty and
discrimination among groups like farmers and herders. The IPCC (2014, p.13) noted that climate change "will amplify existing risks and create new risks for natural and human systems." These risks would further "undermine local and global food security" through the loss of renewable natural resources (Buhaug, 2016, p.332).

Drastic changes in natural and human systems and the accompanying stress that will follow natural disasters like hurricanes, floods, severe droughts, famine and so on will displace millions of people. When these happen, people would be compelled to move into new locations with fixed natural resources. Malthusians like Homer-Dixon (1999) and Kaplan (1994) believe that climate change causes scarcity. Scarcity also brings about competition over limited natural resources which directly causes conflicts.

Some scholars on the other side of the spectrum admit that climate change affects the availability and usefulness of natural recourses like land and water. However, they do not agree that climate change alone directly causes conflicts. The IPCC (2012) noted that change could bring useful natural resources to some nations as well and not always scarcity. Pressure on these fixed resources would lead competition which will lead to conflicts in areas that have weak institutions to manage the access and distribution of these limited resources as we have in AAND (Reuveny, 2007; Moritz, 2010; Buhaug, 2016). Pressure on these fixed resources would lead competition which will lead to conflicts in areas that have weak social and political institutions and structures to manage access and distribution of these limited resources (Reuveny, 2007; Moritz, 2010).

*Climate change, migration, and conflicts*

In 2007, Rafael Reuveny learned that environmental degradation causes people to move into new areas. The effect of this out-migration in the recipient areas is that conflicts are bound to occur. Reuveny agrees with Organski and Organski (1961) that “in-migration can promote conflict between newcomers and residents of the area receiving them.” One, “the in-migration can burden the destination's economy and resources, promoting native-migrant competition for jobs and other resources. The greater the scarcity of resources in the receiving area and the importance of resources for people, the greater is the risk of conflict.” Two, “the arrival of in-migrants may upset the existing ethnic balance. For example, migrants may be considered threatening by others. Host nations might fear separatism, while migrants may wish to reunify with their home country. Situations involving long-standing ethnic disputes may be particularly prone to the conflict” (Reuveny, 2007, p.3).
Emigration is problematic especially when the recipient community is underdeveloped, and inequality is high. Again, when the economies of the recipient areas are weak and dependent on natural resources as it is in AAND the risk of conflicts is high (Moritz, 2010; Reuveny, 2007). Another factor that might determine the possibility of conflict is the nature of people emigrating and their ties with the host areas. When there exist kinship ties or when most of the people are young, elderly or females, conflicts are less likely to occur and vice versa. Since farmers and herders have no kinship ties the likelihood of conflict is high. The number of people moving, the length of the movement and the length of their stay are all critical factors. If more people move in within a short time and stay over a long period, it may increase the risk of conflicts (Reuveny, 2007, p.3).

**Farmer-herder Conflicts in Ghana**

A study in the Volta Basin of Ghana by Tonah (2006) showed that traditional chiefs preferred to lease vast acres of land to herdsmen than to local small-scale farmers because the former are richer and could pay more than the local farmers. The struggle for land between local farmers and Fulani herdsmen led to violent clashes in May 2000. Tonah further noted that chiefs get more material benefits from herdsmen than from locals and these increased tensions between the chiefs, farmer, and herdsmen, especially during the dry season. Olaniyan et al. (2015) support Tonah (2006) that traditional chiefs are deeply involved in the conflicts.

A study of triggers of farmer-herder conflicts in the Upper West Region conducted by Dary et al. (2017) shows that the primary cause of conflict is the destruction of farms and stored food in barns. Whenever herdsmen willfully or accidentally cause such destructions, violent conflicts are likely to happen because farmers consider that as threats to their livelihoods.

Another study conducted by Bukari (2017) in Agogo in the Asante Akim North District outlined three causes of clashes between Fulani herdsmen and farmers. The first is the perception of farmers that the Fulanis are strangers and have no rights to own lands. The second is the frequent seizure of lands that had been acquired by the herdsmen by farmers for commercial farming. Finally, according to Bukari though the Fulanis acquired the lands legally, they do so informally which bring them troubles when indigenes put pressure on the chiefs.

Studies by Olaniyan et al. (2015) and Bukari (2017) in the research area showed that water is not the problem and the cause of the conflict, but land. Its ownership, the acquisition process and its usage cause conflicts between farmers and herdsmen. The nature of farmer-herder
conflicts is both violent and non-violent. Violent forms include the killing of human beings, the killing of cattle, burning of food stores, farmlands, houses, and alleged rape cases. The non-violent include boycott of cattle products by locals, refusal to sell food to herders and insults.

**Farmer-herders in other parts of Africa**

Since my study area is in Ghana and Africa, it is necessary to consider some farmer-herder conflicts in other parts of the continent to see if there are similar trends or not. For example, a study by Idrissuo et al. (2017, p.20) in Northern Benin noted that,

“Conflicts between crop farmers and pastoralists arising from the competition over access to land, water, and grazing resources have diverse causes. They are related to crops damages, thefts, and aggression, the occupation of corridors and systematic eviction of pastoralists.”

Like in Ghana, farmer-herder in Northern Benin are both violent and non-violent. One of the most important points made by Idrissuo et al. (2017) is that conflicts are on the increase because of the erosion of societal values. According to their study, farmer-herder conflicts were in the past settled in an out-of-court and friendly manner by elders of the communities which reduced tension. However, society has changed, and people are nowadays more individualistic. Because of these people now prefer the formal settlement involving the police and the court. This lack of cooperation in addition to population surge had increased the struggle for resources.

Frantz (1975) identified challenges of herders integrating into African nations. The study revealed that Fulani herders find it challenging to integrate into the settled communities. This may be due to cultural differences. Diallo (2001) studied citizenship, rights over resources and state and ethnic-regional policies in Cote d'Ivoire. Tonah (2000), like Diallo (2001) found that there are prejudices against nomadic people in Africa, including Ghana. To confirm these, in 2002, Tonah learned that the Ghanaian government had carried out the national expulsion of Fulani herders in 1999/2000 because of tensions between them and native farmers. The difficulty of integrating Fulanis into the host communities could be due to their migratory lifestyle. That is, many do not stay at one place for long time and those who do interact little with the indigenes because of the nature of their job. The mobility of the herders is itself a challenge to the state’s approach to integrate herders. Another possible reason is the kind of rejection and discrimination they face in host communities. For example, in Ghana herders are
not citizens. Besides, they are perceived as “criminals” (Tonah, 2006) which make it difficult for them to integrate into their host places.

Diallo (2009) learned that local prejudices and stereotypes had undermined Fulani and had marginalized them. This agrees with Tonah (2002) when he learned that Fulani herders in Ghana were considered as “aliens.” These stereotypes and prejudices help facilitate “institutional discrimination” against Fulani, as states begin to make any laws against minorities like the Fulani (Dovidio et al., 2010). For example, in Tanzania, things are not very different as in many parts of Africa. Benjaminsen et al. (2009) noted that government policies in Tanzania favored farmers against herders. They added that official corruption also played a vital role in the endless conflicts between the two groups. That is, herders and their wealthy owners managed to bribe security and judicial officers to pervert justice.

Theories

According to Moritz (2010), there are two main theoretical approaches to the study of farmer-herder conflicts. These are the environmental scarcity debate and political ecology approach. I do not entirely agree with Moritz that there are two main theories. However, I will apply the two theories mentioned above and add others that I consider useful to my research. In this section, as I have already said, only theories that I consider relevant to understanding farmer-herder conflicts shall be discussed.

Environmental scarcity /Security Debate

Environmental security is concerned about whether people have enough food, water, and natural resources to live. It includes physical access to reliable and healthy natural resources, and people's ability to afford these resources. It also encompasses people's ability to recover from socio-ecological shocks such as floods, storms, and droughts (Gore et al., 2016). Environmental insecurity is caused by "biodiversity decline," and it is the opposite of environmental security. This phenomenon is believed to cause social conflict (ibid.).

The environmental scarcity debate is rooted in the Malthusianism explanation. This holds that the ever-growing population of the world will increase consumption "exponentially." This increase, according to them will lead to the depletion of natural resources which will eventually cause “distributional conflicts” (Hendrix and Glaser, 2007, p.697). The scarcity of resources due to climate variability will be a major concern among people that depend heavily
on natural resources for their livelihoods. The scarcity of natural resources especially land and water will compel people to migrate into new areas. These movements have the potency of increasing pressure on resources in the recipient communities which will trigger conflicts between the indigenes and migrant groups (Ehrlich, 1969; Ehrlich and Ehrlich, 1990; Goldstone, 2002).

Malthusianism influenced Diamond (2005) who believes that the adverse effects of deforestation, water shortage, and soil degradation in the Third World fueled wars. He argues that countries that are "environmentally stressed" and are overpopulated are more likely to blame their desperation and hopelessness on the government. To Diamond (2005), these people are more like to fight or kill each other because after all, they do not lose anything doing so.

Simon (1981) argued that advanced technology could help solve the scarcity problem, but this has not been so throughout the world, more especially in the developing countries. Hendrix and Glaser (2007, p.697) criticized the neo-Malthusians that their theory did not “identify short-term causes that trigger the outbreak of conflict. It does predict conflict over access to resources, but the causal mechanisms are so complex.” Another criticism of the neo-Malthusian analysis is that scarcity per se may not cause conflict, but unequal access to the limited resources may trigger conflicts (Sachs & Warner, 2001; De Soysa, 2002).

The linear models of conflicts from the Malthusian perspective

The primary assumption here is that there are direct, linear, causal linkages between environmental change, natural resource scarcity, and violent conflict. That is, high population growth will lead to competition for resources which will lead to conflict. (Diamond, 2005; UNEP, 2007). Resource depletion or biodiversity decline is the conflict trigger under this model. It posits that people will claim resources everywhere when land and water resource are depleted or become unusable. The types of conflicts that could be caused by the direct model include war, raiding, and genocide (Diamond, 2005).

Criticisms

"Climate change has a trivial effect or no effect."

The first dissenting view is that climate change is not the only cause of conflicts in the world and that other factors cause conflicts and wars. These critics often do not entirely reject the effects and role of climate in conflict and violence through environmental migration and competition over scarce resources. They hold the view that, factors such as possession of arms,
abject and prolonged poverty, income inequality, ethnic and religious tensions, weak institution
and corruption can better explain conflicts instead of thinking narrowly about climate change
(Benjaminsen et al., 2012; and Plante et al., 2017).

Fearon (1995) and Gartzke (2012) argues that human beings are rational and before they
act, they weigh the cost and benefits of resorting to violence or peaceful negotiations. That is,
when the benefits of violence overweigh the benefits of peaceful negotiations, they will choose
violence over peaceful means. Bernauer and Siegfried (2012) talked about the existence of
formal agreements while Dolev et al. (2012) talked about technology. For instance, if one group
have more advanced weapons which could give them an advantage over the perceived enemy,
violece would be preferred.

"Abundance causes conflict, not scarcity"

The second criticism is that it is always untrue that scarcity will always cause conflicts.
Hendrix and Glaser (2007) argue that “abundance” can cause conflicts because people are less
willing to make peace when they see abundance. On the other hand, people are more willing to
cooperate in times of scarcity. To these scholars, both scarcity and abundance can cause
conflicts. Plante et al. (2017, p.16) cautioned us that climate change can “bring about both
scarcity and abundance of resources, depending on the location.”

"Rapid climate change is neither a necessary nor sufficient cause of conflict"

The third criticism is that the decisions of individuals and policymakers are essential
when talking about the causes of conflicts. To Plante et al. (2017, p.17), climate change will
cause war is very “simplistic and deterministic” because complex mechanisms cause conflict.

Indirect linkages between climate change and conflict

Researchers here (e.g. Buhaug, 2016) do not assume that climate change will
automatically and inevitably cause conflicts. Instead, conflicts will ensue when self-centered
local actors defy the existing norms, rules, and regulations regarding natural resource usage, or
sometimes when resources exist in abundance. To them, abundance is more likely to cause war
than lack. What triggers conflict is when land becomes unusable and or when opportunities of
resource appropriation arise. The policy solution proposed by this school of thought is building
adaptive capacity and local conflict resolution structures (Forsyth & Schomerus, 2013).

The indirect model has been criticized like the direct model. The model has been
criticized for overlooking projections that resources will decline to levels beyond local adaptive
capacity due to climate change (Forsyth & Schomerus, 2013). Buhaug (2016) noted that climate change is not a good thing. He argued that climate change would not cause armed conflicts but may widen the security gap between the rich and the poor. Buhaug continues that though climate change would not directly cause armed conflicts, but its impact may cause conflict in association with other conflict drivers in weak and unstable societies. "For this reason, peacebuilding is quite possibly the most effective climate resilience policy in unstable corners of the world” (ibid., p.331).

Under the indirect model, researchers consider the role of local politics or institutions and behaviors of local actors in conflict onset and escalation. "These studies often refer to concepts such as adaptation and adaptive capacity and explain regarding how local institutions concerning resources such as cattle might break down and lead to activities such as cattle raiding. Some of these studies look at migration because of climate change" (Forsyth & Schomerus, 2013, p.9). Under the indirect model, researchers do not overlook the consequences of climate change and the role it can play, but they focus on local institutions and the role they play in mediating conflicts

**Model 1: Indirect linkages between climate change and conflict**

*Source: author’s own sketch*
They do not necessarily believe that climate change would inevitably cause conflict as the Malthusians believe (ibid). Instead, they believe that the effects of climate change may exist, but well-functioning local and central political institutions can help avoid conflicts. For example, scarcity may occur but if institutions see to it that there is equal access and equitable distribution of the limited resources conflicts may not occur. Like Jared Diamond (2005), the United Nations Environment Program (UNEP, 2007) report described the conflict in Darfur as “climate war.” Despite its Malthusian tone, the UNEP report did not overlook the pre-existing political tension. The report could, therefore, fall under the indirect linkages instead of the linear models.

Raleigh (2010) observed that political and economic marginalization is a crucial determinant of whether the conflict will occur or not in the Sahel region of Africa. This means that resource scarcity alone would not cause conflicts if the institutional structures are in place and functioning. The weakness of this model is that there is the possibility that one-day climate change may cause acute scarcity or hardship to the extent that social and political institutions would not function well to ensure equal access or distribution of limited resources or to mediate among disputants to avoid conflicts. In other words, a time could come when personnel in both local and national institutions could all become victims of scarcity.

**Autochthony and farmer-herder conflicts**

In many parts of Africa, including Ghana, the lack of proper land tenure security affects agricultural production (Dorman et al., 2007). While some believe that proper land registration would solve land conflicts, others think that the privatization of lands (e.g. in Ghana) could bring about more conflicts since it would be difficult to determine who owns a given parcel of land (ibid.). To Hughes (2006), communal land tenure system in Zimbabwe had been peaceful to some extent since all members of the communities believe that the lands belongs to them. Peters (2002) argues that weaker groups in West Africa are denied access to secure land by urban political elites investing in agriculture. She adds that there is increasing tension between “natives” and “strangers.” But Lentz (2005) criticizes Peters (2002) for not providing enough evidence to support her claims on West Africa.
In Ghana, doing away with the traditionalists is almost impossible because land has cultural and spiritual connotations. By customs, lands in many parts of Ghana had been entrusted to chiefs who are the intermediaries between the dead and the living. The idea behind this customary land tenure system is to “ensure sustainable and equitable use and preserve it for future generations” (Amanor 2006). Berry (1993), thinks that the flexibility of the “customary” provides fertile grounds for conflicts because people are able to maneuver their ways through to influence the distribution and usage of lands. Shivji (2002) argues that the flexibility of the “customary” system allows influential people to manipulate the system to their advantage to the detriment of the peasant farmers. In the case of AAND, the flexibility of the system had allowed the wealthy Fulanis to acquire lands from the traditional council (Bukari, 2017) which they use unsustainably by destroying farm crops. The acquisition of customary lands by “strangers” had brought conflicts between the Fulanis and the native farmers. In this work, customary or communal lands are lands that belong to an entire group of people or community. The group claim ownership of this land for that fact that they were the first to occupy it or to conquer it. By customs, customary lands are vested in the hands of traditional leaders. Anyone who truly belongs to the lineage of the group and is considered as “a true blood of the soil” could have access of the land. Lavigne Delville (2000) argues that the flexibility of the customary system is good since it allows the system to adapt to changes in society. I think that the flexibility of the customary system is not a bad idea if only the custodians (traditional leaders) of communal lands would remain impartial and incorruptible. This is because Amanor (2006) found that exaction and extortion of money by chiefs from the sales of lands are not new in Ghana.

**Citizenship and land accessibility**

Access to land symbolizes local or regional citizenship in many African societies (Dorman et al., 2007; Bøås, 2009). Many Ghanaians for example, see land as the “ultimate proof of belonging.” That is, people’s ability to possess land or at least make use of part of it in their local communities or areas is a great sense of belonging. That is, many people would love to own or have access to land and its resources to feel loved as citizens. Many people feel unloved and unwelcome in their communities when they have no access to land. To people like these, the denial of land is a “denial of being and belonging” (Moore, 2005). Because land symbolizes citizenship (Dorman et al., 2007), allowing the sons of other soils full access to land implies that they have become citizens. What often happens is that local farmers rarely admit that the Fulanis are Ghanaians. This is because such admission would give them the right to
enter the competition for landownership or unlimited utilization of land resources which are reserved for “first comers.”

Dorman et al. (2007, p.19) noted that pastoralism is considered by many Africans as “a threat to the rational norm.” Therefore, accepting Fulani pastoralists as citizens would mean that they shall have the freedom to move about practicing what is seemed to be “a threat to the rational norm.” Since “first comers” are predominantly agriculturalists in many places they prefer to demarcate boundaries to restrict the movement of herders who are considered as “aliens” (Tonah, 2005a; Bukari, 2017). On the other hand, since herders needs pasture and water all year round to feed their cattle they vehemently oppose and challenge the idea of boundaries on land use. Hence, herders and farmers clash whenever there is shortage (Dorman et al., 2007) or competition. The claim to land in Africa is typically “expressed in terms of the right to first comers” (Dorman et al., 2007). These “first comers” who always claim ownership of land would do everything possible to protect their right of landownership and prevent others that they consider as “late comers” from acquiring the ownership rights though they could use land and its resources temporary.

**Opposition from female farmers**

The studies by Hicky (2007) in Cameroon show that the attitudes and behaviors of female farmers are different from males. That is, female farmers oppose both traditional authorities and herders through protests. Though this is an interesting finding, Hicky (2007, p.99) did not give reasons as to why female farmers oppose traditionalists and herders than males. Hicky’s finding is still relevant since it would help us to understand why female farmers behave differently towards traditional leaders and herders in the analytical chapter.

**“Sons of the soil” versus “Strangers”**

To Bøås (2009), many of the conflicts in Cote d’Ivoire, DR Congo and Liberia could be attributed to citizenship. “Citizenship in itself does not secure access to land, but at the very least it allows those with this status a legitimate entry to the competition for land” (ibid., p.22) Citizenship is important to many Africans because it determines whether one would own land or be landless. It also determines whether one would hold a political position or not. Autochthony has been used to mean “emerging from the soil.” Autochthons are therefore people who emerged from the soil and have undisputable historical link to the territory they occupy (Ceuppens & Geschiere, 2005; Bøås, 2009, p.20). The autochthons who claim to be “the sons of the soil” consider all other groups that do not belong to their lineage as strangers. And
because these strangers did not emerge from “the soil” they have no right to own land and become citizens. In areas where there are limited lands, one's ability to identify himself as a “son of the soil” gives him an advantage over “immigrants” (Bøås 2009, p.21).

Mamdani (2002, p.505) wrote that “citizenship does not entitle you to resources, it entitles you to enter the struggle for resources.” The wisdom here is that one can only win a race by first competing. Therefore, the entry into the race is important because without it there is no chance of winning. This means that the ability of a group to deny other groups citizenship indirectly increases their chances of success in the “struggle for resources” (ibid.). This is because the probability of winning in a competition is higher when there are few competitors. In this case, the autochthons must protect citizenship right so that “intruders” would not become citizens to enter the “struggle for resources” or to claim part of the limited land. The privileges associated with citizenship explains why farmers in AAND always reject the Fulanis as Ghanaians. The denial of citizenship psychologically gives farmers a material advantage over of the herders. By calling the Fulanis “strangers or aliens” repeatedly demoralize the Fulani in the competition for land and its resources.

Over seventy percent of the people in AAND are farmers (GSS, 2014) whose lives depend heavily on lands and its resources. Land is therefore not only a scarce and important commodity in the areas, it is also the most essential element in the lives of the people. Bøås (2009, p.21) makes this clear when he wrote, “Land is everything as belonging to the land guarantees the rights of present as well as future generations.” In this case, farmers who are the autochthons of the areas would do everything possible to secure their livelihoods and that of future generations from “intruders” or strangers In this case, a non-prolific farmer may continue to farm so that he could preserve the land for future generations.

Who is a citizen of Ghana?

Since citizenship is central in autochthonous politics and ethnic and resource conflicts, I think it is necessary to consider who is a Ghanaian by law. The chapter three of The 1992 Constitution of Ghana talks about citizenship. Who then is a citizen of Ghana?

Article 6. (1) Every person who, on the coming into force of this Constitution, is a citizen of Ghana by law shall continue to be a citizen of Ghana.
(2) Subject to the provisions of this Constitution, a person born in or outside Ghana after the coming into force of this Constitution, shall become a citizen of Ghana at the date of his birth if either of his parents or grandparents is or was a citizen of Ghana (Republic of Ghana 1992).

If we consider the above articles and clauses in the chapter three of the Constitution, we would see elements of autochthony in it. If we carefully look at Article 6: clause (1) & (2) in the above, we can see that the Constitution refers to one’s “parents and grandparents.” The implication here is that one could stay or live in Ghana for many years but if neither of his “parents or grandparents” is or was a Ghanaian by birth or registration he or she may never become a citizen. This autochthonous aspect of the Constitution makes it difficult for Fulani herders to be citizens of Ghana. Though some were born in Ghana, their birthplace alone does not grant them citizenship when both of their parents are Fulanis. There is also the possibility that people who become citizens of Ghana by other means rather by ancestry would not be accepted by the Ghanaians who think they are the truly blood of the land.

Like Liberia and DR Congo, Ghanaian farmers would use their autochthony against the Fulani herders to limit their entries into the “struggle for resources” (Bøås, 2009). The wisdom here is that if the Fulanis are accepted as citizens, then they can equally enter the competition for land resources with the “sons of the soil.” Conflicts between “the sons of the soil” (Bøås, 2009) and the “intruders or strangers” (Mamdani, 2002) whose activities are considered as dangerous and unsustainable or a “threat to rational norm” (Dorman et al., 2007, p.19) are about citizenship and the privileges that come with it. Though the Fulani had lived in Ghana for several decades they continue to suffer discrimination because the laws of the country had not at any point in time granted citizenship to the Fulani settlers.

**Prejudice, stereotypes, and discrimination**

To further understand farmer-herder conflicts Asante Akim North it is crucial to consider the dynamics of group relations, especially by considering prejudice, stereotypes, and discrimination. Discrimination is usually exhibited towards a specific member of a group or the whole group. Prejudices and stereotypes are bound to exist in the area where minority herders are not regarded as citizens but as rapists, armed robbers, and aliens (Tonah, 2006). The use of these offensive words gives farmers advantage of the herders.

According to Dovidio et al. (2010), “prejudice subjectively organizes people’s environment and orients them to objects and people within it.” Fein and Spencer (1997) noted that prejudice enhances people’s self-esteem, in this case, the majority group. To Sherif and
Sherif (1969), people do not become prejudiced for anything. Prejudice give the material advantage to one group over another. That is, if farmers who constitute majority are prejudice against herders, they do so to gain more access to land than the herders. Another influential study by Sherif et al. (1961) found that competition produces prejudice. The development and maintenance of prejudice during competition is a way by which one group uses to defend their position. In the struggle between herders and farmers for land, prejudice becomes one of the ways that farmers could have a material advantage over the herders.

According to Johnson and Lecci (2003), Monteith and Spicer (2000) and Dovidio et al. (2010), there is evidence that minority groups also harbor prejudice toward the majority group when the minority sense discrimination. For instance, Dovidio et al. (2010, p.6) noted that "Because prejudice represents an individual level psychological bias, members of traditionally disadvantaged groups can also hold prejudices toward advantaged groups and their members." In this case, we may see herders being prejudiced against farmers as a form of reaction to their discriminative behaviors.

The term “stereotype to refer to the typical picture that comes to mind when thinking about a particular social group” (Lippmann cited in Dovidio et al., 2010, p.7). Stereotypes influence people’s perceptions, interpretations, and judgments of other groups which tend to promote discrimination. Although stereotypes could be positive or negative, people are more likely to develop negative stereotypes for other groups (Bukari & Schareika 2015), especially when there are scarcity and competition. Our understanding of stereotype shall help us to understand the nature of conflicts between farmers and herders in Asante Akim North; it is important to note Dovidio et al.’s (2010). They believe that "Stereotypes systematically affect how people perceive, process information about, and respond to, group members. They are transmitted through socialization, the media, and language and discourse.” Though farmers and herders had lived together for many years, stereotypes exist since native farmers continue to see herders as not citizens, but as criminals and aliens (Tonah, 2009).

Discrimination refers to the denial of “individuals or groups of people equality of treatment which they may wish” (Allport, 1954, p. 51). Discrimination can either directly or indirectly harm or disadvantage one group over another. Dovidio et al. (2010, p.10) referred to discrimination “as behavior that creates, maintains, or reinforces advantage for some groups and their members over other groups and their members.” Discriminations against herders or groups reinforce whenever prejudices reinforce (Allport, 1954). As our prejudices get
reinforced, we begin to develop "negative attitudes" towards the group in question. This leads to discrimination against them (Bukari & Schareika, 2015, p.3).

Individual prejudices and stereotypes lead to institutional discrimination. These could include taxes, ownership rights and polls. The opportunities of one group could be limited to give an advantage to other groups. Institutional discrimination can exist without the support of individuals. These discriminations are rarely noticed because they have legal backing and they appear to be reasonable and justified. "The media and public discourse also often direct attention away from potential institutional biases" (Dovidio et al., 2010, p.11). Institutional discrimination includes the charging of higher rent from herders and their inability to own land permanently. Since native farmers consider herders as foreigners, cultural discrimination is inevitable. This is embedded in cultural history where farmers who feel superior and have the power to exert their values on Fulani herders. Prejudice, stereotype, and discrimination can occur at the individual, institutional and cultural levels which could be justified by laws.

Political Ecology of Farmer-Herder Conflicts

Since the 1980s, political ecology had been used to explain how ecology and power are related. This relationship is then applied to understand society and its natural resources (Lund & Lund, 2005). In trying to find explanations for environmental conflicts, political ecology becomes useful. Turner (2004) noted that resource-related conflicts had always been the primary analytical focus of political ecologists since environmental conflicts reflect the struggles in society. He continued that environmental conflicts go beyond natural resource scarcity or ethnic diversity. The political ecologists would see the conflicts between farmers and herders in North Akim District as more than natural resource scarcity. They would see the interplay of political and ecological factors in the farmer-herder conflicts, and therefore this theory is relevant in this work.

Political ecologists, according to Watts (2000, p.257), “understand the complex relations between nature and society through a careful analysis of what one might call the forms of access and control over resources and their implications for environmental health and sustainable livelihoods.” Political ecologists have challenged Homer-Dixon’s (1999) thesis that there is a direct causal link between resource scarcity and violent conflicts (e.g., Hartmann, 2001). Basset (1988) observes, for example, that herder-farmer conflicts are equally intense in Cote d'Ivoire and Central Cameroon, where grazing areas are relatively abundant. Turner (2004), like Basset (1988) noted that farmer-herder conflicts do not necessarily come about as
the results of natural resources scarcity or historical or ethnic tension. He believes that such conflicts emerge as the results of political and ecological factors.

Again, political ecology is concerned about how political decisions shape environmental and ecological processes. They study “the role of power, politics, governance and social factors in explaining environmental conflicts” (Bukari, 2017, p.53). Since I will look beyond the environmental causes of farmer-herder conflicts to consider socio-political factors, applying political ecology in my thesis is once again justified. Bryant and Bailey (1997, p.27) noted that environmental changes do not occur without a cause. To them, they have “political sources, conditions, and ramifications that impinge on existing socio-economic inequalities and political processes.” That is when we carefully consider the farmer-herder conflicts in Asante Akim North there could be certain socio-economic and political factors behind them rather than mere resource scarcity.

Le Billon (2001, p.564) argues that political ecologists believe that both scarcity of renewable resources and the abundance of non-renewables like gems, oil and other could cause conflicts. To Le Billon, apart from financing conflicts with resources, their abundance also motivated the conflicts and shaped the power dynamics. For example, farmers are eager to fight with the hope of getting control over the abundant resources. That is, political ecology goes beyond resource abundance and scarcity to consider the political forces and social groups behind these conflicts (Bukari, 2017). In this research, I would be looking at some of these socio-economic and political factors and forces that had fueled farmer-herder conflicts over the years alongside with the environmental factors.

Chapter summary

In this chapter, I have presented major works that talked about farmer-herder conflicts in Ghana and Africa (Tonah, 2002, 2005, 2005a; Abbass, 2012; Bukari, 2017; Diallo, 2009) as well as climate change and resource scarcity and conflicts (Homer-Dixon, 1999; Kaplan, 1994). I have also considered relevant literature on the effects of climate change on human behavior (Buhaug, 2016; Conca, 2001; Sherif & Sherif, 1969). On theory, I have considered four theoretical frameworks relevant to understanding farmer-herder conflict. The first is the environmental/resource scarcity debate (Homer-Dixon, 1999). The second theory is autochthony (Amanor, 2006; Dorman et al., 2007; Moore, 2005; Boâs, 2009). The two other theories that I considered relevant are political ecology (Turner 2004) and stereotype, prejudice and discrimination (Allport, 1954; Bukari & Schareika, 2015). All the above theories shall be
applied to the data analysis to understand the informants studied in this work in their social environment. Then conclusions and recommendations shall be made in the final chapter.
Chapter 4

Research Design and Methods

Introduction

This chapter examines the approaches and the research techniques used for data collection for answering my research question. The chapter gives information about the informants, the selection of informants and their justifications. I also provide details on how, where and when interviews were organized, how data was recorded, managed and analyzed qualitatively. The final part presents the ethical considerations, challenges and limitations of the study.

Research strategy: qualitative vs. Quantitative debate

The kind of method that one uses to conduct his or her research depends on the hypotheses and the research questions that researcher wants to test or answer. In other words, a researcher chooses a method based on the data he or she needs to collect to test his or her hypothesis or to answer his research question (Matthews & Ross, 2010, p.141). Social scientists can use either quantitative or qualitative method depending on their research questions or hypotheses. They can also use both approaches in a single study (ibid.).

However, in this study, considering my research question and objective, an interpretive approach is more suitable. The interpretivist epistemology “prioritizes people subjective interpretations and understandings of social phenomena and their own actions” (Matthews & Ross, 2010, p.28). To better understand the farmer-herder conflict in the study area, a qualitative approach was chosen over a quantitative method. This is because qualitative approach provides data that is rich in details and description in the forms of stories and accounts including feelings, opinions, and beliefs that numbers cannot describe as quantitative method does (ibid.: p.142). Another reason why the qualitative approach is more suitable for this research is that the kind of data needed is unstructured, but they are constructed by the informants in their own way. My responsibility as a researcher is to interpret and structure them as part of my analytical process.

The field studies

The field study was carried out in spring 2019. In all, the trip lasted for five weeks. However, before the main field trip, a three-day preliminary visit to the study area was carried out in summer 2018. The aim was to familiarize myself with the area and the terrain to prepare
myself adequately for main project. The preliminary trip helped me in choosing the study communities. Again, it gave me an idea about the life of the Fulani herders. For example, I got to know about their daily routines. I got to know the best time I could meet the Fulani in their residence for interviews. The preliminary trip enabled me to establish contacts with the District Assembly, agriculture extension officers and the District Police officers in Agogo. I also got to know some farmers in Kowereso. The preliminary trip aided me to restructure and to improve my interview guide. The greatest advantage of the preliminary trip is that it helped me to carefully select the research communities best for this research. This helped me to save time during the main field trip.

**Gaining access**

Gaining access to over-researched institutions, individuals, grieved farmers and herders, embittered youth organizations, opinion leaders were not so easy, especially in conflict areas where information is sensitive, and trust is low. Before I left Oslo for Accra, it was not part of my original plan to use a research assistant for the data collection because of the cost involved of moving up and down. However, things were not so easy for me as I had thought, especially in the recruitments of farmers for interviews. I, therefore, invited a former colleague of mine, Bernard who was on a two-week leave in Agogo. I chose Bernard as my research assistant because he is native of the study area, but more important he had lived most of his life in Accra. Bernard was suitable for this task because that could claim ancestry or origin to the study area to help recruit informants. At the same time, I needed someone who was not popular in the neighborhoods. This was important because choosing an assistant that the informants knew very well could affect the data quality since many informants may keep some sensitive but useful data for the sake of confidentiality.

Beside the above, I wrote a formal letter to District Security Council (DISEC) asking for permission to carry out my research in the District and promised in it not to harm any participants. I was cleared on my first visit to the District Assembly to carry out my research after showing them my travelling passport, student identity card and the receipt of my semester fee. These were enough to convince the District Assembly officers that I was a genuine student and researcher without any ulterior motives.

**Mapping and identifying the conflict zones**

One of the first things I did the next morning after landing in the study area was to map the conflict areas. That is, I needed to carefully select communities that had both farmers and
Fulani herders that had been involved in the conflicts. The only best option available to me was to consult the District Planning officer. With the help of the District planning officer, I got the map of the District with the various communities. The planning officer again assisted with me with information on the various communities with Fulani herdsmen in the district. With help of the District planning officer and DISEC, we mapped the communities with farmer-herder conflicts. The next day, I visited the mapped communities to verify whether the information I obtained the previous day was right or not. That is, I wanted to confirm whether conflicts had really existed between farmers and herders, and to find out whether the Fulani herdsmen still live in those communities. After mapping the conflicts areas and confirming them with my first visit, I decided to focus on Agogo, the District capital of AANDA. I chose it because it was easily accessible by car and motorbike. Besides, the communities in Agogo like Bebuso, Nyamebekyere, and Kowereso have high number of Fulani herdsmen and farmers who were engaged in the conflicts according to the data from the District Assembly. The proximity and accessibility of the Agogo allowed me to cover the participants well. It is important to note here that some of the informants did not want me to use the names of their actual suburbs or locations in Agogo during the interviews. Because of these, we shall see in Table 2 and in chapter five that the place of interview for some informants is Agogo instead of the specific area of the town they dwell.

**Semi-structured interviews**

Since this research is conducted qualitatively, in-depth semi-structured interviews and focus group discussions were used as the primary data gathering techniques. The interviews and discussions were done in Twi language. Semi-structured interviews employ interview guide to help the researcher to focus on key issues relevant to answering his research question and to achieving his objective. Semi-structured interviews allow the researcher to explore the perceptions and opinions of respondents on sensitive issues in times of conflicts. It also gives the researcher the chance to probe the responses of informants for more information and clarification of inconsistencies. These ensure reliability and validity of data (Barriball & While, 1994).

I chose semi-structured interviews because of its advantages over other methods. One, it is suitable for exploring attitudes, values, beliefs and motives of respondents (Richardson et al., 1965; Smith, 1975). Two, it presents the researcher with the opportunity to evaluate the validity of the informants’ answers by observing non-verbal actions. Gordon (1975) thinks
observing the non-verbal indicators is useful especially when discussing sensitive issues. Third, semi-structured face-to-face interviews prevent the interviewee from getting support from others when responding to the researcher’s questions (Bailey, 1987). This provides valid data.

**Preparations before the interview**

Every research requires adequate preparation to be successful no matter the methods that are involved. In the view of Barribal & While (1994, p.333), “The success of the semi-structured interview method clearly relies upon the skills of each interviewer in making a number of difficult field decisions.” These preparations start by reviewing the existing literature and not forgetting about anonymity and informed consent of the participants as well as their right to refuse participation. The review gave me some idea on how best the research could be conducted. I got to know some background information and the current trends of the conflict. I also got to know that previous researchers (Bukari, 2017; Antwi, 2018) used semi-structured interviews. I familiarized myself with the challenges they faced and figured out how I could overcome them. This awareness helped me to contextualize the contents and schedules of my interviews. It helped me to explore more yet maintaining standards by avoiding missing out relevant data that could possibly affect validity. Prior to my departure for Ghana, I developed an interview guide. As part of my preparations, I spoke with the District Planning officer in Agogo and told him about my research trip. Finally, I tested my audio recorders and they worked perfectly.

**The interviews**

To get the best out of interviews, according to Hay (2010), the interviewer must use warm-up techniques. That is, the relationship between the researcher and the interviewees prior to the interviews is important. A good rapport could liven the spirits of the respondents. Again, when the interviewees have a general overview of some of the possible questions they could be asked it relaxes the atmosphere which brings out good answers. Prior to the interviews, I encouraged the informants not to be anxious, but to relax because the interviews were not school examinations. During the interviews, I used cues to ensure that the informants express their opinions without diverting from the topic. Before we ended our interviews a sense of continuity was created to maintain good rapport with the informants so that when the need be to go back to the field, I could easily reach out to them (Asomani, 2014).
Focus group discussions

Focus group is qualitative interview technique that “brings together a group of between five and thirteen people” instead of one-on-one interviews. The members of the focus group must have something in common that is connected to the research topic. In focus group discussions, the researcher facilitates the process to avoid extremely large but unnecessary data (Matthews & Ross, 2010). I avoided obtaining large and unnecessary data by prompting the discussants when they were diverting from the topic. Although focus groups can take place in both natural and artificial settings, my focus groups took place in natural settings. The reason was that the participants knew themselves and therefore, they decided to meet in relaxed environments.

The first focus group had seven participants who were all young farmers and active members of the pressure group called The Concerned Citizens of Agogo (CCoA). Five out of the seven were males. The youngest was a twenty-eight-year old school dropout who had become a farmer because of economic hardship. The oldest among them was forty-seven years old. The first FGD took place in a primary school in Agogo.

The second group had six farmers as participants. Four out of the six were men. Their ages range from twenty-nine to fifty-three. Our discussions took place in Alice’s house in Agogo. All the six participants agreed to have the discussion there on one Sunday evening. The third FGD took place at Kowereso on one Friday afternoon. The discussants were seven Fulani herders. Five of them had live in the District for almost two decades. Yusif and Mumuni migrated from Gushegu in Northern Ghana six years ago to work as herders. The oldest was fifty-six years and the youngest was nineteen years old.
One advantage of using focus group discussions is that it allowed the participants to comment and even challenge the contributions of others when they felt the story has been twisted or exaggerated by the participant. Again, the discussions allowed statements made by participants to be challenged, extended, developed, undermined or qualified in ways that would not have been done in one-on-one interviews. Those group discussions generated very rich data for my work. As a moderator, I knew that the aim of the discussions was not to bring about consensus but to get different opinions on the issues to help explain what happened (Kvale & Brinkmann, 2009). As the facilitator of the discussions, I introduced the topics and decided on who to talk since everyone wanted to speak all the time. Another advantage of using the focus groups which I realized is that it gave the opportunity to participants who would have otherwise been silent in one-on-one interview to express themselves succinctly in the group which enriched the data.

### Table 1. Shows the various groups that engaged in a focus group discussions

<table>
<thead>
<tr>
<th>Focus group discussions</th>
<th>Number of discussants</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerned Citizens of Agogo</td>
<td>9 (3 females (Karo, Aisha and Judy) and 6 males (Kofi, Adu, Osei, Paapa, Pius and Tiofi)</td>
<td>Agogo</td>
</tr>
<tr>
<td>Fulani herders</td>
<td>7 (all males: Ali, Sule, Abuu, Razak, Yakubu, Mumuni and Yusif)</td>
<td>Agogo</td>
</tr>
<tr>
<td>Farmers</td>
<td>6 (4 females: Joyce, Hagai, Mary and Pat) and 2 males (James and Eric)</td>
<td>Kowereso</td>
</tr>
</tbody>
</table>

*(The names used in Table 1 are fictitious)*
**Selection of informants**

Due to time constraint during the fieldwork, two sampling techniques were used in the data collection. The first was purposive sampling. With this technique, I was able to choose people that I considered relevant to my research objective. Farmers, pastoralists, security agencies, opinion leaders, agricultural extension officers were sampled purposively. This technique helped me to get people with expert knowledge on the conflicts. The selection of informants for both interviews and for the focus group discussions was carefully guided by the conflict map that I had on the first day on the field. The District Assembly has more information about farmers, cattle owners, and herders as well as other parties such as youth groups who were involved in the conflicts. That information was augmented by the Ministry of Food and Agriculture in the District. The District officers in Agogo, for example, have information of some farmers, herders and cattle owners who were involved in the conflicts. These made the recruiting of informants or discussants for focus groups and the interviews quite easier for me with the help of Bernard, my research assistant. I got to know more farmers, herders, security experts, opinion leaders and sub-chiefs, youth groups through the snowball sampling technique. That is, one informant, helped me to identify and to locate another informant that could meaningfully contribute to my topic. This helped me to save time.

**Table 2 shows the number of informants interviewed in three communities in AAND**

<table>
<thead>
<tr>
<th>Name/Age</th>
<th>Gender</th>
<th>Occupation</th>
<th>Tribe</th>
<th>Education</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulemani, 39</td>
<td>Male</td>
<td>Cattle herder and owner</td>
<td>Fulani</td>
<td>Basic Arabic</td>
<td>Agogo</td>
</tr>
<tr>
<td>Seidu, 19</td>
<td>Male</td>
<td>Herder</td>
<td>Fulani</td>
<td>Basic Arabic</td>
<td>Kowereso</td>
</tr>
<tr>
<td>Rahma, 49</td>
<td>Male</td>
<td>Herder</td>
<td>Fulani</td>
<td>Arabic and basic education with French</td>
<td>Bebuso</td>
</tr>
<tr>
<td>Babab, 23</td>
<td>Male</td>
<td>Herder</td>
<td>Fulani</td>
<td>Basic education</td>
<td>Nyamebekyere</td>
</tr>
<tr>
<td>Issak, 53</td>
<td>Male</td>
<td>Herder</td>
<td>Fulani</td>
<td>Basic education</td>
<td>Agogo</td>
</tr>
<tr>
<td>Name</td>
<td>Age</td>
<td>Gender</td>
<td>Occupation</td>
<td>Ethnicity</td>
<td>Education</td>
</tr>
<tr>
<td>-----------</td>
<td>------</td>
<td>--------</td>
<td>--------------------------</td>
<td>-----------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Faruuk</td>
<td>58</td>
<td>Male</td>
<td>Cattle trader, owner and former herder</td>
<td>Fulani</td>
<td>No formal education</td>
</tr>
<tr>
<td>Alice</td>
<td>46</td>
<td>Female</td>
<td>Farmer</td>
<td>Akan</td>
<td>Basic education</td>
</tr>
<tr>
<td>Mr. Greene</td>
<td>61</td>
<td>Male</td>
<td>Farmer</td>
<td>Akan</td>
<td>High school certificate</td>
</tr>
<tr>
<td>Jacky</td>
<td>43</td>
<td>Female</td>
<td>Farmer</td>
<td>Akan</td>
<td>Basic education</td>
</tr>
<tr>
<td>Akua</td>
<td>64</td>
<td>Female</td>
<td>Retired teacher and a farmer</td>
<td>Akan</td>
<td>Master’s degree</td>
</tr>
<tr>
<td>Paidai</td>
<td>49</td>
<td>Male</td>
<td>Cattle owner and a sub-chief</td>
<td>Akan</td>
<td>Diploma certificate</td>
</tr>
<tr>
<td>Jonny</td>
<td>35</td>
<td>Male</td>
<td>Farmer and teacher</td>
<td>Akan</td>
<td>First degree</td>
</tr>
<tr>
<td>Nicho</td>
<td>51</td>
<td>Male</td>
<td>Cattle trader and owner, and a farmer</td>
<td>Akan</td>
<td>High school certificate</td>
</tr>
</tbody>
</table>

(The names used in Table 2 are fictitious)
Expert interviews

Table 3. shows institutions /Individuals in the expert interviews

<table>
<thead>
<tr>
<th>Institution/expert interviewed</th>
<th>Place of Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agogo Police Service</td>
<td>Agogo</td>
</tr>
<tr>
<td>Mr. Biiman - at the Ghana Cattle Ranching Project</td>
<td>Wawase in the Afiram Plains</td>
</tr>
<tr>
<td>Mr. Vett - at the Asante Akim North District Veterinary Services Division</td>
<td>Agogo</td>
</tr>
<tr>
<td>Mr. Peace - at National Peace Council, Ghana</td>
<td>Accra</td>
</tr>
<tr>
<td>Mr. Casters – at the Ghana Meteorology Agency, Headquarters</td>
<td>Accra</td>
</tr>
</tbody>
</table>

(The names of individuals used in Table 3 are fictitious)

To give the data official backing, expert interviews were necessary. This was part of my effort of ensuring triangulation and rigor of the data. Expert interviews helped me to clear the doubts about certain data I obtained from the field. For example, expert views and opinions on environmental change, resource scarcity and conflict helped me to ascertain some of the data from the field. These eventually gave me more confidence in the overall data set. Interviews with experts were pre-booked.

Timing and recording of interviews and discussions

The interviews took place in the homes and workplaces of the interviewees - where and when they themselves felt were convenient and secure. The longest interview lasted thirty-four minutes and the shortest was fourteen minutes. The FGDs took fifty-seven, sixty-four and sixty-eight minutes respectively. The FDGs had longer periods than the interviews because they had more participants. Two of the experts at the Agogo Police station and the National Peace Council (NPC) did not allow me to record our conversations for security concerns. Although I promised to protect their privacy, they denied all audio recordings. In those two cases, I took notes that were later transcribed.
Field notes

Since not everything on the field could be recorded into audios, I took notes. These notes include interviews with experts at the Agogo Police station and the NPC. The experts’ concerns were to remain as anonymous as possible. The field notes were quickly transcribed right from the day’s activities because it contained a lot of shortened words and signs which could misinterpreted if left for too long. The field notes allowed me to document the moods, facial expressions, tones and other body languages that could not be recorded as audio.

Ethical considerations

There are ethical issues surrounding every research and this study is no exception. From the choice of the topic through to the choice of research method and techniques, the researcher has a lot of ethical issues such as privacy, informed consent, confidentiality, deception and harm to consider (Matthews & Ross, 2010; Hay, 2010; Bryman, 2012).

Informed consent

Conflicts are sensitive issues, and therefore, researchers of conflicts must seek the informed consent of potential informants before they are recruited for interviews or whatever task. During the fieldwork, I spent the first week with my assistant moving from one potential informant to another based on the information I obtained from the District Planning officer and DISEC on my first and second day on the field. Upon identifying potential respondents, we explained vividly to them my research topic and objectives. I also explained to them that the interviews shall be used for purely academic purposes and that it has nothing to do with criminal arrest or prosecutions.

Privacy and confidentiality

Asking questions about conflicts that had involved the loss of lives and destruction of property is quite difficult because it is considered by some victims as intrusion into their privacy. To ensure that the data gathered does not reveal the real identities of the informants, fictitious names were assigned to them to keep them anonymous and safe. For example, all the informants that I had the expert interviews with did not want their names and positions to be mentioned in my research because of privacy. I therefore had to promise them that their privacy would be protected. I agreed with the experts that their names, ranks, and office numbers would be kept secret for the sake of privacy and confidentiality.
Protection from harm

While some informants and town folks initially thought I was a spy and a national security operative, some thought I was an investigative journalist. However, after personal introduction, I promised them that the recorded interviews shall be quickly deleted after transcription. I made it known to them the estimated time per interview shall be between fifteen and thirty minutes should they agree to grant me interviews. I finally assured them that they shall be free to turn off the recorder whenever they feel what they were about to say was sensitive. To ensure more privacy and confidentiality of my informants, I kept my field notes, recordings and transcripts in locked briefcase in my room. Beside issues of recordings and notes, I was very cautious about the emotional and the psychological wellbeing of the participants. For example, asking some sensitive questions could trigger psychological trauma to informants especially those that had lost so much in the conflicts. I told informants to ignore questions that they might feel were too sensitive and disturbing to share with me.

Ensuring rigor

Patton (1990) noted that, the value of the information gathered during an interview is largely dependent on the researcher. Barriball and While (1994, p.332) thought that the interviewer’s rapport, approach and manner towards respondents can help enormously with securing validity and reliability of the data. To achieve the above, interviewees’ impressions about the interviewer is important when it comes to face-to-face interviews (Hasselberg, 2013). That is, a researcher may obtain false data from the interviews when the interviewees have wrong impressions about the researcher. For example, going out for interviews with farmers and herders expensive clothing may create wrong impressions. The respondents might think that they do not belong to the researcher’s social class and some might have ill-feelings. Some might consider that as a sign of disrespect. Having this in mind, we presented ourselves modestly for all interviews and group discussions to maintain a good rapport to avoid untrue data.

Ensuring rigor in qualitative research means that our work is trustworthy. But ensuring trustworthiness must start from the beginning of the research process through careful documentation of each stage and checking procedures so that our results or analyses could be cross-checked and scrutinized (Hay, 2010, p.77). To ensure more trustworthiness, triangulation was applied during the data gathering processes. That is, mixed data collection methods (semi-structured interviews, focus group discussions and expert interviews), different information
sources, theories, and investigators were used to confirm my results (ibid.). For example, I could have used only semi-structured interview, but I did my best to get some expert opinions and views to cross-check my data to increase the trustworthiness of my work. To ensure more rigor and reliability, I cross-checked the data provided by various bodies with one another before they were finally accepted. For example, the data provided by the planning office was compared with those provided by the Agriculture Ministry and the veterinary officers. The use of follow-up questions during interviews also helped me to check consistency and the truthfulness of the data provided by the informants.

**Secondary data**

Secondary data refers to data the researcher uses that were provided by someone else who is not part of his research team (Matthews & Ross, 2010). Another way of ensuring rigor in qualitative work is to use secondary data sources besides the primary data. Books, articles and online journals relevant to my topic were used. During the fieldwork public records at the District Assembly and the agricultural ministry were consulted. However, police records on farmer-herder conflicts were not accessible. I only had access to photos without any written records.

**Challenges of the study**

**Gender balance**

Before the start of the fieldwork, it was part of my plan that I would ensure gender balance in the recruitment of informants to be able to compare the views and the experiences of males and females before, during and after the conflicts. However, in many places, women were less interested in coming out to be interviewed. Some feared that they could be implicated by availing themselves for interviews. One surprise that I had was that I could not get a female Fulani to interview. The reason that was given by the male Fulani was that, “herding is a man’s job” and therefore interviewing females were not very necessary.

**Language barrier amongst the Fulanis**

I had a challenge with the recruitment of Fulani herders for interviews. In fact, it was difficult to identify herders that could speak Twi or English, but only the *Fula language*. The transcription of data from Fulanis whose Twi knowledge was low took more time since I had to play the tape repeatedly.
**Busy herders**

Apart from language challenge, the Fulani herders were difficult to reach out during the morning and the afternoon. This is because many had to wake up early in the morning and herd their cattle several kilometers away from the community to get pasture for their cattle. In the evenings many of the herders were tired because of the long distances they cover to feed their cattle. On the average, four of the herders said they cover between seven and twelve kilometers every day to feed their herd of cattle which they considered as “tiresome.” Because of this, all my interviews with them were held in the evenings except the FDG which was held in the afternoon.

**Apathy of local chiefs**

Another challenge I had was getting access to chiefs. There were a lot of gatekeepers in my effort to arrange interviews with the local chiefs. My research assistant who is a native of Agogo played a crucial role when it came to gatekeepers. He convinced both gatekeepers and the folks who were suspicious of my activities that I was there “for peace, and for research and nothing else.” This assurance made the recruitment of informants faster than I could have done it alone. Before the field trip, it was part of my plan to interview at least two chiefs. However, getting access to them was quite difficult since many of them were busy. Again, the issue of trust was also a challenge. It was hard for them to trust me since they did not know me from the neighborhoods. Some probably thought I was an undercover criminal investigator who wanted intelligence for prosecutions. The only chief that agreed to speak with me required that I made photocopies of my student identity card and print out my academic transcript to prove my studentship to him.

**Interruptions**

There were some interruptions during the focus group discussions since we had them in unrestricted areas. Sometimes friends and acquaintances of the discussants interrupted which slowed down the process and affected the audio quality during transcription. This challenge was overcome by playing the audio several times.

**Data transcription and Analysis**

In every research, the only way that researcher can answer or test his or her research questions or hypotheses is by analyzing the raw data collected from the field. “The purpose of data analysis is to describe, discuss, evaluate and explain the content and characteristics of the data that has been collected in your project” (Matthews & Ross, 2010, p.317). Research analysis
must be “systematic.” This means that each piece of data in the projects should receive the same treatment. The second issue with analysis is that all data collected for the research must be included in the analysis (ibid., p.317).

Having the above in mind, each day after the interviews or discussions, the next thing I did was to transcribe or convert the recorded audios and non-verbal responses from the field into words or text (Hay, 2010). Two things were done simultaneously. I translated the interviews from the local language (Twi) into English and into written words to make sense for my research. This was done by repeatedly playing and listening carefully to the tapes from the interviews and discussions. Having confidentiality in mind, I assigned fictitious names to each of my informants as I had promised them prior to the interviews and discussions. To save time, I excluded information such as exchange of pleasantries from the transcript and focused on those relevant to my research question. Relevant quotations from my informants in the transcript were put into quotations marks.

After the transcriptions, I began to review the transcripts and field notes for the analysis. I therefore assigned labels to various component parts that appeared to the theoretically relevant to the social world of my informants. This is what Bryman (2012, p.568) refers to as coding. By coding, I began to group my finding into major themes and sub-themes in accordance with my research question and objective.

**Some personal reflection from the fieldwork**

My personal experience from the field have thought me one useful lesson. One could be a Ghanaian but also a stranger simultaneously in his motherland when he steps out of his hometown or district to study in another town. Although I speak the same language (Twi) as the people in the study area that did not a guarantee that the people would receive me as citizen of the area. My interactions with some of the residents in the study areas showed distrust and suspicion. The people identified me as stranger and were curious to know my mission in the area. When I told them, I am a student researcher many did not believe me until I showed my student identity card to them. To some town folks, my identity card was not enough, and they wanted to check my travelling passport, travelling visa and even air ticket before they could trust me. Many of the people who later became informants like Jonny, Alice, Paidai, Mr. Vett, and Jacky as well as Babab, Furuuk and Rahma were suspicious when they first saw me. They thought I was an undercover journalist or a national security operative trying to gather intelligence for prosecution from the conflict. The state of “citizen-stranger” that I found myself
on the field informed my decision to invite Bernard, a native of the area to assist gain access during the recruitment of informants. The level of suspicion and mistrust that I was welcomed with gave me some insight of how the people perceived and treated the Fulani herders who are not citizens and speak different dialect.

**Chapter summary**

In this chapter, I have discussed the research design and methodology and the reason for such choices. I have explained the selection of informants for both interviews and FGDs. The interview duration and place have been explained as well as the recording procedure. Ethical considerations and field work challenges have not been overlooked in this chapter.


Chapter 5

Analysis and Discussions

Introduction

This is the analytical chapter of this study. The first part presents the actors in the conflicts and the phases of the conflicts in the study area. The second part discusses the role of environmental change in the conflict. It looks at the knowledge and perception of herders and farmers on climate change and resources scarcity. This part ultimately looks at the various ways in which climate change is fueling the conflict. This analysis and discussion are done in line with the environmental scarcity debate (Homer-Dixon, 1999). The third part of this chapter discusses the cause of the conflicts from the perspective of the political ecologists (Turner, 2004; Lund & Lund, 2005). The fourth part discusses how stereotypes, prejudice and discrimination have contributed to the relations between farmers and herders and how these have shaped the conflicts (Allport, 1954; Diallo, 2009). The fifth part of this chapter discusses how autochthony, belonging, citizenship and access to land the relationship between farmers, herders and traditional leaders (Bøås, 2009; Dorman et al., 2007). I continue to look at how autochthony and citizenship have affected the informal dispute resolution system and the payment of compensations and how these have influenced the conflicts. The final part looks at the effects of the conflicts and the measures being adopted to curb the situation in the AAND.

The main Actors in the conflict

Since every conflict has actors it is important to know the key actors in this study. Farmers and Fulani herders are the main actors in the conflicts in AAND. Beside them, cattle owners, traditional leaders, youth groups, the police, the military and state official are involved in the conflicts.

The Farmers

Most of the farmers in this study considered herders and their cattle as the main cause of the conflicts in the area. To the farmers, herders deliberately allow their cattle to destroy their crop, their only source of livelihood. Since farming is the major occupation in the district (GSS, 2014), farmers constitute majority actors in the conflicts. The data identifies two kinds of farmers. Native farmers and migrant farmers. Native farmers are autochthonous people that farm and make living from farming. Migrant farmers are other Ghanaians who have migrated...
into the area mainly for farming. The grow crops like plantain, watermelon, vegetables, cassava and cocoyam. The native farmers outnumber the migrant farmers. Analysis of the data indicate that crops of both native and migrant farmers are not spared by the Fulani cattle. Native and migrant farmers are affected equally and for that matter they all oppose the Fulanis and the traditional leaders. In the words of Jacky, a female farmer, at Kowereso, “The cattle do not know native and migrant farms. They destroy all farms they come across.”

The Fulani herders

In farmer-herder conflicts in AAND, the minority Fulani settlers are perceived as villains. They are perceived by the farmers as dangerous and troublesome people that “never love peace.” There are two types of Fulani herders in the district. The first are those that herd their own cattle. This group had relatively lived longer in the district than the second group. For example, Faruuk and Sulemani have their own cattle. Beside their own cattle, they also keep the cattle of Ghanaian nationals for monthly fees depending on the number that is entrusted to them. A herder could earn between 3 and 6 USA dollars per cattle per month. The Fulani herders who double as cattle owners are more careful in dealing with disputes so that farmers would not attack their cattle. The second group of herders are those that have no cattle themselves but migrated to the area in search of herding jobs. These are often the young ones. These young herders who do not have their cattle indicates new trends of pastoralism. The two groups are affected by the conflict, but the Fulanis with cattle are affected more by conflicts since the animals are exposed to enemies. All the herders reported loss of cattle in the past due to the conflicts. The Fulanis claimed they came from Niger, Mali, and Burkina Faso.

Zartman and Faure (2005), Pruitt et al. (2004) and Brecher (1996) all believe that power asymmetry between the parties changes the number of actors, group dynamics and the involvement of third parties. The relationships between the conflicting parties would determine the level of escalation. For example, friendships, kinship, positive attitudes, and shared faith may promote peace and stability. In other words, where these things are lacking conflicts could quickly escalate, especially when political institutions are not vibrant. The above had led to the involvement of third parties in the conflicts over the years. To Pruitt et al. (2004), increased involvement of external actors or third parties will lead to escalation. For example, politicians who want political power are likely to incite farmers against herders knowing that herders have no votes in elections.
Cattle owners

To balance the support of farmers from politicians, cattle owners who have economic interest join the third-party actors. The interviews indicate that not every cattle in the district belongs to the Fulanis. The police, the farmers and the Fulanis themselves confirmed that many prominent chiefs, businesspersons and politicians have invested heavily in the cattle rearing business. According to the Fulanis, Ghanaian businesspersons hire the services of the Fulanis to tend their cattle for them for wages in cash or kind. Five out of the seven farmers I interviewed believed that these wealthy and undercover cattle owners contribute immensely towards the conflict in the area. The five farmers accused the local cattle owners for arming the Fulanis, bribing the chiefs and police to defend the Fulanis against the farmers. Antwi (2018) found similar instances when farmers accused cattle owners for arming herders in Kwahu East District. Jacky and Alice for example, alleged that cattle owners with political influence use their positions to undermine the efforts of the police in ensuring peace. All the farmers expressed worry about the unpreparedness of local cattle owner to modernize their activities by establishing cattle ranches.

The security task force

The main security agencies involved in the conflicts are the police and military. Their duty is to ensure peace and security in the district. Their operations include day and night patrols in the towns and villages. The military sometimes undertake operations in bush to ensure that farmers and herders do not clash in the bush. The police for instance educate the people on how they could get assistance from the task force in times of emergency and how they could peacefully co-exist. The security officers also protect the lives and properties of the people including cattle and farms. Despite their role in ensuring the safety of the people, many of the Fulanis accuse the soldiers of molesting them and for stealing their cattle in some of their operations. They also accuse the soldiers for unlawfully killing their cattle. The Fulanis prefer the police to the military. They think that “the soldiers are ruthless and merciless.” On the other hand, the farmers prefer the operations of the military to the police. Most of the farmers think the police are corrupt and that they take bribes from the Fulanis to pervert justice. The police however denied this allegation against them.

Youth organizations

The role of youth organizations like the Agogo Youth Association and the Concerned Citizens of Agogo in the conflict is important. These energetic youth often mobilize when their
intelligence tells them that the Fulanis are arming themselves. The purpose of these groups according to the FGD is to protect the lives and properties of autochthonous farmers and their families against the attacks of the Fulanis. They also exist to pressurize the security agencies, the local government authorities and the traditional council to bring the perpetrators to book. The youth groups also mobilize and protest on streets against the authorities and the Fulanis. The groups accused the police and traditional council for colluding with the cattle owners and the herders to destroy farms, rape women, and kill innocent farmers in the district. The police also blamed part of the problems on the youth groups.

Traditional council and the local authorities

The Agogo Traditional Council (ATC) is the highest native authority in the district that is responsible for cultural and traditional practices like funerals and festivals. The paramount chief of the area - Agogomanhene is the custodian of all the stool lands which consist of about eighty percent of the lands in the area (Bukari, 2017). The ATC has the power to lease lands to interested people including the Fulanis. The youth groups and farmers blamed the conflicts on the ATC. According to them, if the council had not leased the lands of the people to the cattle owners and the herders, they would have no business in the area in the first place. The District Assembly which is headed by the District Chief Executive (DCE) is responsible for the day-to-day administration of the district. The Assembly is responsible for ensuring peace and security in the area with help of the police. It does this through DISEC which is chaired by the DCE (Bukari, 2017). Both farmers and herders expressed disappointment in the District Assembly for not doing enough to ensure security of the people. They were of the view that the number of security personnel in the District was not enough considering the high level of tensions and uncertainty. They believed that the security patrols do not cover the entire District. Some farmers reported that sometimes the security personnel were withdrawn from the area when tension and insecurity were high. In response to the above, the District Police explained that,

“It is very expensive for the Assembly to deploy many security personnel every day and everywhere in the District. So, when our intelligence shows that things are calm, we quickly reduced the number of security men on the ground to save the Assembly financially. But when we do this the people who had been gripped by intense fear think that the Assembly does not care about them” (an interview with a Police officer at the Agogo Police Station, 08/03/2019).
The interviews indicate that the large number of third parties complicate the conflicts and they eventually frustrate the efforts of police and the military. Akua noted that political keep on complicating matters because of their desire to please both traditional leaders and farmers who have parallel views. This point is consistent with the studies of Brecher (1993, p.150) and Pruitt et al. (2004) that the increased involvement of external or third-party actors is more likely to lead escalation of violence since each party comes with its values and motives (Van Keer et al., 2015).

**Climate Change and Environmental/Scarcity Debate**

Research on farmer-herder conflicts in Africa over the years have been dominated by environmental scarcity/security debates as well as neo-Malthusian postulations. For example, studies in Kenya, Nigeria, Mali, Niger and Burkina Faso suggested that there are indirect links between climate and farmer-herder conflicts (Njiru, 2012; Theisen, 2012; Odo and Chilaka, 2012; Brown & Crawford, 2008; Turner et al., 2011 and Benjaminsen et al., 2012). Since studies in other parts of Africa looked at the nexus between climate change and conflicts, I will do the same by considering the knowledge and perceptions of farmers and herders in the AAND on climate change, resource scarcity and conflicts. Besides primary data, I will use secondary data from credible sources to ascertain the views from farmers and herders.

**Herders’ Knowledge and Perceptions of Environmental Change**

To answer my research question; “*Is climate change the cause of farmer-herder conflicts in the Asante Akim North District?*” it is important to know and understand the perceptions and knowledge of herders on climate change and resource scarcity. Like meteorologists, Fulani herders are sensitive to the slightest changes in weather conditions. Since they move with their cattle every day, they study the trends in temperatures and precipitations to plan before disaster strikes them.

**Climate change, Fulani migration into AAND and conflict from Model 1** (in Chapter 3)

Some of the Fulani herders indicated that their migration into Ghana was partly due to climate change. Faruuk, Sulemani and Issak migrated from Burkina Faso, Mali and Niger respectively, first into the three northern regions of Ghana. According to Faruuk, Sulemani and Issak they migrated from their home countries due to declines in rainfalls and increase in temperatures which affected pasture and freshwater supply. This point is in line with Reuveny (2007) that adverse climatic conditions force people to migrate into new areas. Faruuk and
Sulemani noted that adverse climate change led to decline in pasture which led to competition and conflicts as many herders struggled to feed their cattle with the limited resources. This confirms Hendrix and Glaser (2007) that decline in rainfall is likely to increase the possibilities of conflicts. Faruuk and Sulemani and Issak pointed out that two decades ago they came to the Northern Region only in the dry season to look for pasture and water and they returned to their home countries during the rainy season. They continued that with time, as the climatic conditions in Niger and Mali became harsher, they migrated to settle in Northern Ghana in the mid-1990s.

According to the Faruuk, Sulemani, Rahma and Issak, their migration to AAND was as the result of overcrowding of herders in Northern Region. Issak explained that “the southward movement of Fulani from the Sahel region is a continuous process”. Issak continued that the Fulani had to compete with local Ghanaian cattle herders with small herds alongside crop farmers in the Northern Region which made life unbearable in the late 1990s. Based on data analysis from Faruuk, Issak, Sulemani and Rahma from the above, the migration of some of the herders into the study area was triggered by climate change in the Sahel region. Hence, the Fulanis could be described as “ecomigrants” as in the words of Reuveny (2007). The interviews with farmers indicate that the influx of herders and cattle into the area had burdened the destination’s natural resources. This triggered competition between farmers and herders. The seasonal competition between the Fulanis and farmers brought about conflicts in area where political and social institutions are ineffective and political marginalization of herders is high. The above views are illustrated in Model 1 (in chapter 3) and they are consistent with Reuveny (2007) and Moritz (2010).

The farmers revealed that the continuous movement of herders and cattle into AAND raised concerns among the natives as they saw that their present and future livelihoods were under threat from strangers. This agrees with Reuveny (2007) and Dorman et al. (2007) that pastoralism is considered as unsustainable practice. From Model 1 in chapter 3, we see that climate in the Sahel region produced “ecomigrants” (Reuveny, 2007) - the Fulanis. The Fulanis and their large herds of cattle caused scarcity of land, water and pasture in the area. Scarcity brought about competition between “the sons of the soil” (Bøås 2009) and the strangers. During the competition and the struggle lot of destructions were caused to crops and livestock belonging to the two sides. This led to increased prejudices, stereotypes and discriminations against the Fulanis. Scarce resource affected the local and national economy in terms of taxes
and markets tolls from the sales of crops. Through media propaganda prejudice, stereotypes and discrimination increased which allowed politicians to further marginalize the Fulanis to score a political point. This political marginalization reinforces prejudice, stereotypes and discrimination. These could be seen in the force the state used through OCL to expel the herders and their cattle from the area. When competition, prejudice, stereotypes and political marginalization continued for some time in an environment with weak socio-political structures and systems tension increased. As more eternal actors with different motives joined, matters escalated. This agrees with Pruitt et al. (2004) Reuveny (2007) and Moritz (2010).

Though the conflict had been between farmers and herders, there is power asymmetry between the main actors. The Fulanis though were few held sophisticated raffles than the farmers which the farmers believed were provided by wealthy cattle owners. The power asymmetry brought in more actors like the police and the military to counter the threats of the herders through OCL. This finding agrees with Zartman and Faure (2005), Pruitt et al. (2004) and Brecher (1996) when they found that power asymmetry invites third-parties into conflicts and that the relationship between the conflicting parties would determine whether escalations would occur or not. Since the competition between the parties were high and the losses to both parties were immense, escalation was inevitable because friendship, kinship and positive attitudes were lacking.

However, it is important to note that Faruuk talked about abject poverty and persistent ethnic tension and conflicts in Mali between the Fulani herders and the Dogon ethnic groups which he believed could it escalate at any time. Seidu and Babab left Mali and Niger respectively because of the fear of terrorism, poverty and political instability in Sahel region. This shows that the migration of herders is not solely caused by climate change in the Sahel region but by some socio-political and economic factors like the rise of terrorism, poverty, political instability and ethnic strife.

**AAND has favorable conditions for cattle rearing**

Overcrowding, bitter competition and conflicts in the Northern Region forced Faruuk, Sulemani, Issak and Rahma to migrate further south to Agogo and its environs. According to these herders, the AAND is suitable for cattle rearing because the area has mixed vegetations; semi equatorial climate with double maxima rainfall which allow the growth of pasture and freshwater supply throughout the year (AANDA, 2012). The four herders mentioned above indicated the expulsion has affected their business since they are forced to sell their cattle
cheaply because of insecurity. Rahma said “We try our best to challenge the authorities to remain here because of the abundance of pasture and water. We cannot get these anywhere.” This confirms the political ecologists believe that both scarcity of renewable resources and the abundance of non-renewables like gems, oil and other could cause conflicts. To Le Billion, apart from financing conflicts with resources, their abundance also motivated the conflicts and shaped the power dynamics. The abundance of resources favors large scale cattle rearing which allows cattle owners to the ability to arm herders. Again, the abundance of resources in AAND motivate the cattle owners and herders not to give up the fight. This agrees with Hendrix and Glaser (2007) and Hendrix (2010) that “abundance” can cause conflicts because people are less willing to make peace when they see plentiful resources.

Issak and Rahma further explained that AAND is more suitable for cattle rearing because of its proximity to Kumasi, one of the largest cities in Ghana. To him, Kumasi provides a large market for their cattle and herders do not have to travel over a long distance to sell their cattle which increases their profit margins compared to the Northern Region.

The data from the interviews show that not all the Fulani in the district are cattle owners. More than half of the Fulani I interviewed have no cattle of their own. But they migrated to the area to work as herders for both Fulani and local cattle owners. Earlier studies by Schareika (2001) and Bukari (2017) found similar patterns. As I earlier stated the migration of Fulani into the district is a continuous process according to the Fulanis. As the number of cattle owned by both indigenes and Fulanis increase, more hands are needed to take care of the animals. And since herding in Ghana is not done by Ghanaians any need for herders calls for more Fulanis to migrate into the district. The ever-increasing number of herders and cattle poses a risk of natural resources conflict since land is fixed and the recipient economy is weak and dependent on natural resources. This point agrees with Reuveny (2007) when he noted that if more people immigrate into an area within a short period and stay for long time it increases the risk of conflict especially when most of the migrants are youthful and males.

**Technology and Fulani migration**

One thing I discovered which is not in any of the literature is that improvement in telecommunication more especially the use of cell phones facilitates the migration of new Fulani herders into the area. That is, whenever a new herding vacancy is opened the Fulani herders can quickly call their friends and relatives in Northern Ghana or in their home countries to come to the district for the opening. Unlike other jobs, herding is reserved for the Fulani and
all positions that open during the year invite new Fulani into the district which keep increasing their numbers.

“When we were coming to Ghana in 1997 things were very difficult especially where to locate our partners and relatives. Now it is easy. Whenever there is a herding job, I can call straight to Mali by phone and when the person is coming, I can guide him so long as his phone is active” (an interview with Sulemani in Agogo, 06/03/2019).

Farmers and Herders’ perception of climate change

All the Fulani herders in this study believed that climate change is real. Seidu and Babab even entertained fears about the sustainability of herding in the next twenty and thirty years respectively. This is in line with Schareika (2001) that pastoralists are not ignorant of climate change. That is, herders have knowledge of their environment which helps them to feed their cattle all year round. They know where and when they can get pasture and fresh water for the cattle (Schareika, 2001; Bukari, 2017). Like herders, farmers carefully observe climatic and ecological changes which enable them to adapt to changes (Mertz et al., 2009; Thomas et al., 2007). Farmers know the months that the first rains set in and when the dry season begins. They know when to make new farms, and when to harvest. Preservation and storage harvests are influenced by their knowledge of climate change. For example, the farmers are aware that rainfall volumes are declining gradually, and that temperatures are increasing. These changes have affected what they plant, how they plant them, when and how much they harvest. Plantain and corn farmers like Alice, Akua, Paidai, Jacky and Mr. Greene noted that declining rainfalls and high temperatures had reduced their harvest and increased the cost of farming. Jacky told me that new breeds of weeds now grow their farms which were previously not in the district.

“Now we have to spend more on weedicides and pesticides because each year new weeds that we never knew grow on our farms. Existing ones are also getting resistant to chemicals. Decline in rainfall had decreased my profit margins over the years. For example, ten years ago, five acres of farm each year was enough for my family. But now I must make eight or nine to get equivalent revenue. This is tedious” (an interview with Jacky at Kowereso, 01/03/2019).

Table 4 is a summary of farmer-herder perceptions of climate change
Analysis from the data shows that both farmers and herders admit that the ecosystems are changing mainly as the result of decline in rainfall volumes. This decline is responsible for the migration of more Fulani herders into the area. The Fulani explained that grazing lands are declining, certain plants or grasses are disappearing, and many streams are shrinking and disappearing because increase temperatures and reduced rainfalls. These findings are consistent with Bukari (2017), Yaro (2013) and Roncoli et al. (2011). The presence of Fulani and their large herds of cattle convince the local farmers that the environment is changing. This also agrees with Bukari (2017).

In studying the relationships between climate change and conflicts, researchers often focus on the trends of precipitation and temperature on an ecosystem and how these affect the access to renewable resources. Since climatic change occurs over a long period of time Hendrix...
and Glaser (2007) recommends that both long and short-term trends are needed to understand the onset of conflicts. Both farmers and herders agree with Hendrix and Glaser that “positive changes in rainfall are associated with a decreased likelihood of conflict in the following year” (ibid). The herders explained that heavy rainfalls promote the growth of vegetation. Both farmers and herders believed that heavy and prolonged rainfalls especially towards the end of the year shortens the dry season which provides abundant pasture for cattle. When this occurs,

**What the existing Data Sets say about Environmental Changes in Ghana**

Temperatures are expected to increase, and precipitations are expected to decrease in all ecological zones of Ghana according to The Ministry of Environment, Science and Technology (MEST 2010). The Environmental Protection Agency of Ghana (EPA, 2017, p.73), noted that,

“The mean annual temperature has risen by 1.0 °C since 1960. The number of 'hot' days per year has increased by 13.2 %, while the number of 'hot' nights per year has increased by 20 %. ‘Cold' days and nights per year have decreased by 3.3 and 5.1 % respectively. In the period 2005 – 2010, the period between start and end of rains varied by as much as 30 % from year to year. Sea Surface temperatures are rising, as well as incidents of coastal flooding. Ghana aims to become a full-fledged middle-income country by 2020, but climate change is a serious threat to this ambition.”

The above confirms the views of farmers and herders on the rise of temperatures and the decline in precipitations in the area and across the entire country.

The UNEP/UNDP (2012) projected that temperature could increase between “0.8°C and 5.4°C for the years 2020 and 2080, respectively, with an estimated decline in total annual rainfall between 1.1%, and 20.5% for this period” (Bukari, 2017, p.115) which shall affect people who depend directly on natural resources for their livelihoods. The seriousness with which the UNDP (2012) and EPA (2017), farmers and herders see and treat climate change is different from the Ghana Meteorological Agency (GMA).

“According to our records, the start and the cessation of rainfalls in all the ecological zones of Ghana have changed over the years, but the average volume of rainfall had not changed so much from the 1960s as many people think. Remember, this does not mean that we deny climate change. It is real, but gradual” (an interview with Mr. Casters at the GMA, Accra, 05/03/2019).
Some scholars like Dietz et al. (2004) and Yaro (2013) believe that the fluctuating and erratic patterns of rainfalls in Ghana is nothing new. Yaro (2013), on his part noted that years of low rainfalls are followed by years of high rainfalls in Ghana. According to Yaro’s view, Fulani herders who migrate to the southern Ghana for pasture in years of low rainfalls should return to the north where they migrated from but that is not the case. According to the Fulani herders, it is difficult to return to the north once they move southwards because the migration takes several months to return, and it is expensive. Another reason is that they will not be welcomed back in the North because immediately they left other herders took over their grazing areas. Nicholson (2000) thinks rainfalls in West Africa is recovering since 1998. If this is true, then one would expect that the Fulani herders that migrated from the Sahelian areas to return to their home countries with their herds of cattle. But this is not what the primary data says. The Fulanis who emigrated over a decade ago believed that things are not getting better environmentally in their home countries.

**Perceptions of Farmers and Herders on the Link between Environmental Change and resource scarcity and Conflicts**

After understanding farmers and herders’ perception of climate change, it now important to consider their perceptions on resource scarcity and establish whether there any direct or indirect links between climate change, resource scarcity and conflicts in the study area. According to the environmental scarcity/security debate, high population growth and climate change shall lead to depletion natural resource. This will eventually lead to competition among people who depend directly on natural resources for their livelihoods (Homer-Dixon, 1999). According to this view, there is direct link between climate change and conflicts. But analyses from the data I gathered show that there is no direct link between population growth, climate change and farmer-herder conflicts in AAND. I rather found an indirect link between conflicts and resource scarcity and conflicts. Though the Fulani claimed they migrated to the area because of harsh climatic conditions in their home countries and over-competition in Northern Ghana, we cannot say that their migration alone is the cause of the farmer-herder conflicts in the study area. Again, we cannot say that their migration was caused only by harsh climatic conditions in their countries. Apart from environmental factors, their emigration was triggered by political and socio-economic factors. The movement of herders into the area is not enough
to cause violent clashes between the natives and the Fulani herders. There might be some other factors responsible for the conflicts.

De Bruijn and van Dijk (2005) agree with the claims by Seidu and Babab that their migration into AAND was caused by political and socio-economic than environmental factors. To De Bruijn and van Dijk (2005), the Sahel region is characterized by political conflicts, bad governance, poverty and social challenges which could compel the Fulani to migrate rather than climate change. To De Haas (2008), migration in Africa is not only limited to the Sahel region but to all parts of the continent. De Haas noted that migration that is not environmentally induced is even higher than those induced by climate change. According to Pew Research Center (2018), there are 160,000 Ghanaian immigrants in the USA and 250,000 in Europe. Several millions have fled the continent not because of climate change. This view supports De Haas (2008) that the migration is all over the continent. To De Bruijn and van Dijk (2005), the migration of Fulani southward is part of their normal cultural milieu and life course.

The interviews show the conflicts get more violent in the dry and hotter season of the year that is from October through to the start of the rainy season around April. The data indicates that climate change has not directly brought about resource scarcity, and hence conflicts in the study area. Climate change has indirectly contributed to the conflicts through the migration of Fulani herders and large herds of cattle from the Sahel region. Though the start and cessation of rainfalls had changed according to the GMA, this has not caused significant resource decline in the district. It is therefore inappropriate to say that climate change is directly responsible to the conflicts in the AAND. Many other non-environmental factors have played roles in the conflicts.

The link between climate change, resource scarcity and farmer-herder conflict in the study area is indirect because the data indicates that there have not be significant changes in the volume of annual rainfall and temperatures. Diamond (2005) believes that the direct of effects of climate change could be war and genocide, but these have not so far happened in the AAND. It is therefore necessary to look out for other possible causes of the conflicts in the area.

Political Ecology

Political ecology and the Escalation of Conflict between Farmers and Herders

I shall now look at the major factors that drive farmer-herder conflicts according to my data. From the perspective of political ecologists, several political, social and ecological factors
are responsible for farmer-herder conflicts (Lund & Lund, 2005). On the part of Watt (2000), Turner (2004) and Bassett (1988), farmer-herder conflicts do not start only by environmental change or resource scarcity but by multiplicity of political and socio-economic factors. Analyses of the data indicate that institutional inefficiency, traditional leaders, herders and cattle owners play important role in the conflicts.

**The Farmers and herders’ conceptualization of the violence**

Before I discuss the drivers or the causes of conflicts between farmers and herders, I think it is necessary to present how farmers and herders conceptualize violence based on my data. First, the two groups see violence as legitimate means of protecting their livelihoods and to get control over resources against the opposing group. While farmers believe the land belong to them, herders believe that they have paid for the land to the chiefs and must have access to the land and defend it. Second, farmers and herders use violence as self-defense. That is, if farmers attack herders with guns and cutlasses, herders must defend themselves with similar weapons. The conceptualization of herders and farmers is like Honderich (2003) who saw violent conflict as the use of weapons to kill, maim and to scare the opponents.

**The non-climatic causes of the conflicts**

**Destruction of crops by cattle**

“Our problem is not with the cattle, but with the herders – the Fulanis. No human in Ghana eats grass and therefore there will not be conflicts if their cattle graze only on grass and not on our crops which we cultivated with bank loans” (an interview with Mr Greene at Bebuso, Agogo, 03/03/2019).

The interviews show that the destruction of farm crops by cattle is the main cause of farmer-herder conflicts in AAND. In the above, Mr. Greene showed that crops are the source of livelihoods to the people in the area. And therefore, any destructions to their farms is a direct declaration of war against the farmers. Records from the GSS (2012) shows more than two-thirds of the population of the district depend on farming. The implication is that any attempt by Fulani to destroy farms advertently or inadvertently shall be considered by most of the population as an attempt to deprive them of their livelihoods. A female farmer, Alice in Kowereso put it this way.

“The state does not care whether its citizens have food, live in houses or even wear clothes. Apart from our farms, we have nothing, but huge banks loans to pay. Farmers
have no pension in this country. Our farms and our children are our social security. And therefore, we fight anyone who plays with our farms.” – Alice, Kowereso, 10/03/2019.

According to the farmers, if the cattle are managed in such a way that they do not destroy crops there shall not be conflicts between farmers and herders. All the farmer I interviewed believed that the destruction of farms by cattle is deliberate. For instance, Alice could not understand how cattle could graze at night unaided. To Alice, “Cows do not have well-developed teeth to eat watermelons unaided.” In the view of Jacky, “The destruction of crops is the main cause of conflicts between herders and farmers in the area rather than climate change and resource scarcity.”

Paidai on his part said, “We fight not because of climate change or resource scarcity, but because of resource mismanagement. If the Fulanis confine their cattle and they stop devouring our crops the conflict shall end.” This finding is consistent with studies by Idrissuo et al. (2017) in Northern Benin and Bukari (2017) in AAND that crop destruction is one of the major causes of farmer-herder conflicts. The destruction of crops reduces farmers’ harvest. Low harvest poses food insecurity. This eventually “increases aggression and anti-social behaviors”

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(Plante et al., 2017, p.6) that may lead to escalations. Farmers will attack herders if they feel further destruction of crops would hunger upon them.

**Killing of cattle by farmers**

![Cattle killed by unknown farmers](image)

*Figure 2: Cattle killed by unknown farmers*

*Source: Ghana Police Service, Agogo, 2013*

Like crops to farmers, the cattle are the only source of livelihood to the Fulani herders. According to the Issak, “Wherever there are cattle in Ghana, there are Fulanis, yet we are despised. We have no business here without our cattle.” To the Fulani, conflicts arise whenever cattle are unlawfully killed. This agrees with a study by Abbass (2012) in Nigeria. The Fulani accept that sometime some cattle may stray and destroy crops, yet, “The cattle are innocent because they cannot think and differentiate crops from grass. To the cattle every green plant is food”, Issaak added. The point that the Fulanis are making here is that when destruction of crops occur farmers are enraged and are too quick to kill any cattle. The Fulanis expect farmers to approach them when such destructions occur so that the necessary peaceful actions could be taken. “But what the farmers always do is that they pick up guns and start shooting randomly at innocent cattle,” Issak noted. When I asked some of the farmers why they shoot indiscriminately at “innocent cattle” some said it is impossible to identify which cattle caused
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the destruction and so they only way to communication their displeasure to Fulanis is to kill their cattle. Jonny explained that,

“The Fulanis always pretend they do not understand our language but when we kill their cattle they know what we mean. In this case, there is no need to look for which cattle is guilty or innocent” (an interview with Jonny at Nyamebekyere, 21/02/2019).

Sulemani thinks that,

“Many of the farmers have no empathy. They consider their farms as their lives, but they refuse to consider our cattle as our lives also. If they fight to protect their crops what should we also do when they kill our cattle? They call us ‘aliens.’ Yes, we are ‘aliens’ and the only thing we have are cattle and therefore we fight ceaselessly to protect the cattle” (an interview with Sulemani, Agogo, 06/03/2019).

The six herders I interviewed have lost forty-six cattle between November 2017 and April 2018. According to them, some of the cattle belonged to Ghanaians. Sulemani, Rahma and Seidu complained that there were many instances that their cattle were raided and stolen by angry young farmers and security personnel on patrols with impunity. They lamented bitterly about cattle rustling in early 2018. “If you are killing my cattle for destroying your crops why do you have to carry the carcasses away? They do all these, yet, they call us armed robbers” - Sulemani remarked. While the farmers see the killing of cattle that destroy crops as legitimate, the Fulanis see the destruction of crops and barns of farmers that kill their cattle as legitimate. The farmers feel that the Fulani must confine their cattle. The Fulanis think that it will be expensive to confine and feed all the cattle in kraals with hay or fodder. They also think it will be expensive to supply the cattle with water in kraals. The herders’ greatest worry was what some called “the mass killing of cattle” by the military through Operation Cow Leg in January 2018.

Destruction of water sources
Apart from crop destruction by cattle, all the farmers I interviewed raised concern about the destruction of water bodies by cattle. The farmers explained that herdsmen deliberately send their cattle to drink from streams where they fetch their drinking water from where they go to their farms. Mr. Greene noted that, “There are many streams that farmers do not fetch water from but the Fulanis will not send their cattle to drink from such places. The same place we drink, there the cattle also drink.” When I asked the Fulani why they allow their cattle to destroy
water resources they explained that they have special places where the cattle drink from, but sometimes some cattle may stray and drink from the human sources. The explanation given by the herders suggest that they have no full control over their cattle because of their large numbers.

**Table 5. Shows the number of cattle herded by the Fulanis and those killed in the conflict**

<table>
<thead>
<tr>
<th>Name of Herder</th>
<th>Number of cattle herded</th>
<th>Cattle lost in conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulemani</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>Seidu</td>
<td>121</td>
<td>11</td>
</tr>
<tr>
<td>Rahma</td>
<td>116</td>
<td>8</td>
</tr>
<tr>
<td>Babab</td>
<td>86</td>
<td>5</td>
</tr>
<tr>
<td>Issak</td>
<td>139</td>
<td>5</td>
</tr>
<tr>
<td>Faruuk</td>
<td>126</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>TOTAL= 680</td>
<td>TOTAL = 46</td>
</tr>
</tbody>
</table>

*Note: Names in Table. 5 are not real names of the respondents*

From the table above, four out of six of the herders have over one hundred cattle in their custody. When I inquired from Faruuk the average number of cattle that each herder is supposed to herd he said,

“Fifty to sixty cattle are the convenient number. The best herding practice is that the herder is supposed to see or spot all his cattle at every time on the field to control them. The logic is that, if you cannot see all the cattle all the time you cannot control them, and they shall cause trouble” (an interview with Faruuk in Agogo, 27/02/2019).

Faruuk explained that they are overburdened by local cattle owners because indigenes do not herd cattle. The whole task is therefore shifted to the few Fulani herders in the area. This agrees Reuveny (2007) that the “ecomigration” could provide cheap labor and revenue to the recipient areas. The implication of each herder tending too many cattle is that the herder has no full control over the animals on the field. This lack of control allows some of the cattle to stray and to destroy crops or sources of water. If pastoralists herd manageable number of cattle (*fifty or sixty*), the complaints shall reduce, and so shall the violence be. The lack of regulation of the
activities and the number of cattle tended by each herder is an indication of weak and ineffective state and local institutions which agrees with Reuveny (2007) and Moritz (2010) that institutional failure causes conflicts in resource dependent areas.

**Mistrust in the police and judicial service**

Ghana, like many other countries has laws that govern the lives of its people. Two important institutions that help in enforcing laws and ensuring peace are the police and the judiciary. However, for these institutions to function effectively the people must have trust in them. The data show that the integrity of the police and the judicial service had been dinted by “corruption.” Both farmers and herders accused them of “extortion and corruption.” In fact, both farmers and herders think that the police are unprofessional and engage in unethical practices, such extortion of money, demanding food stuffs, milk and meat when they report cases to them. The main actors expect that important cases before the police and the court should be treated with urgency to restore order. Paidai thinks that, “They delay sensitive cases unnecessarily. These delays increase tension and causes escalations.” The farmers believe these delays are meant to frustrate the parties involved which may indirectly compelled the parties to pay bribes to expedite the justice process.

Faruuk remarked that, “The police are like chicken. Once you have corn, they will follow.” Jonny, like other participants doubts the kind of investigations the police claim they do. “Their investigations often lead to no credible evidence for arrest and prosecutions. Even when we submit evidence ourselves they temper with it once your enemy can pay bribe.” From the data, I could see that many violent conflicts started due to the lack of trust and credibility in the law enforcing agencies. This confirms the views of the political ecologists that institutions and systems determine whether conflict would occur or not.

“We know that it is unlawful to kill their cattle, but we are left with no options. Reporting cases to the police or going to the court without money in hands is a waste of time. So, we take the laws into our own hands to defend our livelihoods” (an interview with Jacky at Kowereso, 01/03/2019).

Babab and Seidu often broke the law and resorted to violence instead of peaceful negotiations because that was the only way the farmers could understand their feelings. Babab remarked that,
“Cowboys do not have time to go to the police station and the court every day to make complaints. We are always on the move, taking care of our lives and our cattle. Police always say, ‘go and come tomorrow.’ These delays waste our time. Instant justice became the best strategy. When a farmer touches your cattle you also touch him or his farm” (an interview with Babab at Nyamebeyere, 25/02/2019).

From the discussions above, it became evident that some people lost their lives, and lot of properties were destroyed because of lack of trust in the police and the court. Belligerent farmers and herders took the law into their own hands because they felt resorting to the formal legal procedure would yield no positive results. Although both farmers and herders have distrust in the security agencies, the farmers prefer the use of military force to the use of the police force. The herders believe that the military are “merciless” in dealing with herders and their cattle.

**The collapse of the informal conflict resolution mechanism**

The informal conflict resolution system is a traditional conflict resolution practice where a person that had been offended reports the case and lodges complaints to the elders of their respective communities. The elders are well respected family heads, sub-chiefs and community chiefs. Local council members could also be involved as well as religious leaders. This is an out-of-court disputes settlement process that promoted good brotherliness and peace. It also saved the parties from spending too much time and money at the court. Occasionally, the highest cases that the community chiefs could not settled were referred to the paramount chief. This informal system was used to settle most disputes between farmers and herders in the past. Parties that were guilty were fined by the elders as a form of compensation to the winning parties. This was based on the degree of destruction or harm involved. The offender was always asked to apologize for his or her mistakes. After that the two parties shook hands to signify that peace had been restored. The data indicates that the informal system that previously saved many lives had gradually lost its preeminence and that had contributed to violence in the area.

One important factor that has increased conflicts between herders and farmers is the declined of chieftaincy in Ghana and the near collapse of the informal conflict resolution system. Ghanaians for a long-time respected and trusted their chiefs more especially the Asantes. However, things have gradually changed over the years in post- independent Ghana. One of my informants, Paidai blamed the decline of chieftaincy on the establishment of the local government system where many of the functions that were previously played by the chiefs
are now in the hands of the District Assemblies. Paidai stated that, “Now people do not rely on chiefs for development projects, and so they do not see why they must respect the traditional institutions.” Jonny also expressed his opinion on the collapse of the informal system in an interview as follows.

“First, people no longer see their neighbors as their brothers and sisters. Now farmers see herders as unwelcomed strangers and troublesome competitors, but not as beloved fellow countrymen struggling to make ends meet. Second, people now think they are ‘civilized’ and many people consider the out-of-court settlement as outdated. Third, the informal settlement has collapsed because of the lack of trust in the chiefs who previously acted as mediators. Four, the lack of trust in chiefs and the subsequent decline in the traditional institutions had affected the payment of compensations” (an interview with Jonny at Nyamebekyere, 27/02/2019).

From the above, conflicts are on the increase in recent years because of the collapse of the out-of-court dispute settlement. This is caused by factors such as modernization, individualism, lack of trust in the traditional authority and their inability to enforce their decisions especially the payment of compensations to those who deserve them. In a study of farmer-herder conflict in Nigeria, Abbass (2012) found that people are more individualistic than before and that has weakened the informal dispute resolution system. The result is that people now go to court to get justice which has increase conflicts. Conflicts would have been less despite the decline of the informal dispute settlement system should the people have trust in the formal system or institutions, mainly the police and the courts. The implication from the above discussion is that, to reduce conflicts, trust in both informal and formal institutions must be restored by whatever means.

Another reason that all the informants believed had contributed to the decline of the chieftaincy institutions in the area is “corruption.” All the farmers and the herders I interviewed unanimously believed that the ATC is “corrupt.” Because of the rot they associate with the paramountcy stakeholders do not see why they must refer disputes to the chiefs for informal resolutions when the same chiefs are behind the same conflicts. Three of the Fulani; Sulamani, Faruuk and Rahma explained how they paid huge sums of money to the chiefs for grazing lands and how they were betrayed by the chiefs when youth groups and farmers mounted heavy pressure on the chiefs. While all the Fulanis see the chiefs as “betrayed,” the farmers see the
chiefs as “hypocrites, traitors and stooges of Fulanis and politicians.” The mistrust in both traditional and formal state institutions have contributed to the rise in conflicts in AAND.

**Inefficient state**

One of the important roles of every state is the maintenance of law and order. However, state maintain law and order and ensure peace at a cost. Information provided by the District Police in Agogo shows that the state deployed military and police personnel from the Asante Regional Command to help the District police force to maintain order when the conflict started escalating. However, the data shows that there was lack of cooperation between the police and military. The CCoA revealed that the then District Police Commander, Samuel Azugu was undermining the efforts of the military in curbing the Fulani menace. The youth alleged that the Commander owned cattle himself in the area and that he had communications with some herders which enabled them to escape military-police patrols.

Another way that the inefficiency of the state could be seen is the duration of military-police patrols. According to the DISEC, the duration of the military-police patrols during the conflicts was short. Sources from the District Police explained that the Assembly could not bear the high cost of taking care of the large security personnel. “Calm was restored whenever there was heavy security presence here. But as soon as they left escalation started” - Tiofi in FGD in Agogo. Both herders and farmers agreed that the heavy presence of security personnel in the district is always necessary to ensure peace, but the district officials thinks that is “too expensive.” The farmers consider the unwillingness of the Assembly or the government to increase its security budget for the District as “disappointing.”

Moreover, the possession of unlicensed guns by Fulani herders who traditionally used clubs, bow and arrows demonstrates the ineffectiveness of the state institutions. The farmers were worried about “the Rambo-style cattle herding” in the area. “Rambo-styled” as used here means herding with an assorted gun instead of sticks. All the farmers raised concerns about the use of assorted guns by the Fulani herders. To the farmers, the police are not up to their task because they refuse to arrest herders using unlicensed guns.

Beside the above, the weaknesses of the local and central governments over the years could be seen in their handling of herders and their cattle. To the Fulanis, to the decision of the Assembly and the government to expel them from the District without giving alternative land for resettlement was “unreasonable and inhumane.” I agree with the herders because the decision to expel herders out of the district was a palliative measure not intended to ensure
lasting peace. This is because, expelling herders that had lived in the District for over twenty years within a month was quite unfeasible. Many of these herders had multiplied their herds of cattle and needed more time to relocate the families and cattle.

Rahma intimated that,

“Expelling us from this area without the state providing a clear exit plan does not really make any sense, because we are established here. Many Fulanis have formal and informal land contracts with the chiefs that have not expired. And no compensations shall be paid to such herders and cattle owners. How can someone who had lived in place for twenty-two years pack and go away within a month. You see, they think that we can pack our thousands of cattle like tomatoes in one truck and go away” (an interview with Rahma at Bebuso, 28/08/2019).

The lack of logistical and financial support from the District Assembly and the central government to cattle owners and herders was raised by Mr. Vett and Mr. Casters. The two believed that the movement of such large herds of cattle could cause a lot of losses to the herders and the cattle owners since many calves and pregnant cows may die in the process of relocation because of the difficulty in getting water for the animals.

From the perspective of political ecologists, multiplicity of socio-political factors is responsible for conflicts among the users of natural resources such as farmers and herders. From the above discussions it has been made evident that the malfunctioning of social and political structures and systems (Reuveny, 2007; Moritz, 2010) like lack of trust in the court and the police, lack of logistics, the decline of the traditional authority, ineffective local and central government to regulate the activities of herders have contributed immensely to resource conflict between herders and farmers in AAND.

**Stereotypes, Prejudice and Conflicts**

Prejudices and stereotypes are bound to exist in area where minority herders are not regarded as citizens, but as “rapists, armed robbers, and aliens” (Tonah, 2006; Bukari, 2017). The use of offensive words as listed above gives farmers advantage of the herders. To understand how prejudice, stereotypes and discrimination have contributed to the conflict in AAND, I shall combine both primary and secondary data. For sake of clarity, I shall first analyze the primary data I obtained from farmers on their perceptions of the Fulani herders. Not
even one farmer said anything positive about the Fulanis. The farmers perceived all the Fulanis as “troublesome people.” Female Fulanis and children are not herders, yet they are all regarded as “criminals.” To Alice, “No Fulani is an angel, whether young or old, male or female. They are all the same – Evil.” Alice’s perception of Fulanis is a typical example of stereotype in the area. Tonah (2005) found similar elements of stereotypes and prejudice in Ghana. Since the farmers see the Fulanis not as “angels” but as “evil”, farmers are unlikely to deal peacefully with the herders as they would deal with other farmers.

Other interesting things that show stereotypes and prejudice are the anger and hatred of the farmers towards the cattle of the Fulanis. There is a Ghanaian proverb that goes like this; “When someone hates you, he hates even your pet.” This could be felt in the study area. Since farmers dislike the Fulanis, they dislike their cattle, their milk and even their meat. Faruuk, Babab and Issak narrated that in 2016, the residents of Agogo boycotted beef, milk and manure. The community also denied the Fulanis access to the shops in the town. This was also confirmed by the police and Mr. Vett. They could neither buy nor sell at the time.

In another interview, Sulemani revealed that in November 2016, the Fulanis in Agogo were denied access to taxis and other public transport. The kind of perceptions and the treatment melted out to the Fulani were meant to induce obedience to benefit majority of the farmers. The demonization of herders was meant to indirectly calm down the herders and to limit their operations. The prejudices, stereotypes and discriminations against the minority pastoralists reduce their self-esteem and enhances that of their opponents. Five out of the six Fulanis I interviewed expressed worry about the perceptions of the natives towards them and how it had reduced their “self-esteem.” Seidu explained that because they are considered as “criminals” they lack confidence sometimes to step outside their tents to demand what is theirs. “I feel worthless. I sometimes feel like disappearing from my body because of how we are treated here. We lack the courage to defend ourselves.” This point is consistent with Fein and Spencer (1997) when they noted that prejudice enhances people’s self-esteem. In this study, prejudice enhances the self-esteem of the majority at the expense of the minority. The farmers use prejudice to derive material advantage over the herders. This point agrees with Sherif and Sherif (1969), when they noted that people do not become prejudiced for nothing. According to Issak, the attitude of the community towards the herders is negative. To him, though many of the farmers know that some of the cattle belong the indigenes “they do not care. The farmers see all cattle as Fulani cattle. Meanwhile, about half of these cattle belong to Ghanaians.”
Having in mind that minority groups can harbor prejudice toward the majority group when the minority sense discrimination (Johnson & Lecci 2003; Monteith and Spicer 2000 and Dovidio et al. 2010), I carefully studied the herders’ perceptions of farmers and the town folks, chiefs, police and military and the court and how these had contributed to the conflicts. Two of out the six herders, Seidu and Babab believed that the farmers and the town folks are “wicked and selfish.” These herders are confrontational in their dealings with the farmers. It is interesting to note that these are the youngest Fulani interviewees. This implies that young herders are more conflict prone that elderly herders. Sulemani and Faruuk believed that the farmers and the town folks’ reactions are “natural.” These herders believed that every community would react similarly when they are invaded by thousands of cattle. These herders tend to be more patient and gentler when dealing with the farmers. These are the two oldest Fulani I interviewed. Comparing Sulemani and Faruuk with the Seidu and Babab, I see that age has something to do with conflict behavior. This was earlier noted by Reuveny (2007). Rahma thinks that “the people are xenophobic, because there are abundant resources.” Rahma, therefore does not see the need of expelling them from the area. Issak thinks “the chiefs are behind all the conflicts because they sold the lands to the Fulanis without the consent of their subjects.” It is important to note here that not all the Fulanis consider the farmers and the town folks as “wicked or bad.” On the other hand, all the farmers except Akua believed the Fulani are dangerous and must be driven out of their communities.

Contrary to the above, all the Fulani herders believed that the chiefs are “corrupt”, “evil” and “traitors.” To the pastoralists, the chiefs are at the center of the conflicts. To the Fulanis, the chiefs are “traitors” simply because they sold the lands to the Fulanis for grazing, but they had refused to defend them in difficult times when they sensed danger from their subjects. According to the Fulanis, they paid huge sums of monies to the chiefs when they initially settled in the area. Besides, they chiefs continue to benefit materially from the herders. Every year, several bulls are offered to the chiefs as gifts during festivities like Christmas, Easter and annual traditional festivals. This finding agrees with Tonah (2006) that traditional leaders prefer to sell lands to herders for more money than to local farmers. The consequences of these perceptions and mistrust according to herders is that informal negotiations, compensations and dispute settlements had ceased to function because the chiefs were previously the intermediaries who brokered peace. In the absence of the informal dispute resolutions violent conflicts are the order of the day since people have little trust in the police and the court system as well.
Autochthony, Belonging and Farmer-Herder Conflicts

Autochthony citizenship and access to land

Some element of autochthony can be attributed to the surge in conflicts in the study area. That is, “who is a citizen and who is not” (Bøås, 2009), and who can own land and who cannot own land in the area. Paidai noted that, “Now farmers see herders as strangers and competitors, instead of as brothers.” The kind of adjectives that Paidai used to describe the Fulanis are like those Jonny used earlier on this chapter. The kind of words they used tell us their perception and feeling towards the Fulanis. Many of the farmers think that the Fulanis are not “sons of the soil” and therefore they must be dealt with “mercilessly” in the court rather than in the chief’s palace where they do not get arrested. If farmers perceive the Fulanis “as beloved countrymen struggling to make ends meet” as Paidai said, then the farmers would not want to crash them in the court. But since herders are considered as persona non grata there is no need for “the sons of the soil” (Bøås, 2009) to show mercy to the Fulanis.

Since access to land symbolizes local citizenship (Bøås, 2009; Dorman et al., 2007), the denial of the Fulanis access to land means they are not accepted as citizens, but as “unwelcomed strangers” as Paidai intimated. Because the Fulanis are non-Ghanaians by law (Republic of Ghana, 1992) the only way they could legally acquire lands is through the lease system for a specific period. Two of the Fulanis; Sulamani and Faruuk said the ATC leased lands to them for grazing in 2009 and 2011 respectively. But when I tried to verify whether they have any credible documents to support their claims they could not provide anything. Again, they could not state the number of acres of land that were leased to them by the chiefs. The only thing they could say was that they have witnesses who are natives. When I further asked them if their witnesses shall defend them in court they said no, because of their fear from the anger of the youth. This means that they acquired lands informally and could not defended in court of law. On the other hand, if the pastoralists had acquired the lands formally through the court, they could defend themselves when disputes arise, but they did the opposite. Faruuk confessed that, “The lessors of the lands were not ready to go through the formal leasing process because they had ulterior motives. We both knew that the lands were communal lands, and that going through the formal processes could bring about trouble on the traditional authorities” (an interview with Faruuk at Agogo, 27/02/2019).
To Alice, Jacky and Jonny, the conflict is not about illegal acquisition of lands by the Fulanis. Alice stated that, “It is all about citizenship. The Fulanis simply do not belong to our land and therefore, we insist they leave us in peace.” Jonny also stated that,

“Even if the Fulanis had acquired the lands formally or legally we will still have issues with them. Once they do not speak our language they do not belong here. No amount of money or constitutional statute can force us to accept the Fulanis as our brothers. If they are our brothers will they let their cattle destroy our crops?” (an interview with Jonny at Nyamebeyere, 27/02/2019)

The above statements made by Jonny and Jacky show that the conflict is more about citizenship than illegal appropriation of lands and the destruction of crops. To confirm this, I re-arranged second interview with Nicho, a native cattle owner, trader and a farmer. The aim of my second interview was to find out the attitude and reaction of farmers towards him as a native cattle owner and trader and how different was that from the Fulanis. Nicho revealed that most of the people in his neighborhood know he owns cattle and deals a lot with the Fulanis, he had never been attacked by the native farmers or the youths. He added that his cattle are herded by a Fulani. According to Nicho, his herder had been assaulted verbally on many occasions and had been accused of destroying crops by five farmers in the past three years. Nicho narrated that,

“Apart from the normal insults and insinuations I have never been forced to compensate any farmer for any crop damage by my cattle. I have never been told to leave this community nor to get rid of my one hundred and six cattle because I am a son of this land. I have nowhere to move to, and I think no farmer can have the audacity to evict me out of this land” (an interview with Nicho in Agogo, 23/02/2019).

The views of Jonny and Nicho show that autochthony and citizenship play a central role in the conflicts in AAND. They determine who can use land without limitations. Jonny’s view indicates that the Fulanis could acquire land formally and legally, but they may not be accepted as a citizen or members of the community. Their usage of land may be considered temporal by the farmers and the town folks.

Nicho strongly believe there would not have been violent conflicts in the district if there had not been Fulanis and their cattle. He thought that if all the cattle were owned and herded by indigenes they would not allow their cattle to consciously and unconsciously destroy their
neighbors’ crops “because they have the same blood. The Fulanis have no empathy for us because they are different people.” Nicho continued that,

“Without the Fulanis we can keep cattle and grow crops and live peacefully. Since we are all brothers and sisters the destruction of crops would be less and so shall complaints be. Because we are one people we can easily settle our differences and compensate affected farmers so that they would not kill their brothers’ cattle. I will not fight my sister if her cattle destroy my farm because in the end we lose together.

We do not see this when dealing with the Fulanis. This has been the greatest challenge here” (an interview with Nicho in Agogo, 27/02/2019).

Citizenship is important to farmers in this study because access to land symbolizes local citizenship (Dorman et al., 2007). The farmers constantly rejected the Fulanis as “the sons of the soil” (Bøås, 2009) because such admission would give them the right to enter the competition for landownership or unlimited utilization of land resources which are reserved for “first comers.”

Autochthony, chiefs and conflicts

In the AAND, the Paramount chief is the head of the ATC that oversees majority of the lands in the area (Bukari, 2017). The customary laws in the area recognizes the paramount chief as the custodian of the lands. Land in many parts of Ghana has cultural and spiritual connotations and a result they are entrusted to the chiefs who act as the intermediaries between the living and the dead (Amanor, 2006). The customary laws regarding lands are flexible in the sense that they do not require traditional leaders to account for the sales of lands at the end of each year. The farmers in this study as well as Mr. Vett and Mr. Casters believed that the flexibility and the unquestionable authority of traditional leaders encourage corruption by secretly selling communal lands to the Fulanis. This point is consistent with Berry (1993), Shivji (2002) and Bukari (2017) that the flexibility of customary laws allows wealthy and influential people to manipulate the system or the chiefs to their advantage. In this case, wealthy and influential Fulanis and Ghanaian cattle owners have succeeded in acquiring lands from the ATC which had contributed to the conflicts in the area. Secondary data revealed that one Alhaji Grusah formally and legally acquired 50.4 acres of land from ATC for cattle rearing for fifty years in 2006 (Agyemang, 2017).
Autochthony, citizenship, payment of compensations and escalation of conflicts

Three of the farmers; Jonny, Paidai and Mr. Greene confirmed that they received compensations from herders when their crops were destroyed in 2016. However, none of the herders received compensations from farmers for killing their cattle. When I asked the three farmers who received compensation whether they had killed cattle belonging to herders before, Jonny answered, “Yes. But I did not pay anything to any Fulani herder. I saw no reason to compensate the herder because this is our land.” From the statement made by Jonny above, “because this is our land” emphasizes on citizenship. Jonny saw no reason to pay compensation though he knew he acted unjustly. He thought that he was a citizen and that the Fulani whose cattle he killed was a “stranger” and therefore there was no need to compensate him. It could be that Jonny would not have killed that cattle if the herder was a “son of the soil” (Bøås, 2009). It could also be that Jonny would have compensated the herder if he were a native of the area. It is now clear that autochthony affects the informal dispute resolution system. It undermines the willingness of paying compensation to “strangers” by “the sons of the soil.”

According to the Fulanis, they are coerced by the farmers and youths to compensate farmers when destructions occur on their farms. But the farmers are not forced to compensate the Fulanis when they kill their cattle. The main challenge with the informal dispute settlement is with the payment of compensations according to the Fulanis. Many of the farmers think that the chiefs have no mandate or authority to punish “the sons of the soil” that fail to compensate “strangers” who were settled by the custodians of the land. Sulemani stated that the informal dispute resolution system was effective until 2014.

“I remember that most disputes did not escalate because both farmers and herders respected and trusted the chiefs. The chiefs have been silenced by their own corrupt deeds. Now, since farmers do not compensate herders for killing our cattle, herders also do not compensate farmers any longer. Instead of compensations, we now fight” (an interview with Sulemani, Agogo, 06/03/2019).

Faruuk and Babab confirmed that their cattle owners no longer compensate farmers for alleged crop damage. “My master does not pay compensations any longer because farmers do not compensate cattle owners for poisoning or killing their cattle,” Babab said. Faruuk narrated a story where he lost nine cattle in two weeks for drinking poisoned water in 2015. Babab also lamented about the death of five of his cattle when the fed on poisoned herbs at the outskirt of the Kowereso in late 2016. According to Faruuk, “There was no one to blame or to demand
compensations from. So, from that moment onwards my master vowed never to pay compensations to anyone.”

The interviews indicate that farmers are more concerned about compensations than herders. The analysis shows that some of the violent acts could have been avoided if the Fulanis or cattle owners had paid compensations fully and timely to “the sons of the soil.” Five out of the seven farmers I interviewed said were prepared to kill cattle or herders or destroy their property when they failed to pay compensations fully and timely. All the female farmers except Akua were prepared to take vengeance “without reasonable compensation” as Jacky put it.

Six out of nine of the youth that participated in FGDs in Agogo said they would use violence if herders destroy their crops without the necessary compensations. Two out of three females in the FGDs preferred violence should destruction of crops continue without compensations. At Kowereso, five out of the six farmers indicated that they would fight the Fulani if they fail to compensate them for crops destruction. Four out of the five who were ready to fight at Kowereso were women. The reason why farmers were more interested in getting compensated was because they thought they were “the sons of the soil” (Bøås, 2009). Since they were “the sons of the soil” and that the land belongs to them, they feel they must not compensate strangers that settle and use their land for economic gains.

**Why women were ready to fight without compensation**

The general perception in Ghana is that men are braver than women, and that the latter are more patient and peaceful than the former. But the females I studied proved the general perception wrong. I therefore became more interested in finding out why females in the area were more confrontational and aggressive without compensations. In fact, nine out of the ten women I studied would resort to violence without compensations should her crops are destroyed by cattle. This is consistent with a study in Cameroon by Hicky (2007, p.99) who found that female farmers oppose both traditional authorities and herders through protests. Though this is an interesting finding, Hicky did not give reasons why female farmers often oppose traditional authorities and herders. I therefore, decided to find out why women were more belligerent than men. To understand this, I had to play their interview tapes repeatedly. I also checked the demographics of the participants – marital status, number of children, sources of income, place of residence, age and social status.

**Table 5 shows information about female farmers**
The number of dependents, source of capital, level of education and age are what I found about the nine women who were ready to resort to violence without compensation. Alice, Jacky, Joyce and Pat have five children each. Karo and May have four children each, Aisha has three children and the Judy has two kids. Alice and Jacky are widows with five children each. They are responsible for all the needs of their children. Joyce and Pat are divorced with five children each. Hagai and Mary have four kids each. Mary’s husband is sick and does not work. He has no social security. Two of Hagai’s kids have sickle cell disease that requires frequent medical check-ups. Again, eight of the nine women said they contracted bank loans for their farms. It was only Joyce and Akua who had not taken loans for their farm projects. Only Akua, Hagai and Mary out the ten women live with their husbands in their own houses. The rest and their children live with the extended family.
Akua, a sixty-four-year-old farmer was the only female informant who was unwilling to use violence should herders refuse to pay compensations. What is unique about Akua? Akua is the oldest and the most educated participant in this study. She has master’s degree in education. Besides, her husband is a retired lawyer. Her two children are working as accountant and nurse. She lives with her husband in their own house. Currently, Akua has no dependents like the other female participants. She has high social recognition. She is a queen mother of one of the communities near Agogo.

Comparing Akua’s demographics with the rest of the female participants I could see that she is different from the rest of the women in all things. Her age and strength do not allow her to use force or violence as a strategy for redress should compensations fail. Her profession as a teacher and her relationship with her husband who is a lawyer have also given her different world view about conflicts. Again, Akua did not have much financial burden and so she did not finance her farm project with loans. Moreover, she currently has no kids to cater for. Another important factor is her role as queen mother. This prestigious status alone would not permit her to resort to violence as a strategy for achieving her goals.

From Table 5 above and Table 2 in chapter 4, it is evident that age, marital status, education, source of capital or income and number of dependents of a woman have effect on her attitude and behavior towards Fulani herdsmen. From the above, we realize the aggressive attitudes of the nine women were influenced by their economic and social conditions. They have relatively low levels of education. Most of them have high family dependency and financial distresses from ever increasing bank loans. They are also energetic and think that they could physically confront the light-weight Fulani herdsmen. Four out of the nine women believed that their ages make them vulnerable to rape by the Fulani herdsmen. They therefore think that there is no need to host such “dangerous people” in the district if they are not ready to compensate farmers when their crops are destroyed by their cattle. To conclude with compensation, I will say that the economic burden and social stresses that a woman has, the more likely that her attitude towards Fulani will be negative. Again, the less educated and the more youthful a woman is, the more likely she shall resort to violence in dealing with herdsmen. These could explain the finding of Hicky (2007) that women in Cameroon oppose herdsmen and traditional rulers than men.
Why men are less aggressive than women

Table 6 shows the marital status and the number of children of nine farmers

<table>
<thead>
<tr>
<th>Name</th>
<th>Marital status</th>
<th>No. of children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jonny</td>
<td>Married</td>
<td>None</td>
</tr>
<tr>
<td>Mr. Greene</td>
<td>Married</td>
<td>4</td>
</tr>
<tr>
<td>Paidai</td>
<td>Married</td>
<td>4</td>
</tr>
<tr>
<td>James</td>
<td>Divorced</td>
<td>2</td>
</tr>
<tr>
<td>Pius</td>
<td>married</td>
<td>None</td>
</tr>
<tr>
<td>Eric</td>
<td>Married</td>
<td>4</td>
</tr>
<tr>
<td>Osei</td>
<td>Married</td>
<td>1</td>
</tr>
<tr>
<td>Nicho</td>
<td>Widowed</td>
<td>2</td>
</tr>
</tbody>
</table>

Nine out of the twelve male farmers in this research are married. Three out of the nine have four children each, two out of the nine have three children each, and two have two children each. Osei has one child. It is only Pius who is married without a child. James is divorced but has two kids. Nicho is widowed but has two children. Jonny is married and has no issues. Six out of the twelve male respondents have their own houses, five live in rented houses. Two live with the extended family.

Number of dependents

Comparing the characteristics of male farmers with the nine females discussed earlier I could see that most of the females have more children and therefore more responsibility than the males in this study. Again, half of the males live in their own homes while most of the females live with the extended family. The possible implication here is that, the women who with relatively large dependents are more likely to be more aggressive if their crops are destroyed by cattle.

Sources of Capital

Table 7 shows the sources of finance for farms project by male farmers

<table>
<thead>
<tr>
<th>Name</th>
<th>Sources of finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paidai</td>
<td>Self-finance</td>
</tr>
<tr>
<td>Adu</td>
<td>Bank loan</td>
</tr>
<tr>
<td>Kofi</td>
<td>Self-finance</td>
</tr>
</tbody>
</table>
Another important indicator that determines and distinguishes male farmers’ attitude and behavior towards Fulanis from female farmers is source of capital. The data Table 7 shows that only three male farmers had taken loans for their farm projects. Eric and Tiofi had taken loans from wealthy relatives, and they did not need any collateral security for their loans. It was only Adu that had taken a bank loan for his farm. Adu was guaranteed by his uncle who is a teacher. The difference between Eric, Tiofi and Adu is that the latter has high risk of getting arrested should he loses his crops to cattle. Eric and Tiofi have lower risk of getting arrested by their relatives. The implication here is that because Adu can be jailed if he fails to settle the bank loan on time he is more likely to be negative towards the Fulani and their cattle. Adu shall do everything possible to prevent the Fulani and their cattle from destroying his farm so that his shall not get arrested. However, should the Fulani and their cattle manage to destroy Adu’s farm he shall surely demand a full and timely compensation so that he can settle the bank loan. Though Eric and Tiofi had taken loans, their seriousness in demanding full and timely compensation from Fulani herders is likely to be less because they were financed by relatives compared to Adu, who must pay the principal and interest to the bank.

The data in Table 5 shows that eight out of the ten female farmers had contracted bank loans for their farms. Like Adu, these eight women have every right to be serious when it comes to demanding compensation from herders and their cattle owners if they destroy their investments. In some ways, their negative attitudes towards Fulanis and their seriousness in
demanding full and timely compensations are justifiable because they must pay the loans to their respective creditors. The reality is that the women could forgive herders for destroying their crops and wasting their investments, but the creditors shall not forgive the women for being merciful to the herders.

When I compare the sources of capital of female farmers with their male counterparts, I found that most of the women use credits for their farm projects while most male farmers self-financed their farms. Because most females used loans with high interest ranging between twenty-five and forty percent they tend to be more serious about their projects so that they can settle their creditors on time to avoid harassments and to free their guarantors. The high interest on loans and risk associated with the sources of finance determine the attitudes and behavior of male and female farmers towards the Fulanis and their cattle. Since most male farmers have not contracted bank loans for their projects and have relatively few dependents their attitudes and behavior towards herders are less aggressive when compensations are not paid in full and on time.

What does demography say about the Fulanis?

The two youngest Fulanis, Seidu and Babab were more reckless and confrontational than the elderly ones. The two reported that they had spent two days each in police custody because of their impatience and recklessness in 2018 and 2016 respectively. They were arrested for exchanging blows with farmers over crops that were destroyed by some unidentified cattle. They both admitted that “a little bit of patience” could have saved them from police arrest.

Both Seidu and Babab are unmarried and have no cattle of their own. The two revealed that they are tired of intimidations and threats from farmers and security personnel. Babab said, he was ever ready to fight should any farmer attacked him. “If things become unbearable I shall flee from this area. After all I have no family to take along with me”, Babab said. In similar instance, Seidu said,

“I shall attack anyone that attacks me. I shall kill any farmer that tries to kill me. I have nothing to lose should war break out. I have no cattle, no wife and no children. I am a cowboy and all I have is my life” (an interview with Seidu at Kowereso, 01/03/2019).

This is in line with Reuveny (2007) that youthful male migrants are more prone to conflict.

The attitudes and behaviors of elderly Fulanis who have wives, children and their own cattle towards farmers and compensations (both giving and receiving) are different from young
Fulanis like Seidu and Babab. For example, Faruuk and Sulemani believe that “violence always begets violence.” Because of their ages and experience in the cattle business, they are more patient in dealing with disputes. They are always ready to use non-violent means to settle their differences with farmers so that disputes do not escalate. According to Faruuk, “Escalation is costlier to the herders and cattle owner than to farmers.” He explained that a herder or cattle owner who is not regarded as a citizen has no place to hide.

“I can only escape for my life when death is looming. But what about my wife and children? Can I escape with my countless bulls and cows? It is impossible. Therefore, we always keep in touch with the police for help” (an interview with Faruuk in Agogo, 27/02/2019).

The consequences of farmer-herder conflicts in AAND

Unemployment

The first economic consequences of the conflict is unemployment. Records from the GSS (2014) indicate that majority of the people in the district are engaged in agriculture. Since the conflict is between farmers and herders a lot of the youth are unemployed. The FGD with the youth association in Agogo showed that the youth had completely lost interest in agriculture that previously employed most of the able-bodied youths. The insecurity and the uncertainty of farmers getting their harvest had scared financial institutions from lending to farmers since many would not be able to pay back the loans when their crops are destroyed by cattle. Apart from the fear of being killed, female farmers are afraid of been raped. This fear had kept many women who previously farmed in the remote forest at home.

Loss of revenue

Since a lot of women could not make new farms in remote areas, they were forced to farm on infertile lands close to the communities. The result is that these infertile lands have poor yield and the farms are often destroy by cattle at night because of their proximity to kraals. These have reduced the income of farmers mostly women. The revenue that the District Assembly previously had reduced due to the conflicts. The killing of cattle by soldiers and angry farmers had caused financial losses to both herders and cattle owners. It is estimated that
about 1,500 cattle had been killed in farmer-herder conflict which amounts to six million Ghana Cedis.\textsuperscript{3}

\textit{Social consequences}

The conflicts in the area had caused loss of lives of people both farmers and Fulanis. The police indicated that several people had been maimed or traumatized in the conflicts both herders and farmers as well as some security personnel. Apart from lives several properties including buildings, kiosks, barns, farms and livestock had been destroyed by the conflicts.

Another social effect of the conflict that four of the women I interviewed mentioned was the education of their children. According to them, there were several days that their children stayed at home instead of being in school due to insecurity. They added that the conflicts had affected their incomes which had also affected the quality of their children education as well as their health as it became difficult to pay back their loans and also to buy textbooks for their children. The atmosphere of insecurity at certain periods affected social relations. The youths in FGDs indicated that there many occasions that they were cut off from their friends and families especially at night due to insecurity.

Some of the farmers in this study believed that crime rates in recent times had increased because of the conflicts. They attributed part to the rising youth unemployment due to the conflicts. Nicho for instance believed that most of the crime in Agogo are not committed by the Fulanis, but by the Agogo youths. “The conflict had created opportunity for the youth to engage in crime because they know they can shift the blame on the Fulanis and go unpunished”, said Jacky.

\textbf{State Policies to Resolve the Conflict}

\textit{Operation Cow Leg (OCL)}

OCL is an expulsive policy by the state to flush out Fulanis and their cattle from an area when their activities become dangerous. This policy had been in Ghana since April 1988 though it did not has the current name. The OCL was first used in the Kwahu South District (KSD) in 2000 and 2005 when the state and the local government officials tasked security personnel to evict herders and their cattle (Antwi, 2018). OCL is used as the last resort when all efforts to


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settle farmer-herder conflicts had failed. Previous studies showed that OCL is had been woefully ineffective in solving the conflicts because of the herders always have strong ties with the traditionalists that gave them the lands (Tonah, 2002; Antwi, 2018).

Though farmers see the eviction of herders and their cattle as the only way the conflicts could end, security analysts and the Fulanis see the strategy as “bogus and ineffective.” Sulemani said that,

“No matter the numbers of armed soldiers the government brings to this area, and the amount of force they apply, they cannot flush out the herders and the cattle. This strategy is a lazy way of trying to solve this conflict. Can the soldiers kill all the cattle or herders? The more cattle they kill, the bloodier the conflict becomes and the longer the conflict lasts because the cattle are our lives” (an interview Sulemani in Agogo, 06/03/2019).

On 8th January 2018, an unknown assailant ambushed and wounded three soldiers and a policeman who were part of the OCL. The incident raised the level of insecurity in the area since the security personnel and the entire residents did not know who were behind the attacks. According to the police in Agogo the shooting of security personnel was the first incident of its’ kind during the many years of conflict in the area. The farmers in this study could not go to their farms in the weeks that followed the shooting of the security personnel

The shooting of the security personnel affected the operations of herders in the district as well. Because of fear, the herders could tend their cattle to distant places to feed them. They therefore had to graze on the outskirts of the towns and the villages. Sulemani and Faruuk reported that the night following the shooting incident several cattle belonging to many herders were killed by unknown assailants. Faruuk said, “More than sixty cattle were killed that night in and around Agogo. We do not know whether they killed by ‘Operation Cow Leg’ in retaliation for shooting the soldiers or by farmers.” According to the Minister of National Security, Kan Dapaah, people hide behind the “Operation Cow Leg” to kill cattle belonging to their perceived enemies so that they could blame it on the security personnel.5

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With the help of three helicopters, the OCL chalked some successes two week following the shooting of four of the task force members by an unknown assailant. Media report indicates that the task force “evacuated sixty thousand cattle from Agogo” with over “forty thousand” remaining there.\(^6\) Both farmers and herders confirmed that several thousands of cattle fled the area during the peak of the operation in January 2018. However, they confirmed that many of the herders and their cattle that fled the area had returned to the district when the operations were relaxed. The OCL was ineffective since it made no provisions for the herders. This agrees with Benjaminsen et al. (2009) that in Tanzania state’s policies favor only farmers. A security expert, Dr. Kwesi Aning stated that the “Operation Cow Leg driven by the shoot the cattle strategy is confrontational is dangerous, is aggravating the problem.”\(^7\)

Why OCL was ineffective

The first reason is that the cattle herded by Fulanis in Agogo and its environs do not only belong to foreigners but Ghanaian businessmen, politicians, and even chiefs (Antwi, 2018). The data shows that some natives of the districts themselves own cattle and have entrusted them to the Fulanis. An example is Nicho. These influential people though openly support OCL, they covertly undermine it to keep their cattle on the land. Four out of the six herders I interviewed said they have several cattle that belong to community chiefs, and other prominent stakeholders in the district. I call these natives who covertly own cattle as “secret cattle owners.” According to Seidu, Faruuk, Rahma and Babab, these “secret cattle owners” work day and night to defend the Fulanis and the cattle. Babab said, “Our masters are always behind us. They also try to convince the task force to be compassionate.” This finding is like what Antwi (2018) found in the Kwahu South District. He learned that some powerful and influential Ghanaians with substantial number of cattle make the OCL ineffective.

Secondly, financially and logistically, the OCL was under-resourced to take the bull by the horns. Looking at the number of cattle and the level of destruction the task force was not equipped enough to evict the herders and the cattle. The shooting and wounding of four task force members by an unknown assailant on 8th January 2018 was a proof that they were less


resourced. The inability of the task force to arrest or to gun down the assailant indicates their level of intelligence.

Legality of operation OCL

The 1992 Constitution of Ghana allows citizens and even foreigners to acquire lands legally for economic purposes through the leasing with the appropriate authorities (Republic of Ghana, 1992). The secondary data shows that a Kumasi based Ghanaian businessman Alhaji Abdul Karim Grusah lawfully acquired 50.4 acres of land from the ATC for cattle rearing in 2006 (Agyemang, 2017). This means that the expulsion of herders and cattle in the area infringes on his rights as a Ghanaian. Complexities like this made the activities of OCL difficult and controversial. Some critics are of the view that OCL had no legal backing because the Economic Community of West African States (ECOWAS) allows the free movement of people, goods and services across the borders of member states. They believed ECOWAS protocols make the expulsion of the Fulanis difficult (Antwi, 2018). According to the ECOWAS regulations, citizens of member states with “valid international travelling document and health insurance” can travel and stay in other member states and work (Opanike & Aduloju, 2015). However, the data I obtained from all the Fulanis in this study shows none of them is complying with the ECOWAS protocol on free movement of persons. I found that only two of the herders valid international travelling passports. None has health insurance. This means that many of the Fulanis in the area are residing there illegally and could be expelled by the Ghanaian government.

Establishment of cattle ranches

The challenges in implementing OCL and its ineffectiveness had compelled the current government of New Patriotic Party (NPP) in Ghana to look out for lasting solutions to the farmer-herder conflicts in AAND and elsewhere in the country. In an interview at Wawase in the Afram Plains, an officer at the cattle ranch, Mr Biiman explained that upon several consultations with stakeholders the current government realized that the only way it could solve the farmer-herder conflicts in the country is by confinement. Mr Biiman said,

“Farmers and herders clash only when cattle destroy their crops or when cattle are killed unlawfully. The president therefore saw that the solution to the Fulani menace in Ghana was simply to establish ranches where cattle owners and the herders could keep their cattle. When cattle no longer destroy crops farmers will not clash with herders” (an interview with Mr. Biiman at Wawase, 11/03/2019).
According to the official website of the Government of Ghana (GoG), “The Ghana cattle Ranching Project is tasked to find a lasting solution to the perennial challenges of herdsmen-crop farmers’ conflict that has persisted for several years now.” The six-thousand-unit capacity of ranch is aimed at confining the cattle and reducing their presence in the various communities and the destructions they cause to farms. The ranch offers veterinary services to herders and cattle owners in exchange for milk. The ranch has fodder banks and water for the cattle all-year round. Both farmers and herders in the study areas admitted that the ranch has reduced the presence of cattle in the area. Babab, Rahma and Seidu said some of their compatriots have moved their cattle to the ranch. Sulemani also said has applied to the ranch management to relocate his herd to the facility. Both farmers and herders have welcomed the project. They believed it shall solve the conflicts in the area since cattle would no longer destroy farms. The herders were extremely delighted about the cattle ranch project Wawase because they think the confinement will relieve them of the hustle they go through each day in search for pasture and water for their cattle.

Sulemani expressed his delight as follows,

“We wish the government establishes more ranches in other places like schools across the country for herders so that we can also have more time to socialize and have fun. The Fulanis also love to live in their homes and enjoy life with their families like any other peoples. In fact, we do not always want to be in the jungle with cattle, but we have no option. If we have secure places for our cattle, then our children can go to school” (an interview with Sulemani, Agogo, 06/03/2019).

Cattle ranching was considered by all the major actors in the conflicts as the lasting solution to perennial conflicts. One social advantage to the Fulanis is that the ranches shall reduce the workload of herders that often hinders Fulani boys from getting educated. Mr. Vett expressed his disappointment in the ways previous governments handled the Fulani menace as follows:

“Cattle ranching is the modern way of cattle rearing. Nomadism is in fact outmoded and unsustainable. It has no place in the 21st Century, except in Africa. But what makes the difference is state policies. The District has enough pasture and water that can cater for 150,000 cattle if it is well managed, but there was no political will and so things fell asunder” (an interview with Mr. Vett, Agogo, 24/03/2019).
The views expressed in the above agrees with Dorman et al. (2007) and Abbass (2012) that pastoralism is regarded as a dangerous practice in Africa. Mr. Vett’s view also reaffirms the views of political ecologists is like Turner (2004) that farmer-herder conflicts do not necessarily come about as the results of natural resources scarcity or historical or ethnic tension. But conflicts emerge as the results of socio-political and ecological factors. The decline of the conflicts is mainly due to the change in government according to the data. The all farmers and the herders as well as the police, the veterinary officer and the Mr. Peace attributed the stability and the relative peace to change in government especially the establishment ranches in the district and other places like Kwahu South District.

Chapter summary

This analytical chapter has described, discussed, evaluated and explained the content and characteristics of the data (Matthews & Ross 2010, p.317) that I collected from the field. The analysis and the discussions were done in accordance with the four theoretical perspectives discussed in chapter 3. The first part looked at the actors in the conflicts in the AAND. The main actors are farmers, herders, cattle owners, traditional leaders, security personnel, youth groups. This finding is consistent with earlier studies like Bukari (2017), Antwi (2018), Agyemang (2017), Tonah (2006).

The second part analyzed data through the environmental change and the scarcity debate. Here, I discussed the knowledge and perceptions of farmers and herders on climate change and scarcity and how these have contributed to conflicts in the area. It came to light that both farmers and herders are aware of environmental changes in their surroundings which is consistent with Hendrix and Glaser (2007), Bukari (2017). I also found that the conflicts in the AAND are not directly caused by environmental changes in the area as the environmental scarcity debates postulate (Homer-Dixon, 1999; Kaplan, 1994, Diamond, 2005). The analyses revealed that there is an indirect relationship between climate change and conflicts in the area. That is, climate change in the Sahel region mixed with socio-political and economic factors caused the herders to emigrate into Ghana and the AAND. This is in line with Bukari (2017), Schareika (2001) and De Bruijn and Van Dijk (2005).

The third part of the analysis and the discussion was done from the perspective of the political ecologists. Here, I looked at how cultural, political and social factors such land tenure system and state capacity shape resources distribution and access and how these factors affect farmer-herder relationship and have contributed more to the conflict than environmental
changes. For example, ineffective state institutions, decline of chieftaincy and the informal dispute resolution system among others were found to have played important role in the conflicts in the AAND. These finding are consistent with Lund & Lund (2005) and Turner (2004), Bukari (2017).

The fourth part discussed the role of stereotype, prejudice and discrimination and how that had contributed to conflicts in the study area. Here, I found that the perceptions farmers and herders have for each other affect their relationships. For example, the demonization of herders by farmers gives the latter material advantage over the former. This agrees with Sherif & Sherif (1969), Tohah (2006) and Bukari (2017). Stereotypes, prejudice and discrimination increases the conflicts since farmers do not spare Fulani children and women who are not herders and do not cause destruction to crop.

Fifth parts dealt with autochthony, citizenship and conflicts. Here, I discussed how citizenship or belonging and access to land affects actors’ relationships and attitudes towards the payment and receival of compensation and how these fuel conflicts between farmers and herders. I found that farmers perceived pastoralism as harmful as Dorman et al. (2007) earlier found. Again, farmers who consider themselves as natives perceive herders as strangers that have no right to compete for land and its’ resources (Amanor, 2006; Dorman et al., 2007, Bøås, 2009). Women were found to be more concerned with compensation than men. And women were again found to oppose herders and traditional leaders than women. This agrees with Hicky (2007).

The final part of this chapter looked at some of the effects of the conflicts on the people and some measures adopted by the state and the actors to resolve the conflicts. Loss of lives and the destruction to crops and properties were some of the effects of the conflicts. Social relations, children’s education and health have been affected. Youth unemployment has surged and decline in the incomes of farmers were some of the effects of the conflicts in the AAND. Security patrols, expulsion, and establishment of ranches are some of the measures adopted by the state to resolve the conflicts. The were found by earlier studies like Bukari (2017), Agyemang (2017) and Antwi (2018).
Chapter 6

Summary of Findings and Recommendations

This chapter presents the summary of the analysis and discussions in chapter five. It presents the findings of this study and how it answers the research questions and achieve the research objective, and how these findings relate to previous studies in the literature. The chapter ends with recommendations on how best we can resolve the conflicts in the study area.

The migration of Fulani herders

This study has found that Fulani herders from Burkina Faso, Mali and Niger first migrated into the northern regions of Ghana in search for new livelihoods. The analysis indicates that some of the herders migrated to Ghana because of its political stability, peace and abundance of water and pasture. Some also migrated from the Sahel region due to harsh environmental and economic conditions there. These are consistent with studies like Bukari (2017), Antwi (2018), Agyemang (2017), De Bruijn & van Dijk (2005), Schareika (2001). The study found that the herders migrated further south of Ghana and settled in Agogo and its surrounding communities for the following reasons.

First, the area has conducive climatic conditions that favor the growth of pasture all year round. There is also abundance of water resources. Second, Fulani herders and cattle owners can establish strong relationships with influential Ghanaian cattle owners and chiefs who shield them from the endless pressures from local farmers. The herders are also able to secure lands for grazing through their relationships especially with the traditional leaders. Third, the proximity of the district to Kumasi, one of the largest commercial cities in Ghana provides ready market for the sale of cattle. Finally, young Fulanis also migrate into the area to work as herders for both Ghanaian and foreign cattle owners. These findings are consistent with Bukari (2017), Agyemang (2017) and Antwi (2018).

Technology aided migration of young Fulanis

One notable finding of this study is that the continuous migration of Fulanis into Ghana and AAND has been facilitated by mobile telecommunication. Fulani herders and cattle owners can now easily contact their friends and relatives who want herding jobs in the home-countries to immigrate into Ghana. With the help of cell phones, prospective Fulani jobseekers can travel
easily into Ghana. Unlike a decade ago, they can now locate their partners or relatives and work with them with ease in any part of Ghana.

**The nature of conflicts**

The study shows that farmer-herder conflict had existed in the area from the late 1990s. The conflicts become more violent in the dry seasons each year when pasture and water become relatively scarce. The violence declines as the rainfalls set in April. This agrees with Bukari (2017). According to the police in Agogo, there were over 480 reported cases of crop destruction by farmers between 2006 and 2017. There were also over 325 reported cases of missing or dead cattle in the same period. The conflicts involve the destruction of farms and crops, burning of kraals and barns, killing of cattle and sometimes human beings, verbal assaults, street fights, physical assaults, alleged rape cases, street protests and demonstrations by anti-Fulani groups. Earlier studies by Tonah (2002; 2005; 2006), Bukari (2017), Agyemang (2017) and Antwi (2018) found similar trends of farmer-herder conflicts in Ghana.

**The actors**

The main actors of the conflicts in this study are farmers and herders. Other actors include cattle owners, both Ghanaians and expatriates, youth organizations, traditional leaders, veterinary officers the police, the military, local opinion leaders and politicians. The farmers in this study believed that wealthy cattle owners and traditional leaders are at the center of the violence in the area. This agrees with Bukari (2017) and Agyemang (2017). While traditional leaders sell lands to cattle owners, the owners also provide herdsmen with arms. Antwi (2018) found similar incidence in the Kwahu East District (KED) of Ghana.

**Answering the research question**

**The link between climate change and the conflicts in AAND**

*How has climate change affected the farmer-herder conflicts in the AAND?* The analysis in the previous chapter shows that the conflicts get more violent in the dry and hotter season of the year. Similar trends were found by Bukari (2017). However, this does not mean that there is significant environmental/climate change in the AAND which brought about resource scarcity, and hence the conflicts. Rather, climate change has indirectly contributed to the conflicts through the exodus or migration of Fulani herdsmen and large herds of cattle from the Sahel region into the area. The data from the Ghana Meteorological Agency shows the start and cessation of rainfalls had changed over the years, but that has not caused significant resource
decline in the district to cause conflicts. Bukari (2017) found similar results. Some scholars like Dietz et al. (2004) and Yaro (2013) believed that the fluctuating and erratic patterns of rainfalls in Ghana is nothing new. Yaro (2013) for instance, noted that years of low rainfalls are followed by years of high rainfalls in Ghana. These mean that the conflict in the AAND were not caused by resource scarcity due to drastic environmental changes in the area. Even on migration, studies such as De Bruijn & van Dijk (2005) and Schareika (2001) do not attribute the migration of herders solely to environmental change, but poverty and political instability in the Sahel region. It is therefore quite inappropriate to say that climate change is directly responsible to the conflicts in the AAND as Homer-Dixon (1999) and Kaplan (1994) thought. Many other non-environmental factors have played significant roles in the conflicts.

**The non-environmental causes of farmer-herder conflicts in the AAND**

*What are the non-environmental causes of the conflicts in the AAND?* From the perspectives of the political ecologists (e.g. Lund & Lund, 2005; Turner, 2004), several sociopolitical factors combine with ecological ones to cause resource conflicts. This study found several of the factors.

*Destruction of crops by cattle*

The analyses in chapter 5 show that the destruction of farm crops by cattle is the main cause of farmer-herder conflicts in AAND rather than extreme high temperatures or low rainfalls. Since majority of the population depend on agriculture, any destruction caused by cattle is perceived by farmers as threat to their livelihoods. They therefore organize and resort to violence as a strategy to protect their interests. This finding is in line with studies like Bukari (2017) Tonah (2002; 2005; 2006), Agyemang (2017), Antwi (2018) and Abbass (2012).

*Killing of cattle by farmers and security personnel*

The main cause of farmer-herder conflicts according to the herders in the AAND is the “unlawful killings of innocent cattle” by farmers, security personnel and unknown assailants, especially in the dry seasons. The study found that herders use violence as means to an end, but not as an end. They fight to defend themselves and to protect their only livelihood, the cattle. This finding is consistent with a study in Nigeria by Abbass (2012), Idrissuo et al. (2017) in Northern Benin and in the AAND by Bukari (2017) and Agyemang (2017).

*Pollution of water sources*

Apart from crop destruction by cattle, the destruction of water bodies by cattle was been identified as one of the causes of conflicts in the area. Farmers do not wish to drink from the
same sources of water with cattle when they go to their farms. This point agrees with Bukari (2017), Baidoo (2014) and Boateng (2015) that pollution is water bodies is one of the causes of the conflicts in the AAND.

**Mistrust in the police and judicial service**

The loss of trust in the police and the judicial services has been identified as another major cause of the conflicts in the AAND. Antwi (2018) identified this as one of the causes of the conflicts in the Kwahu East District. Both farmers and herders accused the police and the court of “extortion and corruption” and other unethical practices. The lack of trust has compelled the main actors to resort to violence instead of peaceful negotiations.

**The near collapse of the informal dispute resolution system**

The gross disregard for the informal dispute resolution system has also played an important role in the relationships between farmers and herders. The system which used to settle disputes at home has become irrelevant because of modernization, individualism, lack of trust in the traditional leaders and the decline of chieftaincy institution. This is consistent with Idrissuo et al. (2017) that conflicts are on the increase because of the erosion of societal values in Northern Benin.

**The sale of land and the decline in traditional authority**

Mistrust in traditional leaders is on the rise because of chiefs’ involvement in the sales of communal lands to herders and cattle owners whose activities the people consider to be harmful (Dorman et al., 2007). The decline of the chieftaincy institution had affected the informal conflict resolution system because previously chiefs acted as the mediators between farmers and herders. The decline had contributed to the rise of conflicts between the two main actors. Bukari (2017) and Antwi (2018) found similar results in the AAND and KED respectively.

**Institutional failure**

The inefficiency of state institutions like the police service, the court, the immigration service and the customs at the Ghana’s borders are to be blamed for the influx of herders and cattle in Ghana and in the AAND. The unwillingness of the state to pass and implement laws on land ownership rights has resulted in illegal land appropriation. This is consistent with Bukari (2017) and Agyemang (2017). This study found that some of the herders do not have the required documents like travelling passport, insurance and residence permit to reside in
Ghana in accordance with the ECOWAS protocols (Opanike & Aduloju, 2015). The illegal possession of arms by herders further indicates institutional ineffectiveness. This agrees with political ecologists that political and social factors combine with ecological ones to bring about resource conflicts (Lund & Lund, 2005; Turner, 2004). In this study, I found that the AANDA also does not have the financial and the logistical capacity to maintain heavy security presence in the district to maintain peace and security. This agrees with a study by Antwi (2018) in the KED. With strong and effective institutions, some of the clashes between herders and farmers could be avoided and disputes may not escalate into violence. This point agrees with Buhaug (2016) that the indirect impacts of climate change may cause conflict in association with other conflict drivers in weak and unstable societies.

**Gender and compensation**

This study has found that the sources of capital for farmers and the number of dependents they have to a large extend explain their seriousness to be compensated when their crops are destroyed by cattle. I found that most female farmers contracted loans for their farm projects. At the same time, female farmers have more dependents than males. Therefore, female farmers are more concerned about compensation than males because of their economic burdens and the need to repay their creditors. Therefore, some of the violent acts could have been avoided if cattle owners had paid compensations fully and timely to farmers (Bukari 2017), especially women. The non-payment of compensation arises because of farmers inability to identify the specific cattle destroy their crops. This finding agrees with Boateng (2015).

**Autochthony and the conflicts**

Belonging and citizenship have affected farmer-herder relationships and access to land. these have affected the informal conflict resolution system. Farmers who consider themselves as “the sons of the soil” (Bøås 2009) do not see why they must pay compensation to strangers – the Fulanis, who compete with them and destroy their livelihoods. Farmers’ refusal to compensate herders for killing their cattle had stopped herders and cattle owners from compensating farmers. This led had triggered disputes between farmers and herders in the area. This finding is consistent with Boateng (2015) that farmers “blatantly refuse” to pay compensations.
The age of herders and farmers

Young, unmarried and “cattleless fulanis”\(^8\) are more confrontational than elderly and married Fulanis with their own cattle. Young farmers are also more confrontational than elderly farmers according to the interviews. The young Fulanis feel they have nothing or little to lose when escalations occur. Young farmers also think they have the energy to apprehend or to defeat the Fulanis. This is consistent with Hagberg (1998) and Boateng (2015) that the ages of farmers and herders are determinant of escalation.

The consequences of the conflicts

The conflicts have affected all the people in this study economically; farmers, local and foreign cattle owners and herders, due to the destructions and the brutalities. Social relations of people, education and health of children have been affected. Many farmers, especially women became indebted because of the conflicts. Images of horror affected people psychologically. There have been loss of lives and properties such as houses, kiosks and food stores. Baidoo (2014), Boateng (2015), Bukari (2017) and Agyemang (2017) found similar economic and social consequences of the conflicts in the area.

Prejudice, stereotypes and discrimination

This study found evidence of prejudice, stereotypes and discrimination in the AAND. Most of the farmers in this study have negative perceptions and attitudes towards the herders. Fulanis are regarded as “rapists, criminals, armed robbers and murderers” no matter their ages and gender. This is in line with earlier studies like Baidoo (2014), Boateng (2015), Bukari & Schareika (2015) and Bukari (2017). Some herders also considered the farmers and natives as “wicked and selfish” due to their reluctance in sharing with them the available resources. This point is consistent with Johnson & Lecci (2003), Monteith & Spicer (2000) and Dovidio et al. (2010) that minority groups can also harbor prejudice toward the majority group when the minority sense discrimination.

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\(^8\) “Cattleless Fulanis” refers to fulani herders who do not have their own cattle but work only as herders for wages.
Recommendations

Short term recommendation

Ban on unlicensed gun usage by Fulanis

The use of sophisticated arms by the herders must be prohibited entirely by the state. This move will reduce the possibility of escalations. I recommend tougher punishment for herders that use guns illegally. Cattle owners that provide herders with such arms must also be punished.

Stakeholders’ education

The AANDA, the ATC, the National Commission for Civic Education, religious bodies and other relevant stakeholders should organize frequent stakeholder meetings more especially when their intelligence tells them danger is looming. These bodies should educate both farmers and herders on the relevance of living in harmony. Youth groups, media houses and journalists should also be properly educated on how to report on sensitive issues to avoid prejudices and stereotypes and possible escalations. The awareness of the dangers of spreading “fake news” on social media must be created especially among the youths. Also, indigenes should be educated to be tolerant, bearing in mind that there are Ghanaians who are working and have become citizens of other countries. This may reduce stereotypes and discriminations against herders.

Security patrols

I recommend that the AANDA increases its defense budget to protect the lives and properties of residents. Nights patrols should be intensified, especially in the dry seasons. The police and the military should cooperate and share intelligence to crack down perpetrators. The arbitrary shooting of cattle by the security task force during operations should be avoided as much as possible to reduce tension between farmers and herders.

Registration and Regulation of herders and cattle by the AANDA

To ensure equal accessibility and sustainable management of land resources, I recommend that the AANDA registers cattle owners and herders. In addition to the above, the Assembly should regulate the number of cattle that a herder can tend at a given time to give them full control over the animals when grazing. When this is done the destruction of crops shall be less and farmers shall not kill cattle in retaliation. Again, to solve the issues with compensations, cattle should be marked or identified with tattoos and tags with numbers or
letters and be registered in their owners’ names so that when they cause destruction to farms, the victims can easily identify the cattle and demand the appropriate compensations from the owners. If this is done the destructions shall minimize and herders and cattle owners cannot refuse to take the responsibility for their cattle.

Medium term recommendations

Tightening border patrols and controls

Since the Fulanis and their cattle migrated from other countries the GoG can put in place mechanisms to control the number of herders and cattle that must enter Ghana at a given period. This would ensure that there is no overcrowding of herders and cattle to cause destruction and conflicts. Herders who do not have the right documentations for entry and residence in Ghana could also be deported to regulate the activities of herders in the country.

Long-term recommendation

Establishment of more cattle ranches across the country

Both farmers and herders have warmly welcomed the cattle ranching project by the current GoG. They believed it shall solve the perennial conflicts in the area since cattle would no longer destroy farms when they are confined (Antwi 2018). I, therefore recommend the establishment of more ranches to confines cattle to avoid conflicts.

Ghanaian cattle owners must get interested in herding cattle

Because most farmers do not want the Fulanis in their communities I think it is time that autochthonous cattle owners got interested in herding their own cattle. If this is done, there would be no need to hire many Fulanis for their cattle.

Conclusion remarks

Although the conflicts in the AAND are now not directly cause by climate or environmental change as the neo-Malthusian or resource scarcity theorists claimed it would happen (e.g. Homer-Dixon, 1999; Kaplan, 1994 and Diamond, 2005), it is likely that environmental change would intensify in the next decades (IPCC, 2012; 2014, EPA, 2017; MEST, 2010; UNDP, 2012) and bring about resource scarcity if the natural resources in the area are not sustainably managed. Again, the loss of lives and property from conflicts would have been less despite the decline of chieftaincy and the informal dispute settlement system (Bukari, 2017; Agyemang, 2017) should the people have trust in the formal system or
institutions, mainly the police and the courts. The implication from the above is that, to reduce conflicts, trust in both informal and formal institutions must be restored by whatever means.

References


Forestry, Accra, Ghana.


Olaniyan, A., Francis, M. & Okeke-Uzodike, U. (2015). The Cattle are “Ghanaians” but the


statutory land tenure and land policy in Ghana. Technical publication No. 70, ISSER. Legon, Accra: University of Ghana.


Yaro, J. A. (2013). The perception of and adaptation to climate variability/change in Ghana by small-scale and commercial farmers. Regional Environmental Change, 13(6), 1259–1272, see: https://doi.org/10.1007/s10113-013-0443-5

Appendix 1

Interview guide

Semi-structured interview guide

Introduction

Before the interview, I shall inquire about how the interviewee is doing. I shall explain confidentiality to the informant at this stage. The interview shall be a conversation. I shall assure the informant the possibility of turning off the tapes recorder when he feels uneasy.

Biodata of the informant

• Can you tell me a bit about yourself?
• Your age, marital status, number of children
• Employment, place of work
• Place of abode, and how life is that place

Questions to only farmers

• Do you have Fulani herders living in this community?
• Do you know where they came from?
• What is the relation between the community and the Fulani herders?
• What had been the relationship between farmers and herders in the community in the past years?
• What is your perception of the Fulani herders about you?
• What is your perception about the Fulani herders the community people?
• What are the reasons for Fulani herders’ migration into this community?
• What types of conflicts occur between farmers and Fulani herders?
Questions to only Fulani herdsmen

- Why are Fulani moving into this area in recently?
- What is your perception of the natives or farmers about you?
- What is your perception about the farmers and the community people?
- What is your relationship with the farmers? (Trade, friendship, marriage, religious worship).
- How do you feel living in this area with your cattle?
- What types of conflicts occur between farmers and Fulani herders?

Trace history of conflicts

- Are conflicts increasing between farmers and Fulani herders?
- How frequent are conflicts between farmers and Fulani herders?
- What accounts for the frequencies?
- Do you know any number that has occurred over the last five years? (Probe for the numbers and years of occurrence).
- What are the reasons for the conflicts? (Probe how these reasons have caused or cause the conflicts).
- Which reasons for the conflicts are more frequent? How?

Climate hazards and people’s perception (probe)

- Do you think the climate is changing?
- If yes, what have you noticed about it?
- Which aspect is changing in recent times?
- How severe are these changes?
• What are causing these changes? I shall encourage informants to list many factors and try rank them.

What are the effects of climate change on people's lives?

- on occupation
- household chores
- interpersonal relationships
- access to land, pasture and water
- Employment or income
- Food
- Health
- Education

Use of natural resources (typically land, pasture and water)

Questions to both farmers and herders

I shall begin by asking them;

• Which of the resources they use; land, pasture and water?
• How often do you use them?
• How do you get access to these resources?
• What happens when using it?
• How do they use it?
• How do you feel using it? Secure or insecure?
Escalation of Farmer-Herder Conflicts into Violence

Questions to both farmers and herders

• What has been the nature of conflicts between farmers and Fulani herders (violent or non-violent)?

• How do conflicts between farmers and Fulani herders develop or start?

• How does conflict between you escalate into violence?

• What is your understanding of the violence between you?

• Are there other actors involved in the conflicts apart from you (farmers and Fulani herders)?

• If yes, who are these other actors? What are their interests?

• How important are these actors in these conflicts? What are their roles?

• Are there groups involved in the conflict?

• How do group mobilize for violence?

What role do local politics play in conflicts? How do they contribute to conflicts?

• What is the role of the state in these conflicts?

• Here, I shall examine how state and local government policies, governance or politics influence these conflicts.

Environmental Changes and Conflicts between Farmers and Fulani Herders

• How have the recent environmental changes affected the farmers and herders? (Probe)

• Are recent environmental changes different from those in the past?

• In what ways have recent environmental changes affected the use of resources such as water, land and pasture?
• Are the conflicts caused by environmental change or resource scarcity?

• Do you see any links between environmental changes and the rise in conflicts between farmers and Fulani herders?

• How are these links responsible for these conflicts? (Here, I shall probe how these environmental changes cause the conflicts).

• How are farmers and herders adapting to these environmental changes? (Probe how adaptation to environmental changes are the influencing conflicts).

Land Use and Access and Conflicts between Farmers and Fulani Herders

• Who has the access or right to land ownership in this area?

• What is the landownership in your area?

• What types of land-related conflicts exist in this area?

• How does land tenure system affect relations between farmers and Fulani? (That is, conflicts, cooperation and friendships).

• What are the linkages between land access and farmer-herder conflicts?

In your view, are there any other factors that are responsible for farmer-herder conflicts apart from environmental change or resource scarcity?

• If yes, what are these factors?

Effects of Farmer-Herder Conflicts on Agricultural Activities and Security

• Do you feel secure? How/why do you feel in insecure?

• How does the conflict affect the larger community?

• How does the conflict affect agricultural/herding activities?
• How does conflict affect security at local and national levels?

Conflict Resolution, Management and Cooperation between Farmers and Fulani Herders

• What measures have been put in place to resolve the conflicts between farmers and herders?

• Have the measures been effective?

• Why does the conflict persist despite these measures?

• How do farmers and Fulani deal with conflict?

• Are there any national policies to deal with the issue of farmer-Fulani conflicts?

• What do you think can be done to effectively resolve conflicts between farmers and herders and promote cooperation among them?