

**ENVIRONMENT INDUCED CONFLICT AND SUSTAINABLE DEVELOPMENT
A CASE OF FULANI-FARMERS' CONFLICT IN OKE-ERO LGAs, KWARA STATE, NIGERIA**

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ABSTRACT

The study examined the relationship between conflict and resource use, considering environment induced conflict and sustainable development in Nigeria, using the case of Fulani/farmer's conflict in Odo-owa, Oke-ero, Kwara State, Nigeria. The study seeks to identify the description of parties involved, previous conflict occurrences, identification of the source(s) of Fulani-farmers conflict, and the impacts of the conflict on agriculture production. Data used were collected through questionnaire and oral interview with a reconnaissance visit to the sample groups which include the seven communities (such as, Kajola, Owa, Ikotun, Igbede, Ilofa, Egosi and Imode) and three Fulani settlement (Gaa Rore, Atapa and Ajo) within the study area. Maps and Tables are used for the discussions of results. Finally, it was revealed that the frequent causes of Fulani/farmers' conflict in Oke-Ero Local Government Area of Kwara State are the destruction of crops by cattle. The issue rests on the fact that the cows many times, stray into the fields and eat the grain of local farmers. It is therefore recommended that the government, in all levels, should provide cattle reserve areas which can restrict the movement of the cattle in order to enhance sustainable agricultural development.

Keywords: Environment, Conflict, Agriculture

INTRODUCTION

Background of the study

The average increase of global war is predominantly in the Third World Nations among which Nigeria is one. Since independence from Britain in 1960, Nigeria has recorded a major conflict; the civil (The Biafra war) and several intra-national war in different parts of the country. According to Aliyu (2004), "conflicts in Nigeria are of diverse types and have been on rapid increase since after the civil war of 1967-1970". This had led to the expulsion of 700 pastoralists from Borno state in the northeast in May 2009 and some 2,000 from Plateau in April, according to local authorities (IRIN, 2010). These conflicts are mainly attributable to resource control and divergent value systems in the country.

Dougherty and Pfalzgarff, Jr. (1981) opined that, "the term conflict usually refers to a condition in which one identifiable group of human beings in a given environment (whether tribal, ethnic, linguistic, cultural, religions, socioeconomic, political, among others) is engaged in conscious opposition to or more identifiable human groups because these groups are pursuing what are or appear to be incompatible goals".

Homer-Dixon (1996) described environmental scarcity as being the major issue that induces conflict involving three main factors: the degradation and depletion of renewable resources, the increased consumption of such resources, and their unevenly distribution. According to him, the relationship between environmental scarcity and conflict is a complex one. That is, the renewable resource scarcity can produce civil conflict, instability, large and destabilizing population movements, aggravate racial ethnic or religious tensions, and incapacitated political and social institutions.

Mostly, conflict in Nigeria arises from religious, ethnic and political differences or combination of all. However, other areas of less conflict are caused by labour such as strikes and industrial actions that could sometimes prolong to several months. It is therefore highly imperative to trace the root cause and resultant effects of “conflict”, which is sometimes argued as normal state of human interaction. But is it really the normal state of human interaction?

This study discusses the relationship between conflict and resource use, considering environment induced conflict and sustainable development in Nigeria. The study focuses on Fulani/farmer’s conflict in Odo-owa, Oke-ero, Kwara State, Nigeria with the following specific objectives:

- Description of parties involved (Fulani herdsman and local farmers).
- Previous Conflict Occurrences
- Identification of the source(s) of Fulani-farmers conflict in the study area
- Identification of the impacts of conflict on agriculture production
- Recommendation for sustainable agricultural production

STATEMENT OF THE RESEARCH PROBLEM

The most important object in Fulani society is cattle. The quantity of cattle a person owns is a sign of his wealth. This has led to significant conflict in most cases among the Fulani and local farmers. Such conflict has risen from farm encroachment on cattle routes and sometimes watering points. The issue rests on the fact that the cows many times, stray into the fields and eat the grain of local farmers.

Clashes between pastoral and farming communities linked to disputes over grazing land, have become frequent in parts of central and northern Nigeria in recent years. Some analysts have blamed the trend on increasing desertification which is pushing herders southwards in their search for pasture often putting them in conflict with farmers. The question then is what could have been the causes of conflict? Whatever the causes, it is a natural phenomenon in the order of human affairs that conflicts should occur and it is equally natural that conflict should be resolved.

JUSTIFICATION AND RELEVANCE OF STUDY

In view of the fact that conflicts have led to grave consequences like deaths, starvation, poverty, social unrest and unquantifiable losses among the citizens of different nations. There is therefore, a pressing need to study and understand the principles and processes of conflict and to find out appropriate strategies for negotiating and amicably resolving them.

The intensity of the conflict in Kwara State, where the study location is, calls for a timely remedial measure of reducing the frequent conflict occurrence that displaces local farmers from their farms as well claiming lives and crops. For instance, from New Age (2005) revealed “the constant Laments of Fulani-farmers’ clash”. Also, National Pilot (2004), phrased this out:”Establish Grazing Reserve for cattle rearers” and from Crime Watch (2005),”Governor Nnamani wades into conflict with Fulani herdsmen”. These show that for many years, farmers and herdsmen are divided along ethnic lines.

The relevance of the study transcends mere theoretical disciplinary scope. It touches human life and various activities (within agricultural scope) especially in the interiors where farming activities are consistent. Therefore, the conflict relating to the major rampaging agriculture problem is the point of focus of this study.

Thus, the relevance will actively reflect the effect of the conflict on agricultural production. This will relatively interpose a remark into a conversational issue in various disciplinary levels and among other researchers for sustainable development.

STUDY AREA

This study was carried out in Oke – Ero Local Government Area, Kwara State, Nigeria. This area was selected because agriculture is the bed rock of its economy and has been a victim of Fulani-farmers’ conflict for a long time. Also, the decision to visit the specific area was predicated on the assumption that the climate, vegetation and bio-diversity as well as agricultural practices are similar to those of other locations within the state (Kwara).This area is geographically located within 8°50’ N and 5°25’E of the equator (see Figure 1). The study communities are located within Odo-Owa which is found between Irepodun Local Government Area of Kwara State by the North, Ekiti Local Government Area of Ekiti State by the South, Osun State by South-West and Kogi state by North-East (figure 2).

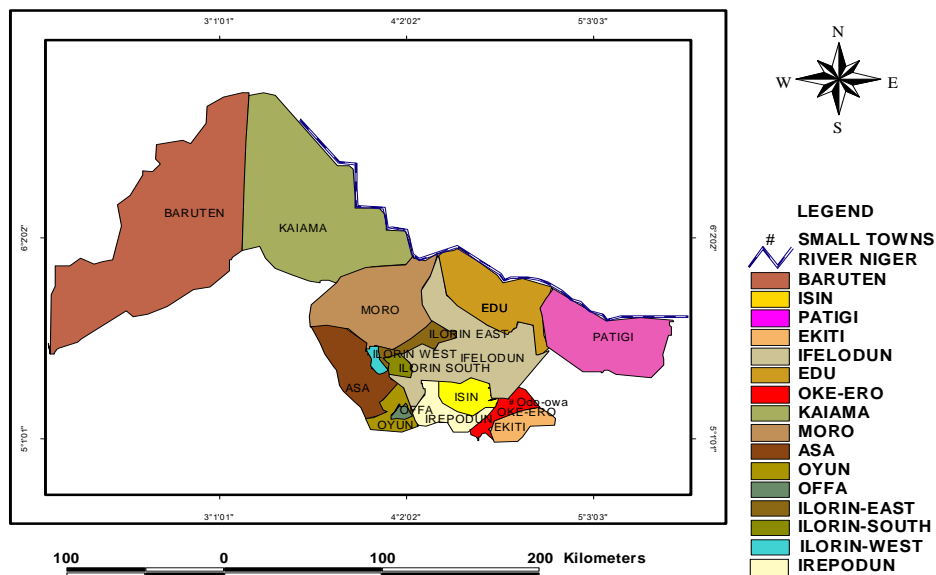


Figure 1: Map of Kwara State Showing Oke-Ero LGAs
 Source: Kwara State Ministry of Lands and Housing, 2010.

The geology is mainly pre-cambrian basement complex. Rock types include quartz, oligoclase, amphibolites, old granite, vein quartz, old laterite and young laterite.

A humid climate prevails within the study area with two distinct seasons (the wet and dry seasons). The wet season lasts between April and October during which there is rain and dry season with no rain in November and March. The rainfall ranges between 50.8mm during the driest months to 2413.3mm in the wettest months. The minimum average temperature throughout the state ranges between 21.1⁰c and 25.0⁰c while, maximum average temperature ranges from 30⁰c to 35⁰c. The mean temperature is about 30⁰c (min) and 35⁰c (max). Rainfall regime decreases considerably from the South to the North. Apart from this latitudinal variation, considerable differences occur as a result of altitudinal differences. The fact is that, the raining season in the North is marked by a single peak around August but the spread is between May and October. The major rivers available within the study area are; River Ero, Eju, Egber, Eri, Ilomu, Ajo and their tributaries of which only a few sustain permanent water flow throughout the dry season. Since the length of the dry season exceeds five months, the little underground water reserve is sheared among the dwellers pending the rainy period.

The soil is red laterite of tropical area formed under seasonal rainfall climatic region. Soil aggregation is poor, with tendency to compact under wet condition. Surface texture is sandy loam. Clay are predominantly kaolite. Soil is about 30-40% clay especially with depth (Adejuwon, 1971).

The climax vegetation was tropical deciduous forest (Adejuwon, 1971). The influence of man, including herding activities has turned it into guinea savanna, which is characterized with scattered trees and tall grasses (Keay, 1959). Various vegetation species containing here are; oil palm (*Elaeis guinensis*), raphia palm (*Raphia sardomical*), eiba pentandra, and *Lanea acida* among others.

The larger percentage of the land is mainly for agriculture, which is restricted to small scale farm holdings with production of food crops as, maize, yams, groundnut, cassava, and vegetables; while part of the land is occupied by the nomadic herdsmen where they carry out their pastoral activities. Also, land is used for industrial activities including; traditional craft, blacksmithing, trading, soap making, mechanic, and educational, health and religion purposes.

The population of the study area, according to National Population Commission (1991), is 11, 000. The population structure comprises of larger number of Christian occupants and a sizeable percentage of Muslim, while the ethnic composition attracts larger percentage of Yoruba people. There are also sizeable numbers of nomadic fulanis (certain tribe in Northern Nigeria), some are settled while some are “off and on” herdsmen (usually referred to as Bororos).

GEOGRAPHY AND CONFLICT

Diehl (1991) distinguishes between argument treating geography as a “source of conflict” suggesting that conflict occurs specifically because of geographic factors, and geography as a facilitating condition for conflict. While Vasquez and Marie (1995) distinguish geography factor by the nature of the factor in question, identifying three general theoretical perspectives.

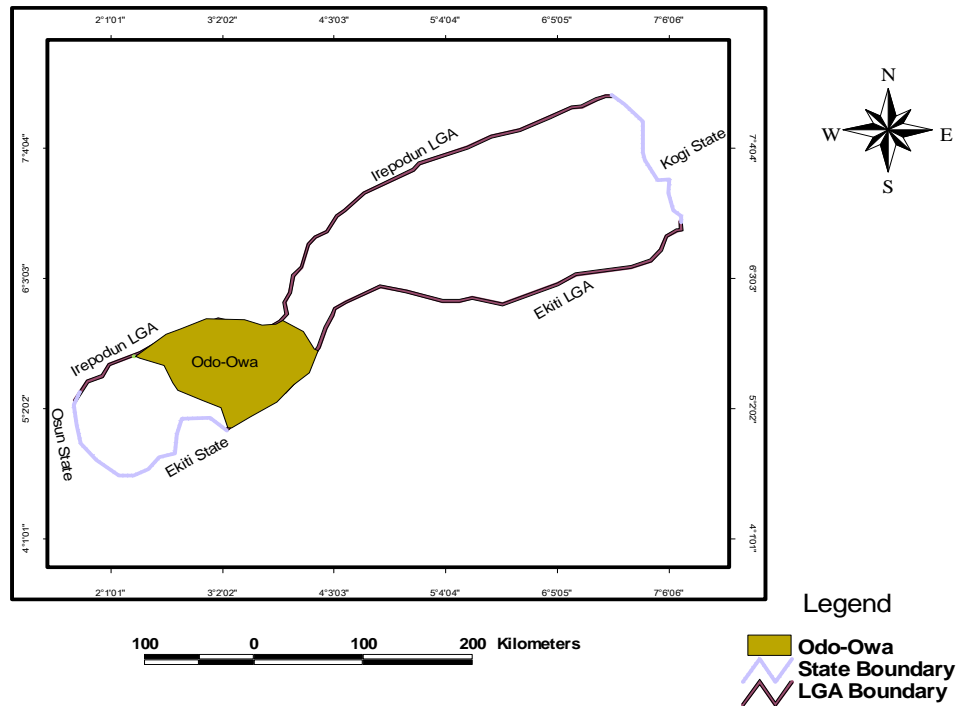


Figure 2: Location Map of Oke-Ero LGAs showing Odo-Owa
 Source: Kwara State Ministry of Lands and Housing, 2010.

The territoriality perspective - consistent with Diehl’s geography as a “source of conflict” suggests that geography is important primarily because states fight over territorial issues. The other two perspectives - associated more closely with Diehl’s notion on a facilitating condition for conflict which suggests that geography is important primarily because it influences the ease with which state can reach other militarily (the proximity perspective) or the frequency with which they interact with each other (the interaction).

Territorial issues are argued to be more difficult to solve than most other types of issues. Bowman (1946) for example, noted that any territorial solution no matter how fair it may seem-carries with it the risk of future attempts to regain cost territory. He further suggested that two or more states can often have irreconcilable claims to the same piece of territory, and that in some territorial disputes there may be no logical solution that both sides can find acceptable. Vasquez (1993) therefore concludes that territorial issues can be very difficult to settle, and that if two adversaries are unable to settle their territorial questions early in their relationship, the resulting dispute is likely to last for many years.

In contrast to the territorial explanation as a “source of conflict”, the proximity and interaction perspective focus attention on territory as a “facilitating condition for conflict “(Diehl, 1991). These perspectives suggest that even if “territory and borders” do not cause wars, they at least create structure of risks and opportunities in which conflictual behavior is apparently more likely to occur. These two perspectives suggest that territory is primarily important to the extent that it contributes to

proximity between two actors. Proximity between actors in turn influences force projection capacities, threat perception, and interaction opportunities – each of which can affect the likelihood of interstate conflict and war.

The interaction perspective on territory and conflict suggests that territory is important primarily because it facilitates interaction between actions. For example, Bolivia typically interact much more frequently with Brazil than it does with Botswana or Bangladesh. The interaction perspective then suggests that greater interaction leads to a greater likelihood of conflict between states, much like Richardson's (1960) observation that people are more likely to be killed by close family members (with whom they interact frequently) than by complete strangers.

CAUSES OF CONFLICT

To understand conflict and the prospects for their resolution towards sustainable development, it is necessary to have a working definition revealed by many scholars for the concept involved.

Chaphin (1979) defined conflict as “the simultaneous occurrence of two or more mutually antagonistic impulse or motives”. It was further described by Wilson and Hanna (1979) as “struggle involving opposing ideas, values, and or limited resources”.

In a behavioral term, Deutsch (1973) viewed conflict as an action, which prevents, obstructs, interferes with, injures or renders ineffective another action with which it is incompatible. Essentially conflict connotes disagreement, dispute, or controversy in ideas or viewpoints held by two or more individuals /group which ends up in disharmonious interpersonal relationship.

According, to Deutsch (1973) and Wilson and Hanna (1979), seven causes of conflict are identified. These are;

- (1) Control over scarce resources; physical resources, are essential to survival. The struggle by different parties to appropriate perceived scarce resources to self in order to guarantee self /group survival often engenders conflict. The example here is as a result of increasing desertification on Nigeria's Northernmost fringes, many pastoral people have started pushing southwards in search of grazing land, accounting to some extent for conflict between Tivs (certain tribe in middle-belt of Nigeria) and the pastoral Hausa-Fulani people in June, 2001 (see Table 1).
- (2) Incompatibility of values; when parties in a social interaction have different and incompatible values and ideas to be superior. For example, Nigeria hosts to 250 ethnic groups. How then can sharing of values and ideas not results into argument and rivalries?
- (3) Belief system: the series of religious conflict in Nigeria and the conflict between Israel and Palestine fall into this category. For example, religion violence occurs mainly in the Northern part of Nigeria between Muslims and Christians through the influence of Islamic legal system, Sharia, in the states.
- (4) Preferences: Interparty conflict usually occurs because political parties differ in their socioeconomic programs; hence the perennial conflict between the Democrats and Republicans USA, and between labour and conservatives in UK.
- (5) Nature of the relationship between parties: Nelson Jones (1997) observed that people enter relationship with difference in their socioeconomic, and possibly cultural backgrounds; sex – role expectations; levels of self esteem; ability to tolerate

stress; tastes; interest, social and family networks, and capacity to change and group. These numerous differences are the veritable sources of conflict in interpersonal and intergroup relationship.

(6) Conflict related to the creation of new administrative boundaries; this happened when it has fuelled tension between different ethnic groups.

(7) Finally, conflict related to oil exploration has been associated with state violence, communal disputes, environmental pollution and a worsening economic and material situation in the community.

TRENDS IN HERDERS-FARMERS' CONFLICT IN NIGERIA

Table 1 depicts the occurrence and effect of some Ethno - Religious conflict in Nigeria. These recorded conflicts shows the prevailing condition of frequent crisis all over the Nation since the return to civil rule in 1999.

Table 1: Some Major Conflicts since the Return to Civil Rule in May, 1999. (Nigeria Case).

S/NO	PLACES	DATE	NATURE
1	Ogun (Imosan)	Nov.9.1999	Hausa Fulani Muslim Vs Oro Cult.
2	Delta	Nov.11, 1999	Itsekiri Vs Urhobo
3	Lagos	Nov.27, 1999	Hausa Fulani Muslim Vs Yoruba
4	Kwara(Ilorin)	Dec.19, 1999	Hausa Fulani Muslim Vs Christians
5	Oyo	Jan.5, 2000	Hausa/ Fulani Vs Yoruba
6	KADUNA	Fed.21, 2000	Hausa/ Fulani Vs Yoruba
7	Abia	Fed.28,2000	Hausa/ Fulani Vs Yoruba
8	Rivers	May .18,2000	Eleme Vs Okirika
9	Born(Domboa)	May .28, 2000	Hausa/ Fulani Vs others
10	Oyo Saki	April .24, 2000	Hausa Fulani Muslim Vs Christians
11	Onitsha	May . 2000	Hausa Fulani Vs Igbo
12	Oyo (Saki)	May . 6,2000	Hausa Fulani Muslim Vs Yoruba.
13	Abia(Aba)	May . 2000	Hausa Fulani Muslim Vs Igbo
14	Kaduna	May .20, 2000	Hausa Fulani Vs. others
15	Ogun(Sagamu)	July.18, 2000	Hausa Fulani Muslim Vs Yoruba.
16	Kano	July.12, 2000	Hausa Fulani Muslim Vs Yoruba.
17	Lagos	Oct.15, 2000	Hausa Fulani Muslim Vs Yoruba.
18	Oyo (Ibadan)	Oct. 2000	Hausa Fulani Muslim Vs Yoruba.
19	Lagos (Alaba)	Oct.16, 2000	Hausa Fulani Muslim Vs Igbo.
20	Lagos	Oct.17,2000	Hausa Fulani Muslim Vs OPC.
21	Kwara	Oct.17, 2000	Hausa Fulani Muslim Vs Yoruba.
22	Nigea (Mina)	Oct.24, 2000	Hausa Fulani Muslim Vs Yoruba.
23	Lagos	Nov.25,2000	Hausa Fulani Vs Yoruba.
24	Katsina	April 7,2001	Hausa Fulani Muslim Vs Katafs.
25	Bauchi	June.18, 2001	Hausa Fulani Muslim Vs Others.
26	Gombe	June.18, 2001	Hausa Fulani Muslim Vs Others.
27	Nasarawa	June.25,2001	Hausa Fulani Muslim Vs Others.
28	Jigawa	July, 2001	Hausa Fulani Muslim Vs Others.
29	Birnin(Gwari)	Aug, 2001	Hausa Fulani Muslim Vs Others.
30	Jos	Sept 7,2001	Hausa Fulani Muslim Vs Birom Others.
31	Taraba	Sept 8,2001	Fulani Vs Tiv.
32	Zamfara (Gasau)	Oct.2001	Hausa Fulani Muslim Vs Others.
33	Delta	Oct.100, 2001	Itsekiri Vs Urhobo
34	Kano	Oct.12, 2001	Hausa Fulani Muslim Vs Chritians.
35	Benue	Oct.12, 201	JukunVs Tiv.
36	Osun(osogbo)	Nov.29,2001	Yoruba Fundamentalists vs Christians
37	Jos	Dec.29,2001	Hausa Fulani Muslim Vs Birom .
38	Delta	Jan.2000	Itsekiri vs. Urhobo.
39	Lagos	Feb.2,2002	Hausa Fulani Muslim Vs Christians.

Source: Statistical Bulletin from Federal Ministry of Statistics (1999).

METHODOLOGY

The sample size was selected on the basis of 0.5% of the actual population of the inhabitants (11,000). Further, seven communities that made up the entire study location (such as, Kajola, Owa, Ikotun, Igbede, Ilofa, Egosi and Imode) were selected so that the opinion of the respondents could be subjected to thorough assessment at the conclusion. In each community, eight respondents were interviewed, which were farmers.

Since it could be difficult to have the precise population figure of the Fulani herdsmen for their lack of social organization which characterizes their settlement lifestyle; effort was made to visit the settled ones that have their hamlets very close to the study point and where their prominent leaders are found. Three different concentrated hamlets (including; Gaa Ajo, Gaa Rore and Gaa Atapa) with population of about three thousand people were visited while six household from each hamlet were sampled. To this end, the total numbers of seventy-four questionnaires were employed in the course of the study.

RESULTS AND DISCUSSIONS

Description of Farmers and Fulani herdsmen

The study revealed that about 73 percent of the farmers are predominantly engaged in subsistence farming and most of them are involved in growing food crops, such as maize, yams, guinea corn among others (Tables 2&3). 92.9 percent of farmers grow food crops while only 7.1 percent were involved in cash crops like cocoa, kola nuts, orange and host of others. It was further observed that most of these food crops are at the nutritious value of the cattle and this; in most cases serves as the alternative feeding that attract the cattle especially in dry season.

Table 2: Description of farming system practice by the farmers

Communities	Subsistence		Commercial	
	Number	Percentage	Number	Percentage
Ilofa	7	12.5	1	1.7
Igbede	6	10.7	2	3.6
Egosi	4	7.4	4	7.4
Imode	4	12.5	1	1.7
Owa	8	14.3	-	-
Kajola	4	7.4	4	7.4
Ikotun	5	8.9	3	5.4
Total	42	73.2	15	26.8

Source: Author's survey, 2010

Table 3: Percentage of Crop Types Growing by the Farmers

Communities	Food Crop		Cash Crop	
	Number	Percentage	Number	Percentage
Ilofa	8	14.6	-	-
Igbede	7	12.5	1	1.7
Egosi	7	12.5	1	1.7
Imode	7	12.5	1	1.7
Owa	8	14.6	-	-
Kajola	7	12.5	1	1.7
Ikotun	8	14.6	-	-
Total	52	92.9	4	7.1

Source: Author's survey, 2010

DESCRIPTION OF NOMADIC ACTIVITIES

This paper only presents the case of “regular herdsmen” who have stable nature in an environment for some period of time before leaving for another location compared to those “off and on” herdsmen commonly referred to as ‘Bororos’. This decision was made because it could be very difficult to reach the “off and on” herdsmen based on their nomadic nature, which often makes their movement unpredictable.

Table 4: Observed numbers of Cows keeping by Fulani herdsmen

Locations	Number of households					
	1st	2nd	3rd	4th	5 th	6th
Gaa Ajo	100	30	50	100	30	30
Gaa Rore	200	150	100	50	150	100
Gaa Atapa	150	70	300	80	60	150
Total	450	250	300	230	240	280

Source: Author's survey, 2010

The places with high cattle population lament for the highest cases of conflict between pastoralists and farmers due to limited dry season grazing resources. This is evident in Table 4 where various numbers of cows from each household are shown.

PREVIOUS CONFLICT OCCURRENCES

Conflict occurs often in the locations visited with some levels of contradiction portraits by the responses from the parties as shown in Table 5. It was observed that farmers emphasized more on regular conflict occurrences (especially during the dry season) where 73.2 percent of response was given. While highest percentage of 66.7 of response was given on occasional conflict occurrence by the Fulanis. The point here is that, farmers count on every bit of disagreement between them and fulanis as a conflict while the Fulani herdsmen overlooks some minor cases as pattern of life and not a conflict. This was

therefore concluded by one of the farmers that, conflict can seize if only there is a restriction to the movement of domestic livestock, only that it is impossible where low and irregular rainfall lead to scant and unreliable sources of water and grazing.

Table 5: Mode of Previous Conflict Occurrence

OCCASIONAL						OFTEN			
Farmer			Fulani			Farmer		Fulani	
Community	No	%	Community	No	%	No	%	No	%
Ilofa	-	-	Gaa Ajo	5	27.8	8	14.6	1	5.6
Igbede	3	5.4	Gaa Rore	4	22.2	5	8.9	2	11.1
Egosi	2	3.6	Gaa Atapa	3	16.7	6	10.7	3	16.7
Imode	2	3.6				6	10.7		
Owa	3	5.4				5	8.9		
Ikotun	3	5.4				5	8.9		
Kajola	2	3.6				6	10.7		
TOTAL	15	26.8		12	66.7	41	73.2	6	33.3

Source: Author's Survey, 2010

SOURCES OF FULANI-FARMERS' CONFLICT

It was observed that where there were competing uses of resources, some amount of conflict may emerge. Some causes of Fulani-Farmers' conflict were gathered during the field work; these are highlighted as follows:

Control over scarce resources: The struggle by different parties to appropriate perceived scarce resources to themselves in order to guarantee self group survival often engender conflict. Fulanis for example, do move away from locations that lack sufficient pasture to more favourable locations. The most frequent cause of conflict between farmers and herdsmen in the study area is the destruction of crops by cattle. This is often a result of herdsmen leaving cattle unattended to and thus, making them to wander to cultivated fields.

Incompatible values: It was observed that the crops grown by the farmers are at the feeding path of the cattle; this causes interference of cattle on crops, especially those ones at the nutritious value of the cattle. In most cases, this results into crop destruction and thereby engenders conflict.

Pasture searching: The Mogaji (Fulani head) explained that "it seems difficult to keep cattle alive where food is not sufficiently available and since there is no other natural means of providing food for the cows, especially in the dry season when grasses and leaves are dried or set on fire, we do lead our cattle to any place to seek for pasture". With this, it is noted that the cattle depend on what they see and thereby compete on the little pastures available for them anywhere.

Proximity: Farmers who have their farms very close to the road or animal path are liable to have their crops destroyed whenever there is a loose control on the cattle. This shows that such closeness often leads to real threat on farming system.

Water scarcity: The only source of water for the cattle during dry season is to lead them to any available water point, which is an often low-land area. Farmers at this time, often engage in nursing their crops at the same water point because of dryness in the upland areas. This shows that Fulani herdsmen move where there is a push factors in order to locate a region of conveniences. That is why Homer-Dixon (1996) explained that large scale movement of populations is caused by environmental scarcity.

Less-Diseased region: Area void of animal diseases, like tse-tse fly, is the favourite location where animal could survive. For instance, the herdsmen residing at “Gaa Rore” (one of the Fulani settlements visited) migrated to a new location that relieved them from possible attack of Tse-tse fly.

Impact of Conflict on Farmers and Crops

FARMERS’ DISPLACEMENT CAUSED BY THE CONFLICT

The level of displacement of the local farmers from their cultivating land is presented in Table 6. This signifies the obvious threat of the conflict. It was observed that greater percentages (60.7%) of farmers were displaced as a result of destruction inflicted on their crops by the cattle. While only 39.3 percent of the respondent among farmers were not displaced.

Table 6: Levels of Displacement among Farmers

Location	Displaced		Not Displaced	
	Number	Percentage	Number	Percentage
Ilofa	6	10.7	2	3.6
Igbede	6	10.7	2	3.6
Egosi	6	10.7	2	3.6
Imode	4	7.4	4	7.4
Owa	5	8.9	3	5.4
Ikotun	4	7.4	4	7.4
Kajola	3	5.4	5	8.9
Total	34	60.7	22	39.3

Source: Author’s survey, 2010.

Table 7: Effect of displacement on crop annual yield

Location	Low yield		No yield		Average yield	
	No	%	No	%	No	%
Ilofa	4	7.4	2	3.6	2	3.6
Igbede	5	8.9	2	3.6	1	1.7
Egosi	4	7.4	1	1.7	3	5.4
Imode	3	5.4	2	3.6	3	5.4
Owa	1	1.7	3	5.4	4	7.4
Ikotun	4	7.4	2	3.6	2	3.6
Kajola	2	3.6	2	3.6	4	7.4
TOTAL	23	41.1	14	25	19	33.9

Source: Author's survey, 2010

The findings supports the work of Gbehe (2007), who concluded that economically viable land have been a major cause of conflict between communities in Nigeria.

One of the effects of farmers' displacement when they are forced to leave their cultivating land as a result of threat on their crops is shown in Table 7. It was gathered that high percentage (41.1) of the crops falls under low yield, while average yield is 33.9 percent and no yield at all carries 25 percent. It was further observed that variability in crop yielding is as a result of some threatened farmers who left their more distanced farmland, which is believed to have retained more fertility than those house-doors farming, in order to avoid clashes between them and herdsmen.

CONCLUSIONS AND RECOMMENDATIONS

In the preceding sections, attempts have been made to examine the impacts of "Fulani-farmers' conflict" through the focal lens of "environment induced conflict and sustainable development". It identified that the frequent causes of conflict between farmers and herdsmen in Odo-Owa, Oke-Ero Local Government Area of Kwara State is the destruction of crops by cattle. It was accepted that there are competing uses of resources; and this is often so when the resource in question is land which can be put into different productive uses. It is therefore imperative to consider the following as a measure for conflict management for adequate resource control.

The government, in all levels should provide cattle reserve areas with standard ranching method that can bring about:

- Reduction of seasonal inter-regional movement of the herdsmen
- Viable economic value both on the animals and herdsmen
- Periodic orientation for the fulanis at the reserve point.

There is a need for the provision of mobile education which could assist in social enlightenment and general behavioural pattern of the herdsmen.

In essence, Sustainable agricultural development must be enhanced with mutual understanding since farming systems in view of this study consist of amalgam of crops and animal management in various production systems. These systems are culminations of several challenges which give rise to extensive production systems such as shifting cultivation and nomadic herding. The fact is that the farming systems are not static. They are changing as a result of natural and socio-economic changes in the environment.

That is why, the World Commission on Environment and Development (WCED, 1987) defined sustainable development as a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is therefore necessary Hussein (1988) therefore, concluded that, to produce land use policies and facilitate changes to production systems that enhance the positive aspects of the competition between farmers and herders, whilst at the same time minimizing any potential negative effects the following Sustainable measures are recommended;

- successful management of resources for agriculture to satisfy changing human needs, while maintaining or enhancing the natural resources base and avoiding environment induced conflict.
- ability of an agricultural system to maintain production over time in the face of social and economic pressures.
- conservation and protection of natural resources and allow for long-term economic growth by managing all exploited resources for sustainable yield (BIFAD 1988).

socio-cultural background, in relation to education, experience, community organization, social relations and institutions, legal systems, among others, to the extent that they interact compatibly.

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