CAUSES, EFFECTS AND RESOLUTION OF FARMERS-NOMADIC CATTLE HERDERS CONFLICT IN DELTA STATE, NIGERIA

OFUOKU A.U.¹, ISIFE B.I.²

¹Department of Agricultural Economics and Extension, Delta State University, Asaba, Nigeria ²Department of Agricultural Economics and Extension, Rivers State University of Science and Technology, Port Harcourt, Rivers State, Nigeria

Abstract

The study was conducted in Delta state to investigate the farmers-nomadic herders' conflict that is very common in many parts of Nigeria. Such conflict has caused a lot of losses to Nigeria, the State, Local Communities, and families. This study unveils the secrets behind such conflicts and gives ideas on the way to prevent and solve such in the future. Using simple random and positive sampling techniques, 80 farmers and 20 nomadic cattle herders were selected respectively from 8 randomly selected communities. Data were collected using structured interview schedule. The causes of such conflict were destruction of crops, contamination of streams by cattle, zero grazing of land, disregard for local traditional authorities, female harassment, harassment of nomads by host communities youths, indiscriminate bush burning, defecation of cattle on roads, cattle theft, and straying of cattle. The socio-economic effects of the conflicts result to reduction in crop yield and income of farmers/nomads displacement of farmers, loss of lives and properties and loss of products in the storage. T-test result showed differences in the responses of farmers and nomads in the respect to the causes of the conflicts. Also the extent of damage and compensation be agreed upon by both parties at the community level with the extension agents as facilitators.

Key words: farmers, nomads, cattle, conflict, herders, local development plan

INTRODUCTION

Conflict between farmers and nomadic cattle herders have also been a in common feature of economic livelihood in west Africa (Tonah, 2006). In the period before the beginning of 20th century, such problems were mainly restricted to the savanna belts of West Africa. Cattle rearing where mainly prevalent in these belts: Guinea, Sudan and Sahel Savanna where crop production was carried out according to short raining season and small scale. This gave cattle herders the opportunity of having available to them, a vast area of grass land. As a time went on, and with the introduction of irrigation practice in the Savanna belt of Nigeria, and during dry season when pasture wither and unavailable to cattle herders, the herds men move down site (coastal zone) were raining is longer and soil retain moisture for long, in search of pasture and water – a movement called transhumance.

The high number of wild animals and the fear of losing animals to disease, especially trypanosomiasis, invented herders from settling permanently in the humid zone (Blench, 1994). Tonah (2006) started that there is a consensus among observers that farmers-herder clashes have only since the 20th century become widespread in the coastal countries of west Africa, though Breusers et al. (1998) were of dissenting view. They averred that after an investigation of farmers-herders relation in Burkina Faso they concluded that the conflict between Mossi farmers and Fulani herders was on hold phenomenon Tonah (2006) opined that factors that account for the increasing farmer-herder conflict include the south ward movement of pastoral herds in to the humid and sub-humid zones, promoted by the successful control the menace posed by disease, the widespread availability of veterinary medicine and the expansion of farming activities into areas that hitherto served as pastureland. He further suggested that since the 1950s there has been a growth in human as well as livestock population in the coaster countries of West Africa. This gave rise to an increase pressure on natural resources and a stiff competition for available resources between farmers and herders (Adebayo, 1997; Breuser et al., 1998; Bermadet, 1999).

Tonah (2006) is of the view that since the sahelian drought of the 1970s and 1980s, and the accompanying migration of a huge number of pastoralists into the

fringes of the humid forest zone of West Africa, has been a massive increase of the incidence of farmers-herders' conflict. Cases of farmer-herders conflict abound and are widespread in Nigeria in recent times. For instance, in Densina Local Government of Adamawa state, 28 people were feared killed, about 2 500 farmers were displaced and rendered homeless in the latest hostility between cattle rearers and farmers in the host community in July, 2005. Nweze (2005) stated that many farmers and herders have lost many their lives and herds, while others have experienced dwindling productivity in their herds. This was supported by Ajuwon (2004), as cited by Nweze (2005) in his observation that in Imo State for instance between 1996 and 2005, nineteen (19) people died and forty-two (42) people were injured in this rising incident of farmers herders conflict and the violence that often accompanies such conflict an issue that can be regarded as being of national concern. These conflicts were treats to both place and national stability. It also has implication for tribal coexistence, Nigeria being a multi-ethnic and a multi tribal nation. The result of the study would be useful in further understanding of farmer-herder conflict in other states in Nigeria and other West African countries. It would also give an insight into the way forward in such conflict situations.

OBJECTIVES

This study was conducted to the investigate into the conflict between farmers and nomadic herds men in Delta State, Nigeria specifically It: looked into:

- the causes of such conflict,
- ascertained the socio-economic effects of the conflicts on the farmers in the study area,
- level of acceptability of nomads by host communi-ties,
- identified extension agents intervention strategy in the resolution of such conflicts.

Hypothesis

There is no significant difference between farmers and nomads perception of the causes of farmer-herder conflicts.

Theoretical frame work

In its general usage the word or term "conflict" envelops view of difference and disagreement, strife and struggle. As defined by Hocker Wilmot (1985), conflict is the interaction of independent people who perceive incompatible goals and interference from each other in achieving goals. Ukaegbu and Agunwamba (1995) had earlier opined that conflict or consensus are the two main patterns of social interactions. Main stream conflict theory view constant antagonism over scarce resources as the fundamental cause of conflict between economic agents (Tonah, 2006). All conflicts share common qualities. The first is that there is a kind of contact between the parties that are involved, secondly, the parties in conflict perceive conflicting views and finally, one of the parties always want to redress existing contradictions (Vanderlin, 2005; Ekanola, 2004; Deutsh, 1991).

Every farming system such as the nomadic cattle herding has a boundary, which separates it from the larger system, which make up the environment. The boundary represents the limits in the larger system. Farmers increasingly compete with nomadic herders for farmland, pastures, water, tress and the use rangeland in general (Akpaki, 2002).

There is clear demarcation between different types of conflict in farmer-nomadic herder relations. Hagberg (1998) has likewise made a distinction between the various types of conflicts in farmer-nomadic relations. He differentiates between disputes among individuals and groups, conflict of interest and violent conflicts. While dispute refers to disagreement between two or more persons or groups, a violent conflict involves mayhem, the destruction and killing of persons and livestock, arising from a dispute (Tonah, 2006).

A conflict of interest, on the other hand, is seen as the adoption of opposing views and concerns by different actors, which usually takes the form of non -violent competition, for control of resources in a given area.

Farmer-herder differences are not only seen as resources conflict but are also some times represented as ethnic conflict involving the two groups. Since herder and farmer groups have very different values, customs, physical and cultural characteristics, disputes between them are frequently characterized as ethnic conflict (Tonah, 2006). The filling of belongingness that is extant among group's members is focused around their economic interest and the protection of the values, culture and power of group. The Fulani nomadic cattle rearers being minority in host communities have a unique culture and strong sense solidarity. They are often isolated from the farming population. In such cases, conflict between them and the farming population of the host community is regarded as having ethnic colour.

Implicit in the theory and within the context of this study, conflict between nomadic cattle herders and crop farmers in a Nigeria, especially Delta State, usually lead to huge losses in terms of human, agricultural and material resources. Hence an understanding of the causes and effects of conflict between nomads and farmers in host communities is an important pre-requisite for the realization of the goals of agricultural development policies to which research experts and extension agents are professionally committed.

MATERIALS AND METHODS

This study was conducted in Delta State, Nigeria (Figure 1). It is one of the states in Niger Delta, otherwise known as south-south geo-political zones this state lies between longitude 5'00 and 6'45 East and longitude 5'00 and 6'30 North. The states have a total land area of 17, 440 square kilometer. Being one of the 35 states in Nigeria it consist of 25 local government area is an estimated population of 4 million delta state government, 2003 the average rainfall ranges from 190.5 cm to 266 cm monthly, while the temperature ranges from 29°C to 34°C with an average of about 30°C (Delta State Ministry of Agriculture, 2000).

Date for the study were collected using interview schedule administrated to 80 farmers randomly selected from 8 randomly selected communities from the three agricultural zones of the state and 20 nomadic cattle herders positively selected from the chosen communities.

This gave sample size of 100 respondents. These farmers were selected from the register of Delta State Agricultural Development Programme. The selection was based on the following criteria:

- that they have been farming in the community for at least 5 yrs
- that the respondents were aware of the existence and activities of nomadic cattle rearers in the study areas
- that the respondents represented the diversity of other farmers in the study area.

Appointments were made to interview the respondents at their homes. An audio-tape recorder was used in the interview, which lasted for 20 minutes per correspondent the assistance of interpreters were however denied in the case of language differences of the author and the rural community dwellers and Fulani nomads who do not understand pidgin English

Data collected were subjected to statistical analysis using tools such as mean, percentage and frequency counts. The hypothesis was tested with the use of T-test.

RESULTS

Socio-economic characteristics of respondents

Table 1 show that 58.8% of the farmers were females while male farmers constitute 41.3%.

Among the nomads 90% were males while 10% represented the female folk. The implication is that the farmers in the age range of 40–45 years and above representing 38% of farmers was more than the remaining age brackets.

Among the nomads those in the age bracket of 25–30 years, representing 50% of the nomads had the highest percentage, those between 31–40 years combined constitute 50% of the nomads.

With respect to education, the farmers who had no formal education and those who had primary education together made up 70% of the farmers sample population Out of the nomads 60% had Islamic education while the

rest of them (40%) had no formal education.

The farmers who had 5–25 years of farming experience representing 88% of the sample population of farmers were highest in number.

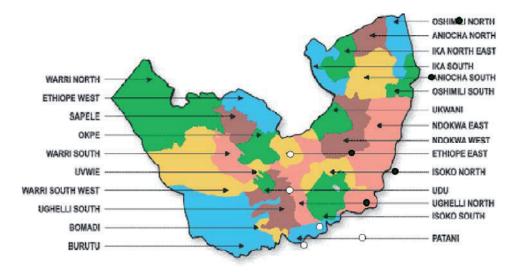


Figure 1: Map of Delta State

Personal characteristics farmers	Nomads				
Sex					
Male	33	41.3	18	90	
Female	47	58.8	2	10	
	80	100	20	100	
Age (year)					
25–30	10	12.5	10	50	
30–35	17	21.3	7	35	
35–40	10	12.5	3	15 0	
40-45	13	16.3	0		
45 and above	30	38	0	0	
	80	100	20	100	
Personal characteristics farmers	Nomads	%	Nomads	%	
Level of education					
Islamic/Arabic	0	0	12	60	
No formal education	22	27.5	8	40	
Primary education	34	42.5	0	0	
Secondary education	19	23.6	0	0	
Tertiary education	5	6.3	0	0	
	80	100	20	100	
Working experience (year)					
1–5	2	2.5	5	25	
5–10	10	12.5	3	15	
10–15	24	30.0	4	20	
15–20	21	26.3	6	30	
20–25	20	25	2	10	
25–30	3	3.8	0	0	
	80	100	20	100	

Tab. 1: Personal characteristics of the respondents

Source: Field survey 2007

Level of acceptance of nomads by host communities

Table 2 indicates that the farmers (mean = 1.85) opined that the nomadic cattle farmers were poorly accepted in their communities. The nomads (mean = 1.75) also had the same opinion about their acceptability in the host farming communities.

Causes of conflict between farmers and nomads

The major cause of the conflict (Table 3) in the study area as indicated by the farmers were disregarded for the host traditional authority (mean = 3.5). However, the herders opinion of it as a cause of conflict was low (mean = 1.45). They did not regard it as a cause of such conflict. Another major cause as rated by farmers was the destructions of crops by cattle (mean = 3.4). The herdsmen also regarded it a major cause (mean = 3.2). Another major cause of conflict as opined by the farmers (mean = 3.2) was contamination of stream by the herds of cattle.

The nomadic herders also regarded the contamination of stream by the cattle as the cause of conflict. The farmers (mean = 2.8) regarded zero grazing as a major cause of conflict. The herders (mean = 1.8) did not it as a main

Tab. 2: Level of acceptance of nomadic herders by the farming communities

Respondents	Score	Mean	Decision
Farmers	148	1.85	low level of acceptance
Nomads	35	1.75	low level of acceptance

Source: Field survey, 2007

source of conflict. The farmers (mean = 2.9) and the herdsmen (mean = 2.8) also regarded female harassment by the nomadic herders as another cause of conflict, especially when cases of rapes were established. Harassment of nomads was rated by both farmers and herders as having caused conflicts. Bush burning which causes destruction to crops on the field was considered as a major source of conflicts between farmers and herders. Indiscriminate defecation by cattle on roads and also cause conflict, though, it was by the farmers and herders as a minor cause. Cattle theft or rustling was another major cause of conflicts in the farming communities. Stray cattle which destroy crops on the field also caused conflicts farmers and nomadic herdsmen. Farmers in anger slaughter such stray animal.

Socio-economic effect of causes of conflicts on the host harming communities

Table 4 implies that the reduction in output and income farmers, disease out break, erosion, loss if lives, arms

Tab. 3: (Causes	of conflicts	between	nomads and farmers	
-----------	--------	--------------	---------	--------------------	--

running, loss of houses and properties, and loss of farm product in storage were the resultant affects of the causes of conflicts and conflicts between the host farming communities and the nomadic herdsmen, as the their mean scores were ≥ 2.50

Test of hypothesis

There is no significant difference between farmers' and nomads' perception of the causes of farmer-nomad conflicts.

Table 5 implies that there is difference in the farmers' and nomads' perception of the causes of farmer-nomad conflicts at P < 0.05 as all the adduced sources of conflicts have $t_{cal} > t_{tab}$. The difference in perception of farmers and nomads with respect to causes of conflicts is attributed to the fact that in a conflict situation, there is bound to be exaggeration of facts and denials of faults by the parties involved. Another reason is that different people have different perception about issues.

S/N	CAUSES -	Mean score remarks			
5/IN	CAUSES -	FARMER	NOMADS		
1	Destruction of crops	3.4 major cause	3.2 major cause		
2	Contamination of stream by cattle	3.3 major cause	2.5 major cause		
3	Zero grazing of fallow land	2.8 major cause	1.8 minor cause		
4	Disregard for traditional authority	3.5 major cause	1.5 minor cause		
5	Sexual harassment of women by nomads	2.9 major cause	2.8 major cause		
6	Harassment of nomads by host youths	3.1 major cause	3.4 major cause`		
7	Indiscriminate defecation by cattle on roads	2.1 major cause	2.9 major cause		
8	Theft of cattle	2.7 major cause	2.9 major cause		
9	Stray cattle	2.9 major cause	3.3 major cause		
10	Indiscriminate busy burning	2.9 major cause	3.3 major cause		

Source: Field Survey, 2007

Tab. 4: Socio-economic effects of conflicts between hos	t farming communities and nomadic herdsmen ($N = 3$	80)
---	--	-----

Effects	Total score	Mean score	Remarks
Reduction in output and income of farmers/ nomads	285	3.56	major effects
Displacement of farmers	295	3.69	major effect
Erosion	208	2.60	major effect
Loss of lives	280	3.50	major effect
Arms running	205	2.56	major effect
Loss of house and properties	200	2.50	major effect
Loss of produce in storage	283	3.54	major effect

Source: Field survey, 2008

Cut off Score: ≥ 2.50 (major cause; < 2.5 = not (minor cause)

Cause of conflicts		Ν	df	T-calculated	T-tabulated	Decision
Distribution of crops	farmer nomad	80 20	98	5.71	1.645	S
Contamination of stream	farmer nomad	80 20		5.61	1.645	S
Zero grazing	farmer nomad	80 20		5.63	1.645	S
Disregard for traditional authority	farmer nomad	80 20		5.51	1.645	S
Sexual harassment of women	farmer nomad	80 20		4.76	1.645	S
Harassment of nomads	farmer nomad	80 20		5.71	1.645	S
Indiscriminate defecation on roads	farmer nomad	80 20		5.61	1.645	S
Cattle theft	farmer nomad	80 20		5.71	1.645	S
Straying of cattle	farmer nomad	80 20		5.71	1.645	S
Indiscriminate bush burning	farmer nomad	80 20		5.71	1.645	S

Tab. 5: T-test result showing the difference in farmer – nomad perception of causes of their conflicts

DISCUSSION

Socio-economic characteristics of respondents

Women were more in farming than men in the study area. Men were more in nomadism than women the few women seen were wives of the nomadic herdsmen. This is so because they seem to be more adapted to hash conditions than women.

Most of the farmers were in the age range of 40–45 yrs because of the attitude of younger men towards agriculture as they believed that once one is educated, he does not need to engage in farming, but white collar jobs, and that farming is meant for the old and those who did not receive formal education. Younger men of 25–30 years were more in nomadic life because nomadic life needs a lot of movement that requires a lot of stamina. The older ones, out of many years of nomadic life have become worn-out and are quitting the job.

None of the farmers had Islamic education because it is not common in their part of the country. The younger ones who have formal education have drifted to urban areas in search of white collar jobs. Islamic education is not regarded by the communities in the state but Western education which they see as being progressive.

The nomads are Moslems and had no value for formal (western) education, hence the nomadic job they undertake.

The farmers had many years of experience. This implies that a great majority of them has enough experience required of this study in terms of experience. They have at one time or the other experienced conflicts with herders more so as farming is their primary occupation.

Level of acceptance of nomads

The level of the acceptance is quite low and this trend must have been prompted by some reasons which are not far from the conflict that arise between the nomads and the host farming communities.

Causes of conflicts

Disregard for authority which is a major cause of conflict is not taken lightly by rural communities. It is customary for strangers to pay visit to the traditional authority of their host community at the first time of entry to announce their mission and seek their permission to sojourn there especially when the strangers are not the ones that could stay in the habited areas of the community like the nomads. This is done strictly for security and revenue reasons. This, the nomadic herders always fail to do and pay, respectively. When situations like this occur, the traditional security out fit is detailed to invite them to see the traditional authority and when they fail it is taken as an insult. Destruction of crops is likewise a major cause of conflict. This is congruent with Tonah (2006) who stated that the most frequent cause of such conflict is the destruction of crops by cattle. These cattle enter the farm to feed on the foliage of crop even in the presence of the herdsmen who pretend not to notice such destruction. This supports Hegberg (1998) who averred that in the

pre harvest period, cattle frequently destroy or eat ripened crops as they are led from the field to their camps. Contamination of the stream is regarded as a source conflict. The stream is a source of water supply the rural farming communities and they depend on it for every domestic use. Contamination of the stream has lead to the outbreak of cholera, typhoid fever and liver fluke, as the host communities members believe.

The nomadic herdsmen also allow their to graze on fallow land continuously and zero grazing emanate there from. This has caused a lot of erosion on plot of land thereby making it infertile and difficult to cultivate by farmers.

Rape, a major cause of conflict is a taboo to every society in the world and in Africa in particular, it is not taken lightly. The nomads who are singles, in a bid to satisfy their thirst females fall into such temptations.

In many communities, levies are collected, even from crop and livestock/poultry farmers. In most cases, the nomadic herdsmen refuse to pay such to traditional authorities in the host communities this is taken as disregard and insult by the traditional authorities who always want to exert their authority. The youth who constitute the local security outfit are sent to collect such levies when they, the herdsmen fail to pay. They always meet resistance from the nomadic herdsmen, which leads to fight with them when the youths try to exercise the power given to them. This often lead to conflicts.

During the dry season, grasses and forages dries up and these nomads believe that if the dried vegetation is burnt, fresh pasture would regenerate. In the process of burning, the fire spreads into adjourning farms. This according to the respondents causes some conflict between the affected farmers and the herders as crops on the field are destroyed by the spreading fire.

The major roads used by rural communities, though are earth roads are well cared for. As these nomadic herdsmen take their cattle through these roads, the cattle, as their usual habit drop their dung, indiscriminately on the roads. This angers the host community and when the nomads' attention is brought to it they careless. This again is disregard for the host community traditional authority. Cases of cattle theft (rustling) were also known to have caused farmer-herder conflict. In every community, there are miscreants. Some of these have been caught stealing bulls and cows by the nomadic herders. This lead to the killing of thieves. These killings often enraged the host communities. This agree with Tonah (2006) who discover in a similar study that frequent loss of cattle to rustlers has also worsened the already tense farmerherder relationship in the Volta basin.

There were cases when cattle strayed away and destroyed farmers crops and were slaughtered by the offended par-

ties. This has caused a lot of problems between the host farming communities and the nomadic herdsmen who did not always think of the value of the damaged crops, but their cattle. It is glaring that the various causes are related to clash of interest, resources destruction and abuse. After thunder comes rain. The conflicts were resolved by the payment of compensation to the offended party in each case, but the respondents expressed their dissatisfaction with the compensation paid and the manner of resolving such conflicts.

Socio-economic effect of conflicts

- Reduction in output and income of crop farmers as a result of destruction of crops by cattle and indiscriminate bush burning. A lot of farmers lost part or the whole of their crops. This spelt reduced yield which translated into low income on the part of the farmers who take farming as major occupation. This tends to negatively affect their savings, credit repayment ability, food security and economic welfare of urban dwellers that depend on these farmers for food supply. This is very discouraging to the farmers and rural/agricultural development.
- Displacement of farmers: There were reports of displaced farmers and herdsmen alike. In the host communities, Nomadic herdsmen relocate as a result of conflict. Host farmers especially women farmers who remain behind stop going to the distant farms for fear attack by the nomads in the bush. Such displaced farmers have become a source of liability to other farmers they have to beg for food for themselves and their families. This has trickled down to the vicious cycle of poverty in such communities.
- Erosion (land degradation) as a result of zero grazing. The soil was made naked and susceptible to win erosion and eventually as the rains come erosion continues. This is accelerated by the topographic nature of some of the areas, being hilly there have arisen the problems of loss of nutrients and difficulty of cultivation.
- Loss of lives: A lot of killings by the nomads took place as a result of the conflicts and this led to the reprisal killings of nomads by the host communities, the herds of cattle belonging to the nomads were also killed. Also some of the victims (young and old) were badly injured and others were maimed. This has reduced some women farmers to the status of widows. All these have drastically reduced agricultural labour force in the area. In the process there were reported cases of proliferation of small arms and ammunitions. This was due to the fact that host farming communities and headsmen saw

other as archenemies. This inimical to the spirit of integration of Nigerian tribes or ethnic groups and peaceful co-existence.

This finding agrees with the earlier report of the study conducted by Nweze (2005) when he reported that twenty seven 27 people lost their lives due to conflicts between nomadic herdsmen and farmers in Kogi State of Nigeria within the period of 1996 and 2002.

CONCLUSION

From the study, it was discovered that there are recurrent clashes of interests between the host farming communities and the nomadic cattle herders. This problem can be minimized through extension intervention. It is therefore, suggested that the mechanism tagged "Local Development Plans" (LDPs), be applied by extension agencies to minimize conflict. The LDPs are expected to include among others, clear agreements on access to natural resources involving all stakeholders (Nweze, 2005).

The LDP is a Community-Driven Development (CDD) approach to increased productivity and the main instrument for addressing all conflict issues in Fadama 2 (Nweze, 2005). According to Sey (2002), the CDD based LDP approach has become necessary following the realization that after years of practicing development in the conventional top-down, supply-driven mode, it has failed to achieve much success in terms of economic growth. This strategy (LDP) is expected to empower every resource user, expand his/her scope of freedom, give control and decision-making role to resource users and give voice to the ones normally excluded from planning. The approach is seen to possess the needed sustainability quality and is founded on social capital, leading to accountability, financially and environmentally.

Under the guidance of an Extension Officer, the Local Community Farmers Association (LCFA) should be formed and an LDP prepared. In this case, an LDP would comprise a framework for use of land resources, in the midst of other objectives and provide the solution to reducing tension over access to land resources. For effectiveness to be achieved, Extension Officers that will act as facilitators are expected to be skillful in:

- identification of the various stakeholders,
- using languages that are used by both the local farmers and the nomadic cattle herdsmen,
- developing trust between the farmers and the nomadic cattle herdsmen, through development of socialcultural skills and sensitivity to the prevailing norms of the host farming communities,

- interview and assessment techniques like Participatory Rural Appraisal (PRA), Participatory Learning Action (PLA),
- the modern and indigenous conflict management.

The LCFA and the extension institution are to ensure that all the so identified stakeholders are brought together under common forum and included in the decision making and allowed to participate actively in planning process. The adoption of a participatory planning process that involves all stakeholders (Herdsmen and crop growers) in dispute resolution mechanism will help to promote consensus instead of conflict. Another approach to extension intervention in conflict resolution and management is nomadic education. It is envisaged that by reducing conflicts, significantly, between pastoralists and crop farmers through participatory approaches such as LDP that involves all stakeholders, there will be stimulation of economic growth that is poverty-reducing. All stakeholders can only operate optimally while carrying out their economic activities in peaceful environment. There will be cropping areas expansion and motivated higher cropping intensity and problem-free environment. This breeds economic sustainability of land resources users and empower the farming communities to take responsibility for their own development plan.

REFERENCES

- ADEBAYO A. (1997): Contemporary dimensions of migration among historically migrant Nigerians. Journal of Asian and African Studies, 32: 93–109.
- AKPAKI A.Z. (2002): Ackerbauern and mobile tier hatter in Zentral and Nord-Benin. Dietrich Reiner Verlag. Berlin.
- BERNADET P. (1999): Peuls en conflicts en moyenne et haute Cote d'Ivoire, de 1950 a 1990. In: Roger B., Boutrais J., Schmitz J. (eds): Figures Peulins. Paris, Karthala, pp. 407–444.
- BLENCH R. (1994): The expansion and adaptation of Fulbe Pastoralism to sub humid and humid conditions in Nigeria. Cahier D. Etudes Africanes, 34 (1–3): 197–213.
- BREUSERS M; NEDERLOF S., VAN RHEENEN T. (1998): Conflict or symbiosis? Disentangling farmer-herdsmen relationships: the Mossi and Fulbe of the Central Plateau, Burkina Faso. The Journal of modern African studies, 36 (3): 357–380.
- Delta State Ministry of Agriculture (2000). Agricultural Statistical Information. Delta Government Press, Asaba.
- DEUTSCH M. (1991). Subjective features of conflict resolution: Psychological, social and cultural influences.

In: Raimo V. (Ed.): New Dimensions in Conflict Theory. Sage Publications, London, pp. 29–30.

- EKANOLA B.A. (2004): Beyond isolation: Towards cooperative relations and resolution of ethnic conflicts in contemporary African society. CODESRIA Bulletin, 3&4: 35–37.
- HAGBERG S. (1998): Between peace and justice: Dispute settlement between Karaboro agriculturalists and Fulbe agro-pastoralists in Burkina Faso. Uppsala Studies in Cultural Anthropology 25. Acta Univer-sitatis Upsaliensis, Uppsala.
- HOCKER J.L., WILMOT W.W. (1995): Interpersonal conflict. Dubuque. W.C. Brown, Iowa.
- NWEZE N.J. (2005): Minimizing farmer-herder conflicts in Fadama areas through Local Development Plans: Implications for increased crop/livestock productivity in Nigeria. Paper presented at the 30th Annual Conference of the Nigerian Society for Animal Production, held 20th-24th March.

- SEY H. (2002): What and why of community-driven development plan. Paper presented at the CDD Workshop, Kampala Uganda, August, 25.
- TONAH S. (2006): Managing Farmer-Herder Conflicts in Ghana's Volta Basin. Ibadan Journal of Social Sciences, 4 (1): 33–45.
- UKAEGBU C.C.. AGUNWABA N.C. (1995): Conflict and Consensus in Rural Development: The Neglected Dimension. In: Eboh E.C., Okoye C.U., Okoye D. (eds.): Rural Development in Nigeria: Concepts, processes and prospects. Auto-Century Pub. Co. Ltd., Enugu.
- VANDERLIN J. (2005): Conflicts and cooperation over the commons: A conceptual and methodological framework for assessing the role of local institutions. Available at http://www.ilri.cgiar.org/infoserve/web pub/fulldocs/pr

Received for publication on April 2, 2009 Accepted for publication on October 19, 2009

Corresponding author:

A.U. Ofuoku

Department of Agricultural Economics and Extension Delta State University Asaba Campus,Asaba,Nigeria e-mail: ofuoku@yahoo.com