

Full Length Research Paper

Causes, effects and resolution of farmers-nomadic cattle herders conflict in Delta state, Nigeria

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The study was conducted in Delta State to investigate the farmers-nomadic herders' conflict that is 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 causes of such conflicts and suggests ways to prevent and resolve them in the future. Using simple random and positive sampling techniques, 80 farmers and 20 nomadic cattle herders were selected respectively from 8 purposively selected communities. Data were collected using a structured interview schedule. The causes of such conflict were: destruction of crops, contamination of streams by cattle, over-grazing of land, disregard for local traditional authorities, female harassment, harassment of nomads by youths of host communities, indiscriminate bush burning, defecation of cattle on roads, cattle theft, and straying of cattle. The socio-economic effects of the conflicts include reduction in crop yield and income of farmers/nomads, displacement of farmers, loss of lives and property and loss of products in storage. T-test of the data showed differences in the response of farmers and nomads in respect to the causes of the conflicts ($P < 0.05$). The study suggests that local development plans should be established to reduce such conflicts. Also, the extent of damage and compensation should be agreed upon by both parties at the community level with the agricultural extension agents as facilitators.

Key words: Farmers, nomads, cattle, conflict, herders, local development plan.

INTRODUCTION

Conflicts between farmers and nomadic cattle herders have been a common feature of economic livelihood in West Africa (Tonah, 2006). In the period before the beginning of the 20th century, the problem was mainly restricted to the savanna belts of West Africa. Cattle rearing were mainly prevalent in the Guinea, Sudan and Sahel savanna belts where crop production was carried out only during the short rainy season on a small scale. This gave the cattle herders access to a vast area of grass land. As time went on, and with the introduction of irrigated farming in the Savanna belt of Nigeria, and the increased withering of pasture during the dry season, less pasture was available to cattle herders. The herds men had to move southward to the coastal zone where the rainy season is longer and the soil retains moisture

for long, in search of pasture and water – a movement called transhumance.

The large number of wild animals and the fear of losing animals to diseases, especially trypanosomiasis, prevented herders from settling permanently in the humid zone (Blench, 1994). Tonah (2006) stated that there is a consensus among observers that farmers-herders clashes have only since the 20th century become widespread in the coastal countries of West Africa., though Breusers et al. (1998) were of a dissenting view. They concluded after an investigation of farmers-herders relations in Burkina Faso that the conflict between Mossi farmers and Fulani herders was an old phenomenon. Tonah (2006) opined that the factors that account for the increasing farmer-herder conflict include the southward movement of pastoral herds into the humid and sub-humid zones, promoted by the successful control of the menace posed by disease, the widespread availability of veterinary medicine and the expansion of farming activities into

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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 coastal countries of West Africa. This gave rise to an increased 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, there has been a massive increase of the incidence of farmers-herders conflict. Cases of farmers-herders conflict 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 hostility between cattle rearers and farmers in the host community in July 2005. Nweze (2005) stated that many farmers and herders have lost 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, 19 people died and 42 people were injured in the farmers-herders conflicts and the violence that often accompanied such conflict. The conflicts are a threat to peace and national stability. It also has implication for tribal co-existence, Nigeria being a multi-ethnic and a multi-tribal nation. The result of the study would be useful for a further understanding of farmers-herders conflicts in other states of 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 investigate into the conflict between farmers and nomadic herds men in Delta State, Nigeria. Specifically, it:

- i. examined the causes of such conflict,
- ii. ascertained the socio-economic effects of the conflicts on the farmers in the study area,
- iii. assessed the level of acceptability of nomads by host communities, and
- iv. 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 term "conflict" suggests differ-

ence 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 is the two main patterns of social interactionism. Main stream conflict theory views 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 wants to redress existing contradictions, (Vanderlin, 2005; Ekanola, 2004; Deutsch, 1991).

Every farming system such as 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, trees and the use of 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 sometimes 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 feeling of belongingness that is extant among the members of the group is focused around their economic interest and the protection of the values, culture and power of group. The Fulani nomadic cattle rearers being a minority in host communities have a unique culture and strong sense of 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 an ethnic colour. Implicit in the theory and within the context of this study, conflict between nomadic cattle herders and crop farmers in Nigeria, especially Delta State, usually leads 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

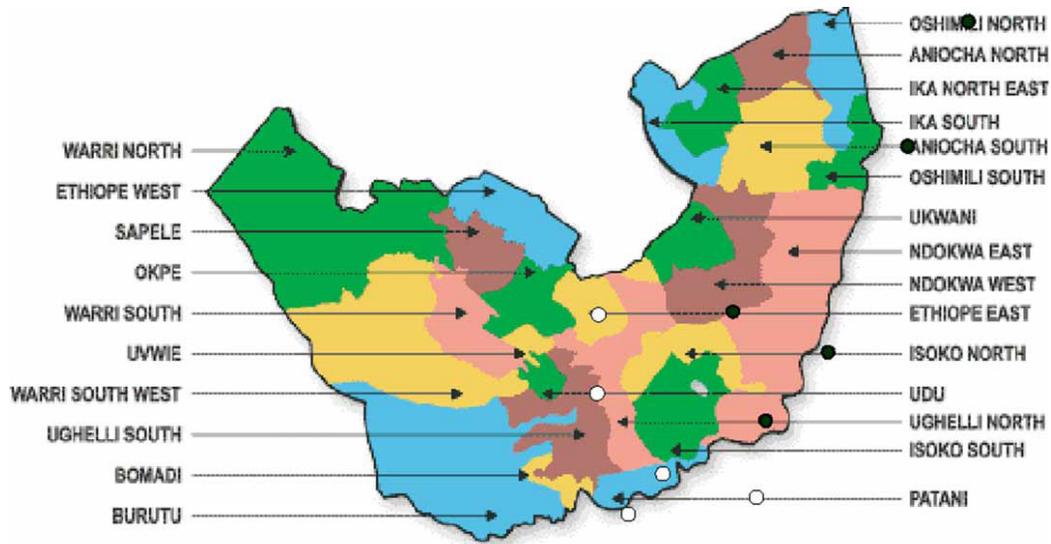


Figure 1. Map of Delta State.

which research experts and extension agents are professionally committed.

METHODOLOGY

This study was conducted in Delta State, one of the 35 states in Nigeria (Figure 1). It is one of the states in the Niger Delta, otherwise known as south-south geo-political zone. The state lies between longitude 5° 00 and 6° 45 East and latitude 5° 00 and 6° 30 north. The state has a total land area of 17,440 square kilometers. It consists of 25 local government areas and has an estimated population of 4 million (Delta State Government, 2003). The average rainfall ranges from 190.5 - 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).

Data for the study were collected using an interview schedule administered 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 a sample size of 100 respondents. The farmers were selected from the register of the Delta State Agricultural Development Programme. The selection was based on the following criteria:-

- i. that they have been farming in the community for at least five years;
- ii. that they were aware of the existence and activities of nomadic cattle rearers in the study area; and
- iii. that they 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 min per respondent. The assistance of interpreters was 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.

RESULT

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 45yrs and above constituted 38% of all the farmers interviewed. Among the nomads, those in the age bracket of 25 - 30 years represented 50% of the nomads interviewed while the combined brackets of 31-40 years constituted the remaining 50%. 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. Among 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 represented 88% of the sample population.

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 was the disregard for the host traditional authority (mean = 3.5). However, the herders opinion of this as a cause of conflict was low

Table 1. Personal characteristics of the respondents.

Personal characteristics farmers		nomads		
Sex				
Male	33	41.3	18	90
Female	47	58.8	2	10
	80	100	20	100
Age				
25-30yrs	10	12.5	10	50
30-35yrs	17	21.3	7	35
35-40yrs	10	12.5	3	15
40-45yrs	13	16.3	0	0
45yrs and above	30	38	0	0
	80	100	20	100
Personal characteristics farmers %		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				
1-5years	2	2.5	5	25
5-10years	10	12.5	3	15
10-15years	24	30.0	4	20
15-20years	21	26.3	6	30
20-25years	20	25	2	10
25-30years	3	3.8	0	0
	80	100	20	100

Source field survey 2007

Table 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

Table 3. Causes of Conflicts between Nomads and Farmers

S/N	CAUSES	FARMER		NOMADS	
		Mean Score	Remark	Mean Score	Remarks
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	Over- 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. Cut off Score: ≥ 2.50 (major cause); < 2.5 = not (minor cause).

Table 4. Socio – Economic Effects of Conflicts between Host Farming Communities and Nomadic Herdsmen. N = 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.

(mean = 1.45). Another major cause as rated by farmers was the destruction of crops by cattle (mean = 3.4). The herdsmen also regarded it as 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 a cause of conflict. While the farmers (mean = 2.8) regarded over- grazing as a major cause of conflict, the herders (mean = 1.8) did not see it as a main source of conflict. The farmers (mean = 2.9) and the herdsmen (mean = 2.8) both 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 also causes conflict, though both the farmers and herders saw it 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 between farmers and nomadic herdsmen. Farmers in anger slaughter such stray animal.

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

Table 4 implies a reduction in output and income of farmers, disease out break, erosion, loss of lives, arms running, loss of houses and properties, and loss of farm product in storage, as the resultant effects of the causes of conflicts and conflicts between the host farming communities and the nomadic herdsmen, as 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 shows that there is a 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 an exaggeration of facts and denial of faults by the parties involved. Another reason is that different people have different perception about issues.

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 being wives of the nomadic herdsmen. This is so because nomadic men seem to be more adapted to harsh conditions than the women.

Most of the farmers were in the age range of 40 - 45 years because of the attitude of younger men towards agriculture. The youth believed that once one is educated, he does not need to engage in farming, but in 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, after 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, being Moslems, had no value for formal (western) education, hence the nomadic job they undertake. The farmers had many years of experience, and 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 acceptance is quite low and this trend must

Table 5. T-Test Result Showing The Difference In Farmer-Nomad Perception Of Causes Of Their Conflicts.

Cause Of Conflicts		N	df	T-Calculated	T-Tabulated	Decision
Distribution Of Crops	Farmer	80	98	5.71	1.645	S
	Nomad	20				
Contamination Of Stream	Farmer	80		5.61	1.645	S
	Nomad	20				
Zero Grazing	Farmer	80		5.63	1.645	S
	Nomad	20				
Disregard For Traditional Authority	Farmer	80		5.51	1.645	S
	Nomad	20				
Sexual harassment of women	Farmer	80		4.76	1.645	S
	Nomad	20				
Harassment of nomads	Farmer	80		5.71	1.645	S
	Nomad	20				
Indiscriminate defecation on roads	Farmer	80		5.61	1.645	S
	Nomad	20				
Cattle theft	Farmer	80		5.71	1.645	S
	Nomad	20				
Straying of cattle	Farmer	80		5.71	1.645	S
	Nomad	20				
Indiscriminate bush burning	Farmer	80		5.71	1.645	S
	Nomad	20				

their mission and seek their permission to sojourn there, especially when the strangers could not stay in the habited areas of the community, like the nomads. This is done strictly for security and revenue reasons. Most nomadic herders fail abide by these requirements. When situations like this occur, the traditional security outfit 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 of conflict. The stream is the source of domestic water supply for most rural farming communities. The host community members believe that contamination of the stream leads to the outbreak of cholera, typhoid fever and liver fluke. The nomadic herdsmen also allow their cattle to graze on fallow land continuously and over-grazing emanates there from. This causes erosion on the plot of land thereby making it infertile and difficult to cultivate by the 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 for females fall into such temptations. In

many communities, levies are collected, even from local crop and livestock/poultry farmers. In most cases, the nomadic herdsmen refuse to pay such levies to the 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 the herdsmen fail to pay. The youth always meet resistance from the nomadic herdsmen, which leads to a fight as the youth try to exercise the power given to them.

During the dry season, grasses and forage dry up and the nomads believe that if the dried vegetation is burnt, fresh pasture would regenerate. In the process of burning, the fire spreads into adjoining farms. This, according to the respondents, causes 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 drop their dung indiscriminately on the roads. This angers the host community and when the nomads' attention is brought to it they show no remorse. This again is considered a 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 leads to the killing of the thieves. These killings often enraged the host communities. This agrees with Tonah (2006) who

showed in a similar study that frequent loss of cattle to rustlers worsened the already tense farmer-herder relationship in the Volta Basin. There were also cases when cattle strayed away and destroyed farmers' crops and were slaughtered by the offended parties. This has caused a lot of problems between the host farming communities and the nomadic herdsman 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

- i). Reduction in output and income of crop farmers as a result of the destruction of crops by cattle and indiscriminate bush burning. Many farmers lost part or the whole of their crops. This meant reduced yield which translated into low income on the part of the farmers who take farming as a major occupation. This tends to negatively affect their savings, credit repayment ability, as well the food security and economic welfare of urban dwellers that depend on these farmers for food supply. This discourages the farmers and rural/agricultural development.
- ii). Displacement of farmers: There were reports of displaced farmers and herdsman alike. In the host communities, Nomadic herdsman relocate as a result of conflict. Host farmers, especially women, who remain behind stop going to the distant farms for fear of attack by the nomads in the bush. Such displaced farmers have become a source of liability to other farmers whom they have to beg for food for themselves and their families. This has created a vicious cycle of poverty in such communities.
- iii). Erosion (land degradation) as a result of zero grazing. The exposure of the soil makes it Susceptible to erosion which is worsened by the rain. This is accelerated by the topographic nature of some of the areas, which are hilly. Erosion causes a lot of loss of soil nutrients and difficulty of cultivation.
- iv). Loss of lives. A lot of killing by the nomads and reprisal killing of nomads by the host communities takes place during the conflicts. Herds of cattle belonging to the nomads are also killed. Also some of the victims (young and old) are badly injured or 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 are reported cases of proliferation of small arms and ammunitions since the host farming communities and the headsmen saw each other as archenemies. This is 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 herdsman and farmers in Kogi State of Nigeria within the period of 1996 and 2002.

CONCLUSION AND IMPLICATIONS FOR EXTENSION INTERVENTION

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, by the farmers and herders through description and explanation, that the mechanism tagged "Local Development Plans" (LDPs), be applied by extension agencies to minimize conflict. The LDPs are expected to include among others, land use plans as well as 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 the use of land resources, in the midst of possibly conflicting objectives and provide a solution to reducing tension over access to land resources. For effectiveness to be achieved, the Extension Officers that will act as facilitators are expected to be skillful in:-

- i. Identification of the various stakeholders,
- ii. Using languages that are used by both the local farmers and the nomadic cattle herdsman,
- iii. Developing trust between the farmers and the nomadic cattle herdsman, through development of social-cultural skills and sensitivity to the prevailing norms of the host farming communities,
- iv. Interview and assessment techniques like Participatory Rural Appraisal (PRA), Participatory Learning Action (PLA),
- v. Modern and indigenous conflict management.

The LCFA and the extension institution are to ensure that

all the identified stakeholders are brought together under a common forum and included in the decision making and allowed to participate actively in the planning process. The adoption of a participatory planning process that involves all stakeholders (herdsmen and crop growers) in the 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 a peaceful environment. This will result in the expansion of cropped area and motivate higher cropping intensity and problem-free environment. This breeds economic sustainability of land resources use and empowers the farming communities to take responsibility for their own development plan.

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