

Perceived Effectiveness of Conflict Resolution Methods for improved Farmer-Pastoralist Relationship in Chikun Local Government Area of Kaduna State, Nigeria.

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ABSTRACT

This study investigated the effectiveness the conflict resolution methods to improve farmer-pastoralist relationship in Chikun Local Government Area of Kaduna State, Nigeria. Purposive sampling technique was used to select 5 villages that were prone to farmer-pastoralist conflicts. Random sampling technique was used to select 75 farmers and 75 pastoralists from the sampled villages to give a sample size of 150 respondents. Primary data were collected using Interview Schedule. Crops damage (100%) and competition for land/water (96.7%) were the predominant factors causing farmer-herder conflict in the study area. The various conflict resolution methods include intervention of traditional leaders, payment of compensation to affected persons, dialogue, court judgment, establishment of grazing routes and Miyetti Allah breeders' association intervention. Intervention by traditional leaders (52.7%) and payment of compensations (44.7%) were perceived very effective. Age, education and experience of the respondents had significant relationships with the perceived effectiveness of farmer-pastoralist conflict resolution methods. It is recommended that the local institutions and judiciary should be strengthened especially, the political empowerment of local leaders.

INTRODUCTION

Agriculture and pastoral-related conflicts have been a recurring experience for several years in many parts of Nigeria, including Kaduna State. The conflicts often occur between farmers and herdsmen because of competitive access to land and water resources. Limited availability of farm land, population growth and climate change pose a great challenge to agriculture and possibly contribute to the conflict between pastoralists and farmers as they struggled to have access to or control over these resources. Scarcity of renewable resources such as farmland, forests and water can produce socio-economic effects which can lead to conflict and instability. Both growth in population and increasing commodity production have led to the expansion of agriculture on formerly shared grazing lands thereby increasing farmer-pastoralist conflicts (Franklin, 2000). The movement of pastoralists from one area of the country to another is usually caused by the increasing demand for fresh grazing grounds especially during draught period, when the pastoralists move south wards because of the availability of pasture. In most cases, the pastoralists did encounter problems with the local

people because farmers' crops were being destroyed by their cattle.

Although, farmer-pastoralist conflicts across West Africa manifest themselves as competition over natural resources, the underlying variables may not be about resource scarcity alone. There were also cases of environmental degradation and criminal activities by some pastoralists. Hussein, *et al.* (2000) stated that relations and conflicts between farmers and herders were diverse and complex than is generally assumed. Also, scholars in the field of environmental security observed casual links between environmental scarcity and violence (Beeler 2006; Homer-Dixon, 2000). Conversely, the political ecologists like Peluso and Watts (2001) viewed the environment as a "theater in which conflicts or claims over property, assets, labour and the politics of recognition play themselves out".

Efforts in preventing herder- farmer conflicts in Nigeria must address all factors that are likely to engender conflicts between these groups. A number of factors have been identified as sources of conflicts between farmers and pastoralists. Scarcity of land and competition has been recognized as one of the main causes of conflict

(Bassett and Crummey, 2003). Also included are clash of economic interest (Turner, 2003), crop damage and harassment of women as reported by Ofuoku, (2002) that the Fulani herders had several times harassed women on their farms, especially when such farms are close to their grazing areas. Other factors include blockage of water points, contamination of streams and cattle rustling. Cases of cattle theft and the slaughtering of strayed cattle by miscreants or rustlers has continued to generate problems between farmers and pastoralists as the nomadic herders did not always think about the value of damaged crops but their cattle (Mkutu, 2004). According to Diallo, (2001), contamination of the stream is regarded as a source of conflict because it is usually the source of domestic water supply for most rural farming communities. The community members believe that the contamination can lead to water related diseases such as cholera, liver fluke and typhoid fever. Tonah, (2006) also reported that the use of residual plains of the various rivers by farmers for dry season farming and the utilization of the plains for fish pond construction by small scale fish farmers has consistently been depriving the herders of dry season pastures and made it difficult for livestock to have access to water. A critical look at the pastoralist and crop farmers has revealed that in addition to competition for land, the competition for resource that are essential for sustainable development of herders and farmers production system are also contributing factors. Many methods have been evolved to resolve these conflicts in all its ramifications. However, there is the need to assess the effectiveness of each of these conflict resolution methods so that acceptable strategies by both parties could be worked out.

OBJECTIVES

The broad objective of the study was to determine the effectiveness of conflict resolution methods for improved farmer-pastoralist relationship in Chikun Local Government Area of Kaduna State, Nigeria.

The specific objectives were to;

- i. describe the socio-economic and demographic characteristics of the farmers and herders in the study area,
- ii. identify the various factors responsible for farmer-pastoralist conflicts,
- iii. ascertain frequency of occurrence of conflicts over the last two years and the extent of losses suffered by the respondents and

- iv. determine the effectiveness of the adopted conflict resolution methods for improved relationships between farmers and pastoralists in the study area.

METHODOLOGY

Kaduna State is in the Northwest of Nigeria, created on May, 1976 and has 23 Local Government Areas (LGAs) including Chikun LGA. Chikun LGA has a population size of 368, 250 (FGN, 2006) with its headquarters in Kujama. The sampling technique include purposive selection of 5 villages that are prone to farmer-pastoralist conflicts in Chikun LGA. Random sampling technique was used to select 75 farmers and 75 pastoralists from the sampled villages to give a sample size of 150 respondents. The primary source of data includes use of Interview Schedule. The Instrument for data collection was validated and subjected to reliability test using test re-test method ($r = 0.83$).

Measurement of variables

Age and experience were measured in actual years, while education was based on years of schooling. Frequency of occurrence of farmer-pastoralist conflict was measured on the basis of total number of times that the respondent witnessed or actively involved over the last two years. Perceived effectiveness of identified conflict resolution methods was measured on 3-point Likert rating scale and scored as 2 for Very Effective, 1 for Effective and 0 for Not Effective for each of the eight identified methods. The maximum and minimum scores are 16 and 0 respectively. The effectiveness scores were subsequently categorized as low for between 0 -5, high for 6-10 and very high for 11-16.

Data analysis

Data collected were analyzed using descriptive statistics (frequency, percentages and mean) and Inferential Statistics (Chi-Square and Analysis of Variance, ANOVA) at 5% significance level

RESULTS AND DISCUSSION

Socio-economic and demographic characteristics of the respondents

The variables considered include age, gender, marital status, educational attainment, years of farming / herding experience and membership of associations). Findings in Table 1 show that respondents were mostly males (84.7%) and majority of them were between 21 and 50 years of

age (84.6%). Also, 71.3% sampled respondents were married while about 51% did not have formal education. However, majority of them (85.0%) had not less than six years of farming / herding experience.

Membership of associations

Local associations play an important role in conflict resolutions as identified in this study. Table 2 shows the distribution of the respondents in the existing local associations. More than half of the respondents (66.0%) did not belong to any associations. This may pose a serious challenge in the use associations in resolving farmer-pastoralist conflicts among majority.

TABLE 1
Socio-economic and demographic characteristics of respondents

Variable	Frequency	Percentage
Gender		
Male	127	84.7
Female	23	15.3
Age (Years)		
Less than 21	4	2.7
21-30	41	27.3
31-40	48	32.0
41-50	38	25.3
Above 50	19	12.7
Education		
Primary	12	8.0
Secondary	49	32.7
Tertiary	13	8.7
No formal education	76	50.6
Farming / Pastoral experience (Years)		
Less than 6	22	14.7
6-10	21	14.0
11-15	24	16.0
16-20	21	14.0
Above 20	62	41.3

TABLE 2
Membership of associations

Membership	Frequency	Percentage
Local Community Farmers Association	19	12.7
Miyetti Allah Cattle Association	29	19.3
Community Development Association	3	2.0
Not a member	99	66.0
Total	150	100.0

Factors responsible for farmer-pastoralist conflicts

The various causes of farmer-pastoralist conflicts in the study area are presented in Table 3.

TABLE 3
Major factors causing conflicts

Factors	Frequency	Percentage
Crop damage	150	100.0
Competition for land / Water	145	96.7
Land encroachment	47	31.3
Stealing of crops	45	30.0
Ethnic rivalry	38	25.3
Disregard to traditional authority	14	9.3
Stealing of cattle	2	1.3
Indiscriminate defecation on land / Water pollution	1	0.7

Crops damage (100%) and competition for land/water (96.7%) were the predominant factors causing farmer-herder conflict in the study area. During periods of cropping, pastoralists move through farmlands to grazing areas and as such, crops are prone to trampling by cattle. Also, before harvesting, cattle may feed on crops as they are being led from grazing areas to settlement areas. Other factors as accounted for by respondents include land encroachment (31.3%), theft of harvested crops (30.0%) and ethnic rivalry (25.3%).

Frequency of occurrence of conflicts and the extent of losses suffered over the last two years

The frequency of occurrence was based on being an eye witness and active involvement of the respondents, while losses were based on cash and estimated monetary values of properties lost including animals and crops. According to findings in Table 4, almost two-thirds of the respondents witnessed the conflict once (59.3%), while others witnessed the scenarios between two to four times over the last two years. Also, between 4 and 26.7 percent of the respondents were physically involved in the conflicts at least once over the same period. These farmer-pastoralist conflicts were not without losses in cash and or kinds but the study presented the losses suffered by the respondents based on estimated monetary values as shown in Table 4. More than half of the respondents lost more than N50, 000 at least, during any of the conflicts. The mean lost was put at N58, 280 per person over the last two years.

TABLE 4
Frequency of conflict and loss suffered over the last two years

Variable	Personal Witness	Active Involvement	No response	Total
Occurrence	Freq. (%)	Freq. (%)	Freq. (%)	
Once	89 (59.3)	40 (26.7)	21 (14.0)	150
Twice	24 (16.3)	27 (18.0)	99 (66.0)	150
Thrice	3 (2.0)	13 (8.7)	134 (89.3)	150
Four Times	1 (0.7)	6 (4.0)	143 (95.3)	150
Loss suffered (N)	Frequency	Percentage		
Less than 50,000:00	72	48.0		
50, 001 – 100,000:00	56	37.3		
100, 001 – 150,000:00	14	9.3		
150,001 – 200,000: 00	5	3.4		
Above 200,000:00	3	2.0		
Total	150	100.0		

* Mean loss = N58,520:00

Perceived Effectiveness of farmer-pastoralist conflict resolution methods adopted

A total of eight farmer-pastoralist conflicts resolution methods were identified in the study area but their perceived effectiveness varied considerably based on the respondents' perception of the compliance levels. The various conflict resolution methods include intervention of traditional leaders, payment of compensation to affected persons, dialogue, court judgment, establishment of grazing routes and Miyetti Allah breeders' association intervention. Others were local community crop farmers / herders association and farmers and herders education by person or bodies responsible for conflict

resolution. Table 5 revealed that intervention by traditional leaders (52.7%) , payment of compensations (44.7%) and court verdicts (28.0%) were adjudged to be very effective by the sampled respondents. Only few of the respondents considered dialogue (18.7%) and interventions of Myetti Allah Breeders' Association (7.3%) very effective. Diallo,(2001) reported that herders would pay up if they were responsible for the damage and the farmers demand were reasonable, but not otherwise. If the parties could not reach a consensus, one of them, often the farmer usually solicit the interventions of local chiefs, local council, gendarmes or the court.

TABLE 5
Perceived effectiveness of conflict resolution strategies

Adopted strategy	Not Effective Freq. (%)	Effective Freq. (%)	Very Effective Freq. (%)	No response Freq. (%)	Total
1.Intervention by traditional leaders	20 (13.3)	51 (34.0)	79 (52.7)	-	150
2.Payment of compensation to victims	17 (11.3)	66 (44.0)	67 (44.7)	-	150
3. Court verdicts	7 (4.7)	61 (40.7)	42 (28.0)	40 (26.7)	150
4.Dialogue between parties involved	52 (34.7)	70 (46.7)	28 (18.7)	-	150
5.Intervention of Myetti Allah Cattle Association	-	26 (17.3)	11 (7.3)	113 (75.3)	150
6.Local community crop farmers / herders intervention	4 (2.7)	21 (14.0)	-	125 (83.3)	150
7.Establishment of grazing routes	15 (10.0)	14 (9.3)	2 (1.3)	119 (79.3)	150
8.Educating farmers and herders by person or bodies responsible for conflict resolution	15 (10.0)	14 (9.3)	2 (1.3)	119 (79.3)	150

Relationship between respondent's socio-economic characteristics (age, education and experience) and perceived effectiveness of conflict resolution methods.

Chi- Square results in Table 6 show significant relationships between the selected socio- economic characteristics and perceived effectiveness of farmer-pastoralist conflict resolution methods at 5% significant level. Results show that age, education and experience had significant relationships with the perceived effectiveness of conflict resolution methods. These imply that the higher the age, education and experience of the respondents, the higher the perceived effectiveness of the conflict resolution methods adopted in the study area.

TABLE 6
Chi- Square Results

Variable	X ² value	df	P value	Decision
Age	27.46	8	P<0.05	Significant
Education	42.10	6	P<0.05	Significant
Experience	35.47	8	P<0.05	Significant

CONCLUSIONS

It can be concluded that damage to farmers' crops and competition for land and water were mostly responsible for farmer- herder conflicts. Also, intervention by local leaders and payment of compensation were considered very effective in resolving conflicts between the groups. It is recommended that the local institutions and judiciary should be strengthened especially, the political empowerment of local leaders. Also, payments of compensations to affected victims should be improved upon by the stakeholders.

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