

SOCIO-ECONOMIC FACTORS ASSOCIATED WITH PASTORALISTS-CROP FARMERS CONFLICT IN ITAS/GADAU LOCAL GOVERNMENT AREA OF BAUCHI STATE, NIGERIA

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ABSTRACT

The study assessed Socio-economic Factors Associated with Pastoralists-Crop Farmers Conflict in Itas/Gadau Local Government Area of Bauchi State, Nigeria. There are sixteen (16) wards in the Local Government, Proportionate and random sampling techniques were used to select eighty (80) crop farmers and eighty (80) pastoralists from sampling frame of each ward making a total of One Hundred and Sixty (160) pastoralists and crop farmers which served as the sample size. The data were analysed using descriptive statistics and logic regression model. The study revealed that 93.8% of pastoralists were males and 6.2% were females. While 96.2% of crop farmers were males and 3.8% were female. The mean age of pastoralists and crop farmers were 36.70 and 41.70 years respectively. The major causes of pastoralists-crop farmers conflict opined by pastoralists were blockage of cattle routes and animal drinking water points by crop farmers, while crop farmers opined destruction of crops by animals. The logistic regression analysis revealed that farm size and operating capital for crop farmers were significantly associated with conflict at $P < 0.05$ and $P < 0.10$ respectively, while number of livestock for pastoralist was significantly associated with conflict at $P < 0.10$. The measures of resolving conflict opined by both parties were dialogue and arbitration. The major constraint opined by pastoralists was non compliance of agreement reached by both parties, while crop farmers opined lack of integrity of the resolution committee. The study recommends Government to rehabilitate and preserve the existing grazing reserves, farmers to avoid encroachment and constant supervision be maintained.

Keywords; Pastoralists, Crop farmers, Conflict, Socio-Economic, Factors

INTRODUCTION

One major problem confronting world peace today is the manifestation of conflicts in different dimension across the globe .From Europe to America, Africa to Asia, conflicts are common phenomena (Marshall and Gurr, 2024).Conflict has been defined in different ways by different scholars. For instance Ekong (2023) defined conflict as that form of social interaction in which the actors seek to obtain scarce reward by eliminating or weakening their contenders. Folger et al., (2025) defined conflict as the interaction of independent people who perceive incompatible goals and interference from each other in achieving this goals. Gyong (2023) defined conflict as the struggle for dominance or control of one person or group by the other in such a way as to subjugate or even eliminate the opponent. Okoli and Atelhe (2024) related the causes of conflict to the global climate change and the contending desertification and aridity that has reduced arable and grazing lands, forcing pastoralist to move southwards in search of pasture for their livestock. Climate change-induced rainfall shifting patterns/amount and desertification reduces crop lands, and farmers have to follow these patterns, leading to overlap on grazing lands. The *Fulbe* herders in Nigeria, for example are faced with rapidly vanishing grass, forcing them to switch from the *Bunaji* cattle breed, which depends on grass, to the Sokoto *Gudali*, which readily browses.

Nigeria falls within the tropical zone and enjoys the tropical climate which varies from the humid south to the semi arid / arid zones of the north with a total land area of about 94 million hectares of which over 70% is natural grass land and over 55% is available for grazing. Consequently between 80-90% of the small ruminants and cattle are concentrated in the sudan sahelian ecological zone of the semi arid /arid parts of the country and depend on range for most of their feed requirements. The herds are predominantly in the hands of the nomadic pastoralists who hold over 90% of the Nigerian livestock. Transhumance is the dominant system of production. Similarly, over 90% of the people in this area are crop farmers who engage in small (subsistence) farming and depend on farming for their survival. The feeling of belongings that is among the members of the groups is focused around their economic interest, protection of values, cultures and traditions. The Fulani nomadic herders are always considered to be the minority in host communities (since they are always on the move), they have a unique culture and strong sense of solidarity.

Nigeria in general and Bauchi state in particular has been experiencing series of resource conflicts of particular concern are the clashes between farmers and pastoralists (Fulani) especially in Itas/Gadau Local Government area, this is largely due to their crop farming activities of both arable and vegetable production. According to BSADP (2025) annual report stated that there has been a remarkable increase of over 50% of the total vegetable crops produced in Itas/Gadau Local Government.

The predominant Fulani herdsmen of the neighbouring states (Yobe and Jigawa) are now migrating and gradually becoming natives in Bauchi state to find greener pasture for their herds. The crop farmers fear that Fulani herds would destroy their farmlands. The natural result is clash over right to the lands (Adogi, 2023). The observation implicit in the foregoing citation is that the herder/farmer conflict in Bauchi state has been in the main occasion by the rising migration and settlement of the Fulani pastoralist in the state in search of arable grazing fields. The movement brings the herders into conflicting relations with the native farming communities who are often bent on asserting their exclusive right to land tenure and inheritance in that context. This movement of the pastoralists must be understood as a consequence of the global trend of climate change leading increasing desertification of the wider northern Nigeria.

Blench (2024) in his seminal work on natural resource conflict in Bauchi state among other things, sought to establish the nexus between pastoralist migration and increased herder/farmer conflicts in the state that encompasses Itas/Gadau Local Government Area been one of the major producers of both arable and vegetable crops in the state. The outcome of the study implicated climate change, desertification and drought, land tenure and scarcity as well as pastoral migration as factors that accounted for the spiral farmer/herder conflict in the state. This corroborates the dominant scholarly standpoint on the subject matter, as we have seen in the foregoing. In a very recent work, Nchi (2023) opined that the herder/farmer conflicts in Bauchi state have copious economic undertones. According to the finding, they are clearly economic conflicts and are not sectarian in any way. We have migrant pastoralist on one hand and sedentary farmers on the other hand fighting for pastures and farmlands which are decreasing as the population of human and cattle increase. Therefore the broad objective of the study is to assess the socio-economic factors associated with pastoralists-crop farmers conflict in Itas/Gadau local government area of Bauchi State, Nigeria. The specific objectives of the study are to:

- i. describe the socio-economic characteristics of pastoralists and crop farmers in the study area.
- ii. ascertain the causes of pastoralists-crop farmers conflict in the study area.
- iii. determine the socio-economic factors associated with pastoralists-crop farmers conflict in the study area.
- iv. identify measures of resolving pastoralist-crop farmers conflict in the study area.

- v. Identify the constraints to pastoralists-crop farmers conflict resolution in the study area.

METHODOLOGY

The study area is Itas/Gadau Local Government Area of Bauchi State. The area lies on the latitude $11^{\circ} 50' 10''$ North and longitude $10^{\circ} 10' 00''$ East. It is located 247 kilometers north from the State Capital. It is bordered in the North by Jama'are and Katagum Local Government Areas, in the West by Jigawa State, in the South by Zaki Local Government Area and in the East by Gamawa Local Government Area. It has an area of 1,398 km² and a population of 229,996 (NPC, 2006). The climate of the area is characterized by distinct wet and dry season as a result of the two tropical winds: the tropical continental and the tropical maritime.

The land is generally flat with sparse vegetation cover mostly around the water bodies. Acacia specie (Gum Arabic) are mostly pronounced due to the semi-sahara nature of the area, other plant species found include: Acacia, Baobab, Tamarind, Parkia, Anacardium, Azadirachta etc. and the grasses tend to grow mostly in the wet season when there is adequate rainfall. The soil in the area is mainly sandy and sand-loam though there are some patches of clays around the fadama areas. Some very small areas have deposits of clay and clay loam soils. The soils have a good draining ability except the clay. The area falls within Sudan Savanna with a mean annual rainfall of 496mm (BSADP, 2024). People living in the area are predominantly agrarian with over 90% of its inhabitants depending on subsistence farming and they engage in fadama farming for commercial purpose. They are Muslims Hausa community.

Proportionate and random sampling were employed to select the respondents for the study. There are 16 wards in Itas/Gadau Local Government Area, these are; Itas, Mashema, Buzawa, Bambal, Gamsha, Magarya, Zubuki, Gadau, Kashuri, Gwarai, Gyara, Abdallawa, Atafowa, Diga, Melendige and Gizire. 5 pastoralists and 5 crop farmers were randomly selected from sampling frame of each ward making a total of 160 respondents which served as sample size, 2 set questionnaire were administered to crop farmers and pastoralists through interview schedule to obtain primary data from the respondents since most of them were not literate. Combination of both descriptive and inferential statistical tools were used in analysing the data gathered from the field. Descriptive statistics in form of mean, frequency, percentage and standard deviation were used to analyse data on socio-economic characteristics of the respondents, causes of pastoralists-crop farmers conflict. Logistic regression model was used to determine the socio-economic factors associated with pastoralist-crop farmers conflict. Also descriptive statistic was used to identify measures of resolving the conflict and the constraints to pastoralists-crop farmers conflict resolution in the study area.

CHAPTER FOUR

Result and Discussion

Socio-economic Characteristics of Crop Farmers and Pastoralists

The socio-economic characteristics of the respondents (crop farmers and pastoralist) were discussed in this section. The variables are age, sex, land size, number of livestock and operating capital.

Sex

According to Karshi (2024), sex is sensitive to certain occupation. The result in Table 1 below indicates that majority (96.2%) of the respondents (crop farmers) were males only (3.8%) were females. In the case of pastoralists most of the respondents (93.8%) were males, and (6.2%) were females. This indicates that males are involved in both farming and rearing of animals. The finding was supported by Abdu (2025) who reported that (95%) respondents (herdsmen) were males.

Age

This refers to the length of time someone has been alive or something has existed. Abdu (2025) reported that age influences involvement in violence, therefore the rate of involvement in most conflict youth are found to play principal role. Also, Okoraofor (2023) reported that Fulani herdsmen are generally violent and age does not influence their involvement in conflict. The result in Table 1 below indicates that the mean age of pastoralists was lower than that of crop farmers which was 41.70. This means that the pastoralists are younger than the crop farmers, implying that they will be more energetic than the crop farmers. The finding is supported by Ahmed (2024) who reported that the mean age of pastoralists was (39.9years).

Table1: Distribution of Respondents According to their Socio-economic Characteristics

Variables	Crop Farmers		Mean	Pastoralists		Mean
	Frequency	Percentage	Score	Frequency	Percentage	Score
Sex						
Male	77	96.2		75	93.8	
Female	3	3.8		5	6.2	
Total	80	100		80	100	
Age						
11	11	13.8		20	25	
15-25	19	23.8		15	18.8	
26-35	30	37.5	41.70	35	43.8	36.70
36-45	11	13.8		7	8.8	
46-55	9	11.3		3	3.8	
56 and above						
Total	80	100	80		100	

Source: Field Survey, 2025

Farm size

Land is probably the most important resource needed by man for his day to day existence. All humans and animals livelihoods activities are directly or indirectly dependent on land at varying threshold. But land connotes different meanings to the various user groups, for instance farmers and pastoralists used it for different purposes, yet land is limited somewhat scarce resource with both artificial and natural access and usage barriers. Gefu and Kolawole (2023) reported that indeed competition for land use is becoming keener and fiercer, largely due to increasing human and animal population. The result in Table 1 below shows that the minimum farm size of crop farmers and pastoralist in the study area were the same which was 1ha, the maximum was 7ha, and the mean farm size was found to be 4.50ha. This implies that both the crop farmers and pastoralists had large farms, and large farms own by farmers can expose animals to intrude into the farms to graze, since increased cultivated area of land reduces available pasture. Thus, farm size have direct link with animal trespass and may cause conflict. The finding is supported by Ahmed (2024) who reported the mean farm size was (4.1ha).

Number of livestock

This shows the statistics of the number of animals kept by the farmers. The result in Table 1 below revealed that the minimum number of animals kept by the farmers was 4 animals; the maximum was 13 animals, while the mean number of livestock kept was 8.36 animals, while the minimum number of livestock owned by pastoralists was 8 animals, the maximum was 62 animals, and the

mean livestock was 35.65 animals. The result on number of livestock for pastoralists, disagrees with the findings of Ahmed (2024) who reported the mean herd for pastoralists as 2.08 herds of animals.

Operating capital for crop production

The result in Table 1 below shows that the minimum operating capital for crop farmers was ₦10,000, and the maximum was ₦20,00000 and the mean operating capital for crop production was ₦376,950.00, while that of pastoralists shows that the minimum operating capital for pastoralists was ₦300,000, the maximum was ₦1,300,000, and the mean operating capital was ₦723666.00. This shows that both the minimum, maximum and mean operating capital for pastoralist is greater than that of crop farmers in the study area. This perhaps explains the gap in the operating capital.

Table 1: Continued

Variables	Minimum	Maximum	Mean	Std Deviation
Farmers				
Farm size in(ha)	1	7	4.5	1.896
Number of livestock in(No)	4	13	35.64	17.389
Operating capital (₦)	100,00	200,000	376950.0	15043.460
Pastoralists				
Farm size in (ha)	1	7	4.50	1.896
Number of livestock in(No)	8	62	35.64	17.389
Operating capital in (₦)	300,000	1,300,000	723,666.00	15043.465

Source: Field Survey, 2025

Causes of Pastoralists-Crop farmers Conflict

The pastoralists and crop farmers were requested to state the causes of their mutual conflict in the study area. The result is presented in Table 2 below.

Destruction of crops by animals

This refers to damage done to farmers' crops by the herders' cattle. De Haan (2023) reported that destruction of crops by cattle and other property (irrigation equipment and infrastructure) by the cattle herders themselves are the main direct causes for conflict. The result in Table 2 below indicates that pastoralists mean score was 3.35 and 3.02 for farmers. This implies that both the pastoralists and crop farmers agreed that destruction of crops by animals as one of the causes of their mutual conflict in the study area. This result agrees with the findings of Abdu (2025) who reported destruction of crops by animals as a cause of conflict with a mean score of (4.5).

Encroachment of Grazing Reserves by Crop Farmers

Turner (2024) holds that "field encroachment on the key pastoral sites during rainy season by farmers ignites conflict". Similarly, Iro (2024) reported that as farmlands increased to the detriment of grazing land animals can easily veer into farmlands and destroy crops. The result in Table 2 below shows that pastoralists agreed encroachment of grazing reserves by farmers is one the causes of their mutual conflict with a mean score of 3.0 ,while conversely, the farmers disagree to it with a mean score of 2.9. This implies that the grazing reserve meant for animals to graze were encroached by farmers. The pastoralists view disagreed with the findings of Manu (2023) who reported encroachment into grazing land not a cause of conflict with only 20.83% by grazers.

Inadequate Grazing Reserve

This refers to insufficient tracts of land specifically set aside by government for use by cattle herders to graze their cattle. Nformi *et al.*, (2024) reported that farmers encroachment on cattle routes is the real cause of conflict. The result in Table 2 below indicates that pastoralists disagreed with inadequate grazing reserve as a cause of conflict with a mean score of 2.9, while on the contrary the crop farmers agreed that inadequate grazing reserve is one of the causes of their mutual conflict in the study area with a mean score of 3.0. Their reason could be as a result of constant damages caused by animals in trying to access their stock routes and grazing reserves. The opinion of farmers agreed with the findings of Abdu (2025) who reported inadequate grazing reserve as a cause of conflict with a mean score of (4.6).

Harassment of Nomads by Host Youths

The result in Table 2 below reveals that both the pastoralists and crop farmers agreed that harassment of nomads by host youths is one of the causes of their mutual conflicts with pastoralists mean score of 3.0 and crop farmers 3.1. This implies that both farmers and pastoralists in the study area agreed that harassment of youth by host community is a major cause of their mutual conflict. The finding is supported by Ofuoku (2023) who reported that harassment of nomads by host youths is a major cause of conflict in Delta State with a mean score of (3.4).

Cattle Theft (Rustle)

This refers to an act of stealing cattle to rustlers. Tonah (2025) reported that frequent loss of cattle to rustlers worsened the already tense farmer-herder relationship in Volta basin. The result in Table 2 below indicates that pastoralists agreed that cattle theft is one of the causes of their mutual conflict with a mean score of 3.3, while on the contrary the crop farmers disagreed to it with a mean score of 2.9. The pastoralists view agreed with the finding of Abdu (2025) who reported that cattle theft was one of the causes of conflict in Katsina State with a mean score of (3.6).

Encroachment by Herders

The result in Table 2 below indicates that both the pastoralists and crop farmers disagreed that encroachment by herders in not a cause of mutual conflict with a mean score of 2.0 from the pastoralists and 2.7 from crop farmers. This means encroachment by herders is not a cause of conflict in the study area.

Influx of Migrant Herders/Transhumance

The result in Table 2 below reveals that pastoralists disagreed influx of migrant herders/transhumance is not a cause of conflict with 2.7 mean score, while crop farmers agreed that influx of migrant herders is one the causes of their mutual conflict in the study area.

Blockage of Stock Route (Burtili) and Water Points

The result in Table 2 below reveals that both pastoralists and crop farmers agreed that blockage of stock route (burtili) and water points is one of the major causes of their mutual conflict with a mean score of 3.5 by pastoralists and 3.0 by crop farmers.

Night Grazing

The result in Table 2 below indicates that both pastoralists and crop farmers disagreed that night grazing as a cause of their mutual conflict with a mean score of 2.4 by pastoralist and 2.8 by crop farmers.

Competition on Land and Water

This refers to the struggle between farmers and pastoralist on land and water. Abbas (2024) reported that land acquisition by capitalist exacerbates the upsurge of conflict as pastoralists can no longer find where to pass let to talk of where to stay. The result in Table 2 below indicates that pastoralists agreed competition on land and water is one of the causes of their mutual conflict with a mean score of 3.3, while on the contrary, the crop farmers disagreed to that with a mean score of 2.7. The pastoralists view is similar with the result of Abdu (2025) who reported that land tenure was a cause of conflict in Katsina State with a mean score of (3.7)

Stray Cattle

Stray cattlerefers to a lost cow wandering at large that causes damage to farmers crop. The result in Table 2 below shows that pastoralists disagreed that stray cattle causes conflict in the study area with a mean score of 2.9. While conversely, the crop farmers agreed that stray cattle is one the major causes of their mutual conflict in the study area with a mean score of 3.2. This is because stray cattle destroy crops in the farm and farmers in anger slaughter such animals this leads to conflict. The opinion of pastoralists agreed with the finding of Abdu (2025) who reported killing of stray is not cause of conflict with a mean score of (2.8).

Table 2: Distribution of Respondents' According to Causes of Pastoralist-crop Farmers Conflict

S/N	Causes	Crop Farmers Mean Score	Pastoralists Mean Score
1	Destruction of crops by animals	3.0	3.3
2	Encroachment of grazing reserve by crop farmers	2.9	3.0
3	Inadequate grazing reserve	3.0	2.9
4	Harassment of nomads by host youths	3.1	3.0
5	Cattle theft/rustling	2.9	3.3
6	Encroachment by headers	2.7	2.0
7	Influx of migrants herders/transhumance	3.0	2.7
8	Blockage of stock route (Burtuli) and water points	3.0	3.5
9	Night grazing	2.8	2.4
10	Competition on land and water	2.7	3.3
11	Stray cattle	3.2	2.9

Source: Field survey, 2025. Bench mark: score $\geq$ 3 a cause; 2.9 $\leq$ not a cause

4.4 Socio-economic Factors Associated with Pastoralists-Crop Farmers Conflict

The socio-economic factors associated with pastoralists-crop farmers conflict are presented in Table 3 below. The result of the logistic regression analysis reveals that all the socio-economic factors associated with pastoralist-crop farmers conflict were not significant except farm size and operating capital which were significant and exhibit positive sign in crop farmers, while number of livestock exhibit negative sign but significant in pastoralists.

4.4.1 Farm Size

The result in Table 3 below reveals that farm size was significant at $P < 0.05$ indicating that increase in farm size of the crop farmers will lead to increase chances of pastoralists-crop farmers conflict. This is in line with a priori expectation, since larger farm holdings will predispose the farms to invasion by the herds and possible confrontation with the pastoralists. The significance of this variable (farm size) implies that farm size is positively associated with the conflict.

4.4.2 Operating Capital

The result in Table 3 below indicates that operating capital significantly influenced conflict at $P < 0.10$. This implies that the higher the operating capital of crop farmers, the higher the rate of the conflict. This is true because higher operating capital will enable crop farmers to have the financial capacity to acquire equipment for prosecuting conflict.

4.4.3 Number of Livestock

The result in Table 3 below shows that the number of livestock was significantly associated with conflict at $P < 0.10$. This implies that the higher the number of livestock, the higher the rate of the conflict occurrence. This is to say increase number of livestock (herds) would increase animals grazing on growing crops which will in turn increase the rate of the conflict occurrence.

Table 4: Distribution of the Respondents According to Socio-economic Factors Associated with Pastoralists-Crop Farmers Conflict

Variables	Farmers				Pastoralist			
	B	S.E.	Wald	Exp(B)	B	S.E.	Wald	Exp(B)
Age	.003	.027	.014	1.003	.002	.027	.005	.998
Marital Status			1.853				1.014	
Single(1)	-.671	.747	.807	.511	.048	.772	.004	.953
Divorce(2)	-.414	.722	.329	.66s1	.217	.678	.103	.805
Widow(3)	-.915	.698	1.719	.400	.415	.762	.297	1.515
House hold size	-.057	.073	.613	.945	.011	.066	.030	.989
Educational status	.384	.352	1.188	1.468	.127	.233	.298	1.136
Experience in farming/herding	.021	.031	.431	1.021	.000	.029	.000	1.000
Farm size	.281	.135	4.325**	1.324	.021	.126	.028	1.021
No of livestock	.008	.023	.118	1.008	.034	.018	3.491*	.967
Operating capital	.000	.000	3.105*	1.000	.000	.000	.280	1.000
Constant	1.310	1.59	.697	.270	.534	1.590	.113	1.707

Source: Field survey (2025). ** and * = Significant at 5% and 10%, respectively.

Measures of Resolving Pastoralist-Crop Farmers Conflicts in the Study Area

The understanding that one animal could go astray and cause damages to crops brought the evolution of conflict resolution through fair compensation of aggrieved farmers. Conflict resolution therefore refers to the elimination of the causes of the underlying conflict, generally with the agreement of the parties. Arbitration, accommodation, compromising, litigation, collaboration, mediation, avoiding, and dialogue between parties are some of the measures of resolving conflict. The result in Table 4 below revealed that about 16.10% of crop farmers indicated that conflicts is resolved through arbitration, 15% opined that conflict is resolved through dialogue between parties and mediation, 13.75% opined that conflict is resolved through arbitration and accommodation, 12.5% through compromising, 7.5% through avoiding what would possibly cause the conflict by both parties eg. Pastoralists to avoid destruction of crops and crop farmers to avoid cultivation on cattle route, 6.25% through litigation. While on the other hand about 26.5% of pastoralists indicated dialogue between parties as means of resolving conflicts, sixteen point one percent (16.1%)

indicated through avoidance, 11.25% indicated through accommodation, 8.75% through litigation and 7.5% each indicated through collaboration, compromising, and collaboration. However, it could be seen that 26.25% of pastoralists indicated dialogue between parties which is the highest percentage as the way of resolving in the study area. This agrees with the findings of Garba *et al*, (2024) on effectiveness of strategies for farmers-herders conflicts prevention and resolution in Bauchi state. Dialogue between parties involved was a significant strategy.

Table 4: Distribution of Respondents According Measures of Resolving Pastoralist-crop Farmers Conflicts

Methods	Crop Farmers		Pastoralists	
	Frequency	Percentage	Frequency	Percentage
Through arbitration	11	13.8	6	7.5
Accommodation	11	13.8	9	11.3
Compromising	10	12.5	6	7.5
Litigation	5	6.3	7	8.8
Collaboration	13	7.5	6	7.5
Arbitration	12	15	13	16.10
Avoidance	6	16.1	12	15
Dialogue between parties	12	15	21	26.3
Total	80	100	80	100

Source: Field Survey, 2025. Multiple responses exist

Constraints to Pastoralists and Crop Farmers Conflict Resolution

The respondents opinion were examined on the possible constraints to pastoralists-crop farmers conflict resolution in the study area. The result in Table 5 below revealed that pastoralists indicated bias from stakeholders with 8.8% as the constraint to the incessant conflict occurrence in the study area, while about 12.5% of farmers also indicated so. This therefore means that farmers are more aggrieved on stakeholder's bias mind and hence a constraint to continues lingering of conflict in the study area. The response on lack of integrity on members of the committee shows that about 17.5% of pastoralists opined that members of the committee lack integrity while, most 32.5% of farmers indicated the committee members also lack integrity. The implication of this however means both farmers and pastoralists discovered the committee are compromising or politicizing with the resolutions and therefore lacks their confidence, this is a constraint to incessant conflict resolution in the study area. The result on lack of confidence on the traditional leaders shows that about 13.8% of pastoralist's opined lack of confidence on the traditional leaders was the constraint to conflict resolution.

In the study area while, about 18.8% farmers also said lack of confidence on traditional leaders is one of the constraints to conflict resolution. This shows confidence is vital attribute for traditional leaders to possess, as confidence means trust and being honest and once it is lacking on the traditional leaders it will continue to be a constraint to conflict resolution and hence continues conflict. The result on non designated grazing land revealed both the opinion of pastoralists and crop farmers were the same with 13.3% each, while, about 18.8% farmers also said lack of confidence on traditional leaders is one of the constraints to conflict resolution. This shows confidence is vital attribute for traditional leaders to possess, as confidence means trust and being honest and once it is lacking on the traditional leaders it will continue to be a constraint to conflict resolution and Hence continues conflict. The result on non designated grazing land revealed both the opinion of pastoralists and crop farmers were the same with 13.3% each.

Grazing land like we know is a piece of land where animals graze on, and the land in context is also used by arable farmers for cultivating their crops which makes the land to be limited in nature as

both farmers and pastoralists are contesting for the said resources. This is because it's fixed in nature and the population of human and animals are increasing. The opinion of the respondents is in line with (Manu, 2023) who asserts that the rise in population in the north-west and particularly in the grass fields coupled with increase livestock growth rate in the past years has led to increase demand for land, water and pasture for cropping and grazing thereby leading to conflict between farmers and grazers. Therefore lack of enough grazing land in the study area was a constraint to conflict resolution between pastoralists and crop farmers. Furthermore, the result on non enforcement of laws indicates 13.8% of pastoralists said non enforcement of laws was as constraint to conflict resolution agreements while, about 12.5% of farmers also attest to it. This situation is natural, once there is peace agreement and someone violates it and he goes scot-free there will be constant violation of such laws until erring violators are punished and brought to book, hence a constraint to conflict resolution agreements. This opinion conforms to priori expectation. Moreover, the response of pastoralists on non-enforcement of previous solutions reached shows about 27.5% of pastoralists opined non enforcement of previous solutions reached was the greatest constraint to their conflict resolution agreements while, only 6.5% of farmers attest to it. This is likely the farmers are not adhering to the resolution and peace agreements reached in their previous meetings hence a constraint to conflict resolution. The result on lack of confidence on the coping strategies revealed lower response from both farmers and pastoralists as pastoralist's shows 7.5% and farmers had 6.5%. This shows that lack of confidence on the coping strategies was not serious constraint to conflict resolution.

Table 5: Distribution of Respondents according to Constraints to Pastoralists-Crop Farmers Conflict Resolution

Variables	Pastoralists		Crop farmers	
	Frequency	percentage	Frequency	Percentage
Biasness of stakeholders	7	8.8	10	12.5
Lack of integrity of members of the committee	14	17.5	26	32.5
Lack of confidence on the traditional leaders	11	13.8	15	18.8
Non designated grazing land	9	11.3	9	11.3
Non enforcement of laws	11	13.8	10	12.5
Non enforcement of previous solutions reached	22	27.5	5	6.5
Lack of confidence on the coping strategies	6	7.5	5	6.5

Source: Field Survey, 2025. Multiple responses exists

CONCLUSION AND RECOMMENDATIONS

The study assessed the Socio-Economic Factors Associated with Pastoralists-Crop Farmers Conflict in Itas/Gadau Local Government Area of Bauchi State. Proportionate and random sampling techniques were used in selecting 160 respondents for the study, and were interviewed with the aid of structured questionnaire. The data collected were subjected to analysis using descriptive statistics in form of mean, frequency count, percentage and standard deviation and logistic regression model. The result on the causes of pastoralists-crop farmers conflict, stated by pastoralists were destruction of crops by animals, little respect for traditional grazing customs, deliberate hostilities between parties, tribal\ethnic differences, encroachment of grazing reserve by crop farmers, harassment of nomads by host youths, cattle theft, blockage of stock route *burtili* and water point, competition on land and water, and antagonistic perception between farmers and pastoralists. While those stated by crop farmers were destruction of crops by animals, overgrazing of fallow land, little respect for

traditional grazing customs, indiscriminate bush burning, harassment of nomads by host youth, little respect for traditional farming customs, influx of migrant herders/transhumance and stray cattle. The measures of resolving conflict opined by pastoralists were dialogue between parties and involving their leaders to serve as arbitrators, while extension agents, religious leaders and government officials according to crop farmers. The socio-economic factors associated with the conflict were not significant except farm size and operating capital of crop farmers which were significant at $P < 0.05$ and $P < 0.10$ respectively, while the number of livestock for pastoralist was significant at $P < 0.10$. The major constraints to conflict resolution were non enforcement of previous solutions and laws, lack of integrity and confidence on members and the traditional leaders.

Base on the study, the following recommendations were made;

- i. Government should rehabilitate and preserve the existing stock routes, and grazing reserve back with good protection by law, where arable farmers will keep off from blocking the routes and cultivating in the reserve and the grazing reserves be subjected to strict supervisions.
- ii. The major causes of conflict should be properly managed by the appropriate institutions involved in conflict resolution. Lack of access to land resources is a major cause of conflict in the study area which leads to destruction of crops by animals. Local authorities should ensure that there is equitable and regulated access to arable and grazing land to both parties to avert constant conflict in the study area.
- iii. Government at all levels should provide grazing reserve to accommodate the interest of pastoralists, since animals are the major cause crop destruction in the study area.
- iv. There is need for sensitization of pastoralists and crop farmers in areas of awareness on the need of co-existence by government and nongovernmental organizations in the study area.
- v. Government must ensure committee members for conflict resolution are people of high integrity, with reputable track records in the society.

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