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Statutory Regulation of Pastoral Mobility in Benue State, Nigeria: Enforcement Legitimacy and the Gap Between Regulatory Compliance and Perceived Security

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Abstract

The effectiveness of statutory anti-grazing regulation depends not only on legal restrictions but also on the governance arrangements through which policies are implemented and disputes are managed. This study examines how perceived enforcement practices, institutional capacity, stakeholder participation, and local conflict-management mechanisms relate to perceptions of armed farmer–herder conflict in Benue State, Nigeria. A quantitative cross-sectional survey was conducted in Guma, Logo, Katsina-Ala, and Ukum Local Government Areas. Of 400 planned respondents, 382 valid questionnaires were analysed using descriptive statistics and Goodman–Kruskal Gamma coefficients in IBM SPSS Statistics, with significance assessed at the 0.05 level. Perceived biased or politicised enforcement was positively associated with perceived attack escalation ($\gamma = .319$, $p < .001$). Associations were also observed between conflict perceptions and herder participation in policy planning ($\gamma = .224$, $p < .001$), weak traditional dispute-resolution mechanisms ($\gamma = .247$, $p < .001$), and dialogue platforms ($\gamma = -.333$, $p < .001$). However, perceived incomplete enforcement across local government areas, insufficient rural government presence, and the adequacy of Livestock Guard training were not statistically significantly associated with the relevant conflict perceptions. The findings highlight the importance of examining statutory regulation alongside procedural fairness, inclusive policymaking, and locally accessible mechanisms for managing disputes. The study contributes a governance-oriented interpretation of anti-grazing regulation while recognising that its cross-sectional, perception-based evidence establishes associations rather than causal effects or independently verified changes in armed attacks.

Keywords: anti-grazing regulation; institutional governance; policy implementation; stakeholder participation; traditional dispute resolution; dialogue mechanisms; farmer–herder conflict; Benue State

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

1.1 Introduction

Relations between farming communities and pastoralists in Nigeria have long been shaped by competition over land, water, grazing routes, and other resources needed to sustain rural livelihoods. Disagreements over these resources do not always result in violence, but they can become more difficult to manage when customary arrangements weaken, access to land becomes contested, and communities lose confidence in existing mechanisms for resolving disputes. Research on farmer–herder relations in Benue State identifies seasonal resource pressures and the wider social and political environment as important considerations in understanding these conflicts (Abugu et al., 2022; Achem & Aderinto, 2026). The problem, therefore, extends beyond disagreements between individual farmers and livestock owners. It also raises questions about how land use is regulated, how competing livelihood interests are accommodated, and how public institutions respond when local disputes become more serious.

Benue State's agricultural livelihoods depend on access to cultivable land, while pastoral households require grazing areas, water and livestock routes. These needs may conflict where farms expand into movement corridors or access arrangements are unclear. Adzande (2021) highlights the policy challenges associated with pastoral mobility and transhumance, underscoring the need to govern land access and movement alongside statutory restrictions.

The Benue State Government introduced the Open Grazing Prohibition and Ranches Establishment Law in 2017 in response to persistent tensions between crop farmers and livestock herders. The law prohibits open grazing within the state and provides a statutory framework for establishing ranches. Its introduction represented a significant change in the regulation of livestock production and the use of rural land. However, a legal restriction does not, by itself, resolve every dispute involving land access, livestock movement, community interests, and rural livelihoods. Gusa and Tijah (2022), in their legal examination of the legislation, discuss its provisions and identify issues relating to implementation and livestock identification. Adzande (2021) also draws attention to the wider policy implications of pastoral mobility and the implementation of transhumance arrangements. Taken together, these studies provide a basis for examining the law within the broader context of land governance, institutional responsibilities, and the management of competing rural interests.

ISSN: 2971-7760 | VOL 9, ISS 1 | 01 NOVEMBER 2026
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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

Displacement linked to rural insecurity can interrupt farming, separate households from productive assets and place pressure on host communities. The International Organization for Migration's Displacement Tracking Matrix has documented internal displacement in Benue and other states in north-central and north-western Nigeria (International Organization for Migration [IOM], 2024). This study therefore examines statutory regulation as a land-governance issue, focusing on enforcement, stakeholder interests and local mechanisms for managing disputes.

1.2 Statement of the Problem

Managing competing land-use needs remains a major challenge in Benue State, where agricultural livelihoods depend on access to farmland while pastoral households require viable arrangements for livestock production and movement. The introduction of the Open Grazing Prohibition and Ranches Establishment Law in 2017 marked a significant shift in how these competing interests are regulated. However, the continued displacement of rural residents and disruption of farming activities raise questions about the broader institutional and practical conditions required to manage pastoral mobility and prevent recurring conflict. The existence of legislation alone does not establish whether suitable alternatives, effective dispute-resolution arrangements, and adequate support for affected rural communities are available.

Existing discussions often frame the law as a choice between protecting farmland and preserving pastoral livelihoods, offering limited insight into implementation across communities with different economic needs. Adzande (2021) highlights the importance of mobility arrangements and the wider policy environment, while Gusa and Tijah (2022) examine legal and implementation issues associated with the Benue State legislation. These works support examining the law's practical operation alongside its statutory provisions.

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

A further problem concerns the relationship between regulation and sustainable rural development. Restrictions on open grazing may alter patterns of livestock movement, but their wider implications depend partly on the availability of alternative production arrangements, access to essential resources, and the capacity of relevant institutions to manage disputes. Where these matters receive insufficient attention, tensions over land access and rural livelihoods may remain unresolved. The central problem addressed by this study is therefore the limited understanding of how statutory regulation of pastoral mobility interacts with land-use interests, institutional capacity, and local mechanisms for managing competing livelihood needs in Benue State. Examining these relationships is necessary to identify the practical challenges of implementing land-use policy and to inform approaches that protect farming communities while addressing the governance dimensions of pastoral mobility.

1.3 Research Questions

The study seeks to answer the following questions:

i. How has the implementation of the Benue State Open Grazing Prohibition and Ranches Establishment Law of 2017 affected land-use arrangements and pastoral mobility in the state?
ii. What institutional and community-based measures could help manage competing livelihood interests between farming communities and pastoralists and support the sustainable resolution of rural disputes?

1.4 Research Objectives

i. To examine how the implementation of the Benue State Open Grazing Prohibition and Ranches Establishment Law of 2017 relates to land-use arrangements and pastoral mobility in the state.
ii. To identify institutional and community-based measures that could help manage competing livelihood interests between farming communities and pastoralists and support the sustainable resolution of rural disputes.

1.5 Research Hypotheses

The study is guided by the following null hypotheses:

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

H_{01}: There is no significant relationship between the implementation of the Benue State Open Grazing Prohibition and Ranches Establishment Law of 2017 and land-use arrangements and pastoral mobility in Benue State.

H_{02}: Institutional and community-based measures have no significant relationship with the management of competing livelihood interests between farming communities and pastoralists in Benue State.

2.1 Anti-Grazing Legislation and Security Governance

Statutory regulation of pastoral mobility has become an important policy response to recurring disputes over land use, livestock movement and agricultural production in West Africa. These disputes involve more than direct competition for natural resources. They also reflect differences in livelihood systems, access to public institutions and the ability of rural communities to negotiate the use of shared spaces. Governments have consequently introduced legal measures intended to regulate grazing activities, protect agricultural land and establish more organised systems of livestock production.

The Benue State Open Grazing Prohibition and Ranches Establishment Law of 2017 represents one such intervention. Gusa and Tijah (2022) explain the legal framework governing the prohibition of open grazing and the establishment of ranches in the state. The legislation sought to change the arrangements under which livestock were raised and moved across the state. Its implications, however, extend beyond the prohibition itself. Implementation also raises questions about access to grazing alternatives, the management of livestock movement, the protection of agricultural livelihoods and the availability of institutions capable of resolving disputes between affected groups.

Regulatory compliance and improved security are distinct outcomes. Changes in livestock movement or visible grazing do not by themselves establish whether reported disputes or insecurity have declined. Iortswam (2024) is cited in the draft on this distinction, but the specific finding should be checked against the original publication. Accordingly, anti-grazing legislation is best examined as part of a wider system of rural governance. Its practical significance depends on how land-use rules interact with livelihood needs, institutional capacity and arrangements for managing disagreements. This perspective shifts attention from the law as an isolated security

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

instrument to the wider conditions necessary for regulating pastoral mobility and maintaining workable relationships between farming and pastoral communities.

2.2 Structural Conflict Drivers: Resource Competition and Institutional Change

Competition over land and water provides an important starting point for understanding farmer–herder relations, but resource scarcity does not automatically produce violence. Disputes are shaped by the circumstances in which resources are accessed, the rules governing their use and the institutions available when disagreements arise. The availability of farmland, water points and livestock routes can become particularly contentious where agricultural expansion, changing settlement patterns and seasonal livestock movement place different demands on the same territory.

Rainfall variation, land degradation and changing access to water and pasture can influence livestock movement and the use of migration routes. FAO (2020, 2021) provides broader context on environmental and agricultural pressures, but their specific contribution to disputes in Benue State should not be assumed without local evidence. Population growth, changing farming practices and alteration of livestock routes may generate disputes over boundaries, access and crop damage. The SPARC (2023) source cited in the draft should be identified precisely before its findings are relied upon. Claims about small arms and rural violence should be retained only if supported by a verified source.

Local authorities, traditional rulers, community representatives and government agencies can help negotiate access, address grievances and prevent escalation. Where responsibilities are unclear or assistance is delayed, resource disputes may become harder to resolve. The key governance question is how formal land-use regulation can operate alongside credible consultation, mediation and community-based dispute-resolution arrangements.

2.3 Theoretical Framework: Social Conflict Theory

This study uses Social Conflict Theory to examine competing interests in the regulation of pastoral mobility. Associated with Marx’s analysis of economic inequality and developed in different directions by Dahrendorf (1959) and Coser (1956), the theory highlights how groups may compete over resources, opportunities and decision-making power. Laws and institutions

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

shape how these interests are accommodated; perceived unfairness or inadequate grievance procedures may leave conflict unresolved.

The theory is relevant to Benue State because crop farming and pastoral livestock production depend on land and other resources, although their needs differ. The 2017 law changes the formal rules governing open grazing and livestock movement, raising questions about livelihood adaptation, access to alternatives and the participation of affected communities in decisions about rural resources. Social Conflict Theory also directs attention to the institutions through which competing interests are negotiated. Legislation establishes formal rules, but peaceful management also depends on communication, mediation and credible procedures for addressing grievances. The framework does not presume that the law has increased or reduced conflict; it guides examination of the relationship between resource competition, institutional authority and community interests.

3.1 Research Design and Study Area

The study adopted a quantitative cross-sectional survey design to examine respondents' assessments of statutory regulation, pastoral mobility, land-use governance and approaches to managing rural disputes in Benue State. The design enabled standardized responses to be collected from adult residents and relevant stakeholder groups during one period of fieldwork. Because the substantive items were measured on an ordered Likert scale, the analysis was structured to preserve the ordinal character of the responses and to evaluate associations between selected variables rather than infer causation.

Fieldwork covered four purposively selected Local Government Areas (LGAs): Guma, Logo, Katsina-Ala and Ukum. These areas were selected for their relevance to the study's concern with farmer–herder relations, land-use pressures and rural conflict management. The selection was purposive and therefore should not be interpreted as a probability sample of all LGAs in Benue State. Any claims that the four LGAs represent the most affected locations should be supported by a clearly identified source or official incident data.

3.2 Population, Sample Size and Sampling Technique

The target population comprised residents aged 18 years and above in the four selected LGAs, including farmers, pastoral herders, security personnel, civil servants, community leaders and

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

internally displaced persons (IDPs). The population figure used for planning the survey was 662,914. The source, reference year and geographic coverage of this estimate must be confirmed before publication, particularly because the sample-size calculation depends on the accuracy of the population estimate.

The initial sample size was estimated using Taro Yamane's finite-population formula:

$$n = N / [1 + N(e)^2] \quad \text{(I)}$$

where n denotes the required sample size, N is the population estimate, and e is the specified margin of error. Using N = 662,914 and e = 0.05 gives n ≈ 399.76, which is rounded to 400 respondents.

The planned sample was distributed across the four LGAs using proportional allocation, commonly expressed as the population share of each stratum multiplied by the total sample. The allocation formula is:

$$n_i = (N_i / N) \times n \quad \text{(II)}$$

where n_i is the sample allocated to LGA i, N_i is the population of that LGA, N is the combined population across the four LGAs, and n is the planned sample size.

The source population counts and the original allocation worksheet should be checked to confirm that the reported allocations were calculated using this formula. A total of 400 questionnaires were targeted, of which 382 valid instruments were retained for analysis. This represents a valid-instrument yield of 95.5% of the target sample. The reported distribution was 134 respondents from Katsina-Ala, 120 from Ukum, 69 from Guma and 59 from Logo. These figures sum to 382. The methodology should clarify whether these are the final valid responses by LGA or the original planned allocations, and should report the number administered, returned, excluded and retained separately where records are available.

3.3 Data Collection Instrument and Operationalization

Primary data were collected using a structured questionnaire identified as the Anti-Grazing Enforcement and Security Governance Questionnaire (AGESGQ). The instrument contained closed-ended questions covering respondent characteristics and perceptions of statutory regulation, land-use and pastoral mobility issues, institutional responses, and approaches to conflict management. Substantive statements were rated on a five-point Likert scale, from 1 (Strongly Disagree) to 5 (Strongly Agree). The exact item wording and coding scheme should be

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https://doi.org/10.5281/zenodo.23850913
NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

retained in the data dictionary so that every reported analysis can be traced to the corresponding questionnaire item.

Content validity was assessed through expert review by specialists in measurement and evaluation and security studies. Reliability was examined through pilot testing. For a reproducible account, the final manuscript should state the pilot sample size, the procedure used to evaluate reliability, the coefficient obtained where applicable, and any changes made to the instrument after piloting. These values should not be supplied unless they are available in the study records.

3.4 Data Analysis and Mathematical Specifications

The data were analysed in IBM SPSS Statistics Version 23. Frequencies and percentages were used to summarize categorical characteristics and response distributions. Means and standard deviations were included as descriptive summaries of coded Likert responses, with the recognition that individual Likert items are ordinal. Inferential analysis focused on ordinal associations between pre-specified pairs of variables. Goodman–Kruskal Gamma was selected because it measures the direction and strength of association between two ordinal variables using concordant and discordant pairs. Statistical tests were evaluated at a significance level of $\alpha = 0.05$.

The arithmetic mean of the coded responses for an item was calculated as follows:

$$\bar{x} = (1 / n) \sum_{i=1}^{n} x_i \qquad \text{(III)}$$

where x_i is the coded response from respondent i and n is the number of valid responses for the item. If item-level missing data occurred, n should refer to the number of non-missing responses for that item rather than automatically being set to 382.

The sample standard deviation was calculated to describe dispersion in the coded responses:

$$s = \sqrt{\{[\sum_{i=1}^{n} (x_i - \bar{x})^2] / (n - 1)\}} \qquad \text{(IV)}$$

where x_i is each observed response, $\bar{x}$ is the item mean and n is the number of valid observations used for that item.

For two ordinal variables, Goodman–Kruskal Gamma was computed from the number of concordant and discordant pairs:

$$\gamma = (P - Q) / (P + Q) \qquad \text{(V)}$$

where P is the number of concordant pairs and Q is the number of discordant pairs. Gamma ranges from −1 to +1. Positive values indicate that higher values on one variable tend to

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

accompany higher values on the other; negative values indicate an inverse ordinal association. Gamma excludes tied pairs from its denominator, so it can be relatively large when ties are frequent. Its magnitude should therefore be interpreted alongside the response distributions and the variable coding.

4.1 Results

4.1 Profile of Respondents and Human Security Context

Table 1. Demographic Characteristics and Displacement Status of Respondents (n = 382)

Characteristic	Category	Frequency	Percentage (%)
Age group	18–30 years	72	18.8
	31–45 years	126	33.0
	46–60 years	108	28.3
	61 years and above	76	19.9
Primary occupation	Farmer	146	38.2
	Security personnel	102	26.7
	Civil servant/trader	88	23.1
	Herder	46	12.0
LGA of residence	Katsina-Ala	134	35.1
	Ukum	120	31.4
	Guma	69	18.1
	Logo	59	15.4
Displacement status	IDP camp resident	127	33.2
	Displaced in host community	149	39.0
	Non-displaced resident	106	27.8
Gender	Male	248	64.9
	Female	134	35.1
Educational attainment	Primary/no formal education	84	22.0
	Secondary education	178	46.6
	Tertiary education	120	31.4

Table 1 summarises the demographic and displacement characteristics of the 382 respondents drawn from Katsina-Ala, Ukum, Guma and Logo Local Government Areas. Respondents aged

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

31–45 years constituted the largest age group (33.0%), followed by those aged 46–60 years (28.3%). Farmers represented 38.2% of participants, security personnel 26.7%, civil servants and traders 23.1%, and herders 12.0%. Geographically, Katsina-Ala contributed 35.1% of respondents, Ukum 31.4%, Guma 18.1% and Logo 15.4%. Displaced respondents accounted for 72.2% of the sample, comprising those in internally displaced persons' camps (33.2%) and those residing in host communities (39.0%). Males represented 64.9% of participants, while females accounted for 35.1%. Regarding education, 46.6% had secondary education, 31.4% tertiary education, and 22.0% primary or no formal education. These characteristics contextualise the findings but do not independently establish the effects of the 2017 law on pastoral mobility or land-use governance.

4.2 Enforcement Implementation and Perceived Attack Escalation

Table 2. Ordinal Associations Between Enforcement Dimensions and Perceived Attack Escalation

Enforcement dimension	Mean	SD	Gamma (γ)	p-value	Decision
Incomplete enforcement across LGAs	3.70	1.08	0.032	0.604	Not statistically significant
Insufficient rural government presence	3.83	1.04	−0.103	0.057	Not statistically significant
Adequacy of Livestock Guard training	2.40	1.15	−0.052	0.380	Not statistically significant
Perceived biased/politicised enforcement	3.91	0.98	0.319	< 0.001	Statistically significant

Table 2 presents respondents' assessments of four enforcement dimensions and their ordinal associations with perceived attack escalation. Perceived biased or politicised enforcement recorded the highest mean (M = 3.91, SD = 0.98), followed by insufficient rural government presence (M = 3.83, SD = 1.04) and incomplete enforcement across local government areas (LGAs) (M = 3.70, SD = 1.08). Adequacy of Livestock Guard training recorded the lowest mean (M = 2.40, SD = 1.15). Goodman–Kruskal Gamma analysis revealed a statistically significant

ISSN: 2971-7760 | VOL 9, ISS 1 | 01 NOVEMBER 2026
https://doi.org/10.5281/zenodo.23850913
NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

positive association between perceived biased or politicised enforcement and attack escalation (γ = 0.319, p < 0.001). However, associations involving incomplete enforcement (γ = 0.032, p = 0.604), rural government presence (γ = −0.103, p = 0.057), and Livestock Guard training (γ = −0.052, p = 0.380) were not statistically significant at the 0.05 level.

4.3 Regulatory Compliance, Conflict Drivers, and Conflict-Management Options

Table 3. Ordinal Associations for Regulatory Compliance, Conflict Drivers, and Conflict-Management Options

Variable	Mean	SD	Gamma (γ)	p-value	Statistical decision
Perceived reduction in open grazing	3.66	1.12	−0.134	0.033	Significant
Scarcity of land resources	3.54	1.14	−0.499	<0.001	Significant
Weak traditional dispute-resolution mechanisms	3.75	1.01	0.247	<0.001	Significant
Inclusion of herders in policy planning	2.98	1.21	0.224	<0.001	Significant
Regular farmer–herder dialogue platforms	2.83	1.19	−0.333	<0.001	Significant
Expectation that full enforcement would reduce attacks	3.88	1.02	0.320	<0.001	Significant
Ranching with basic infrastructure support	3.43	1.12	0.082	0.145	Not significant

Table 3 presents respondents' ratings and ordinal associations concerning regulatory compliance, conflict drivers, and conflict-management options. Expectations that full enforcement would reduce attacks recorded a mean of 3.88 (SD = 1.02) and a significant positive association with perceived attack reduction (γ = 0.320, p < 0.001). Perceived reduction in open grazing was

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

negatively associated with reported attack reduction (γ = −0.134, p = 0.033). Scarcity of land resources also showed a significant negative association (γ = −0.499, p < 0.001). Weak traditional dispute-resolution mechanisms had a positive association (γ = 0.247, p < 0.001). Herders' inclusion in policy planning was positively associated with the relevant outcome (γ = 0.224, p < 0.001), while regular farmer–herder dialogue platforms showed a negative association (γ = −0.333, p < 0.001). Support for ranching infrastructure was not statistically significant (γ = 0.082, p = 0.145).

Table 4. Summary of Hypothesis Tests and Statistical Decisions

Null hypothesis	Empirical/statistical evidence	Significance pattern	Statistical decision
H_{01}: There is no association between enforcement dimensions and perceived attack escalation.	Perceived biased or politicised enforcement: γ = 0.319, *p* < 0.001. Incomplete enforcement, rural government presence, and Livestock Guard training were not statistically significant.	One enforcement dimension showed a statistically significant association; three did not.	Reject H_{01} for the biased-enforcement association. The evidence does not support rejecting the null for the other three dimensions.
H_{02}: There is no association between regulatory compliance and conflict-management variables and	Perceived reduction in open grazing: γ = −0.134, *p* = 0.033. Herders' inclusion in policy planning: γ = 0.224, *p* < 0.001. Other reported variables also showed significant associations.	Several item-level associations were statistically significant, although the direction and significance varied across	Evidence supports rejecting the null for the specific significant associations tested, subject to confirmation that each coefficient

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

perceived security outcomes.		variables.	corresponds to the outcome specified in H_{02}.

Table 4 summarizes the statistical decisions for the study's two null hypotheses. For H_{01}, perceived biased or politicized enforcement showed a statistically significant positive association with perceived attack escalation ($\gamma = 0.319$, $p < 0.001$). Consequently, the null hypothesis is rejected for this specific relationship. However, incomplete enforcement across local government areas, insufficient rural government presence, and perceived adequacy of Livestock Guard training were not statistically significant. Therefore, the evidence does not support rejecting the null hypothesis for these three enforcement dimensions.

H_{02}, perceived reduction in open grazing ($\gamma = -0.134$, $p = 0.033$) and herders' inclusion in policy planning ($\gamma = 0.224$, $p < 0.001$) showed statistically significant associations with their respective outcomes. These results support rejecting the null hypothesis for the specific relationships tested, provided the variables correspond to those specified in the hypothesis. Overall, the findings demonstrate variation across the relationships examined. The results indicate associations rather than causation and should be interpreted according to the study's cross-sectional design and variable coding.

4.5 Discussion of Findings

The findings highlight the importance of enforcement legitimacy, institutional inclusion and competing resource interests in understanding rural insecurity in Benue State. Perceived biased or politicised enforcement was positively associated with perceived attack escalation ($\gamma = 0.319$, $p < 0.001$), whereas incomplete enforcement across local government areas, insufficient rural government presence and perceived adequacy of Livestock Guard training showed no statistically significant associations. This pattern suggests that respondents' assessments of enforcement fairness may be particularly relevant to perceptions of security. However, the findings do not establish that perceived bias causes violence or that enforcement capacity is unimportant.

This result is consistent with Achem and Aderinto's (2026) qualitative study, which found that farmers and pastoralists held contrasting perceptions of the 2017 law. While farmers often viewed the legislation as protective, some pastoralists regarded its implementation as

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

exclusionary and threatening to their livelihoods. Their findings identify implementation gaps, political contestation and limited stakeholder inclusion as challenges to effective conflict governance. The present study complements this evidence by identifying a statistically significant association between perceived enforcement bias and attack escalation, although its survey design differs from the earlier qualitative approach.

The negative association between perceived reduction in open grazing and perceived attack reduction ($\gamma = -0.134$, $p = 0.033$) also cautions against equating regulatory compliance with improved security. Its substantive interpretation depends on questionnaire coding, and the survey did not independently measure changes in attack incidence. Abugu et al. (2022) documented seasonal variation in farmer–herder conflict occurrences and fatalities in Benue State, demonstrating that conflict patterns involve contextual factors beyond the existence of grazing restrictions. Their findings support the need to consider resource pressures and changing conflict conditions when assessing regulatory outcomes.

Furthermore, the significant association involving herder inclusion in policy planning ($\gamma = 0.224$, $p < 0.001$) underscores the relevance of participatory governance. The significant result for farmer–herder dialogue platforms ($\gamma = -0.333$, $p < 0.001$) also warrants attention, although its direction must be interpreted against the questionnaire's coding. These findings align with Social Conflict Theory, which explains how unequal power relations and competing material interests can sustain social tensions. Weak traditional dispute-resolution mechanisms were likewise significantly associated with the relevant conflict measure ($\gamma = 0.247$, $p < 0.001$), highlighting the importance of examining local institutions alongside statutory enforcement.

The findings suggest that sustainable conflict management requires attention to enforcement legitimacy, inclusive policymaking and accessible dispute-resolution mechanisms. Nevertheless, the reported associations do not establish causation or independently demonstrate changes in pastoral mobility and land-use arrangements. These limitations define the appropriate scope of the conclusions.

5.1 Conclusion

This study examined the relationship between enforcement of the Benue State Open Grazing Prohibition and Ranches Establishment Law, 2017, perceived attack escalation, and selected conflict-management approaches in four local government areas of Benue State. The findings

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

revealed a statistically significant positive association between perceived biased or politicised enforcement and perceived attack escalation. However, incomplete enforcement, insufficient rural government presence, and perceived adequacy of Livestock Guard training were not significantly associated with attack escalation. Furthermore, perceived reduction in open grazing, herder inclusion in policy planning, and selected institutional and community-based conflict-management measures demonstrated significant ordinal associations with relevant conflict perceptions.

5.2Recommendations

Based on the study's findings, the following recommendations are proposed:

i. **Standardize Enforcement Procedures:** The Benue State Government should establish transparent operational guidelines for Livestock Guards, including clear procedures for livestock impoundment, arrests, and grievance handling, to strengthen accountability and reduce perceptions of biased or politicised enforcement.

ii. **Institutionalise Inclusive Stakeholder Engagement:** The state government and relevant legislative bodies should establish regular consultation platforms involving farmers, pastoralist representatives, traditional rulers, and civil society organisations to promote inclusive policymaking and strengthen cooperation in implementing and monitoring the 2017 law.

iii. **Strengthen Community-Based Dispute Resolution:** Local government councils should support traditional leaders and community mediation committees in addressing disputes over land, water, and grazing resources. Regular farmer–herder dialogue should complement formal security institutions to encourage peaceful negotiation and prevent local disagreements from escalating.

5.3 Limitations of the Study and Suggestions for Further Research

This study has limitations that should be considered when interpreting its findings. First, the cross-sectional survey design captures respondents' perceptions at a particular period and therefore cannot establish causal relationships between enforcement of the 2017 law and perceived attack escalation. Second, the study covered four purposively selected local government areas in Benue State, limiting the generalisability of the findings to other locations.

ISSN: 2971-7760 | VOL 9, ISS 1 | 01 NOVEMBER 2026
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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

Third, the analysis relied on self-reported responses and ordinal associations, rather than independently verified records of attacks, pastoral mobility, and land-use changes.

The cross-sectional design captures perceptions at one period and cannot establish causal relationships. The study also covered four purposively selected LGAs, limiting generalisation to all of Benue State. In addition, the findings rely on self-reported perceptions rather than independently verified conflict-event or mobility data; results should be interpreted within these limits.

Future studies should combine surveys with longitudinal conflict-event data and compare additional states in Nigeria's Middle Belt. They should directly measure pastoral mobility, land-use arrangements and the outcomes of institutional and community-based dispute-resolution mechanisms.

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