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ANALYSING THE CAUSES AND EFFECTS OF FARMER-HERDER CONFLICT IN BENUE STATE, NIGERIA

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Abstract

Over the years, Benue State has witnessed prolonged conflict between farmers and herders. This conflict has affected the coexistence of the two groups. It is therefore necessary to understand the trend and its effects in Benue's state. Detailed information on the spatial distribution and trend of the conflict was provided. The period considered for this study was from 2011–2022. The causes and implications of this phenomenon in the Benue state were examined. Conflict data were sourced from the Armed Conflict Location and Events Data (ACLED) 2022 version to generate the frequencies of conflicts in the study area, and field observations using a questionnaire were used to ascertain the authenticity of the location. Farmers and herders were selected from the three senatorial zones that formed the study population. Two hundred and seventy-nine copies of the questionnaire were administered purposely in vulnerable communities. Contamination of water bodies by cattle, destruction of crops by cattle, grazing of fallow land, and indiscriminate bush burning were the leading causes of these conflicts. At the same time, the displacement of farmers and herders, loss of agricultural products in storage, degradation of farm products, and increased poverty were among the implications of the conflict in the study area. This study highlights the importance of assessing the spatiotemporal distribution of farmers' herders conflicts in Benue state.

Keywords: *Farmers, Herders, Conflict, Trend analysis, Geographical information system*

1. Introduction

Conflicts of any kind are detrimental to the peaceful coexistence of a community or a nation. The conflict between farmers and herdsmen in sub-Saharan Africa is a problem that concerns everyone involved. In Nigeria, farmer-herder crises can cause disharmony between ethnic groups. To strengthen social cohesion and ensure peaceful coexistence, it is important to identify the causes of these conflicts to develop strategies to reduce or eliminate the threat [1,2].

The conflict between farmers and herders is growing and disrupting communities in places such as the Democratic Republic of the Congo, Central African Republic, and Mali and across the West Africa region. Changes in the climate and environment, security issues, and lack of political stability are forcing pastoralists to move from one place to another in search of good pasture to feed their cattle and make a settlement for their family. Formally, before the beginning of the 29th century, the conflict between farmers and herders occurred in the savannah belt of West Africa because of scarce resources such as rainfall and vegetation.

Hocker and Wilmot [3] view conflict as an interaction of independent people who perceive incompatible goals and interference from each other in achieving goals. Conflicts between farmers and herders have become a common feature of economic livelihood in West Africa [4]. Nweze [5] stated that some farmers and herders have lost their lives, while others have experienced dwindling productivity in their herds.

The escalation of the farmer's herder's conflict in Nigeria involved several actors and parties. Previously, disagreements between herders and farming communities were resolved through negotiations. Usually, the heads of villages and herder communities agreed on simple solutions such as a herder must compensate for the damage on a farm if he cannot control his animals and prevent them from damaging the growing crops. The dialogue between the two communities did not occur only after a nasty incident. Instead, during the dry season, if herders would like to use some laid fallow farms as grazing land, they would ask for permission from the landowner before using it [6].

The beginning of the year 2000 saw an escalation of the conflict between farmers and herders where reprisal attacks and the armament of farmer communities started in Nigeria. Additionally, sometimes pastoralists' cattle were killed as a response to herders. The communities experienced great hostility against each other. In the beginning, there was only a conflict about scarce resources and how to share them—constant attacks, killings, burning of villages, and rape, among others. Many actors are responsible for the increased tension between nomadic and sedentary groups [7]. In 2017, Taraba and Benue states banned open grazing in their territories. Everyone who lets their animals graze freely like before has committed an illegal activity and will be taken to court. According to these states' authorities, the laws enacted are designed to protect citizens from violent conflicts. However, pastoralists find the law unfair because it restricts them to grazing only on ranches or their lands, which most do not have.

Sedentary farmers are seen as essential parties in this conflict. Because of the impacts of environmental and economic change, farmers enhance their agricultural activities in northern regions, especially in “free” areas where no cultivation previously occurred. However, some of those accessible areas were the grazing routes for the nomadic farmers from the north. Therefore, conflicts begin when two parties encounter the same land and try to protect their benefits [8]. Kaduna, Plateau, Nasarawa, Benue, and Taraba states in central Nigeria have the highest numbers of casualties because of violent clashes between farmers and herders in these transitional regions between the north and the south of Nigeria.

The increasing number of cases of conflict between farmers and herders in Benue state has led to several research-based solutions for finding a lasting solution to this situation. Olayoku Olayoku [9] identified approximately 615 violent deaths recorded in the Nigerian Watch database and reported 61,314 fatalities. The study further revealed that in 2008, there were 31 reported cases of such conflict, while in 2009, there were 83 fatalities in the northern part of Nigeria. He further explained that in 2010, the number of farmer-herder deaths decreased to 39, with most of the cases occurring in the northern part of Nigeria, while in 2011, the number of fatalities increased to 116, with the highest occurrence occurring in the plateau state and the most sustained, lasting five days occurring in Benue State[1].

The conflict worsened in 2018, and there were more victims of clashes in 2018 than in 2016 and 2017. During the rainy season, because the cattle do not go too far away, the encounters between conflicting groups decrease, and therefore, the conflict deescalates for some time. However, this does not mean that it ends. Constant changes in population density and the different circumstances of every season make it difficult to estimate what can happen next in the region. People criticize President Muhammadu Buhari for not creating effective solutions for the ongoing problem, except for enhancing military bases in some conflicting areas, which does not solve the issue.

In 2019, the government launched a plan to create settlements for nomadic pastoralists, try to help them adopt a sedentary lifestyle, and prevent them from engaging in open grazing. The settlements are called "Ruga," which is an old name for premises. However, the plan faced much criticism, especially from the opposition. They claim that the government should have informed them about the plan, not even the people who live in the areas of potential Ruga settlements. Therefore, communities felt excluded, and theories have been made that there might be an "Islamization attempt" by simply settling Fulanis down in areas where the Christian population is higher.

In recent years, the Benue State has experienced various conflicts between farmers and herders, resulting in hundreds of deaths and the displacement of thousands of people. In response to these growing tensions and attacks, the Benue State Government passed legislation banning open grazing on May 22, 2017. The law prohibited the open grazing of livestock or allowed cattle to roam freely in search of pasture and water, beginning on November 1, 2017, and called for the establishment of ranches within the state. Against this background, this paper assesses farmers' herder conflict trends and their implications for the Benue State. To achieve this goal, detailed data on the incidence of farmer-herder conflicts (2011-2022), trends in conflicts (2011-2022), and causes and effects of conflicts in the study area will be obtained, and recommendations for further studies will be provided.

The novelty of this paper is that it addresses impending issues related to the conflicts between farmers and herders in Benue State. It will also serve as an asset to researchers by understanding the concept of the topic and providing adequate solutions to the conflict. It will further be relevant to policymakers in resolving the conflict between farmers and herders within the geographical location of the study area and the country at large.

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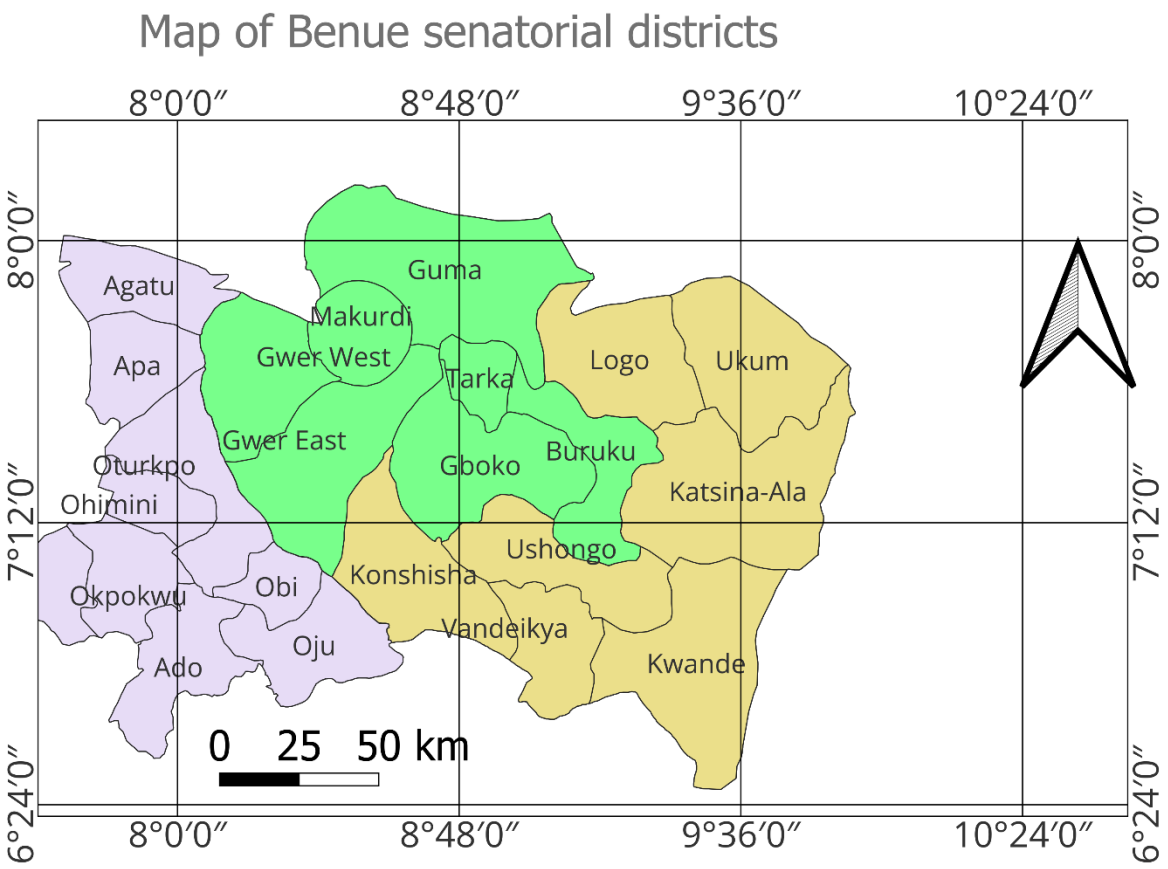
This study covers the geographical area of Benue State, with a specific focus on the trend, cases, and effects of farmer-herder conflict from 2011 to 2022. The state was selected for the study because it has experienced the highest incidence of conflict between farmers and herders in this geographical area.

2. Materials and Methods

2.1 Study Area

The study was conducted in Benue State, which is located in the heart of the Middle Belt region of Nigeria. The state has fertile cropland, lush livestock grazing pasture, and active corridors for migrating cattle. The state lies between longitudes 7° 47' and 10° 0' East and latitudes 6° 25’ and 8° 8’ North (Figure 1). The State has a total land area of 34,059 square kilometres and an estimated population of 6 million. It is inhabited by the Tiv, Idoma, and Igede languages. There are other ethnic groups, including the Etulo, Abakwa, Jukun, Hausa, Igbo, and Igala who are considered indigenes, while most of the herders are in the minority Fulani ethnic group considered as nonindigenes. The land is low lynch (average 100 m-250 m) and gently undulating with occasional inselbergs, Knoll, and laterite.



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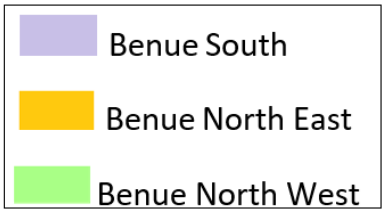

Figure 1.1: Map of Study Area

2.2 Methods

The study utilized both primary and secondary data to achieve the research purpose. The preliminary data for the study were collected using a structured questionnaire to 150 randomly selected farmers and 129 herders, which comprised 279 respondents. The selection was based on specific criteria, which included that they had been living in the community for at least ten years, that the respondents were aware of the existence of conflict between the farmers and herders, and that the respondents represented the diversity of either the farmers or herders in the study area. The Miyatti Allah Association and Farmers Association in the state were also contacted for interviews. However, the secondary data were derived from documented materials, including Armed Conflict Location and Events (ACLED) data. This captured events on the cusp of conflicts and, thus, an excellent place to begin analyzing conflict activities. All the collected data provide information on event characteristics, including locations, dates, attack types, and responsible groups.

3. Results and Discussion

3.1 Spatial distribution of farmer-herder conflict in Benue State

The spatial distribution of conflict between the farmers and herders in the study area from 2011-2022 is shown in Figure 2. The analysis indicated that the northern part of the state recorded the highest incidence of conflict with the Agatu, Guma, Logo, and Makurdi local government areas (LGAs), with 24-55 conflicts between the two parties. This shows that the Benue northwest senatorial zone has clustered cases of farmer-herder conflict in the state. The high incidence of this conflict in these areas is associated with the vast amount of land available for agricultural activities without cattle routes, which prompts the headers to encroach into the farms, destroying most of the farm produce in these areas. The Benue northeast indicates moderate cases of conflicts with Kwande and Ukum local governments recording the highest cases in this particular zone. The minor areas where farmers conflict with herders are in the Benue south senatorial zone which had the lowest cases in the LGAs of Ado, Obi, Ogbadigbo, Ohimini and Apa. This may have resulted from the small number of herders and the absence of grazing areas. The high rate of conflict in these LGAs may be attributed to overgrazing of fallow land, crop destruction by the cattle in the area, and harassment of the nomads by the host community, among other factors. Examples of such conflict include the attack on a rural village in the Guma LGA over long-running land disputes, which resulted in the killing of at least 30 people on October 14, 2012. The same incident occurred on March 15, 2015, when suspected herders attached Egba to grazing land, causing

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approximately 90 deaths in the Oturkpo LGA. On the other hand, places such as Apa, Ado, and Obi recorded no incidence of conflict between farmers and herders. Overall, the three senatorial zones exhibit a spatially varying pattern, with Benue Northwest displaying clustered cases, while Benue Northeast and Benue South show moderate and random cases, respectively.

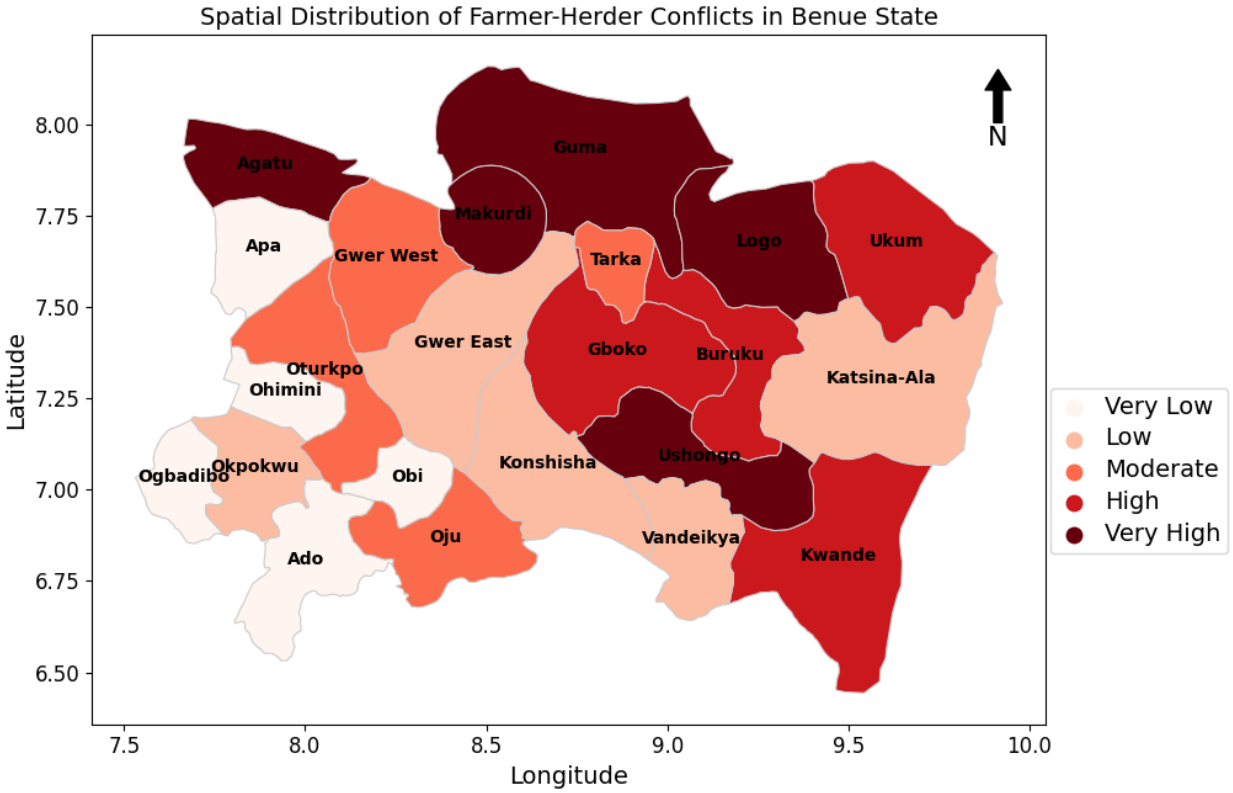

Figure 2.2: Spatial distribution of conflicts between farmers' headers in Benue State (2011-2022)

(Source: Authors Fieldwork, 2023)

3.2 Trend Analysis of Farmers' Herder Conflict in Benue State

The trend analysis results revealed a statistically significant positive trend in farmers' herder conflict in Benue state during the study period (Figure 3). The results further show a tendency for the incidence of conflict to decrease quickly if adequate measures are taken. Additionally, from the analysis, the conflict frequency increased by two occurrences per year during the study period. The R-square statistic shows that the fitted model explained 15% of the variability in the conflict in the study area.

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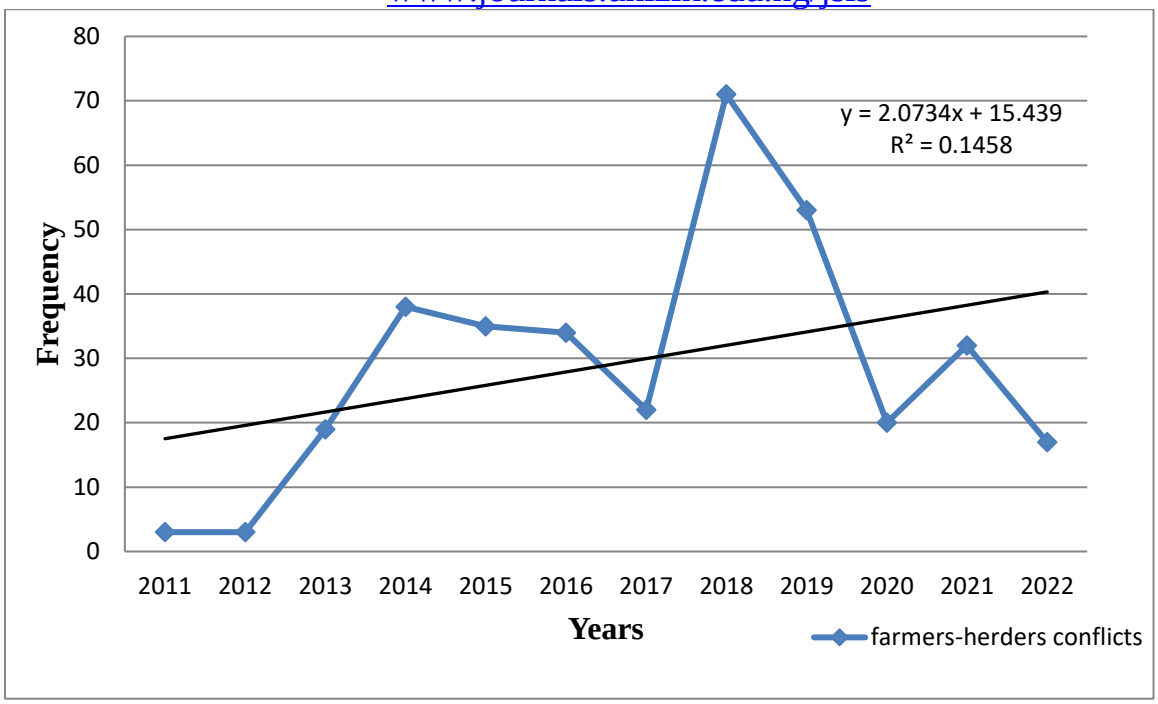

Figure 3.3: Trend of farmer-header conflict in Benue State (2011-2022) **(Source:** Fieldwork, 2023)

3.3 Causes of Farmer-Header Conflict in Benue State

The causes of farmer herder conflict in Benue state were grouped into nine indicators (Table 1). The results of the analysis show that the relative importance index (RII) with the highest value is the contamination of rivers by herders (cattle), with a value of 0.91; this is closely followed by the grazing of fallow land and the destruction of crops by cattle, with relative importance indices of 0.90 and 0.89, respectively. The least observed causes of farmer-header conflict in the study area are illiteracy and corruption, with important indices of 0.66 and 0.70, respectively. The high RII recorded on the contamination of rivers as the significant cause of farmer-herder conflict occurred because most herders do not select water bodies where their cattle will drink. This results in conflicts or misunderstandings with the people around the water areas because these are where they obtain their water from. On the other hand, the least common RII was illiteracy. This shows that people's educational level in the study area has little or no impact on the causes of farmers' herders' conflict in the study area.

3.4 Effects of farmer-herder conflicts in Benue State

The effects of farmers' header conflicts in Benue state were grouped into seven indicators (Table 2). The analysis shows that the most important index with the highest value is the displacement of people (0.90). This displacement is closely followed by increased poverty levels, loss of agricultural products in storage, and degraded agricultural production, with important index

values of 0.85, 0.83, and 0.82, respectively. The least observed effects of farmer header conflict in the study area were associated with running arms and soil erosion, with important indices of 0.57 and 0.66, respectively. The high value recorded in the displacement of people is that when most conflict occurs within a geographical area, either people are killed or wounded. These actions thereby prompt nearby villages to vacate their places. The displacement can also be attributed to most of their houses being destroyed during the conflict incident.

Table 1.1: Causes of farmer–header conflict in Benue State

S/N	Indicators of Impact	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total	Rating	index
1.	Illiteracy	71	85	17	63	43	279	915	0.66
2.	Climate change	91	105	9	52	22	279	1028	0.74
3.	Theft of cattle	81	115	20	43	20	279	1031	0.74
4.	Grazing of fallow land	192	66	2	11	8	279	1260	0.90
5.	Destruction of crops by cattle	178	76	5	11	9	279	1240	0.89
6.	Indiscriminate bush burning	152	98	9	13	7	279	1212	0.87
7.	Contamination of rivers by cattle	155	93	3	41	27	279	1265	0.91
8.	Sexual harassment of women by headers	148	103	7	8	13	279	1202	0.86
9.	Corruption	92	85	10	50	42	279	972	0.70

Source: Authors' survey, 2022

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Table 1.2: Effects of farmer-herder conflicts in Benue State

S/N	Indicators of Impact	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total	Rating	Index
1.	Degrading agricultural production	98	151	3	19	8	279	1149	0.82
2.	Increase in poverty level	145	102	5	15	12	279	1190	0.85
3.	Displacement of people	195	65	0	11	8	279	1261	0.90
4.	Loss of lives and hostilities	93	145	11	19	11	279	1127	0.81
5.	Arms running	45	72	8	98	56	279	279	0.57
6.	Causes soil erosion	62	97	15	74	31	279	922	0.66
7.	Loss of agricultural products in storage	125	113	5	28	8	279	1156	0.83

Source: Authors' survey, 2022

4 Conclusion and recommendation

This study examined the spatial distribution of farmers' header conflicts in Benue state. The study further showed that the northern part of the state had the highest incidence of conflict (2011-2023). The trend analysis revealed that the R-square statistic explained 15% of the variability in the conflict in the study area. This paper revealed that the contamination of rivers, grazing on fallow land, and destruction of crops by cattle are the major causes of this conflict. The study further identified the displacement of people, increased poverty levels, and loss of agricultural products in storage. This study highlights the importance of assessing the spatial distribution of farmers' herders conflicts in Benue state. Our approach has potentially to be expanded over Northern Nigeria or the entire country to address the issue of farmers' header conflicts. Based on our findings, we recommend that the state government for negotiations between stakeholders, provide more security and provide grazing reserves.

References

1. Mustapha, A.I. MAPPING OF FARMERS HERDERS CONFLICT IN BENUE STATE OF NIGERIA. **2019**.
2. Ibrahim, S.; Kuta, A. Challenges in using Geographic Information Systems (GIS) to understand and control crime in Nigeria. *Journal of Humanities and Social Science (IOSR-JHSS), 20 (3)* **2015**.
3. Hocker, J.L.; Wilmot, W.W. *Interpersonal conflict*; McGraw-Hill Education New York, NY: 2018; Volume 1.
4. Tonah, S. Managing farmer-herder conflicts in Ghana's Volta Basin. *Ibadan journal of social sciences* **2006**, *4*, 33-45.
5. Nweze, N. Minimizing farmer-herder conflicts in Fadama Areas through Local Development Plans: Implications for increased crop/livestock productivity in Nigeria. In Proceedings of the 30th Annual Conference of the Nigerian Society for Animal Production, held 20th–24th March, 2005.
6. Olaniyan, A.; Yahaya, A. Cows, bandits, and violent conflicts: Understanding cattle rustling in Northern Nigeria. *Africa Spectrum* **2016**, *51*, 93-105.
7. Ofuoku, A.U.; Isife, B.I. Causes, effects, and resolution of farmers-nomadic cattle herders conflict in Delta state, Nigeria. **2009**.
8. Genyi, G.A. Ethnic and religious identities shaping contestation for land-based resources: The Tiv-Farmers and Pastoralists Conflicts in Central Nigeria until 2014. *Journal of Living Together* **2017**, *4*, 1.
9. Olayoku, P.A. Trends and patterns of cattle grazing and rural violence in Nigeria (2006-2014). IFRA-Nigeria, 2014.