

**IMPACT OF GRAZING RESERVES ENCROACHMENT ON PEACEFUL
CO-EXISTENCE BETWEEN FARMERS AND HERDERS AS CORRELATES TO SUSTAINABLE
AGRICULTURAL PRODUCTION IN KADUNA STATE, NIGERIA**

BY

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Abstract

The study investigated the effects of grazing reserves encroachment on peaceful co-existence between farmers and herders as correlates to sustainable agricultural production in Kaduna state, Nigeria. The study had three research questions. The study adopted participatory action research. The population of the study is all farmers, herders and traditional rulers in the study area. Purposive sampling technique was used to select participants. Checklist was used as instruments for data collection on location and hectarage of the reserves. Questionnaire was also be used as instrument to generate data from literate farmers, herders and traditional rulers. Focus group discussion was conducted with farmers, herders and traditional rulers who cannot read and write on effects of grazing reserves and possible solutions. The researchers recruited 23 research assistants, 5 research informants 4 security personnel. Field visit was used to identify the location and hectarage of the grazing reserves. The extent of grazing reserves encroachment was described with descriptive statistics of frequency and percentages while effect of grazing reserves encroachment on sustainable agricultural production was analyzed with mean and standard deviation and the research last for 9 months. The study concluded that farmers and herders should discourage stop taking the law into their own hands, and instead urge them to channel their grievances through the appropriate authorities or seek redress in court.

Keywords: Grazing Reserves, Encroachment, Farmers, Herders, Sustainable Agricultural production

Introduction

Grazing reserve is a piece of land that the government acquires, develops, and releases to the pastoralists or livestock owners to encourage them settle within the grazing areas, enjoy access to veterinary services and extension workers, while increasing the off-take from their herds. The aims of grazing reserves include getting and protecting pasture-space for the national herds, and removing discord between agronomists and pastoralists living in the same geographic area. By separating the herders from the cultivators, the government hopes to foster peaceful coexistence between them by making the grazing reserve a zone of no-conflict (Tolulope&Oluwatoyin, 2018). Grazing reserve emerged in 1954 after a study of the Fulani production system contained in the "Fulani Amenities Proposal." The proposal suggested the creation of grazing reserves, the improvement of Fulani welfare, and the transformation of the herd management system. Unfortunately, these reserved areas are being encroached due to increasing population and farming activities.

Encroachment of grazing land by farmers in Nigeria with particular reference to Kaduna state is by far the most serious impediment to the development of grazing reserves. In Kaduna state, conflicts become life's dreaded chores in farm lands as clashes escalate when farmers deny animal's access to water and verdant grass. Farmers, in disregard of pastoral transhumance, occupy the swampy depressions that are temporarily vacated by the shepherds. In the absence of a mediator misunderstanding and aggressive clashes result when the farmers refuse to surrender the space to the returning herders (Abubakar&Yahaya, 2018). Fighting also occurs when the herders fail to guard animals from eating crops or trampling on them. Sometimes, the aggrieved herders take the law into their hands by waiting until the farmers finished planting crops and are about to go into harvest, the herders charged the cattle into the farms to eat up or destroy the crops and reprisal attack is always the consequences if the farmers dare take actions against them.

Statement of the Problem

The intractable strife between farmers and herders has been on the increase in recent times and now constitute one of the major threats to Nigeria's national security. In Kaduna state for instance, these disputes are allegedly triggered by land and water use, obstruction of traditional migration routes, livestock theft and crop damage as well as encroaching fields that are reserved for grazing animals. Shettima(2019) reported that the blame of encroaching grazing reserves is apportioned to traditional chiefs and local authorities, who control land allocation in rural areas, for the clashes, accusing them of allowing farmers to encroach on nomadic grazing land. Once the farmers paid some money the traditional and local authorities would allocate them some portion from the grazing field and gradually the lands are encroached. This encroachment consumes the reserved lands for animal grazing and blocks the routes where the grazing animals go for drinking water. These disputes always results to loss of lives and herds, destruction of properties, scores being displaced and rendered homeless and dwindle agricultural productivity which constitute major part of fight between farmers and herders that affects sustainable agricultural production. John (2018) reported that attacks and counter-attacks from Fulani herdsmen and farmers respectively result to loss of human and animal lives, displacement of persons, destruction of houses, farmlands and crops, and distrust between herdsmen and farmers which leads to food insecurity, distrust and unemployment capable of inhibiting national development in Nigeria. International Crisis Group (ICG, 2017) also reported that escalating conflicts between herders and farmers are among Nigeria's most pressing security challenges. This could potentially generate bloodshed on an even wider scale unless federal government makes ending this violence a national priority.

In an attempt to curb this problem, federal government in 2019 tried to create Rural Grazing Area (RUGA) settlements the decision was met with fierce criticism. If this problem is allowed to persist, many farmers and herders' lives will be lost, crop and animal production will be halted and insecurity in the areas will be alarming. It is based on this unfortunate situation that the researchers are triggered to assess effects of grazing reserves encroachment on peaceful co-existence between farmers and herders as correlates to sustainable agricultural production in Kaduna state, Nigeria.

Purpose of the Study

The general objective of this study was to assess effects of grazing reserves encroachment on peaceful co-existence between farmers and herders as correlates to sustainable agricultural production in Kaduna state, Nigeria. Specifically, the study intends to:

1. identify the locations and hectarage of the grazing reserves in Kaduna state.
2. assess the extent to which the grazing reserves are encroached in Kaduna state.
3. determine the effects of grazing reserves encroachment on farmers and herders' coexistence in Kaduna state.

Research Questions

Based on the specific objectives of the study, following research questions were raised.

1. What are the locations and hectarage of the grazing reserves in Kaduna state?
2. To what extent the grazing reserves are encroached in Kaduna state?
3. What are the effects of grazing reserves encroachment on farmers and herders' coexistence in Kaduna state?

Literature Review

Grazing Reserves

Grazing" is defined in agriculture, as a method of animal husbandry whereby domestic livestock are allowed outdoors to consume wild vegetation, and other forms of nutriments that can be found in the wild. Under this method of animal husbandry, a grazing reserve is defined as an area set aside and used by Herdsmen and Pastoral Farmers, and is intended to be foci of livestock growth development. A grazing route is therefore, defined as a way or course taken in getting from a starting point to a certain destination. On that route, the farm animals graze on the route to different destinations, and the routes act as pathways that link one grazing reserve to another. Herders are habitually moving from one place to another, in search of greener pasture across Nigeria. Most times, these herders gained entrance into these paths, based on the goodwill of the land owners or kings.

Clashes usually arise when these herders are denied entrance into these paths, to prevent owners' farmlands from being wantonly destroyed or freely grazed upon to the detriment of such owners.

Purpose of Grazing Reserves

Grazing reserve plays a crucial role in determining forage production, forage quality, and animal performance in forage-based livestock production systems. Producers plan according to enterprise-specific goals, including choice and requirements of forage species and animal class. Grazing reserve plays a crucial role in determining forage production, forage quality, and animal performance in forage-based livestock production systems. Pasture forage is usually the most cost-effective feed source for livestock because it minimizes the need to harvest, store, transport, and distribute feed. Observation of farms and ranches around the state demonstrates that there is not a one-size-fits-all forage program.

Grazing reserves encroachment and its consequences

Nigeria has 415 grazing reserves in 21 states of the federation and the federal capital territory (FCT) with a total land area of 4.4 million hectares, of these 141 (34%) of the grazing areas about 2.9 million hectares of land was gazetted, while, 274 (66%) of grazing areas about 1.2 million hectares were ungazetted. The importance of these is that about 66% of grazing areas are at risk of encroachment by individual, cooperates entities, farming communities, and as such may further precipitate crises between farming clusters and pastoralists. In addition, some states in southern Nigeria with existing grazing reserves have banned open grazing (OG), with no commensurate commitment to improving husbandry facilities within grazing reserves in their respective states to serve as an impetus for the pastoralist to graze within these grazing areas. These may be the bane of curbing the farmer's herder's crisis in Nigeria. It's worthy of note that there is no federal legislation that supports open grazing in Nigeria, consequently, the state government should constitute pastoralists into cooperative clusters where they can easily access funding from the bank of agriculture or Nigeria incentive-based risk sharing system for agricultural lending (NIRSAL) an arm of the central bank of Nigeria, these entities may provide the necessary funding towards improving the quality of services, facilities within the grazing reserves, such may reduce the risk of encroachment of pastoralist on agricultural farmland in search of lush pastures. Livestock farming is a business and should be treated as such.

Social Identity Theory

Social identity theory by Tajfel (1970) and Turner (1980) in social psychology is the study of the interplay between personal and social identities. Social identity theory aims to specify and predict the circumstances under which individuals think of themselves as individuals or as group members. The theory also considers the consequences of personal and social identities for individual perceptions and group behaviour. Social identity theory originated from the conviction that group membership can help people to instill meaning in social situations. Group membership helps people to define who they are and to determine how they relate to others. Social identity theory was developed as an integrative theory, as it aimed to connect cognitive processes and behavioral motivation. Initially, its main focus was on intergroup conflict and intergroup relations more broadly. For that reason, the theory was originally referred to as the social identity theory of intergroup relations.

Group members can also experience social identity threat when they think that their group is not sufficiently acknowledged as a separate entity with unique characteristics. Such group-distinctiveness threat is experienced when different groups of people are included in larger, more inclusive groups, nations, or organizations, such as members of linguistic minorities who strive for political autonomy or workers in a small company that is taken over in an organizational merger. In addition, categorization threat occurs when individuals are treated as group members at times when they would prefer not to be, as when a woman who is a lawyer is addressed in court on the basis of her gender instead of her profession. Acceptance threat occurs when individuals fail to gain acceptance and inclusion in the groups of which they consider themselves members, such as when a manager of Asian descent is not invited to join a local Asian business club. To cope with identity threat, group members will respond differently depending on the degree to which they identify with the group. In addition to the perceived characteristics of the social structure (and the opportunities and restrictions implied), the psychological

significance of group membership and the loyalty and commitment to the group and its members also determine how people cope with identity threat.

Theory of Structural Violence

Structural violence by Gultang (1969) refers to a form of violence wherein social structures or social institutions harm people by preventing them from meeting their basic needs. Although less visible, it is by far the most lethal form of violence, through causing excess deaths—deaths that would not occur in more equal societies. Structural violence enables more nuanced analyses of the social, cultural, political, economic, and historical forces that shape inequality and suffering. It creates an opportunity to consider seriously the role of different types of marginalization—such as sexism, racism, ableism, ageism, homophobia, and/or poverty—in creating lived experiences that are fundamentally less equal. Structural violence helps explain the multiple and often intersecting forces that create and perpetuate inequality on multiple levels, both for individuals and communities. Structural violence also highlights the historical roots of modern inequality. The inequities and suffering of our time often unfold within a broader history of marginalization, and this framework provides a critical context for understanding the present in terms of its relationship to the past.

Methodology

The study adopted participatory action research. The population of the study is all farmers, herders and traditional rulers in the study area. Purposive sampling technique was used to select participants. Checklist was used as instruments for data collection on location and hectarage of the reserves. Questionnaire was also be used as instrument to generate data from literate farmers, herders and traditional rulers. Focus group discussion was conducted with farmers, herders and traditional rulers who cannot read and write on effects of grazing reserves and possible solutions. The researchers recruited 23 research assistants, 5 research informants 4 security personnel. Field visit was used to identify the location and hectarage of the grazing reserves. The extent of grazing reserves encroachment was described with descriptive statistics of frequency and percentages while effect of grazing reserves encroachment on sustainable agricultural production was analyzed with mean and standard deviation and the research last for 9 months.

Results

The results of the analysis for the study were presented as follows

Research Question One: What are the locations and hectarage of the grazing reserves in Kaduna state?

Answers to this research question were presented in Table 1

Table 1: Locations and Hectarage of Grazing Reserves in Kaduna State

S/N	Location	LGA	LAND SIZE (HA)
1	Kachia (Ladduga)	Kachia	74,000
2	Kagarko	Kagarko	7,300
3	Damau	Kubau	5,200
4	Gayam	BirninGwari	11,612
5	Gamagira	Soba	6400
6	Gwantu	Sanga	20,000
7	DogonDawa	BirninGwari	9900
8	Abet	Zango	1900
9	Kwaba	Zaria	5100
10	Randagi	BirninGwari	6800
11	SabonBirni	Igabi	3300
12	FadanKagoma	Jema'a	4800
13	Saminaka	Lere	8500
14	TashanDaji	Zango	6000
15	Guga (Pasture Reserve)	Giwa	503.85
16	Kudan (Pasture Reserve)	Kudan	250
17	Aba (Pasture Reserve)	Zaria	800
18	GadanGayam	Igabi	858
	Total		105,491.85

The analysis of results in Table 1 shows the locations and hectarage of the grazing reserves in Kaduna state. The results revealed eighteen (18) grazing reserves with their respective hectarage namely Kachia (74,000ha) in Kachia Local Government, Kagarko (7,300ha) in Kagarko Local Government, Damau (5200ha) in Kubau Local Government, Gayam (11,612ha) in BirninGwari Local Government, Gamagira (6,400ha) in Soba Local Government, Gwantu(74,000ha) in Sanga Local Government, DogonDawa (9,900ha) in BirninGwari Local Government, Abet (1,900,000ha) in Zango Local Government, Kwaba (5,100ha) in Zaria Local Government, Randagi (6,800ha) BirninGwari Local Government, SabonBirni (3,300ha) in Igabi Local Government, FadanKagoma (4,800ha) in Jema’a Local Government, Saminaka (8,500ha) in Lere Local Government, TashanDaji (6000ha) in Zango Local Government, Guga (503.85ha) in Giwa Local Government, Kudan (250ha) in Kudan Local Government, Aba (800ha) in Zaria Local Government and GadanGayam (858ha) in Igabi Local Government.

Research Question Two: To what extent the grazing reserves are encroached in Kaduna State?
Answers to this research question were presented in Table 2

Table 2: Extent the Grazing Reserves are Encroached in Kaduna State

Status of the Grazing Reserves			
Encroached		Not Encroached	
Grazing Reserve	Land Size (ha)	Grazing Reserve	Land Size (ha)
Gamagira	6400	Kachia	74000
DogonDawa	9900	Kagarko	13568
Abet	1900	Damau	5200
Randagi	6800	Gayam	11612
SabonBirni	3300	Gwanto	20,000
FadanKagoma	4800	Kwaba	5100
Saminaka	8500	Guga	503.85
TashanDaji	6000	GadanGayam	858
Kudan	250		
Aba	800		
Total	48,650ha(46.7%)		56,841.85(53.3%)

The analysis of results in Table 2 shows the extent the grazing reserves are encroached in Kaduna State. The results revealed a total of 56,841.85ha of grazing reserves out of which 48,650ha representing 46% were encroached while 56,841.85ha representing 53.3% are active (not encroached). This means that significant portion of grazing reserves were encroached and rendered inactive for grazing purposes. The encroached grazing reserves includes Gamagira (6400ha), DogonDawa (9900ha), Abet (1900ha), Randagi (6800ha), SabonBirni (3300ha), FadanKagoma(4800ha), Saminaka (8500ha), TashanDaji (6000ha), Kudan (250ha) and Aba (800ha). This is in line with the assertion of Shettima(2019) reported that the blame of encroaching grazing reserves is apportioned to traditional chiefs and local authorities, who control land allocation in rural areas, for the clashes, accusing them of allowing farmers to encroach on nomadic grazing land. Once the farmers paid some money the traditional and local authorities would allocate them some portion from the grazing field and gradually the lands are encroached. This encroachment consumes the reserved lands for animal grazing and blocks the routes where the grazing animals go for drinking water. These disputes always results to loss of lives and herds, destruction of properties, scores being displaced and rendered homeless and dwindle agricultural productivity which constitute major part of fight between farmers and herders that affects sustainable agricultural production.

Research Question Three: What are the effects of grazing reserves encroachment on farmers and herders’ coexistence in Kaduna state?

Answers to this research question were presented in Table 3

Table 3: Mean Responses of Effects of Grazing Reserves Encroachment on Farmers and Herders’ Coexistence in Kaduna state?

S/N	Item	Mean	SD
1	There is crisis between farming and herding communities	3.2	.87

2	There is loss of lives and herds, destruction of properties	2.8	.56
3	There is dwindle agricultural productivity because of the crisis	3.0	.65
4	There is increase food insecurity in the community	2.9	.76
5	Its capable of inhibiting national development in Nigeria	3.1	.48

The analysis of results in Table 3 shows the effects of grazing reserves encroachment on farmers and herders' coexistence in Kaduna state. The results revealed all means scores to be more than a 2.5 benchmark which indicates that all items were accepted by the respondents. This implied that effects of grazing reserves encroachment includes crisis between farming and herding communities, loss of lives and herds, destruction of properties, dwindle agricultural productivity because of the crisis, increase food insecurity in the community and capable of inhibiting national development in Nigeria. This in line with the position of Abubakar and Yahaya(2018) who posited that in Kaduna state, conflicts become life's dreaded chores in farm lands as clashes escalate when farmers deny animal's access to water and verdant grass. Farmers, in disregard of pastoral transhumance, occupy the swampy depressions that are temporarily vacated by the shepherds. In the absence of a mediator misunderstanding and aggressive clashes result when the farmers refuse to surrender the space to the returning herders. Fighting also occurs when the herders fail to guard animals from eating crops or trampling on them. Sometimes, the aggrieved herders take the law into their hands by waiting until the farmers finished planting crops and are about to go into harvest, the herders charged the cattle into the farms to eat up or destroy the crops and reprisal attack is always the consequences.

Conclusion

The farmer-herder conflict has arguably become the greatest threat to Nigeria's peace and security. It is exacting an ever-deadlier toll. Both farmers and herders must accept that the old frameworks of farmer-herder relations and conflict resolution are no longer workable and that a transition to ranching is, over time, likely inevitable. They should discourage members from taking the law into their own hands, and instead urge them to channel their grievances through the appropriate authorities or seek redress in court. They should work closely with security agencies to identify groups responsible for attacks and killings. The transition from open grazing to ranching, which involves giving up traditions developed over many centuries of pastoralism, will not be easy. But it is not impossible – and not without benefits. The leaders of herders' groups should endeavour to persuade their members to embrace ranching or related alternative vocations.

Recommendations

Based on the findings and conclusion of the study, the following recommendations were made;

1. Federal government in collaboration with Kaduna state government should employ a carrot and stick approach to reclaim the encroached grazing reserves.
2. Farming and herding communities should discourage members from taking the law into their hands, and instead urge them to channel their grievances through the appropriate authorities or seek redress in court. They should work closely with security agencies to identify groups responsible for attacks and killings.
3. The transition from open grazing to ranching, which involves giving up traditions developed over many centuries of pastoralism, will not be easy. But, it is not impossible and not without benefits. The leaders of herders' groups should endeavour to persuade their members to embrace ranching or related alternative vocations.

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