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Herdsmen's Perception of Ranching in Resolving Herder-Farmers Conflict in Rural Communities in Oyo State, Nigeria

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Abstract

Herders-crop farmers' competition for land and water in Nigeria has become intense, resulting in conflicts that claim lives and threaten food security. Ranching is a strategy to mitigate the problem. The study therefore assessed herdsmen' perception of ranching in resolving herders-farmers' conflict in the study area. Multi-stage sampling technique was used to select 220 respondents from 881 registered herdsmen in 7 Local Government Areas of 50% of Agricultural Development Programme (ADP) zones in Oyo State. Results indicate that majority (97.3%) were males with mean age of 43 years and had no formal education beyond elementary level (68.2%). Majority(95.6%) were of Hausa/Fulani ethnic nationality with mean herding experience of 32 years and belonged to Miyetti Allah Cattle Breeders Association (92.7 %). Poisoning of cattle by villagers ranked first among causes of conflicts. Majority (97.3%) were aware that ranching involves restriction of animals to an area of land. Conflicts limited grazing area of herdsmen thereby affecting nutrition of animals.

Keywords: Ranching, Conflicts, Perception, Herdsmen

JEL Classification: P25, Q19, Q3

Introduction

In Nigeria, grazing land, where migrating herdsmen feed their cattle are not demarcated compared to crop farming or fruit plantation (Olayoku, 2014). Movements of herdsmen are opportunistic and follow pasture and water resources in a pattern that varies seasonally or year-to-year according to availability of resources (FAO, 2011). Cattle rearing were mainly prevalent in the Guinea, Sudan and Sahel savanna belts of Nigeria where crop production was carried out only during the short rainy season on a small scale (Tonah, 2006). This gave the cattle herders access to a vast area of grass land. As time went on, and with the introduction of irrigated farming in the Savanna belt coupled with the increased withering of pasture during the dry season, less pasture was available to cattle herders. The herdsmen had to move southward to the coastal zone where the rainy season is longer and the soil retains moisture for long,

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in search of pasture and water (Audu, 2014). Until recent time, sedentary crop farmers and herdsmen had carried out their farming activities without any serious conflicts. However; the biting effect of climate change among other factors has increased intensity of use of land and water resources by both herders and crop farmers.

Caring for the livestock has become harder and involves longer seasonal movement in a bid to provide feed and water for the animals. The effort to make pasture and water available for the livestock has created rivalry and unpleasant relationships between the nomadic herders and the sedentary farmers. Competition for these important resources has resulted in conflicts in alarming proportion between farmers and herdsmen. There have been reported cases of cattle feeding on cultivated crops while herdsmen complain that cattle routes are being blocked with farming activities. The counter accusations have resulted in series of personal and communal clashes between the two categories of farmers. According to Abbass (2012), the issue of communal clashes between the Fulani herdsmen and the sedentary farmers is not new but the worrying trend now is the frequency, the spread and the sophistication the conflicts have assumed. According to Gbaka (2014), significant loss of lives and property has occurred in many parts of Nigeria including *Katsina, Plateau, Taraba, Kogi, Kwara, Nasarawa, Adamawa, Gombe, Yobe, Kebbi, Zamfara* and *Sokoto* states in the north, Abia State in the south east, Delta and Edo in the south and *Oyo* State in the south west of Nigeria. The prevalence of crisis in the country has become a major concern considering the impact on the peace, security rural development and economy of the country.

One of the steps being proposed to address the problem of farmers-herders conflict is ranching. Ranching is the practice of raising herds of animals on large tracts of land. Ranching changes the mobility nature of pastoralism where traditionally there are no limits of grazing of the available pastures, into controlled grazing. It also changes the common property character of the pastoralist land where all land is open for pastures without any individual ownership. It is important to note that controlled grazing is an innovation which is not in line with traditional practice of nomadism. Attitude of would be adopters of an innovation as captured by their perception will to a great extent determine the success or otherwise of the innovation. Therefore, it becomes imperative to ascertain the perception of herdsmen on the use of ranching to address the incessant conflicts between herdsmen and crop farmers in the study area. Oyo state is a prominent southwest state of Nigeria experiencing herder-farmers conflicts.

The general objective of the study was to assess herdsmen's perception of ranching in resolving herder-farmer conflicts in rural communities of Oyo State, Nigeria. Specifically, the study aimed at describing the socio-economic characteristics of herdsmen, ascertaining herdsmen's perception of causes of conflicts between farmers and herdsmen, evaluating herdsmen's awareness of ranching system of cattle rearing, determining herdsmen's perception of conflict resolution potentials of ranching and ascertaining herdsmen's perception of constraints to adoption of ranching in the study area. Hypothesis on relationship between socio-

economic characteristics of herdsmen's and their perception of ranching in resolving herder-farmers conflicts was tested.

Data Sources and Methodology

The study was conducted in Oyo State, Nigeria. Oyo State is located in the South west geo-political zone of Nigeria and lies between Latitude 8000'000"N and Longitude 400'00"E and covers 28, 454 square kilometers. The state capital is Ibadan. There are 33 Local Government Areas (LGAs) spread across 3 senatorial districts in Oyo State. It is bounded in the south by *Ogun* state and in the north by Kwara state, in the west by the Republic of Benin while in the east by the *Osun* state. The State is homogenous and comprises the *Oyos, Oke-oguns, Ibadans and Ibarapas*, all from the Yoruba ethnic group. The climate in the state favours cultivation of crops such as maize, yam, cassava, millet, rice, plantains, cocoa, palm produce and cashew. There is also abundance of savanna vegetation for pastoral farming. The study comprised herdsmen in rural communities of Oyo State, Nigeria. Multi-stage sampling technique was used to select respondents for the study. The first stage involved random selection of three out of the five Agricultural Development Programme (ADP) zones, hence after 7 Local Government Areas (LGAs) in the selected ADP and ultimately 220 herdsmen.

Results and Discussion

Socio-economic characteristics of the respondents

The socio-economic profile w.r.t. sex, age, marital status, family size, religion, education, experience, membership of social organization, reason of the herding, stock size and ethnic group is given in Table 2. Majority (97.3%) were male. This is in line with Olaniyan (2015) who reported that herding activities were dominated by male. The result is not unexpected as herding by nature is energy sapping and men are usually more energetic than women. The mean age of the respondents was 43 years. This is indicative of respondents within active and productive age range. The result corroborates Iro (2004) who noted that herding is dominated by the youths, while decisions about grazing are mainly made by the elderly family members. This is expected to influence the intensity of cattle rearing in the study area. On marital status, majority (90.0%) of the respondents were married. This is reflective of the early marriage culture of the *Fulanis* who dominate the enterprise. The results revealed 66.4 per cent of the respondents had family size of 1-10 members. Fairly large family size could be a consequence of early marriage, which is common among *Fulanis*. Large family size could be harnessed for cattle herding by men and milk processing by women members of the family. All the respondents were adherents of Islamic religion. This is reflective of the facts that Islam is the predominant religion in northern Nigeria where nomadism is customary. The lack of diversity in religion of the herdsmen may influence their relationship with natives of the study area, southern Nigeria where religious diversity exists. The results attainment indicates that 68.2 per cent of the respondents had no formal education beyond elementary level. This could be a consequence of continuous movement of herders, which limits their exposure to formal education. Poor education may affect interpersonal relation between herdsmen and famers in host communities. Average herding experience of the respondents was 32 years as

Table 1: Summary of sampling procedure and sample size

ADP zones in Oyo State, Nigeria	Selected ADP zones (50%)	LGAs in selected ADP zones	Selected LGAs (50%)	Selected LGAs	Number of Herders in selected LGAs	Sampled Herders (25%)	Sample Size
Ibadan/ Ibarapa Saki Ogbomoso	Oyo	Afijio, Atiba, Oyo East, Oyo West	2	Afijio Oyo-west	102 93	26 23	
  Oyo	Saki	Iseyin, Saki East, Orelope, Irepo, Saki West, Iwajowa, Kajola, Itesiwaju, Olorunsogo Atisbo	5	Iseyin, Saki-East, Saki-West, Irepo Orelope	159 115 143 166 103	40 27 36 42 26	220
Total					**881**	**220.25**	**220**

Source: Field Survey, 2018

indicated in Table 2. The result implies a crop of herdsmen with appreciable experience to comment on their relationship with crop farmers over the years. About 93 per cent of the respondents belonged to *Miyetti* Allah Cattle Breeders Association, a very prominent and influential association in Nigeria. Membership of association strengthens individual's social capital, exposure and better understanding of cattle management. This may influence the chances of adopting ranching as a system of cattle rearing. Result further reveals that majority (95.6%) of the respondents were of Hausa/Fulani ethnic nationality. This is not unexpected as *Fulani* ethnic nationality is noted for nomadism. Sixty per cent of the respondents expressed that sustaining family business was the reason for keeping cattle. This may be attributed to the emotional attachment an average herder exhibits towards their herd. An average of 49 cattle was kept by the respondents, which determines the worth of the enterprise. This in turn may influence herdsmen's perception of ranching for cattle rearing, especially as it affects their business sustainability.

Perceived causes of conflict between farmers and herdsmen

Finding of the sampled respondents regarding reason of conflict between farmers and herdsmen have been presented in Table 3. The results revealed that poisoning of cattle by villagers ($\bar{x}$ =1.81) ranked first among

Table 2: Distribution of respondents based on Socio-economic Characteristics (n =220)

Variable	Frequency	Percentage	Mean
Sex			
Male	214	97.3	
Female	6	2.7	
1-20	4	1.8	
Age (years)			
21-40	102	46.4	
41-60	92	41.8	43.2 years
61-80	22	10.0	
Marital status			
Married	198	90.0	
Divorced	0	0.0	
Widowed	2	0.9	
Separated	8	3.6	
Single	12	5.5	
Family size			
1-10	146	66.4	
11-20	56	25.5	10 persons
21-30	16	7.3	
31-40	2	0.9	
Religion			
Islam	220	100.0	
Christianity	0	0.0	
Traditional	0	0.0	
Education			
No formal education	84	38.2	
Primary/Islamic education	66	30.0	
secondary education	12	5.5	
tertiary education	48	21.8	
University	10	4.5	
1-10	54	24.5	
Experience			
11-20	112	50.9	
21-30	46	20.9	
31-40	8	3.6	
Membership of social organisation			
Yes (*Miyetti Allah*)	204	92.7	
No	16	7.3	
Reason for herding			
Passion	30	13.6	
Income	58	26.4	
family business	132	60.0	
Stock size			
1-20	38	17.3	
21-40	74	33.6	
41-60	36	16.4	49.4 animals
61-80	22	10.0	
81-100	50	22.7	
Ethnic group			
Hausa/Fulani	216	98.2	
Yoruba	4	1.8	
Igbo	0	0.0	

Source: Field Survey, 2018

the causes of conflicts between farmers and herders. Perceived deliberate poisoning of cattle could be a revenge for destruction of farmland. This is congruent with Tonah (2006) who stated that the most frequent cause of herder-farmer conflict is the destruction of crops by cattle. Cattle enter the farm to feed on the foliage of crop even in the presence of the herdsmen who pretend not to notice such destruction. Also, intolerance by the local people ($\bar{x}$=1.74), cattle rustling by villagers ($\bar{x}$=1.70) and pollution of source of water by cattle ($\bar{X}$ =1.68) were the other major causes of conflict between formers and herdsmen Ofuoku and Isife (2019) also reported similar findings in and conflicting herders and farmers in Delta State, Nigeria. It is evident from the perception of herdsmen that the high ranking perceived causes of conflicts are directly or remotely related to competition for natural resources. This is expected to influence their perception of a system of cattle rearing that will reduce tension, loss of cattle and human lives occasioned by conflicts to the bearest minimum.

Herdsmen's awareness of ranching system of livestock rearing

The study find out the herdsmen awareness of ranching system of livestock rearing that is presented in Table 4. The results shows that majority of the respondents were aware that ranching involves restriction of animals to a particular area of land (97.3%), milking is also possible in ranching (97.3%) and that taxes would be paid to government (92.7%). Furthermore, respondents were aware of the need to grow pasture and incure extra cost keeping their herd. Generally, it is evident

Table 3: Distribution of respondents based on perception of causes of conflict between farmers and herdsmen

	Never	Occasionally	Always	Mean
Ethnic bias of local people	10 (4.5)	98 (44.5)	112 (50.9)	1.46
Poisoning of cattle by villagers	4 (1.8)	34 (15.5)	182 (82.7)	1.81
Deliberate grazing of cattle on crops	6 (2.7)	58 (26.4)	156 (70.9)	1.68
Indiscriminate defecation by cattle on roads	74 (33.6)	50 (22.7)	96 (43.6)	1.10
Herders claiming the land as common property	52 (23.6)	58 (26.4)	110 (50.0)	1.26
Destruction of farmland by cattle	4 (1.8)	66 (30.0)	150 (68.2)	1.66
Language barrier between herders and host community	0 (0.0)	102 (46.4)	118 (53.6)	1.54
Uncontrolled grazing of farm land	14 (6.4)	82 (37.3)	124 (56.4)	1.50
Cattle rustling by villagers	0 (0.0)	66 (30.0)	154 (70.0)	1.70
Intolerance by the local people	8 (3.6)	42 (19.1)	170 (77.3)	1.74
Pollution of source of water by cattle	0 (0.0)	70 (31.8)	150 (68.2)	1.68
Blockage of cattle routes with crops	6 (2.7)	72 (32.7)	142 (64.5)	1.62
Theft of cattle by villagers	4 (1.8)	84 (38.2)	132 (60.0)	1.58

Source: Field Survey, 2018. Figures in parentheses are in percentages

from the results that the respondents were aware of ranching as a system. However it is important to note that being aware of the system may not be enough prospects for adopting it. The cultural dimension to rearing cattle extensively by herdsmen is a prominent factor to contend with. It is also important to observe from the table that majority of the respondents felt ranching was meant for special breeds of cattle. This may not be unconnected with the fact that exotic breeds of animals are used in places where ranching is practised in the country.

Respondents' perception of effects of farmer-herders' conflicts on cattle rearing

All the sampled respondents were asked regarding the effects of farmer-herders on cattle rearing in the form of the statements i.e strongly agreed, agreed, undecided, disagree and strongly disagree (Table 5). From the table, conflict was identified as limiting grazing area of herdsmen thereby affecting nutrition of animals ($\bar{x}$ = 4.61). This is not unexpected. Tension in areas of conflict restricts movements of herdsmen and cattle. Both the herders and crop farmers are bound to experience limited economic activities, thereby limiting their income for improved living condition. Other effects of farmer-herders' conflicts as perceived by the respondents include loss of lives and properties. This finding agrees with the report of Nweze (2005) who noted that twenty seven 27 people lost their lives due to conflicts between nomadic herdsmen and farmers in Kogi State of Nigeria within the period of 1996 and 2002. Similarly, loss of herds and reduced income, arms running and strained relationships with host communities are unhealthy developments for economic survival, security and co-existence. All the problems identified among others are issues that should inform decisions on ranching as an alternative to open grazing for reduced conflicts.

Table 4: Distribution of respondents based on awareness of ranching system of livestock rearing

Variable	Aware F (%)	Not aware F (%)
Ranching is used for keeping cattle and other ruminants	172 (78.2)	48 (21.8)
Cattle will be fed supplements in ranches	158 (71.8)	62 (28.2)
Ranching involves growing of pasture	180 (81.8)	40 (18.2)
Ranching will require more cost to keep animals	174 (79.1)	46 (20.9)
Milking of cattle is possible in ranching	214 (97.3)	6 (2.7)
Ranching will involve payment of taxes on animals	204 (92.7)	16 (7.3)
Ranching can be used for all categories of ruminants	44 (20.0)	176 (80.0)
Ranching can increase the cost of feeding	158 (71.8)	62 (28.2)
Ranching may involve paying for the use of ranches	174 (79.1)	46 (20.9)
Ranching involves restriction of animals to a particular area of land	214 (97.3)	6 (2.7)

Herdsmen's perception of conflicts resolution potentials of ranching

The information regarding the perception of conflicts resolution potentials of ranching are presented in Table 6. The table reveals that ranching would reduce farmland encroachment by migrating cattle ($\bar{x}$ = 4.66). This was rated the most significant potential of ranching reducing conflicts. The perception is no doubt significant in the sense that farmland destruction occasioned by cattle encroachment is at the root of most farmers-herders' conflicts. Respondents also perceived that ranching would increase production outputs of farmers and herders. This position could be a consequence of the fact that when conflict is reduced, production activities of farmers and herders would increase and improve. The direct consequence of this is little or no frictions engineered by competition for resources. In addition, the respondents perceived that ranching is capable of providing job opportunities for the villagers in host communities. There is the potential that support services that herders will require in ranches could be sourced from within host communities. This could promote healthy relationships between herdsmen and natives. This will in no little way reduce hostilities in rural communities. This submission is affirmed by the respondents perception that ranching is a way to promote mutual relationship between herders and host communities ($\bar{x}$ = 4.15). Other notable conflict

Table 5: Distribution of respondents based on perception of effects of farmers-herdsmen conflicts on cattle rearing

Statements	Strongly agree F (%)	Agree F (%)	Undecided F (%)	Disagree F (%)	Strongly disagree F (%)	Mean
Conflicts promote arms running	106 (48.2)	94 (42.7)	20 (9.1)	0 (0.0)	0 (0.0)	4.39
Loss of produce in storage facilities	98 (44.5)	94 (42.7)	24 (10.9)	0 (0.0)	4 (1.8)	4.28
Conflicts affect relationships with host communities negatively	112 (50.9)	90 (40.9)	2 (0.9)	12 (5.5)	4 (1.8)	4.34
Conflicts result in loss of lives and property of herdsmen	144 (65.5)	72 (32.7)	0 (0.0)	0 (0.0)	4 (1.8)	4.60
Conflicts result in loss of herds and reduced income of herdsmen	128 (58.2)	80 (36.4)	8 (3.6)	4 (1.8)	0 (0.0)	4.51
Conflicts limit grazing area of herdsmen thereby affecting nutrition of animals	146 (66.4)	70 (31.8)	0 (0.0)	0 (0.0)	4 (1.8)	4.61

Table 6: Distribution of respondents based on perception on conflict resolution potentials of ranching

Statements	Strongly Agree F (%)	Agree F (%)	Undecided F (%)	Disagree F (%)	Strongly disagree F (%)	Mean
Ranching will not promote peace in the communities	92 (41.8)	26 (11.8)	16 (7.3)	22 (10.0)	64 (29.1)	3.26
Ranching will create job opportunities for villagers in host communities	118 (53.6)	90 (40.9)	10 (10.5)	2 (0.9)	0 (0.0)	4.47
Ranching will encourage co-existence btw herders and farmers	76 (34.5)	118 (53.6)	14 (6.4)	8 (3.6)	4 (1.8)	4.15
Ranching will reduce cattle theft and poisoning	128 (58.2)	70 (31.8)	16 (7.3)	4 (1.8)	2 (0.9)	4.45
Ranching will increase production output of both farmers and herders	140 (63.6)	74 (33.6)	6 (2.7)	0 (0.0)	0 (0.0)	4.61
Ranching will reduce farmland encroachment by migrating cattle	148 (67.3)	70 (31.8)	2 (0.9)	0 (0.0)	0 (0.0)	4.66

resolution potential of ranching as perceived by herdsmen include reduced possibility of cattle theft and poisoning ($\bar{x}$ = 4.45)

Respondents' perception of constraints to adoption of ranching

The study find out the perception of constraints to adopting ranching in the study area are presented in Table 7. The results revealed that the difficulty of land acquisition for ranching was the most prominent constraint. The concern expressed by the respondents is understandable in view of the fact that majority of herdsmen are non-natives of the study area. Host communities may find it out of place to release large expanse of land required for ranching, especially for non-indigenes for fear of 'colonization' and abuse of traditional host/stranger relationships. Releasing land may even become more difficult going by the experience of incessant conflicts between herdsmen and host communities. Another important constraint has to do with the culture of major ethnic group involved in herding that may not support ranching. The *Fulanis*, who dominate pastoralism, are traditional nomads who migrate with their herd from time to time. Therefore it is not

unlikely that adopting a sedentary system of cattle rearing may experience some culture-influenced resistance. Corruption was also perceived as an important constraint to the success of ranching in the study area. This perception must have been informed by lack of trust due to corruption that usually characterizes government sponsored programmes in Nigeria. Another constraint of note is inability of herdsmen and farmers to understand the concept of ranching . This is a reflection of lack of adequate sensitization of the public on ranching as a potential solution to farmers-herders conflicts in Nigeria by agencies of government. Other constraints of note include ranching being expensive to operate, lack of social amenities such as good road network and water and insecurity .

Chi-Square test of relationship between herdsmen's perception of ranching in resolving herder-farmers conflict and their socio-economic characteristics

Results obtained while studying the relationship between herdsmen's socio-economic characteristics and their perception of ranching in resolving herder-farmers conflict are presented in Table 8. The results revealed that significant relationship between herdsmen's perception of ranching in resolving herder-farmers conflict were age, experience, herd size and education respectively.

Table 7: Distribution of respondents based on perception of constraints to adoption of ranching in resolving herdsmen-farmers conflict

	Not a constraint F (%)	Minor constraint F (%)	Major constraint F(%)	Mean
Corruption	28 (12.7)	34 (15.5)	158 (71.8)	1.59
Inconsistent government policy	24 (10.9)	78 (35.5)	118 (53.6)	1.43
Insecurity	22 (10.0)	60 (27.3)	138 (62.7)	1.53
Lack of social amenities such as good road network, electricity, water and so on	20 (9.1)	58 (26.4)	142 (64.5)	1.55
Inability of both parties to understand the concept of ranching	10 (4.5)	70 (31.8)	140 (63.6)	1.59
Culture of major ethnic group involved in herding may not support ranching	10 (4.5)	62 (28.2)	148 (67.3)	1.63
Land acquisition for ranching will be difficult	10 (4.5)	34 (15.5)	176 (80.0)	1.75
Ranching is expensive to operate by herdsmen	20 (9.1)	50 (22.7)	150 (68.2)	1.59

Source: Field Survey, 2018

Table 8: Chi-Square test of relationship between herdsmen's perception of ranching in resolving herder-farmers conflict and their socio-economic characteristics

Variable	Df	χ^2-value	p-value
Age	4	8.780	0.032
Family size	3	2.104	0.551
Experience	3	30.141	0.000
Herd size	3	19.477	0.001
Education	3	37.725	0.000

Source: Field Survey, 2018p = > 0.05

Conclusion and Policy Implications

The study concludes that herdsmen were aware of ranching as a system of animal husbandry and its potential of resolving conflicts in the study area. They noted that ranching would reduce encroachment of farmland by herdsmen and cattle thereby reducing conflicts. The prominent factors that could limit adoption of ranching were land acquisition problem occasioned by fear of 'colonisation' by the natives and migrating nature of culture of the *Fulanis* who dominate herding. Based on the findings of the study, the study suggested that extension support service delivery of government at all levels should embark on more vigorous sensitization of rural communities and education of herdsmen on the potentials of ranching as against nomadism for peaceful co-existence and improved agricultural production. Government should also come up with land use policy that will allay the fears of natives against perceived 'colonisation' by non-natives in rural communities.

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