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PROBLEMS ASSOCIATED WITH MITIGATION STRATEGIES AGAINST CATTLE RUSTLING IN KADUNA STATE, NIGERIA

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ABSTRACT
This study identifies the problems associated with mitigation practices, strategies against cattle rustling, describe socio-economic and institutional characteristics of herdsmen in Kaduna State. Primary data was collected through a structured questionnaire administered to 276 herdsmen selected through the multistage sampling method. Data were analyzed using descriptive statistics (frequency, percentage, mean, minimum and maximum). The result showed that the age of herdsmen was 47 years, average household size of 10 people and herding experience of 15 years. The results revealed that inadequate grazing reserves (84.4%), insufficient means of mobility (74.3%) and the failure of herdsmen to work collectively (66. 3%) were the major problems associated with mitigation strategies against cattle rustling in the study area. State Government should ensure all the grazing reserves and routes stock for Fulani cattle grazing should be well preserved and utilised by herdsmen, effective joint police and soldiers patrol along the grazing reserve and route stock to protect herdsmen and their cattle to reduce the roaming about and migration of herdsmen to dangerous area of cattle rustling were some of the recommendations.
Keywords: Herdsmen, Mitigation, Rustling, Strategies.

INTRODUCTION
Livestock production is a major component of the agricultural economy of developing countries and goes well beyond direct food production. Sales of livestock and their products provide direct cash income and serve as a living bank for many farmers and livestock account for one third of Nigeria's agricultural Gross Domestic Product (GDP), providing income, employment, food, farm energy, manure, fuel, transport and also a major source of government revenue (Food and Agricultural Organization FAO, 2012). Traditional herding in Nigeria is varied and complex. It is one of the oldest agricultural practices where families' toil was converted into cattle as means of wealth. It is a process where young men were tasked to take care of herding and were expected to be heavily armed to provide security to the cattle. According to Okoli and Okpaleke (2014) define cattle rustling as a stealing of cattle. The term has its history from United States colloquial etymology in which context pioneer farmers lost cattle while grazing on huge ranges that were difficult to patrol for policing. Traditionally, cattle rustling have been driven by the criminal intent to expropriate cow for meat or for sale (Blench, 2004).Radio Frequency Identification (RFID) is an emerging technology with high potential. It is a contactless identification technology and does not depend on line of sight to work. A basic RFID system consists of two components; a transponder, which is located on the object to be identified and an interrogator or reader (Klaus, 2003). Technologies available for animal tagging and identification, provides significant benefits for management of product recalls, food tracing, tracking and monitoring.

In Manu *et al.* (2014) an effort was made in trying to understand whether a night paddock is a facilitator or protector against cattle theft. The majority of both Fulani and Non Fulani herdsmen (78%) think that the night paddock is a protector against cattle theft and only 22% feel otherwise. While investigating the rule of traditional rulers (Ardos and Fons) in reducing cattle theft, 35% favored the formation of vigilant groups in the grazing communities while 16% proposed traditional authorities to be involved in education, sensitization and mobilization of all the necessary resources to fight against this cankerworm.

In Kaduna state, the Military were regarded as faithful partners in the fight against rustling. When the Military was deployed to guard the communities in 2013, cattle rustling reduced but they have since been withdrawn (Manu *et al.* (2014). The communities fear the return and possible escalation of cattle rustling.

Majority of the empirical studies in Kaduna State focused mainly on the political economy of rural banditry, (Samuel, 2015), changing methods of animal husbandry, cattle rustling and rural banditry (Saleh, 2015), effects of armed banditry on rural women livelihood and security, (Dayo and Salihu, 2015), social impact of rural banditry (Kyari and Chinyere, 2015) and rural banditry and conflicts (Jumare and Surma, 2015). Therefore, these studies paid less attention on the problems associated with mitigation strategies against cattle rustling in Kaduna state, Nigeria. The socio-economic and institutional characteristics of herdsmen and the problems associated with mitigation strategies against cattle rustling were the objectives of the study.

MATERIALS AND METHODS

This study was carried out in Kaduna State, Nigeria. The state occupies an area of approximately 48,473.2 square kilometers and had a population of 6,113,503 (NPC, 2006) when projected at annual growth rate of 3.2%, the population in 2019 is 9,207,171. There are twenty-three local government areas (LGAs) in the State, although the number of ethnic groups is much larger. The study employed a multi-stage sampling procedure in the selection of herdsmen for data collection. The first stage involved stratified sampling procedure of 25 % from Maigana, Samarun Kataf, Lere and Birnin-Gwari Zones based on consideration of the number of Local Government areas. This gives six LGAs from different Agricultural zones in the State. The LGAs were Giwa, Makarfi, Lere, Kachia, Kagarko and Birnin-Gwari. In the second stage, purposive sampling procedure of 1833 registered herdsmen with MACBAN from the six LGAs. In the last stage, 276 herdsmen were randomly selected from the sample frame of 1833 based on 15 % as a result of homogenous nature of the population. Primary data was used for this study and it was collected through distribution of structured questionnaire with the help of trained enumerators under the supervision of the researcher in 2017. The analytical tool used in this study was SPSS. The descriptive statistics used include frequency, percentage, mean, maximum and minimum.

RESULTS AND DISCUSSION

Table 1 shows the summary of socio-economic characteristics of herdsmen. The mean age of herdsmen was 47 years with a minimum and maximum of 20 and 70 years respectively. This shows that the age population of the herdsmen in the study area is active and lively necessary in order to reduce their level of inefficiency and this youthful age really influence the herding. Furthermore, the mean household size was 10 people with a mean of 15 years of herding experience.

Table 1: Socio-economic and institutional characteristics of the Herdsmen

Variables	Mean	Minimum	Maximum
Age	**47**	**20**	**70**
Household size	**10**	**5**	**20**
Herding Experience	**15**	**3**	**50**

The result in Table II shows that the herdsmen in the study area were not in contact with extension agents (30.8%), the area of extension service was diseases and pests control (47.1%) and 95.7% has no access to credits.

Table II: Extension Service (Per Year

Contact per year	Frequency	Percentage
No contact with extension agents	85	30.8
One contacts	44	15.9
Two contacts	71	12.7
Three contact	26	9.4
Above four contacts	50	18.1
Area of Extension Service		
Animal Feeding	33	17.3
Pasture establishment	42	22.0
Animal breeding	26	13.6
Diseases and pest control	90	47.1
Access to credits		
Yes	12	4.3
No	264	95.7

11.3

11.4 Problems Associated with the Mitigation Strategies against Cattle Rustling

Table III indicates that there were inadequate grazing reserves (84.4%), insufficient means of mobility (74.3%) and the failure of herdsmen to work collectively (66.3%). This finding is in line with Saleh (2015), who opined that many cattle rustling mitigation measures meant to tackle the high incidence of cattle rustling in Nigeria and it seems not to be very successful in dealing with the problem because of their inherent weaknesses, the complexity and scale of the problem.

11.4.1.1.1 **Table III: Problems associated with the mitigation strategies against cattle rustling**

Problems	Frequency	Percent (%)	Ranking
Insufficient Mobility	205	74.28	4
Failure to work in groups	183	66.30	5
Inadequate Education	256	92.75	1
Inadequate Grazing Reserves	233	84.42	3
Inability for Self Defense	253	91.67	2

Multiple Responses

CONCLUSION AND RECOMMENDATION

It can be concluded that the mitigating strategies adopted by the herdsmen were adjudged to be effective with little hitches. Kaduna State Government should ensure all the grazing reserve and route stock for Fulani cattle grazing should be well preserve and utilised by herdsmen, effective joint police and soldiers patrol along the grazing reserve and route stock to protect herdsmen and their cattle to reduce the roaming about and migration of herdsmen to dangerous area of cattle rustling, the National Livestock Transformation Plan (NLTP) 2018-2027, should enforce the method of identification through tagging and ensure that cattle market and abattoirs should not operate or serve any animal without tagging. This new policy under NLTP should create mandate to research institutes and universities to campaign on herdsmen to transform their way of traditional cattle handling to intensive cattle production. Used of animal microchips detector at subsidized price should be made available to herdsmen for effective control of cattle rustling were some of the recommendations made.

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