PERCEPTION OF ARABLE CROP FARMERS ON HERDSMEN ACTIVITIES IN IBADAN/IBARAPA AGRICULTURAL ZONE OF OYO STATE

Akinpeloye, T. J., Fatufe, O. O. and Oladeji, J. O.
Department of Agricultural Extension and Rural Development, University of Ibadan, Ibadan, Nigeria
Correspondence contact details: loisdaddy@yahoo.com +2348023250494

ABSTRACT
The search for pastures by herdsmen has led to encroachment of arable crop farmers' farms in -recent times. This encroachment has negative impacts on arable crops production. The study investigated the perception of arable crop farmers on herdsmen activities in Ibadan/Ibarapa agricultural zone of Oyo state. A Multi stage sampling procedure was used to select 110 respondents for the study. Structured interview schedule was used to collect data which were analysed using descriptive and inferential statistical tools. Results showed that the mean age of respondents was 45.88 years, 86.4% were married with an average household size of 4.46 persons. Significant relationship existed between herdsmen activities (r=0.343), conflict resolution measures (r=0.242) and perception of farmers on herdsmen activities**.** The perception of arable crop farmers on herdsmen activities was favourable in the study area. Formation of conflicts resolution body that will see into settling conflicts between crop farmers and herdsmen should be put in place by leaders of the affected communities.
Keywords: Arable crop farmers, Herdsmen activities, Perception.

INTRODUCTION

Worldwide, arable crops enjoy remarkable dominance, playing significant roles in the socioeconomic lives of both rural and urban people. This includes a wide range of annual crops of primary importance such as maize, rice, sorghum, millet, cassava, cowpea, wheat, soybeans, melon, groundnut, yam and vegetables. In Nigeria, production of arable crops is essentially the prominent feature of agricultural activities. According to FAO (2010) seventy-five percent of today's food that comes from arable crops account for over fifty percent of the calories and proteins obtained from plants by human being while rural-based small scale arable crop producers derive their income it.

However, arable crop farmers' land is being encroached by herdsmen who are in search of pastures for their animals. This often causes serious problems such as destruction of crops and conflicts among the two groups (Aliyu, Ikedinma. and Akinwande, 2018). Other causes of farmer-herdsmen conflicts are increasing rate of cattle theft, inequitable access to land, diminishing land resources, policy contradictions and non-recognition of rights of indigenous people. These are often accompanied by violent confrontations, lost of lives and properties (Adisa, 2011).

The methods used in resolving conflict depend on the nature and magnitude of the conflict. In all cases where conflict has been occasioned by crop destruction and where the offending pastoralist admit guilt, interpersonal agreement may be reached, depending on the extent of the damage. Compensation (varying in amount) is often demanded and paid where minimal crops have been destroyed. There are other instances where herdsmen and arable crop farmer's interpersonal relationship is not very cordial, conflicts arising in such situation are not usually resolved by personal intervention. The village head and the head of herdsmen are usually involved in settling the dispute (Oyedokun and Lawal, 2017).

Herdsmen activities are usually accompanied by threats and attacks on the indigenes of communities where they graze their cattle (Odivwri, 2017). Some herdsmen in pursuit of their own private endeavors, shepherd their flock to other people's land to graze without considering the crops that are available on the farm land. These same crops are the only source of livelihood of the local farmers. When the cows destroy them, the farmers will suffer pangs of hunger and starvation for a full farming season. But when they complain and grumble, they are attacked, kidnapped and their women are raped Vanguard, (2017).

The sporadic and ongoing violent conflicts between herdsmen and farmers in rural communities in Nigeria is a serious threat to human security and development in the country (Adisa, 2011). According to International Crises Group (2017), the conflicts also have a strong potential to spread to other neighboring countries in West Africa while response to the crisis at both the federal and state levels have been poor. The victims of conflicts include women, children, young and old residents of the community. The depraved interrelationships between farmers and herdsmen have been seen to have negative impacts ranging from destruction of crops, contamination of streams by cattle, overgrazing of land, disregard for local traditional authorities, defecation of cattle on the road, cattle theft and straying of cattle. Although several recommendations towards minimising this conflict have been made by community leaders and governmental agencies, the problem of conflicts between farmers and nomad herdsmen still persist. This study therefore investigated the perception of arable crop farmers on the activities of herdsmen in Ibadan/Ibarapa agricultural zone of Oyo state, Nigeria.

The specific objectives were to:

i. describe the personal characteristics of the arable crop farmers
ii. ascertain arable crop farmers' awareness of the herdsmen activities;
iii. determine arable crop farmers mitigating measures against herdsmen activities and
iv. ascertain the arable crop farmers' perception of the herdsmen activities.

METHODOLOGY

The study was carried out in Ibadan/Ibarapa agricultural zone of Oyo state, Nigeria. Ibadan is located in south-western Nigeria, 128km inland northeast of Lagos and 530km southwest of Abuja, the federal capital. It is a prominent transit point between the coastal region and the areas to the north and is about 120km east of the border with the Republic of Benin in the forest zone close to the boundary between the forest and the savannah. The city ranges in elevation from 150m in the valley area, to 275m above sea level on the major north-south ridge which crosses the central part of the city. The city's total area is 1,190sqm (3,080km^2). The climate favours production of arable crops, such as Maize, Yam, Cassava, Rice and Cocoyam.

Multi stage sampling procedure was used to select the respondents for the study. The first stage involved purposive sampling of two Local Government Areas (LGA) in Ibadan/Ibarapa Agricultural Development zone due to the presence of activities of herdsmen. The second stage involved simple random sampling of two communities from each of the selected local governments areas. The third stage involved simple random sampling of 25% registered arable crop farmers in the selected communities. In all, a total of 110 arable crop farmers were sampled. Data were analysed using both descriptive such as frequency, mean and standard deviation and inferential statistical tools such as Pearson Product Moment Correlation (PPMC).

The dependent variable for the study is arable crop farmers perception which was measured by providing the respondents with a set of attitudinal statement and this was assessed on a 5-point scale of strongly agree, agree, undecided, disagree and strongly disagree, scores of 5,4, 3, 2,1 were assigned respectively. Awareness of herdsmen activities was measured by requesting respondents to choose from a list of statement on awareness using Yes (1) or No (0) response while mitigating measures against herdsmen activities was measured on a scale of always (3), occasionally (2) and rarely (1) from a list of response options.

RESULTS AND DISCUSSION

Socioeconomic characteristics of respondents

Table 1 shows that 38.2% of the farmers were within the age range of 51-60years while 10.9% were within the age range of 21-30 years. Average age of farmers was 45.88 years. It could therefore be inferred that farming is predominantly carried out by middle aged people who are energetic and more productive in the economic sector. This is in line with the findings of Dimelu, Salifu, Enwelu and Igbokwe (2017) who reported that most arable crop farmers are middle aged and active. Sex distribution of the respondents shows that majority (80%) of the respondents were male, while few (20%) were female. This implies that arable farming is mostly dominated by males. This is in accordance with the study of Adesiji, Dada, and Kolawole (2012) that male dominates arable farming because men are more energetic and capable of engaging in tedious production activities associated with farming than women. The marital status of the respondents reveals that majority (86.4%) of the respondents were married, 9.1% were single, 3.6% were divorced. This implies that majority of the respondents were married and may need a peaceful environment for their family security and welfare. This is in line with Oyedokun and Lawal (2017) who stated that people require peaceful atmosphere in order to go about their daily activities and be able to cater for their family needs.

Considering the level of education, 16.3% of the respondents had primary education, 48.1% had secondary education, 30.7% had tertiary education while 4.5% had no formal education. This implies that farmers in the study area were literate with one form of education or the other. This is in accordance with the findings of Dimelu *et al.* (2017) who reported that most arable farmers had little formal education. Information on household size shows that majority (62.2%) of the respondents had household size of between4-6 persons. This shows that farmers had relatively large family sizes which may mean more people to cater for and more hands to work on the farm and help with farming work. On years of farming experience, 34.5% of the respondents had between 1-10 years, 21.8% had 11-20 years, 39.1% 21-30 and 4.5% had 31-40 years. This implies that most of the respondents were well experienced in the production of arable crops. This is in accordance with Ofuoku and Isife (2009) who stated that majority of the farmers have long been in farming system.

Table 1: Socioeconomic characteristics of respondents

Variables	Frequency	Percentage	Mean
Age			
21-30	12	10.9	
31-40	23	20.9	45.88± 22years
41-50	33	30.0	
51-60	42	38.2	
Sex			
Male	88	80	
Female	22	20	
Marital status			
Single	10	9.1	
Married	95	86.4	
Divorce	4	3.6	
Widowed	1	0.9	
Educational Level			
Primary	18	16.3	
Secondary	53	48.1	
Tertiary	34	30.9	
No Formal Education	5	4.5	
Size of Household			
1-3	29	26.3	4.46±1.48
4-6	73	62.2	
Above 6	8	7.2	
Years of farming experience			
1-10 years	38	34.5	
11-20 years	24	21.8	17.55
21-30 years	43	39.1	
31-40 years	5	4.5	

Source: Field survey, 2018

Awareness of herdsmen activities by the arable crop farmers

Table 2 shows that most (92.7%) of the respondents were aware of herdsmen activities while 88.1% were aware of the destruction cause to crop. This implies that most of the respondent were aware of the activities of the herdsmen and the damages caused to their crops. This is in agreement with the findings of Ogunwande and Akinrinola (2017) which stated that majority of crop farmers indicated that major damages caused by the herdsmen activities was lost of crops. Furthermore, 90% of farmers were aware that herdsmen activities can cause reduction in crop yield/income and 88% of were aware that they cause various havoc within the community. This suggest that the effect of the activities of herdsmen could have adverse effects on agricultural productivity, lives and security of arable crop farmers and their communities. This is supported by the assertion of Ajibo, Onuoha, Obi-Keguna, Okafor, and Oluwole (2018) that the effect of insistent feud between herdsmen and farmers ranges from wanton destruction of lives and properties to decline in agricultural productivity which is the major source of sustenance within their communities and the nation.

Table 2: Distribution of respondents on awareness of herdsmen activities (n=110)

Statements	Yes	No
Are you aware of herdsmen activities?	92.7	7.3
Are you aware that they cause destruction to crops?	88.1	11.9
Are you aware that their cattle contaminate community source of drinking water?	73.4	26.6
Are you aware of prevalence of herdsmen attack in other parts of the country?	93.6	6.4
Are you aware that they cause reduction in crop yield/income of farmers?	90.0	10.0
Are you aware that the herdsmen attack cause loss of lives and property?	83.6	16.4
Are you aware herdsmen cause havoc within the community?	88.0	11.1

Source: Field survey, 2018

Mitigating measures against herdsmen activities

Table 3 shows that payment of compensation to victims ($\bar{x}$=2.35), dialogue between the two parties involved($\bar{x}$=2.35) and use of traditional conflict resolution mechanisms ($\bar{x}$=2.2) were the mitigating measures always used to mitigate against herdsmen activities in order to restore peace. This is in agreement with Adelakun, Adurogbangba and Akinbile (2015) who stated that dialogue between the parties involved and payment of compensation to victims were among the means of conflict resolution measures used by their respondents.

Table 3: Distribution of the respondents on mitigating measures against herdsmen activities

Statements	Always	Occasionally	Rarely	Mean
Payment of compensation to victims	44.0	48.6	7.3	2.35
Dialogue between two parties involved	38.5	56.9	4.6	2.35
Engage in massive and sustained awareness	32.7	54.6	12.0	2.17
Provide logical support to security agencies	32.4	46.3	21.3	2.07
Establishment of ranches and grazing lands	32.1	33.9	33.9	1.96
Establishment of cattle colonies	22.0	42.2	35.8	1.84
Expanding grazing reserves	27.1	40.2	32.7	1,89
Government law and policies	33.9	30.3	35.8	1.96
Restriction to migration of agro-pastoralist	27.8	45.4	26.9	1.97
Use of traditional conflict resolution mechanisms	45.8	34.6	19.6	2.20

Source: Field survey, 2018

Perception of arable crop farmers on herdsmen activities

Table 4 shows that arable crop farmers strongly agreed that grazing of cattle leads to low crop productivity (61.8%), grazing of cattle damages cultivated crops (58.2%) and loss of productive resource could lead to poor income (46.6%). This implies that the activities of herdsmen may possibly affect the productivity of farmers and invariably their seasonal income. This finding is in consonance with Chiakaan, Pwashikai, and Alyegba, (2019) who stated that most frequent perceived causes of arable crop farmers towards herdsmen activities are grazing of cattle which has led to low productivity and income. Table 4 further reveals that 52.3% of arable crop farmers strongly agreed that milking of cattle by herdsmen enhances cheese production. This implies that there is availability of more cheese during the breeding season of cattle and this often occur simultaneously with the planting season of arable crop farmers, there is therefore the possibility of conflict occurrence during this period. This is in agreement with the assertion of Adisa (2012) that farmer-herdsmen conflicts become more prevalent during the planting and breeding seasons. Also, 49.1% of the farmers strongly agreed that Nomads activities involve sexual harassment of women farmers which sometimes lead to adduction or killings. This is supported by Ajibefun (2018) who stated that one of the major causes of conflict between crop farmers and herdsmen is sexual harassment of women.

Table 4: Distribution of respondents on their perception on herdsmen activities (n= 110)

Statement	SA	A	U	D	SD
Grazing of cattle leads to low crop productivity	61.8	31.8	2.7	1.8	1.8
Grazing of cattle damages cultivated crops	58.2	35.5	5.5	0.0	0.8
Contamination of streams by cattle dungs	43.6	39.1	10.0	4.5	2.7
Defecation of cattle on farms serve as manure to crop farmers	37.3	42.7	5.5	12.7	1.8
Milking of their cattle has enhanced cheese (wara) production	52.3	31.2	8.3	5.5	2.8
Nomads have regard for local traditional authorities	38.3	27.1	10.3	14.0	10.3
Nomads activities involve sexual harassment of women by nomads	49.1	39.8	5.6	1.9	3.7
Stray of cattle destroys crops on the field	46.3	41.7	8.3	3.7	0.0
Destruction of crops could cause low harvest	48.1	32.4	11.1	6.5	1.9
Loss of productive resource could lead to poor income	48.6	34.6	10.3	5.6	0.9

SA= Strongly Agree, A= Agree, U= Undecided, D= Disagree, SD= Strongly Disagree
Field survey, 2018

Categorisation of the respondents on perception on herdsmen activities

Table 5 reveals that perception of arable crop farmers towards herdsmen activities was

75.5% favourable and 24.5% unfavourable. This implies that the frequency of damages caused by herdsmen activities in the study area has a great impact on the productivity of the arable crop farmers. This is supported by Aliyu, Ikedinma and Akinwande (2018) that herdsmen activities have the capacity to destroy source of livelihood of farmers because cattle hooves compact the soil of the farm thereby making it less productive to farmers.

Table 5: Categorisation of perception of arable crop farmers on herdsmen activities

Variable	Freq.	%	Maximum	Minimum	Mean	SD
Unfavourable	27	24.5	96	22	76.90	12.61
Favourable	83	75.5				

Field survey: 2018

Relationship between awareness of herdsmen activities, conflict resolution measures and perception of arable crop farmers

Table 6 shows that there is a significant relationship between the awareness of herdsmen activities and perception of arable crop farmers (p=0.00). This implies that the herdsmen activities could have adverse effect on the income or farm yield of the farmers. This agrees With Ajibo *et al*. (2018) that the economic repercussions of herdsmen activities can lead to loss of income as a result of farm destruction. Table 6 further shows that there is a significant relationship between conflict resolution measures and perception of arable crop farmers towards herdsmen activities (p=0.01). This suggests that the conflict resolution measure can restore peace and security against the detrimental effects of conflicts on the livelihood of arable crop farmers and herdsmen. This is in agreement with Oyedokun and Lawal (2017) who stated that conflict resolution measure will guarantee peace and the well-being of people in conflict areas.

Table 6: Relationship between herdsmen activities and perception of arable crop farmers

Variables	**r-value**	**p-value**	**Remark**
Herdsmen activities	0.343	0.00	Significant
Conflict resolution measures	0.242	0.01	Significant

Field survey: 2018

CONCLUSION AND RECOMMENDATION

The study revealed that perception of arable crop farmers on herdsmen activities was favourable, awareness of herdsmen activities was high while payment of compensation to victims and use of traditional conflict resolution mechanisms were the major mitigating measures used by the respondents against herdsmen activities in the study area. Formation of conflicts resolution body that will see into settling conflicts between crop farmers and herdsmen in order to forestall occurrences of conflicts should be put in place by leaders in the affected communities. There is a need for government intervention in mediating between conflict cases and provision of financial assistance to affected farmers and farming communities.

REFERENCES

Adelakun, O. E., Adurogbangba, B. and Akinbile, L. A. (2015). Socioeconomic Effects of Farmer-Pastoralist Conflict on Agricultural Extension Service Delivery in Oyo State, Nigeria. *Journal of Agricultural Extension*, 19 (2), 59-70.

Adesiji, G. B., Dada, S. O. and Kolawole, S. E. (2012). Problems Faced by Rural People in Assessing Health Care Facilities in Akure North and South Local Government Areas of Ondo State, Nigeria. *Journal of Applied Sciences Research,* 8(4), 2260-2266.

Adisa, R. S. (2011). Patterns of Conflict and socio-psychological Coping Strategies among Natural Resource User-groups in Tourism Communities of the Nigeria Savannah. *The journal of Tourism and Peace Research,* 1(3), 1-15.

Ajibefun, M. B. (2018.) Social and Economic Effects of the Menace of Fulani Herdsmen Crises in Nigeria. *Journal of Educational and Social Research,* 8 (2), 133-139.

Ajibo, H. T., Onuoha, E. C., Obi-Keguna, C. N. Okafor, A. E. and Oluwole, I. O. (2018). Dynamics of Farmers and Herdsmen Conflict in Nigeria: The Implication to Social Work Policy Intervention. *International Journal of Humanities and Social Science* 8 (7), 157-161.

Aliyu, M. K., Ikedinma, H. A. and Akinwande, A. E. (2018). Assessment of the Effect of Farmers-Herdsmen Conflicts on National Integration in Nigeria**.** *International Journal of Humanities and Social Science*. 8 (10), 118-128.

Chiakaan, G. J., Pwashikai, J. C. and Alyegba, Y. G. (2019). Managing the Herdsmen-famers Crisis in Nigeria: The Public Relations Approach 1. Accessed June 5, 2019 from www.researchgate.net

Dimelu, M. U., Salifu, D. E., Enwelu, A. I. and Igbokwe E. M. (2017). Challenges of herdsmen-farmers' conflict in livestock production in Nigeria: Experience of pastoralists in Kogi State. Nigeria. *African Journal of Agricultural Research*, 12(18), 624-650.

Jibowo, A. (1992). *Essentials of rural sociology*. Nigeria: Gbemi Sodipo Press. Abeokuta p.229

Ogunwande, I. and Akinrinola, O. O. (2017). Effect of Nomadic Activities on the Productivity of Arable Crop Farmers in Oyo State, Nigeria. *Journal of Applied Tropical Agriculture,* 22(2): 79-87**.**

Oyedokun, M. O. and Lawal, B. O. (2017). Participation of Community Leaders in Conflict Resolution Among Crop Farmers and Fulani Herdsmen in Oyo State, Nigeria. *Nigerian Journal of Rural Sociology*, 17(1), 61-67

Vanguard (2017). The menace called Fulani herdsmen. Accesed from www.vanguardngr.com on 2nd October, 2017