

## A REVIEW OF FARMERS-HERDERS CONFLICT AND IMPLICATIONS ON FOOD SECURITY, ECOLOGICAL SYSTEMS AND ECONOMY OF IBARAPA, OYO STATE, NIGERIA

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### Abstract

*In Nigeria, thousands of people die in violent clashes between groups of farmers and nomadic pastoralists. Due to better access to weapons and communication tools, the war has been worse in recent years. The old and the well-established systems of negotiation between the groups have mostly broken down. Thus, those with superior tools try to acquire what they want without speaking to other parties. The lack of resources, however, did not suddenly appear in the region and is also a result of several other factors that were discussed in this study, such as ineffective state mechanisms, the Nigerian oil boom, late effects of colonialism, climate change, constantly rising non-state group armament, e. t. c. To demonstrate effects of the conflict, the socioeconomic implications will be discussed. This research focuses on the crisis between the farmers and the Fulani herdsmen in the Ibarapa community of Oyo State as a review case study. The Ibarapa community is made up of various socioeconomic groups who have lived together for a long time, even though this coexistence has both beneficial and negative effects. Yoruba people, that are primarily farmers, and Fulani herdsmen, who are primarily herders, make up the majority of those leaving the Ibarapa community. In recent years, tension and hostility between farmers and herdsmen have emerged due to the battle for land and other scarce resources. Insecurity and food crisis have also resulted from the conflict, which have escalated into fights between the two groups. The connection between the two groups has soured, though, and this is a serious matter that warrants attention on a worldwide scale. Hence this review is apt.*

**Keywords:** Farmer, harder, Crisis, Ecological Distortion, Food Production, Food Security, and Economy

## INTRODUCTION

In Nigeria today, the increase in population has necessitated the need for more participation in agricultural practice for sustainable growth. It is all over the mass media that, there exists a negative interaction between farmers and herders in Nigeria and some African countries. Obviously, in the case of Nigeria, this kind of crisis has a disintegrative impact among many ethnicities and tribes; this has led to disunity and unrest majorly in the southern and eastern parts of the country. As Africans, it is important to embrace the values that unite us more than those that separate us as neighbours.

Farmers and the seasoned local pastoralist groups had a cordial, peaceful, and stable harmonious relationship that enables both parties to work side by side for years. In the past, this relationship is evident that both parties depend on each other for survival, which forms the landmark for various community developments in the rural areas of Nigeria and Africa at large<sup>1</sup>. In mere observation, the farmers and the herders have created specific migration routes for herders with mutual agreement from all the stakeholders<sup>2</sup>, even though there are sources of disagreement existing between both groups which have always been resolved peacefully in the past.

The pastoralists are fond of moving their cattle to graze on farmlands, while the farmers in turn get their cropland fertile by cow dung for better yield<sup>3</sup>. This relationship can be described as a mutualistic association where both parties benefit. The interaction of these groups of people is based on the interdependent linkage formed as a result of the need for basic amenities such as water, fertile and arable land, cash crops, and other agro-allied goods for economic development. The persistent occurrence of conflicts in Nigeria which cut across religious, tribal, political, ethnic, and environmental among others, has led to a series of security issues and has claimed thousands of lives and huge economic losses<sup>1</sup>. The relative mutual relationship that existed between the pastoralists and the sedentary farmers has collapsed due to scarcity of resources and this has led to conflict between the two groups. The factors responsible for the persistent crisis between the two groups include cattle rustling<sup>4,5</sup>, property rights, and rapid population growth resulting in unhealthy competition for scarce resources.

This research focuses on the crisis between the farmers and the Fulani herdsmen in Ibarapa community of Oyo State as a review case study. It will critically appraise the underlying factors responsible for recent hostility between Fulani herdsmen and the indigenous farmers in the Ibarapa land of Oyo State, Nigeria. The causes and effects of the crisis between Fulani herdsmen and the farmers on environmental degradation, loss of lives, properties, and ecological distortion will be appraised. In conclusion, it will recommend solutions to avert future crises and foster peaceful co-existence between the farmers and the herdsmen in South West in particular and Nigeria at large.

### Statement of problem

The incessant farmers-herders communal crisis in Nigeria is not new, most especially in the North Central region of the country. However, what is relatively new is the recent occurrences of the farmers-herders conflict in the South-West and South-East regions of the country. Many researchers have argued and affirmed that religion, sometimes land ownership rights, political power zoning, and tribalism were the main reasons why conflicts persist in these areas. Although, it was a fact that the Fulani herdsmen settlers and their families were accepted and permitted into various host rural communities due to the cordial and peaceful relationship that exists between the local farmers and seasoned herders<sup>6</sup>.

The Ibarapa community comprises people of different socio-economic groups who have been coexisting for a long time, although, this coexistence has positive and negative impacts on the community and the nation at large. The majority of people leaving in the Ibarapa community are indigenous Yoruba, who are predominantly farmers and Fulani herdsmen who basically engage in pastoralists<sup>7</sup>. The competition for land and other limited resources has in recent years turned to the manifestation of hostilities and social friction between the farmers and the herdsmen. These have escalated into conflicts between the two groups and have also led to insecurity and food shortage<sup>8</sup>. However, it is a great concern, following the recent increase in the clashes, the relationship between both groups had sour, which requires global attention<sup>9</sup>.

Climate change has been identified as one of the several factors that have put pressure on the Fulani herdsmen to migrate to other regions which have been leading to localized crisis, agitation, and tension in the host communities, Ibarapa community as a case study. Thus, the Fulani herdsmen are forced to migrate and, in some cases, settled permanently in the Southern part of the country in an attempt to find pasture for their cattle<sup>10</sup>. The argument of climate change seems to be a compelling narrative that explains the causes of the crisis between the pastoralists and the farmers. It has been argued that the crisis between farmers and Fulani herdsmen in Nigeria could be traced to population growth and an increase in the number of cattle and other live stocks, which has in turn caused an increase in the demand for fertile land for farming and grazing<sup>11</sup>. Unfortunately, all the various narratives as stated above have not in any way helped the host communities. The Nigeria securities agency working towards ensuring harmonious relationships, as the Federal Government is struggling to find lasting solutions and measures to reduce to the barest minimum, the incessant conflicts between farmers and herders in Nigeria<sup>12</sup>. Meanwhile, the Nigerian government has been accused of lacking the required political will in resolving the conflict, which has been attributed to a lack of consensus between the federal and the state governments<sup>13</sup>. The farmers-herders crisis has caused a huge loss of crops and other agricultural products, the invasion of farmlands, and loss of lives and properties, thereby resulting in food scarcity, hunger, and malnutrition<sup>14</sup>.

The resolution of this crisis lies in adopting new conflict resolution strategies by the government, the host communities, and other stakeholders in conflict management and resolution. Government at all levels has in recent times provided farmers with productive resources like improved seeds, modern technologies, and other agricultural input. Rural grazing areas (RUGA) and pasture routes have also been suggested by the Federal government in an effort to put an end to the farmers-herdsmen crisis<sup>15</sup>. The establishment of a Community Peace Resolution Committee comprising the religious and traditional leaders in the states affected by the Fulani herdsmen and farmer conflict has been observed to be exemplary and community-based approaches to resolve the crisis<sup>16</sup>.

### **Literature review**

Nigeria is a multi-ethnic country, with diversities that cut across different cultures. Social status, poverty, political and economic inequalities, including power between different groups in a community have caused tensions and conflicts<sup>17</sup>. The unequal distribution of scarce resources is the main cause for agitation of economic change and restructuring in Nigeria which has become the driver of social change<sup>18</sup>. The conflicts between farmers and herders in different parts of Africa are not new phenomena, such conflicts have been observed to occur between Mossi farmers and pastoralists in Burkina Faso and between Pokomo herdsmen and Orma farmers in Kenya<sup>19</sup>.

The Global Terrorism Index statistics reported the death toll of 63 associated to Fulani herdsmen killings and geometrically increased to 1,229 at the end of 2014. More than 350 deaths were recorded between February and March 2016, and up to 15 casualties were recorded in May 2016, with more than 100,000 people displaced, who are left in Internally Displaced Persons (IDP) camps<sup>20,21</sup>.

Villages like Igangan in Oyo State, Katsina-Ala, Loggo, Gunna, and Gwer West in Benue State have experienced a series of conflicts between farmers and herdsmen, leading to the death of over 200 villagers. Likewise, some villages in Enugu State, Nigeria were attacked by herdsmen which lead to the destruction of farmlands, loss of livestock, and destruction of properties worth millions of naira.

Sangotegbe examined the effectiveness of the community-based Peace and Security Committee in resolving conflicts between the herders and the farmers in Ibadan/Ibarapa Agricultural zone of Oyo State<sup>16</sup>. He concluded that the destruction of farmland, cattle rustling and water pollution are the perceived causes of conflicts. It was suggested that more proactive measures should be taken to resolve farmers-herders' conflicts through the involvement of traditional and religious leaders.

A study assessed the causes and effects of herdsmen-farmers' conflicts on the livelihood of agrarian communities in Kogi State<sup>15</sup>. The results of the study showed that negligence to the rules of law and tradition, interference in the livelihood of the farmers, and other cultural factors were the major causes of conflicts between farmers and herders. The conflicts have been observed to affect the socio-economic life, crop yield, food insecurity, well-being and settlement pattern, leading to a breakdown in the livelihood assets of the farmers. The study recommended regular orientation of resource users on the need for peaceful co-existence and adherence to the rules of law<sup>15</sup>.

The variables associated with farmer-herdsmen conflicts from the perspective of farmers in Kwara State, Nigeria were investigated<sup>22</sup>. They observed that there is no clear consensus among the respondent on which of the groups involved in the conflicts experience greater hardship. Although, the conflict has attracted the attention of researchers. The factor analysis revealed that socio-economic, crop production, institutional and situational factors among farmers as the major reason for farmers-herders conflict. The study recommended a regular review of stock routes, an increase in awareness, and compliance rates among conflict factors<sup>22</sup>.

The effects of Fulani herdsmen conflict on the productivity of arable lands in the Ibarapa areas of Oyo State, Nigeria, was examined<sup>8</sup>. The findings of the study revealed that there is a significant difference in farmers' productivity and herdsmen conflict. The study recommended the provision of adequate compensation measures for the affected farmers and provision of grazing zones for the herdsmen, and provision of adequate security<sup>8</sup>.

The influence of farmer-herder's conflict on cattle rustling and banditry and vice versa was examined<sup>23</sup>. The theory of environmental resources scarcity and frustration-aggression were adopted in their study. The findings of the study showed that the acts of cattle rustling were precipitation of farmer-herdsmen conflict and the conflict conversely was as a result of cattle rustling and banditry in the study area. The study recommended the introduction of grazing reserves equipped with adequate social amenities and the formation of policies that will enable the herders to adopt modern technology in animal husbandry. It was also suggested that traditional and religious leaders should be involved and be allowed to properly manage farmers-herdsmen conflict<sup>23</sup>.

The theoretical insights into the nature and causes of conflicts to consider mechanisms and participatory approaches in resolving conflicts between two warring groups is paramount. Therefore, it is imperative to seek for an understanding of the reasons behind the constant clashes between the Fulani herdsmen and local farmers in the Ibarapa land of Oyo State, Nigeria which is the primary purpose of this study.

## **Ibarapa Community**

The Ibarapas are a group of people located in Southwestern Nigeria. The community lies between latitudes 07°64'62" N and longitudes 03°37'43". Ibarapa land is traditionally made up of 7 principal towns known as the "Ibarapa Meje" (Ibarapa Seven), with about 120 surrounding villages and farmsteads. They have a combined population of more than 700,000 people who are predominantly Yoruba, with a mixed population of people from other ethnic extractions. The seven town are: Igangan, Eruwa, Aiyete, Tapa, Idere, Igbo-Ora, and Lanlate. The towns are scattered across three local government areas of Oyo state. Aiyete, Igangan, and Tapa towns are situated in Ibarapa North local government area, Idere and Igboora are located in Ibarapa Central local government area, while Eruwa and Lanlate are in Ibarapa East local government area<sup>24,25</sup>. Ibarapa is in a guinea savanna woodland, with typical vegetation interspersed with rocks<sup>26</sup>, and is distinguished by its grasses and thinly spaced trees<sup>27</sup>. Rainy and dry seasons are the two climatic seasons in Ibarapa community, rainy season occurring between March and October with an average annual rainfall of 1275.42 mm, while the dry season is between November and March. Ibarapa has an average minimum temperature of 18.9 °C and an average maximum of 35 °C, with humidity between 70% and 80%<sup>28</sup>. The people of Ibarapa community are predominantly subsistence and semi-commercial farmers due to the favourable climatic conditions, which also attract herdsmen due to the abundant grazing lands.

## **Sunday Igboho and the Yoruba Nation**

Chief Sunday Adeniyi Adeyemo, popularly known as Sunday Igboho was born in 1972 in Igboho, an old Oyo town of Oke Ogun in Oyo State, Nigeria. He is a Nigerian Yoruba self-determination activist and philanthropist. His father relocated the family to Modakeke in Osun State, where he grew up. He rose to fame following his involvement in the Modakeke-Ife communal crisis in 1997, where he played an active role. Mr. Igboho is an acclaimed Yoruba activist but was also described as a notorious 'political thug' in Ibadan<sup>29</sup>. In March 2021, he gave a seven-day ultimatum to Fulani herders in the Ibarapa axis of Oyo State to leave the area in the wake of the heightened insecurity in the state, as well as the South-west, as a result of the activities of kidnappers and bandits. Mr. Igboho alleged that herders have been responsible for the killings and kidnappings of the residents of Oke-Ogun and Ibarapa<sup>30</sup>.

## **Seriki Fulani of Igangan, Alhaji Salihu Abdulkadir**

Alhaji Salihu Abdulkadir was born in Ilorin and then migrated to Ibarapa in Oyo State in 1968 and later settled in Igangan in 1972. In 1992, he was installed as the Seriki Fulani of the Ibarapa Community, which he held until 2018 when he was installed as Seriki Fulani of Oyo State by Alafin of Oyo<sup>31</sup>. He alleged that the issue of kidnapping in Ibarapa was a collaboration of both Yoruba and Fulani people and that he has always been reporting kidnapping cases to community head as well as relevant security agencies. He called on the government to come to their aid and fish out those who are perpetrating the evil act. He was evicted from Igangan community and relocated to Ilorin, Kwara State, after his palace was burnt down. He hoped that justice would be done and he would be compensated for the properties lost during the crisis<sup>32</sup>.

## **Causes of the conflicts**

The environmental resources, such as fresh water, cropland, forests and meat/fish, has been the main dependent of people's livelihood and over the years, the increase in population in many developing countries has led to scarcity of these resources and violence conflict over the limited available resources. Land is a vital resource for infrastructural development, as it is used for construction of roads, building of houses, agricultural activities, mining and transportation, but it is limited in supply<sup>33</sup>. The vast majority of land hitherto used for farming and grazing reserves has been used for other developmental activities, since all human activities depend on land. The conflicts between farmers and herders have been due to the dispute over access to, control over, and use of natural resources, especially arable lands. According to Wehrmann<sup>34</sup>, conflict over land is a social fact, which arises as a result of different interests over the property rights to land, right to use, to manage and to generate income<sup>33</sup>. The underlying factor of recurrent conflict between farmers and herders is the dependence of their livelihood on the land, which has caused heavy pressure, due to the increase in population, while the land resources remain static<sup>35</sup>.

The lives of an average Fulani man revolve around free movement for grazing of livestock, this is based on the availability of grazing pasture and water for their herds<sup>36</sup>. Climate change has altered the pattern of movement of the herders, which has affected their relationship with farmers. Bamidele<sup>37</sup>, opined that the climate change impact on the use of land and other resources, which has further escalated the conflict between the herdsmen and the farmers. Climate change has resulted in the reduction of the volume of annual rainfall, thus, farmers find alternative land near river banks, where they can conveniently irrigate their farmland, but this has led to more conflicts, as herders claim ownership of the river banks. Climate change and global warming have resulted in environmental degradation, desertification and the increase competition over the limited resources is the ultimate reason for conflict between the two groups<sup>38</sup>. Another reason for the escalation of conflict between the herdsmen and farmers is the lack of action on the part of the government, as both groups complain that none of their demands for justice for apprehended criminals has been met by the government. Also, lack of response by the security agencies when reports are made of imminent attacks on the herders or on the farmers<sup>39</sup>.

Disregarding communal authority has also been identified as a cause of conflict between the two groups. In some communities in southern Nigeria, a stranger coming into the community for the first time, must as a matter of tradition, pay a courtesy visit to the traditional head of the community, where he is expected to announce his mission and seek

permission for the use of the resources within the community and the failure of the herdsmen to do this has led to conflict<sup>40</sup>. Cattle theft and cattle rustling is another issue that has influenced the conflict between farmer and herders. Cattle rustling has increased over the years, and it has been attributed to the activities of armed groups, who used stolen cattle to fund their activities. As a result, herdsmen arm themselves for their protection and to protect their animals. In some cases aggrieved groups steal the livestock of the other conflicting communities as a form of justice and reprisal attack, this has caused several communities to establish armed groups to guard against livestock theft<sup>41</sup>. The inefficiency of the government and the security agencies to control remote areas and the collaboration between some security officers and cattle rustlers have been the major reason for the increase in cattle theft and rustling<sup>42</sup>. In most cases, government authorities' response to farmer-herdsmen conflict is either inadequate, slow, ineffective and sometimes unlawful and biased<sup>43</sup>.

### **Socio-Economic Effects of the Conflict**

The relationship between economic activities and social life is referred to as socio-economic development. It involves the perpetual improvement in the standard of living and well-being of the people<sup>44</sup>. The violent conflicts between the two groups have created adverse effects on the social and economic activities of the affected communities<sup>43</sup>. The conflicts have led to the loss of lives and properties which has consequences on farming activities and other related businesses<sup>45</sup>. This has increased the level of food insecurity in Nigeria and other neighbouring countries due to the loss of farmers' lives, animals, crops and valuable farming equipment<sup>46</sup>. The conflict is a factor that greatly affects food security, due to the displacement of farmers from the affected communities leading to a shortage of labour and farm produce. This can be observed in the exponential increase in food prices across the nation and causing economic hardship on people within the community and beyond<sup>47</sup>.

Farmers-herdsmen conflict has in most cases resulted in a humanitarian crisis, which has resulted in the killing of both farmers and herdsmen<sup>44</sup>. The conflict for scarce resources and their management has led to constant attacks, killing, burning of houses, rape and other social vices<sup>40</sup>. In Ibarapa, 20 people were reportedly killed and unspecified others were injured as a result of the attack on the community by assailants suspected to be Fulani herdsmen<sup>48</sup>. A Lagos-based intelligence consulting firm, reported that the crisis between farmers and herdsmen have led to more death than the Boko Haram crisis<sup>43</sup>. When herdsmen and farmers clash, the people of the communities get displaced due to the fear of attack by nomads. The displaced people lost the means of livelihood and have to beg for food, thereby, becoming liabilities to the host communities, which has increased the level of poverty in such communities<sup>44</sup>. The conflict between the herdsmen and farmers in Ibarapa community has led to internal displacement of herdsmen and farmers, with the displacement affecting the Fulani herdsmen more than the farmers, as in the case of Seriki Fulani, who fled to Ilorin from the crisis zone in Ibarapa. Most herdsmen who survived the conflicts relocated, while the women that stayed behind stop going for farming activities because of the fear of retaliation by the herdsmen<sup>43</sup>.

### **Recommendations**

The following suggestions were provided to strengthen the efforts of the government in managing the farmers-herdsmen conflicts in Nigeria:

- The local and state government must build a system to resolve conflicts that involve the people of the community (farmers and herdsmen), the traditional leaders, interest groups, NGOs and labour unions.
- When formulating strategies and policies to address the farmers-herdsmen problem in Nigeria, the government should take implementation methods into consideration. A policy or strategy should be implemented effectively after being introduced by the government.
- The government should take into account the religious differences of the various stakeholders in the conflict.
- In areas where there is a crisis, forums, groups, or organizations should be established to encourage religious tolerance among farmers and herdsmen. This will significantly help to resolve the farmers-herdsmen crisis.
- Conflicting parties should be reconciled by the government, especially at the local level. Direct communication between the groups of farmers and herders may improve mutual understanding and lessen hostility.
- The security personnel should ensure their presence in every community both in the urban and rural areas.
- The training of military and police personnel should be improved, to perform their duties effectively.
- The government should focus on reforestation, reducing environmental pollution, promoting the use of organic pesticides, and other related issues. Both farmers and herders will benefit if they are able to recover the lost agricultural areas.

### **Conclusion**

In Nigeria, the continuous struggle between sedentary farmers and pastoralist herdsmen resulted in countless fatalities as well as staggering economic losses for the nation. Conflicts between the groups continue because the underlying issues still exist. The dispute is made worse by global climate change, which also has a negative impact on Nigeria.

Immediately upon independence, the Nigerian state began to experience problems due to the different governance structures that were left over from the colonial era in the North and South. An unstable and fragile state structure was made possible by the political influence of the local community and religious leaders, and power disparities between northern and southern protectorates. Conflicts over the use of the land, which were already an issue, grew worse over the year, due to inadequate security system.

The people of Ibarapa community and the Fulani herdsmen should as a matter of necessity, embrace value re-orientation, which can lead to tolerance of other ethnic groups and promote peaceful coexistence.

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## References

- [1] Shettima AG, Tar UA. Farmer-pastoralist conflict in West Africa: exploring the causes and consequences. *Info. Soc. Just. J.* 2008 Jun;1(2):163-184.
- [2] Blench RM. Conflicts between pastoralists and cultivators in Nigeria, Lomdon Department for International Development. Review Paper prepared for DFID, Nigeria; 2010
- [3] Saidoi A, Kuyper TW, Kossou DK, Tossou R, Richard P. Sustainable soil fertility management in Benin: learning from farmers. *Nig. J. Anim. Sci.* 2021 Jun;52(3/4):2349 -2369
- [4] Okoli AC, Okpaleke F. Cattle rustling and dialectics of security in Northern Nigeria. *Int. J. Lib. Arts Soc.Sci.* 2014 Apr;2:109-115
- [5] Olaniyan A, Francis M, Okeke-Uzodike U. The cattle are “Ghanaians” but the herders are strangers: Farmer-herder conflicts, expulsion policy, and pastoralist question in Agogo, Ghana. *Afr. Stud. Quart.* 2015 Mar;15(2):53-67.
- [6] Imo CK. The demographic implications of nomadic herdsmen and farmers clashes in Nigeria. *Int. J. Develop. Manag. Rev.* 2017 Jun;12(1):45-58.
- [7] Okunola OO. Fulani herdsmen's pastoral activities, conflict and conflict management strategies in Ibarapa East Local Government Area of Oyo State, Nigeria. *Nig. J. Ani. Sci.* 2016 Nov; 1:190-197
- [8] Amao O, Adeagbo TA, Olojede MO, Ogunleye BT, Ogundoyin CO. Effects of Fulani herdsmen conflict on productivity of arable crop farmers in Ibarapa Area of Oyo State. *Int. J. Res. Soc. Sci. Hum.* 2018 Aug;4(7):1-12.
- [9] Odoh SI, Chigozie CF. Climate change and conflict in Nigeria: A theoretical and empirical examination of the worsening incidence of conflict between Fulani herdsmen and farmers in Northern Nigeria. *Arab. J. Bus. Manag. Rev.* 2012 Aug;2(1):110.
- [10] Abugu SO, Onuba CO. Climate change and pastoral conflicts in the Middle Belt and South East Nigeria: Implication on human resource of the regions. *Glob. J. Hum. Resour. Manag.* 2015 Oct;3(5):44-51.
- [11] Sekaran U, Lai L, Ussiri DAN, Kumar S, Clay S. Role of integrated crop-livestock systems in improving agriculture production and addressing food security – A review. *J. Agric. Food Res.* 2021 Sept;5:100190
- [12] Okoli AC, Ogayi CO. Herdsmen militancy and humanitarian crisis in Nigeria. A theoretical briefing. *Afr. Sec. Rev.* 2018 Sept;27(2):129-143
- [13] Mawoli MA, Adamu A. Solutions to herders-farmers conflict in Nigeria: the academic perspectives and business implications. *Int. J. Bus. Technopren.* 2020 Jul;10(1):101-112
- [14] Udosen, N. M. (2021). Farmers-herders crisis and food security in Nigeria: causes and implications. *European Journal of Political Science Studies*, 5(1), 24-44
- [15] Ukamaka DM, Danjuma SE, Mbolle CJ, Achonam EI, Mbadiwe IE. Livelihood issues in herdsmen-farmers' conflict among farming communities in Kogi State, Nigeria. *Afr. J. Agric. Res.* 2017 Jun;12(24):2105-2115
- [16] Sangotegbe NS, Oguntoyinbo AB, Oluwasusi JO. Effectiveness of role of local government peace and security committee (PSC) in farmer-pastoralist conflict prevention in Ibadan/Ibarapa agricultural zone of Oyo State, Nigeria. *Trop. Agric. Res. Ext.* 2016 Nov;17(3-4):95–103
- [17] Stewart S. Root causes of violent conflict in developing countries Commentary: Conflict from causes to prevention? *BMJ*, 2002 Feb; 324-342
- [18] Shedrack IC. (2020). Agitations for regime change and political restructuring: implications on national integration and development in Nigeria. *Unizik J. Arts Hum.* 2020 May; 21(3):1-26
- [19] Massay GE. In search of the solution to former- pastoralist conflicts in Tanzania. [Internet] SA Inst. Int. Rel. Occasional Paper, 2017 May. [cited 2022 Jan 8]; 257:1-17. Available from:
- [20] [https://www.academia.edu/33142203/in\\_search\\_of\\_the\\_solution\\_to\\_farmer\\_pastoralist\\_conflict\\_in\\_tanzania](https://www.academia.edu/33142203/in_search_of_the_solution_to_farmer_pastoralist_conflict_in_tanzania)
- [21] Okoro JP. Herdsmen/farmer conflict and its effects on socio-economic development in Nigeria. *J. Peace Sec. Dev.* 2018 Jan;4(1):143-158
- [22] Idowu AO. Urban violence dimension in Nigeria: Farmers and herders onslaught. *AGATHOS Int. Rev. Hum. Soc. Sci.* 2017 Jun;8(14):187-206.
- [23] Adisa RS, Adekunle O. A. Farmer-herdsmen conflicts: A factor analysis of socio-economic conflict variables among arable crop farmers in North Central Nigeria. *J. Hum. Ecol.* 2010 Oct;30(1):1-9.
- [24] Bello B, Abdullahi MM. Farmers–herdsmen conflict, cattle rustling, and banditry: The dialectics of insecurity in Anka and Maradun Local Government Area of Zamfara state, Nigeria. *SAGE Open.* 2021 Oct; 11(4): 1-12
- [25] Adekunle IM, Adetunji MT, Gbadebo AM, Banjoko OB. Assessment of groundwater quality in a typical rural settlement in Southwest Nigeria. *Int. J. Environ. Res. Pub. Health.* 2007 Nov;4(4):307-318

- [26] Atoyebi O. Inside story: how five decades of peace was breached in Oyo community [Internet]. Lagos: The Cable Newspaper. 2021 Mar – [cited 2023 Apr 23]. Available from: <https://www.thecable.ng/inside-story-of-how-five-decades-peace-withered-in-oyo-community>
- [27] Akinboye DO, Okwong E, Ajiteru N, Fawole O, Agbolade OM, Ayinde OO, Amosu AM, Atulomah NOS, Oduola O, Owodunni BM, Rebecca SN, Falade M. Onchocerciasis among inhabitants of Ibarapa local government community of Oyo State, Nigeria. *Biomed. Res.* 2010 Aug;21(2):174-178
- [28] Adebisi S, Uwagboe EO, Agbongiarhuoyi AE, Oluyole KA, Famuyiwa B, Abdulkarim IF, Williams, A. O. Climate change and adaptation strategies on cocoa production in Ibarapa Central of Oyo State, Nigeria. *Int. J. Contemp. Res. Rev.* 2018 Jul; 9(7):20478-20483
- [29] Akinniran TN, Ezekiel AA, Ganiyu MO, Adeyemo SA. Effect of rainfall variability on crops production in Oyo State, Nigeria (1990-2009). *Int. J. Sci. Engineer. Res.* 2013 Sep;4(9):1723-1745
- [30] Kabir A. Oyo crisis: Who is Sunday Igboho, self-acclaimed Yoruba warrior? [Internet]. Lagos; Premium Times. 2021 Jan – [cited 2023 June 27]. Available from: <https://www.premiumtimesng.com/regional/ssouth-west/438195-yoruba-herders-clash-who-issunday-igboho-the-self-titled-yoruba-warrior.html>
- [31] Adewale OM., Kehinde AG, Sunday AO. Effects of insecurity on Igangan, Tapa and Ayete Community in Ibarapa North Local Government Area, Oyo State, Nigeria. *Sch. Int J. Law Crime Justice.* 2023 Apr;6(4):195-205
- [32] Oyekola T. Yoruba, not my people, behind kidnappings in Igangan –Seriki Fulani [Internet]. Lagos: The Punch Newspaper. 2021 Feb – [2023 Jun 27]. Available from: <https://punchng.com/yoruba-not-my-people-behind-kidnappings-in-igangan-seriki-fulani/>
- [33] Odunsi W. Sunday Igboho’s delayed return linked to 2023 elections [Internet]. Lagos: Daily Post Newspaper. 2022 Nov. – [2023 June 29] Available from: <https://dailypost.ng/2022/11/21/sunday-igbohos-delayed-return-linked-to-2023-elections/>
- [34] Christiana U. Land as a source of conflict between farmers and herders in Oyo State Nigeria. *J. Aquat. Poll. Toxicol.* 2021 Sep;5(5):1 – 9
- [35] Wehrmann B. Land conflicts: a practical guide to dealing with land disputes. Eschborn, Germany: GTZ; 2008.
- [36] Moritz M. (2010). Understanding herder-farmer conflicts in West Africa: Outline of a processual approach. *Human Organization*, 69(2), 134-148
- [37] Fagbayibo B. (International Labour Organization and the African Commission on Human and Peoples’ Rights). Overview report of the research project by the International Labour Organization and the African Commission on Human and Peoples' Rights on the constitutional and legislative protection of the rights of indigenous peoples in 24 African countries [Internet]. Geneva: International Labour Organization: 2009 [cited 2023 May 12]. 155 p. Available from: [https://www.ilo.org/wcmsp5/groups/public/---ed\\_norm/---normes/documents/publication/wcms\\_115929.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_115929.pdf)
- [38] Bamidele O. Climate change and conflicts in sub-Saharan Africa: trends, challenges and policies sustainability. *J. Sustan, Develop. Afr.* 2011 Dec;13(7):35-45
- [39] Tonah S. Fulani pastoralists, indigenous farmers and the contest for land in northern Ghana. *Afr. Spectrum.*, 2002 Jan;37(1):43–59
- [40] Essien F. Farmers -herders conflicts in Nigeria and internal displacement in Nigeria. *Wukari Int. Stud. J.* 2022 May;6(1):1-34
- [41] Ofuoku AU, Isife BI. (2010). Causes, effects and resolution of farmers-nomadic cattle herders conflict in Delta State, Nigeria. *Int J. Sociol. Anthropol.* 2009 Jun;43(1):47-54
- [42] Brottem L. (African Centre for Strategic Studies) The growing complexity of farmer-herder conflict in West and Central Africa [Internet]. Washington DC 2021 Jul 12 [cited 2023 Jul 30] 8 p. Report: 39 Available from <https://africacenter.org/publication/growing-complexity-farmerherder-conflict-west-central-africa/>
- [43] Olaniyan A, Yahaya A. Cows, bandits, and violent conflicts: Understanding cattle rustling in Northern Nigeria. *Afr/ Spect.* 2016 Dec;5(3):93-105.
- [44] Okoro JP. Herdsmen–farmers’ conflict: Implication on national development (Nigeria in Perspective). *Int. J. Sci. Engineer. Res.* 2020 Feb;11(2):808-820.
- [45] Okoro JP. (2018). Herdsmen/farmers conflict and its effects on socio-economic development in Nigeria. *J. Peace Sec. Develop.* 2020 Oct;4(1):143-158.
- [46] Ijirshar VU, Ker G, Terlumum YC. Socio-economic effects of farmers-fulani herdsmen’s conflict on farmers output in Benue, Nigeria. In: Bakpo FS, Ugbeda FE, editors. *Proceeding of An International Academic Conference of the International Multidisciplinary Research and Academic Society, Obudu, Cross River State: Nigeria; 2015.* p. 1-18
- [47] Cotula L, Toulmin C, Hesse C. (Food and Agricultural Organization) Land tenure and administration in Africa, lesson of experience and emerging issues [Internet] London: International Institute of Environment and Development: 2004 Feb [cited 2023 Mar 4]. 50 p. Report.: FAO/18461/P. Available from: [https://www.hubrural.org/IMG/pdf/iied\\_lt\\_cotula.pdf](https://www.hubrural.org/IMG/pdf/iied_lt_cotula.pdf)
- [48] [https://www.hubrural.org/IMG/pdf/iied\\_lt\\_cotula.pdf](https://www.hubrural.org/IMG/pdf/iied_lt_cotula.pdf)
- [49] Chukwuma OA. The trajectories and dynamics of herdsmen militancy in central Nigeria. *J. Human. Soc. Policy.* 2016 Jan;2(1):22 – 30.
- [50] Abdulrahman A. Igangan: 20 dead, palace burnt after armed gang’s attack in southwest [Internet]. Abuja: HumAngle. 2021 Jun – [cited 2023 Apr 4]. Available from: <https://humanglemedia.com/igangan-20-dead-palace-burnt-after-armed-gangs-attack-insouthwest/>