

International Journal of Arts and Humanities (IJAH) Ethiopia

Vol. 8 (4), S/No 31, SEPTEMBER, 2019: 128-137
ISSN: 2225-8590 (Print) ISSN 2227-5452 (Online)
DOI: <http://dx.doi.org/10.4314/ijah.v8i4.12>

Migration and the Emerging Security Challenges in West Africa: Case of Fulani Herders/Sedentary Farmers Conflicts in Nigeria

Idehen, Roosevelt Osazenaye, PhD

Department of International Relations and Strategic Studies

Igbinedion University, Okada

r.idehen@iuokada.edu.ng

Phone: +2348060685087, +2348055116517

Ikuru, Ubelejit Renner

80 Echue Street, mile 2 Diobu

Port Harcourt

Rivers State, Nigeria

Abstract

Recent history of Fulani migrants in Nigeria is inundated with pastoral nomadic violence exacerbated by the increase in the influx of migrating herders within the context of ecological history and Geopolitics. Drawing extensively from the ECOWAS protocol on free movement within the sub region, the Fulani pastoralist have unrestrained access to the nook and crannies of the Nigeria state with attendant violence in contest for scarce resources between local farmers and herders. This is occasioned by deepening environmental dynamics, climate change and climate induced constrictions, altering the age long concentric pattern of coexistence and cooperation to competition and conflict. This work seeks to interrogate this violent trend while trailing the pattern with the view to unraveling the cause of the conflict. The work takes a critical look at the subsisting ECOWAS protocol on free movement within the sub region of West Africa, and its consequences for sub-regional security amongst member states. Anchored on the political ecology perspective, the paper posits, the conflicts have been informed by the desperate struggle for competitive survival and subsistence in an environment characterized by ecological scarcity and livelihood insecurity and the unchallenged culture of arms bearing by the Fulani herders over the years. The work concludes that an urgent constitutional provision is necessary that will provide for private Ranching as a panacea to the perennial conflict between herders and local farmers in Nigeria.

Key Words: Fulani Herders, Conflict, Migration, Local Farmers, Ecological Scarcity

Introduction

Eco resource conflict has gain considerable currency in recent time in Nigeria due to Farmers Herders confrontations (Blench, 2004; Adogi, 2013). However, this is prevalent and pervasive in the northern region of Nigeria. The aggressiveness of the Fulani's herders defines the imperativeness of their existentiality against the backdrop of global ecological constriction. To every nomad, life is worthless without his cattle. Thus, the encroachment on grazing field and routes by farmers is a call to War (Okoli, Al and Atelhe George 2014, p. 80) . The growing environmental changes and political manipulations of modern land-use policies and urbanization tend to violate the subjective paradigm of the universal accessibility of pastures and water within the region of Africa. For the average Fulani, their territory transverse the nook and crannies of West Africa and they maintain a traditional migrating and grazing rout within the region. Average nomadic herder lives in an environment he considers hostile and indifferent to his needs, where he must struggle to fend for himself and to survive. Thus, the struggle for survival has become a way of life for herders who are ready to defend or redeem their endangered livelihood with their blood.

Who are the Fulanies?

The Fulanies are an ethnic group of people spread over many countries, predominantly in West Africa, but found also in Central Africa and the Sudan of east Africa. Fulani, Fula or Fulbe as they are sometime called are predominantly found in countries like; Mauritania, Senegal, Guinea, The Gambia, Mali, Nigeria, Sierra Leone, Benin, Burkina Faso, Guinea Bissau, Cameroon, Côte d'Ivoire (Ivory Coast), Niger, Togo, the Central African Republic, Ghana, Liberia, and as far as Sudan in the east. There is a prevailing thesis that the Fulbe [Fulani] are said to have originated from Senegambia and then spread across some of the states in West Africa and the Sahel, up to Western Sudan and the Central African Republic (Blench 1994; Shehu and Hassan 1995; Blench 2010; McGregor 2014). Certain views trace the fulbe to nomads from both North Africa and from sub-Sahara Africa and settled into Central and West Africa from the Senegal region they created the Tekrur Empire which was contemporary to the Ghana Empire. Then, they spread in all the countries in West-Africa. Certain sociological evidences suggest an indigenous West African origin among the Peul closely related to that of the Wolof and Serer ethnic groups. This ethnic nationality is traditionally pastorally nomadic in character, herding cattle, goats and sheep across the vast dry hinterlands of their domain. Interestingly, rock paintings in the Tassili-n-Ajjer suggests the presence of proto-Fulani cultural traits in the region by at least the fourth millennium B.C. Scholars specializing in Fulani culture believe that some of the imagery depicts rituals that are still practiced by contemporary Fulani people.

Religion

The Fulani were the first group of people in West Africa to convert to Islam through jihads, or holy wars, and were able to take over much of West Africa and establish themselves not only as a religious group but also as a political and economic force. They are the missionaries of Islam and continued to conquer much of West Africa. Through their nomadic life style they have successfully created several trade routes across West Africa and in the process forcefully propagate and entrenched the tenets of Islam. In the early part of the 17th and 18th century the Fulani nation created an empire founded by Usman Dan Fodio and established it dominance on the most countries of West Africa, with the expansion of the Fulani from Futa to Darfur, all this region became known to the Arabs as Takrur.

The Fulani movement in West Africa tended to follow a set pattern. Their first movement into an area tended to be peaceful. Local officials gave them land grants. As they established themselves, they start spreading Islam. As the number of converts to Islam increased over time, their resentment over pagan or imperfect Muslims rulership develop.

Fulani resentment in the 17th century was largely fueled by the larger migration that occurred during the time in which the Fulani migrants were predominantly Muslim. These groups were not as easily integrated into society as earlier immigrants had been. By the beginning of the eighteenth century, revolts had broken out against local rulers. Although these revolts began as holy wars (jihad), after their success they followed the basic principle of Fulani ethnic dominance.

Fulani settlement types range from traditional nomadism to variations on sedentarism. As the modern nation-state restricts the range of nomadism, the Fulani adopted ever increasingly complex ways to move herds among their related families: the families may reside in stable communities, but move their herds towards ecologically friendly environment where there are water and pastures. Over the last few centuries, the majority of Fulani have become sedentary.

Historically Fulani pastoralists have grazed in lands around the arid and Sahel regions of West Africa partly because of the environmental conditions that limit the amount of land for agricultural purposes leading to less intense competition for land between farmers and herders. However, after recurrent droughts in the arid and Sahel regions, Fulani pastoralists have gradually moved southwards to the Guinea Savanna and the tropical forest areas resulting in competition for grazing routes with farmers.

Migrating into Nigeria

Fulani pastoralists started migrating into Northern Nigeria from the Senegambia region around the thirteenth or fourteenth century (Tonah 2000). After the Uthman dan Fodio jihad, the Fulani became integrated into the Hausa culture of Northern Nigeria. Thereafter, during the dry season Fulani pastoralists began to drive their cattle into the middle belt zone dominated by non Hausa groups returning to the north at the onset of the rainy season. But while managing the herd and driving cattle, cattle grazing on farmlands sometimes occur leading to destruction of crops and becoming a source of conflict.

Nigeria's implementation of the land use act of 1978 allowed the state or federal government the right to assign and lease land and also gave indigenes the right to apply and be given a certificate of occupancy to claim ownership of their ancestral lands (Okello, and Ayodele 2014). This placed the pastoral Fulani in a difficult position because they couldn't apply for lands or certificate of occupancy for their grazing routes and recurring transhumance movement will lead to encroachment of the properties of others. In other to check this, the Nigeria government designed some areas as grazing routes but this has not reduced clashes (Abbass, 2012).

Theoretical Considerations

The Nexus between environmental resources and conflicts in Nigeria explains the endemic nature of the conflict between farmers and pastoralist.

This work relies on theoretical premise that exposes the politico-ecological dialectics of Farmers Herders conflict within a Geo-political differentiation. Political ecology is concerned with the study of the dialectic relationship between special distribution, political economic and environmental dynamics.

It seeks to interrogate ecological social sciences in an attempt to evolve an inter-disciplinary synthesis (Okoli, 2013). Political ecology was influenced by the scholarly contributions of development geography and cultural ecology in the 1970s and 1980s (Bryant, 1998:80). It sought primarily to understand the dynamics surrounding material and discursive struggles over the environment in the third world and its attendant conflict (Bryant, 1998, p.89). This is well captured in the work of Homer-Dixon which stated that;

Decreases in the quality and quantity of renewable resources, population growth and unequal resource access act singly or in various combinations to increase the scarcity, for certain population groups, of cropland, water, forests, and fish. This can reduce economic productivity, both for the local groups experiencing the scarcity and for the larger regional and national economies. The affected people may migrate or be expelled to new lands. Migrating groups often trigger ethnic conflicts when they move to new areas, while decreases in wealth can cause deprivation conflicts (Homer-Dixon 1998).

The thrust of this theory constitutes predominantly issues surrounding “access to and control over resources” (Human et al, 2004, p. 203). The politics surrounding the authoritative allocation of ecological resources such as water, land constitute vital element for the survival of both the pastoralist and the sedentary farmers. It is this conflict of interest that drives the conflict between farmers and herders. Political ecology as an attempt to come to terms with “...the day-to-day conflicts, alliances, and negotiations that ultimately result in some sort of definitive behaviors; how politics affects or structures resource use” contextualizes political and ecological implications of human behavior (Okoli, 2013). Political ecology perspective would enable us unravel the ecological underpinnings of the socio-existential dynamics, which have characterized the herder/farmer conflict in the area of study. Drawing extensively from the ECOWAS protocol of free movement of person’s goods and services within the sub region of West Africa the Fulani nation has leveraged on this provision to widen their scope of migration in response to environmental dynamic and ecological differentiations.

Climate Change and Migration

The universal phenomenon of climate change has redefined the way of life of many communities especially those of the agricultural sector. The greatest casualties are the farmers and the pastoralist. Farmer–herder conflicts take place in settings where populations often live under difficult natural and climatic conditions. The conflicts commonly stem from competition over access to or use of the natural resources necessary to sustain their livelihood.

Many of the conflict in Africa have been traced to the impact of climate. Africa is perhaps one of the most vulnerable regions of the world to the devastating effect of climate change. A classic case is the Darfur conflict in Sudan since 2003 which has been linked to ethnic competition over access to resources (such as grazing land) (Mazo 2010, p. 73). The conflict was in opposition to the government who was believed to be favouring the Arabs (IISS 2011). Mazo (2010) argued, in line with Ban Ki-Moon (2007), the European Commission (EC 2008: 6), and Al Gore (2006), that Darfur is a “climate change conflict” (Mazo 2010, p. 73) engineered by the transformation of the ecological zones, land degradation and desertification. (Mazo 2010, p. 75; UNEP 2007: 88, 95).

Several other African state especially West Africa have been victims of farmers’ herders; conflict. Nomadic herders from Burkina Faso had a faceoff with local farmers several lives were lost (IIRN2010). In Nigeria, between 2001 -2004 over 2000 death were recorded in the face off between herders and farmers (IRIN 2004). In 2004, for instance, at the intersection of

Ethiopia, Kenya and Uganda, 600 people died and 40,000 head of livestock were lost during clashes between farmers and herders (Meier et al., 2007).

As a result of its diverse impacts and their far-reaching consequences, climate change is now recognized across policy and academic circles as a major problem to human security. Mearns and Northon (2010, p. 1) and Mildner and Lauster (2011, p. 1) opined that climate change is “the security risk of the 21st century”. The nature and scope of its impacts vary across regions, and are influenced by the varying socio-contextual and ecological specificities of each region.

Concerns on climate change-conflict linkages stem from the increasing incidence of violent conflict arising from contestations among groups over climate-related declines in the availability of renewable natural resources (Buseth, 2009; Coetzee, 2012; Evans, 2010; Folami, 2010; Homer-Dixon, 1991). Under such circumstances, the conflict-inducing implications of climate change can be associated with its effects on the tangible or intangible but vital natural resources which sustain livelihood, as well as the changing forms, contexts and dynamics of social relations built around these resources (Wolf, 2011).

Scholars agree that disruptions occasioned by such impacts as drought, desertification, flooding, etc. often exert significant negative effects on the carrying capacity of the social and ecological systems. Scheffran et. al. (2012a: 100) observed for example, that “climate change generally reduces the carrying capacity and productivity of many natural resources. There are five security sectors in which vulnerability to climate change poses a major challenge especially in Africa. They include: water security, energy security, migration, natural hazards, and food security (ACCES, 2010: 7-32). Climate change will potentially alter the patterns of precipitation, including the frequency of droughts, storms and floods. It is against this background that climate change is seen as a threat multiplier with consequences cutting across social, political and environmental spheres of life (Tjossem, 2012). Although the influence of climate change on human migration is viewed by many as complex (Bardsley and Hugo, 2010; Gray and Bilsborrow, 2013; Piguet et al., 2011; Raleigh et al., 2008), migration is nonetheless widely acknowledged as a common adaptation strategy in the face of climate change (ACCES, 2010).

Population and Context for Eco-Resources

Similarly, there are disturbing links between Population pressure and communal tension. Pressures from population density, limited opportunities for migrant and increased inter-communal tension aggravate the risk of some forms of violent conflict. Example, the expansion in the population of Nigeria from 33 million in 1950 to about 193,392,517. (National *Population* Commission (NPC) 2018) today has far reaching implication for Nigeria’s social economic and political dynamics creating a system of stiff contestation for seemingly scarce resources. The astronomic increase has put enormous pressure on availability of land and water resources especially for farmers and pastoralists. One of the consequences of this has been the blockage of Transhumance routs and loss of grazing land to agricultural expansion. Migration towards south ward in contest with environmental imperatives has led to stiff confrontation between farmers and herders. This is most evident in state like Plateau, Kaduna, Niger, Nasarawa, Taraba and Benue. This confrontation has led to massive killings and destruction of properties of local communities. The intractability has created a syndicate of Banditry and criminality whose operational modus is comparable to the dreaded Boko Haram terrorist group. There is the likelihood that the Fulani herdsmen had killed more people than Boko Haram Nigeria.

However, the current prevailing assumption that pastoralist conflict with sedentary farmers is a recent phenomenon negates historical fact. (Meier 2011, p. 1430, Breuseurs et al. 1998, p. 358). The oldest written reference to such a conflict might well be the unprovoked murder of Abel, the shepherd, by his brother Cain, the Farmer. Farmer–herder conflict is an old issue in that the fundamental mechanisms of competition over resources remain the same; the only difference is that the intensity of conflicts seems to have increased. The proliferation of modern arms can partly explain the increase in both the number of conflicts and the number of casualties (UNEP 2011, p. 25).

Free Movement and Restriction to Transhumance

Perhaps, the best possible option for stalling the menace of farmers/herders' conflicts would have been the securitisation of the Nigeria border in order to prevent migrating herdsmen from other countries. However, the limitation to this proposal stems from the subsisting protocol of ECOWAS on free movement of person and goods within the sub region of West Africa. It is in line with the detail of the logic of integration that ECOWAS states came together on the 1st of May 1979 to sign a Treaty known as PROTOCOL A/P.1/5/79 RELATING TO FREE MOVEMENT OF PERSONS, RESIDENCE AND ESTABLISHMENT. The trust of this protocol is to encourage free movement of human, goods and services across the ECOWAS sub region of Africa. This protocol drew its inspiration from the Karl W. Deutch and David Mitrany theory of integration that emphasizes cooperation as a panacea to regional integration. This move was conceived to foster diplomatic intercourse among member states through progressive sub regional cooperation. The provision of this protocol seeks to emphasize a community of Sub regional Citizenship through technical and non controversial cooperation to possible spillover effect on the controversial aspect of politics.

Many citizens of various West African states including Fulani herdsmen have leveraged on this protocol to transverse the nooks and crannies of West Africa without harassment. By implication, the West Africa territory has become a compressed habitation for these herdsmen irrespective of national boundaries. Their nationality is believed to transcend their original country of birth or residence.

Similar laws also exist in Nigeria; in Section 41(1) of the Nigeria constitution states that "Every citizen of Nigeria is entitled to move freely throughout Nigeria and to reside in any part thereof, and no citizen of Nigeria shall be expelled from Nigeria or refused entry thereby or exit therefrom" (1999 constitution of Nigeria). However, three states in Nigeria already have laws that tend to compromise this provision by enacting various laws on pastoral transhumant movement. These laws came in under the context of the doctrine of necessity to regulate the activities of Fulani herdsmen. However, this portends a certain degree of danger, it is expected that the texture of these laws will be tested and their validity challenged in the court of law.

Security Implication of the Protocol and ECOWAS Response

The concept of free movement of goods and persons in West Africa also predisposes the region to free movement of light weapons and criminality within the region. Trans-border crimes are freely exported. Criminals take advantage of the protocol to expand their scope of influence and this makes it increasingly difficult to track perpetrators of crimes. ECOWAS, while envisaging this eventuality, created a treaty to check criminality within the region. ECOWAS Transnational Security threats in West Africa included tackling conflicts and threats to international security through regional cooperation, as a necessary part of its project of West African economic integration. States (ECOWAS) treaty prepared the ground for a regional response to emerging transnational security threats. In this regard, it is important to note that,

Article 3 (d) of the Objectives of the 1999 ECOWAS Mechanism for Conflict Prevention, Management, Resolution, Peacekeeping and Security, clearly states that it seeks to, “strengthen cooperation in areas of conflict prevention, early warning, peace-keeping operations, the control of cross-border crime, international terrorism and the proliferation of small arms”. By implication, conflict within the region will be handled jointly.

Nigeria Government Ambivalence to the Conflict

The Nigeria complex ethno/religious and political dynamics is embedded with gaps that pastoralist has leverage on in their drive towards self assertion against the sedentary farmers. The politicization of the conflict especially by the ruling elite stalled early response and outright rejection of the conflict early warning signs by current regime of President Muhammadu Buhari. Several reasons can be adduced for this. The first probability is that of social cultural bias of the current leadership whose allegiance overtly tilts towards the Fulani kinship group. The second thesis is the philosophical solidarity with the Fulani’s whose historical conviction places their cattle above human survival and access to water and pastures has no territorial restriction therefore an infringement on grazing route was outright call for war. Consequently, persuading the President otherwise was a negation and unacceptable contradiction to the consistency in the reflection of the ethnic Fulani tradio-cultural believes in cattle breeding through open grazing and expansionism.

There is however, a third thesis which tend to implicate the current leadership of Nigeria in what looks like an ethnic cleansing agenda fermented very long time ago by the Fulani nation. This view is held very strongly in certain quarters and it is believed that the long silence of the president over the mindless killing was deliberate and consistent with the Fulani Jihadist agenda in Nigeria especially the middle belt of Nigeria.

Conclusion

The emerging transnational dimension of herdsmen militancy points to the need for a multilateral approach to manage it. Regional platforms, such as the Lake Chad Basin Authority, the Economic Community of West African States, the Mano-River Union, should step up to the plate and take action in the interest of regional security

There is also a need for a cohesive and comprehensive policy framework for livestock production in Nigeria. A regulatory framework is needed to check altercation between Fulani pastoralist and sedentary Farmers. Open grazing should be outlawed and grazing routes reserves established. The ranch system of animal husbandry should be promoted as a substitute to mobile pastoralism. This can be done over time through public private partnerships. In addition, all perpetrators of violence under the pretext of farmer-herder conflict should be brought to book and punished severely to deter impunity and wanton criminal behaviour.

References

- ACCES. (2010). Climate change and security in Africa: Vulnerability report. Africa, Climate Change, Environment and Security (ACCES) Dialogue Forum, Event Report 11. Addis Ababa, Ethiopia: UN Conference Centre. http://www.envirosecurity.org/acces/docs/ACCES_2010_Vulnerability_Report.pdf. (Accessed: April, 2018).
- Abbass, M. (2012). No retreat, no surrender conflict for survival between Fulani pastoralists and farmers in Northern Nigeria. *European Scientific Journal*. **8** (1): 335–339. Retrieved May 5, 2018.

- Adogi, M. (2013). *Fulani-farmers conflicts in Nasarawa State: The ecology, population and politics*. Abuja: Murry Greens Consult.
- Blench, R. (2004). *National resources conflict in North-Central Nigeria: A handbook and case studies*. Mallam Dendo Ltd.
- Blench, R. (1994): The expansion and adaption of Fulbe pastoralism to sub-humid and humid conditions in Nigeria, *Cahiers D'etudes Africaines*, Vol 34, Nos 133-135, pp 197–212.
- Blench, R. (2010): Conflict between pastoralists and cultivators in Nigeria: Review paper prepared for DFID, Nigeria, 9th August, 2010.
- Breusers, M. et al (1998). Conflict or symbiosis? Disentangling Farmer–Herdsman relations: The Mossi and Fulbe of the Central Plateau, Burkina Faso. *The Journal of Modern African Studies*, 36,3 (September); at: <http://www.jstor.org/stable/161788> (13 December 2010): 357–380.
- Bryant, R. L. (1998). Power, knowledge and political ecology in the Third World. *A Review Progress in Physical Geography*, 22(9), pp. 79 – 94
- Bardsley, D. K. & Hugo, G. J. (2010). Migration and climate change: Examining thresholds of change to guide effective adaptation decision-making. *Population and Environment*, 32 (3), 238-262.
- Buseth, J. T. (2009). *Conflicting livelihoods and resources in the time of global warming: The political ecology of farmer-herder conflict in Mopti, Mali*. Noragic, Norway: Department of International Environment Studies.
- Coetzee, W. S. (2012). *The role of environment in conflict: Complex realities in Post-Civil War Nigeria*. Stellenbosch University, March. Available Retrieved from <http://www.scholar.sun.ac.za>. (Accessed 05/07/2018).
- Doug; B. J. (2007). Environmental influences on pastoral conflict in the Horn of Africa. *Political Geography* 26,6: 716–735.
- European Commission (EC), (2008). Climate change and international security. Paper from the High Representative and the European Commission to the European Council—S113/08, 14 March 2008; Retrieved from http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/reports/99387.pdf.
- Evans, A. (2010). Resource scarcity, climate change and risk of violent conflict. Background Paper, *World development Report 2011*. http://siteresources.worldbank.org/EXTWDR2011/Resources/64060821283882418764/WDR_Background_paper_Evans.pdf. (Accessed 05/03/2018).
- Folami, O. M. (2010). Climate change and inter-ethnic conflicts between fulani herdsman and host communities in Nigeria. *Conference Proceedings: Climate Change and Security*, Norwegian Academy of Science and Letters, Norway. Available at: <http://www.eldis.org/go/home&id=56108&type=Document#.V3JMkaJ13Emd> (15 May, 2015).
- Gray, C. & Bilsborrow, R. (2013). Environmental influences on human migration in rural Ecuador. *Demography*, 50 (4), 1217-1241.

- Gore, A. (Al) Jr., Guggenheim, D. (Dir.), West, B. (2006). *An inconvenient truth*. Lawrence Bender Productions.
- Homer-Dixon, T. (1991). On the threshold: Environmental as causes of acute conflict. *International Security*, 16 (2), 76-116.
- Homer-Dixon, T. F. & Blitt, J. (1998). *Ecoviolence: Links among Environment, Population and Security*. Lanham: Rowman and Littlefield.
- IISS, (2011). Sudan (Darfur) armed conflicts database; Retrieved from http://acd.iiss.org/armedconflict/MainPages/dsp_ConflictSummary.asp? Conflict ID=213 (01 August 2011).
- IRIN, (2010). “BURKINA FASO: Cross-border land conflict risks”; Retrieved from <http://www.globalsecurity.org/military/library/news/2010/04/mil-100420-irin04.htm> (accessed on may 2018).
- Ki-moon, B. (2007). A climate culprit in Darfur. *Washington Post*, 16 June 2007; at: <http://www.washingtonpost.com/wp-dyn/content/article/2007/06/15/AR2007061501857.html>
- McGregor, A. (2014). Alleged connection between Boko Haram and Nigeria’s Fulani herdsman could spark a Nigerian civil war. *Terrorism Monitor*, Vol. 12, issue 10, pp 8-10.
- Mazo, J. (2010). *Climate conflict—How global warming threatens security and what to do about it*. New York: Routledge.
- Meier, P. (2011). *Networking disaster and conflict early warning in response to climate change*. In Brauch, H. G., Oswald Spring, Ú., Mesjasz, C., Grin, J., Kameri-Mbote, P., Chourou, B., Dunay, P. & Birkmann, J. (Eds.): *Coping with global environmental change, disasters and security threats, challenges, vulnerabilities and risks, hexagon series on human and environmental security and peace*, vol. 5, 1429–1440. Berlin– Heidelberg– New York: Springer
- Mildner, S. & Lauster, G. (2011). Scarcity and abundance revisited: A literature review on natural resources and conflict. *International Journal of Conflict and Violence*, 5 (1), 155-172.
- Mearns, R., & Norton, A. (2010). *Social dimensions of climate change*. Washington D.C.: The World Bank.
- Okello, A. & Mejekodunmi, A. (2014). *Identifying motivators for state-pastoralist dialogue: Exploring the relationships between livestock services, self-organisation and conflict in Nigeria's pastoralist Fulani*. Pastoralism. Retrieved May 5, 2018.
- Okoli, A. C. (2013a.). The political ecology of the Niger Delta crisis and the prospect of lasting peace in the post-amnesty period. *Global Journal of Human Social Science*, 13(3:1.0), pp. 37-46.
- Okoli, A. I. & Atelhe, G. (2014). Nomads against natives: A political ecology of herder/farmer conflicts in Nasarawa State, Nigeria. *American International Journal of Contemporary Research Vol. 4 No. 2*;
- Piguet, E., Pécoud, A. & de Guchteneire, P. (2011). Migration and climate change: An overview. *Refugee Survey Quarterly*, 30 (3), 1-23

- Raleigh, C., Jordan, L. & Salehyan, I. (2008). Assessing the impact of climate change on migration and conflict. World Bank Seminar on Exploring the Social Dimensions of Climate Change, Washington D.C.: The World Bank. Available at: http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/SDCCWorkingPaper_MigrationandConflict.pdf. (Accessed 18 may 2018).
- Shehu, D. & Hassan, W. (1995). Omen in dairying in the African Savannah: Their contribution to agro-pastoral household income in the dry North-West of Nigeria, *Nomadic Peoples*, No. 36/37, pp 53-64.
- Tjossem, S. (2012). State of the oceans: Wave of change. *Great decision*. Retrieved from <http://www.ftsd.org/cms/lib6/MT01001165/Centricity/Domain/159/State%20of%20the%20Oceans.pdf>. (Accessed April. 2018).
- Tonah, S. (2002). Fulani pastoralists, indigenous farmers and the contest for land in Northern Ghana. *Africa Spectrum*.
- UNEP, (2011). Livelihood security. Climate change, Migration and conflict in the Sahel, 5 December 2011; at: http://postconflict.unep.ch/publications/UNEP_Sahel_EN.pdf (accessed may 2018).
- Wolf, L. (2011) Climate change adaptation as a social process. *Advances in Global Change Research*, 42 (1), 21-32.