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Socio-economic and Political Drivers of Renewable Natural Resource Conflicts among Crop Farmers in Southeast Nigeria

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Abstract: The natural resource conflicts happen when there is variation on how natural resources and related ecosystems should be managed, owned, allocated, used, and protected. However, most researches on resource conflicts among different users, could not see the primacy of looking into these conflicts from the angle of their socio-economic and political causes. This paper among other things sought the socio-economic and political triggers of renewable natural resources conflict in Southeastern parts of Nigeria. Data were collected from 300 crop farmers purposively selected from three States - Imo, Abia and Enugu, using structured questionnaire and oral interview. Percentage and mean were used to analyze the collected data. The renewable natural resources considered in the study area were water, crop land, forests, and fishers/marine resources among others. The socio-political drivers of renewable resources conflict includes demand induced scarcity (87.7%), environmental degradation (83.3%), migration of people (91.6%) and unclear rights (85.3%). The study found that to reduce the occurrence of natural resource conflicts, following measures should be in place; reducing vulnerability to resources scarcity (M=3.57), increased availability of scarce resources (M=3.60), discourage/stop degradation (M=2.50), good governance framework (M=3.36) and effective resource sharing agreement (M=3.56) among others. It is recommended to resolve the natural resource conflicts which can be achieved by equal distribution of resources, clear rights to resources and good land governance.

Keywords: *Conflict, Farmer, Land, Natural resource, Renewable*

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1. Introduction

Land and natural resources are getting more international attention as a source of conflict. Changes in the character of violent conflict, as well as with long-term demographic, economic, political and environmental trends have practical implications for worldwide peace and security challenges (UNO & EU, 2012b). Land and conflict are frequently intertwined. Land and natural resource issues are frequently cited among the underlying causes of conflict or as key contributing elements (UNEP, 2009; UNO & EU, 2012b). Despite this reality, governments and the international community have resisted creating systematic and successful ways to handle land disputes and conflicts in the past. Land is thought to be politically sensitive or technically complex to allow for effective resolution; but, as experience has shown, this is a mistake. According to recent studies, wars over natural resources are twice as likely to resurface within the first five years after the conclusion of the conflict (UNEP, 2009).

Natural resource conflicts happen when parties differ on how natural resources and related ecosystems should be managed, owned, allocated, used, and protected. Conflict becomes an issue when the societal procedures and institutions for managing and resolving conflict fail, allowing violence to happen (UNO & EU, 2012a). Institutions that are weak, where political systems that are unstable, can be dragged into cycles of conflict and bloodshed. Scarcity of renewable resources, or concerns about their governance and/or trans-boundary character, might drive, reinforce, or aggravate existing stress and contribute for violence (UNO & EU, 2012a). Land and natural resources are getting more international attention as a source of conflict.

Changes in the form of violent conflict, as well as long-term demographic, economic, and environmental trends, provide enormous practical challenges to global peace and security. Farmers and herders have coexisted in West Africa for generations. This coexistence has not always been easy, as it has been marked by both cooperation and strife (Tonah, 2002; Shettima & Tar, 2008; Moritz, 2010). Reciprocity and exchange in many forms have aided the establishment of interdependent connections between farmers and herders (Seddon & Sumberg, 1997; Tonah, 2006; Moritz, 2010). In the past, these symbiotic connections were crucial in preventing and resolving conflicts between farmers and herders (Pelican & Dafinger, 2006; Moritz, 2010). In many places of Sub-Saharan Africa, the frequency and spread of violent farmer-herder clashes has increased.

The majority of violent farmer-herder conflicts in Nigeria, as in many other parts of West Africa, involved the *Fulani* (or Fulbe) herders and settled farming populations. The Fulani are West Africa's most powerful pastoralists (Abbass, 2014). In the early 1920s and 1930s, Fulani nomadic herders began migrating into Nigeria, Niger, Burkina Faso, Mali, and other African countries looking for pasture, water, and improved economic opportunities (Tonah, 2000; Tonah, 2001). Fulani herdsmen can now be found in practically all of Nigeria's agro-ecological zones. As a result, there has been an increase in violent crime leading to human deaths and displacement of people. Conflicts between farmers and Fulani herders have become commonplace. In recent years, there has been an uptick in the number of natural resource conflicts involving several resource users.

Farmer/herder disputes have become a typical occurrence in West Africa throughout the years, as well as a common feature of their economic life (Tonah, 2006; Turner, Ayantunde, & Patterson, 2011; Moritz, 2012). Farmer/herder disputes have erupted into widespread violence in many parts of Sub-Saharan Africa, resulting in property devastation, human deaths, and population displacement (Hussein, Sumberg & Seddon, 1999). The problem of access to and use of land and water resources lies at the heart of farmer/herder conflicts. Due to a variety of circumstances, land and water resources are becoming scarcer or becoming scarcer, resulting in fierce competition and violent conflict. Climate change is a significant element determining resource availability for agricultural and pastoral output. According to Moritz (2012), while climate change is occurring all around the world, the Sahel region of Africa has been particularly turbulent in recent decades.

Climate change has resulted in a reduction in environmental space as well as a rise in natural resource scarcity. As a result, there is more rivalry and pressure on limited resources, as well as tensions among user groups (Mwiturubani & van Wyk, 2010; Abbass, 2014; Okoli & Atelhe, 2014). Pastoralists migrate from places marked by drought and a lack of feed into new areas in response to climate change. In sub-Saharan Africa, the southward migration of pastoral herds (Fulani herdsmen) into the humid and sub-humid zones is among the factors cited for the widespread and increasing farmer-herder conflicts (Tonah, 2006; Fabusoro & Oyegbami, 2009; Moritz, 2010).

Resource shortage and violent conflict are also attributed to population growth and the rise of agricultural productivity. Rapid population growth raises the level of competition for limited resources (Adebayo, 1997; Mwiturubani & van Wyk, 2010). As a result of population growth, many pastoralists from the Sudan/Sahelian zone have moved south to avoid conflicts, but this has resulted in the possibility for conflict with farmers in new places (Moritz, 2012). Population growth, according to Williams, Hiernaux, and Rivera (1999), has increased the need for food, resulting in the extension of farming into previously uncultivated lands utilized for cattle grazing. Commercial crop production results in encroachment on most of the traditional cattle routes, leaving pastoralists with insufficient passage for livestock to reach drinking points, causing conflicts (WANEP, 2010).

Expansion of agricultural output into historically grazing regions and cattle pathways brings grazing livestock closer to cropped fields, resulting in livestock induced crop damage (Turner et al., 2011). In most parts of West Africa, livestock induced crop loss, whether on the field or in farm storage, has been identified as the most common cause of farmer/herder conflict (Tonah, 2002; Turner, Ayantunde, Patterson, & Patterson, 2007; Ofuoku & Isife, 2009; Abubakari & Longi, 2014; Ofem & Inyang, 2014). Tonah (2002) discovered that Fulani ranchers would generally allow cattle to roam the entire plain, purportedly in search of grass and water, but with the goal of prohibiting crops on the plain so that it could be used entirely by them. Farmers and herders have been known to clash in the midst of abundant resources and low animal and human population densities. This study was focused on the socioeconomic and political triggers of farmer-header conflicts from the perspectives of crop farmers in Southeast Nigeria. The specific objectives were to a) identify renewable natural resources available in the study area; b) ascertain socioeconomic and political drivers of renewable resource conflicts in the study area and c) examine perceived strategies for preventing resource conflicts in the area.

2. Materials and methods

This study was conducted in southeast agro-ecological zone of Nigeria. The zone is made up of five states - Abia, Anambra, Ebonyi, Enugu and Imo (Figure 1). The zone occupies a total land mass of about 10,952,400 hectares with a population of 35,381,729(NPC, 2006). The 2-stage sampling technique was adopted in the process of sample selection. The first stage was the purposive selection of three states from the Southeast agro ecological zone where cases of farmer-pastoralists conflicts have occurred and were reported (Abia, Enugu and Imo). The second stage involved the random selection of 300 crop farmers from the list of 3000 crop farmers in the three states. Both primary and secondary data sources were used. Mean was

computed on a 4-point Likert type rating scale of strongly agree, agree, disagree and strongly disagree assigned weight of 4,3,2,1 to capture the perceived strategies for the prevention of natural resource conflicts. The values were added and divided by 4 to get the discriminating mean index value of 2.5. Any mean value equal to or above 2.5 was regarded as a major strategy for reducing conflicts, while values less than 2.5 were regarded as no strategy.

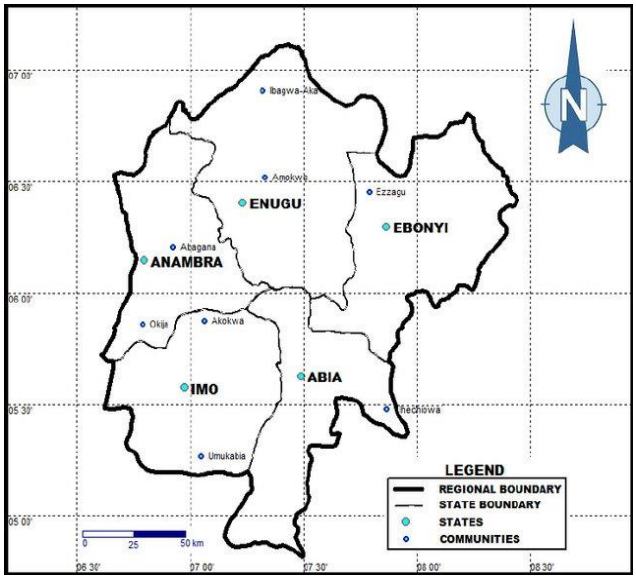

Figure 1: Map of Southeast Nigeria, showing the study locations - Imo, Abia and Enugu

3. Results and discussion

3.1. Renewable natural resources in the study area

Figure 2 shows that plenty of renewable natural resources exist in the study zones. Water (90.6%) was one of the major natural resource in the study site. Pressure on limited available fresh water resources is mounting driven by fast growing population, economic growth, pollution, and loss of watersheds. Recently, climate change effects are likely to aggregate water scarcity in almost every regions of the world. This has intensified demand and complication for water and has affected water use twice due to increasing rate of the population (UNESCO, 2009).

Crop land (87.6%) was another resource available in the study area in southeast Nigeria. Rangeland (70.6%), consisting of almost entire of the land, dry or too steeply sloping has supported the crop production. This type of land feature was seen around Enugu, and Uturu area of Abia State, Nigeria. Forests (81.6%) is a rich source of wood, timber, shrubs and so many other herbaceous plants succulent for animal feeds. Fisheries/means resource (68.3%) were received from rivers, oceans and streams unlawful, or unauthorized harvesting from the water.

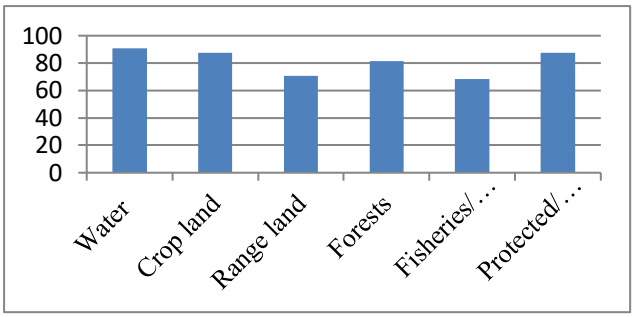

Figure 2: Renewable resources in study area

3.2. Socio-economic and political drivers of conflicts

Figure 3 shows the socio-economic and political drivers of renewable natural resources conflicts in the study zone. It includes demand-induced scarcity (87.7%). This occurs when the demand for a specific renewable resources increase and cannot be met by the existing supply. Water/cropland may be enough for users initially, but once population increases, the consumption rates rises up and availability of such resource becomes reduced. Another driver is supply-induced scarcity (78.3%). This happens when environmental degradation, natural variations or a breakdown in delivery infrastructure reduces the total supply of resources. Once the supply of renewable natural resources is reduced, options for pursuit of productive livelihood strategies are undermined, creating competition between users. Structural scarcity is another driver (97%). This occurs when different groups in the society face unequal resource access. As they go to places with abundant resources, competition occurs giving rise to violent conflicts. Migration (91.6%) and illegal exploitation (83.3%) are all drivers of resources-conflicts. These occurs when pastoral livelihood groups migrate across know land boundaries, over stepping traditional routes, they quarrel with the crop farmers and eventually fight. Again, illegal activities of criminal groups access boundary lines are sources of conflicts. When one user group over steps their boundary to the detriment of another, conflicts are bound to occur. These are called socio-economic dimensions of renewable natural resources conflict. One other socioeconomic driver of renewable natural resource conflicts is environmental degradation (93.3%). Here, due to high population, the quantity and quality of natural resources have reduced and or polluted. This impact seriously on the rural dwellers and is a precursor promoting conflict/agitations.

The above findings agree with UN0 (2004) that Africa is at a crossroads. The continent's share of the world population is increasing exponentially (from 8.9% in 1950 to 14% in 2005), and is projected to reach 21.3% in 2050. With a large majority of the population directly dependent on four key renewable resources that are especially crucial to food production – water, cropland, forests and fisheries – this growth in population does indeed present the largest and most complex of threats to human security. The availability of these key renewable resources determine

the people's well-being (Maphosa, 2012), and the scarcity of such resources under certain circumstances could lead to violent conflict. In effect, a reduction in the quantity and/or quality of a resource decreases the resource, while population growth divides the resource among people, and unequal resource distribution means that some groups get disproportionately larger allocations of the resource. Thus, increased environmental scarcity caused by one or more of the abovementioned processes may lead to several consequences, which in turn may generate armed and/or domestic conflict. Important intervening changes may include decreased economic activity and agricultural production, displacement of persons and compromised states.

The political drivers of renewable natural resources conflict include unclear rights to land and laws (85.3%), discriminatory policies (83%), unfair benefits/burdens (82.6%), lack of public participation (85%) unequal/inflexible use (87%), unclear overlapping or poor enforcement of resources rights and laws, bring problems to land-users. Land use and right are regulated under various statutory, customary and informal rules which are not too clear and brings confusions. These rules bring disagreements and uncertainty over resources rights among users. Again, there are discriminatory policies, rights and laws that marginalize certain resource-user groups. When one resources-user group controls access to renewable natural resources to the detriment of others, other communities dependent on that particular natural resource will suffer. When benefits are unequally distributed, ill-feelings and agitations will start. Lack of public participation and transparency in decision making is always a problem due to top-down approach. When communities and stakeholders are poorly engaged or excluded from the natural resources decision making, they are likely to oppose any related decisions and outcomes.

That is why natural resource conflicts have been defined as "a social or political conflict where natural resources contribute to the onset, aggravation, or sustaining of the conflict, due to disagreements or competition over the access to and management of natural resources, and the unequal burdens and benefits, profits, or power generated thereof" (Schellens & Diemer, 2020). Other terms used for natural resource conflicts, with slightly different meanings, are environmental conflict, socio-environmental conflict, ecological distribution conflict, and climate conflict. Environmental conflicts distinguish themselves as being induced by human-caused environmental degradation, and thus always focus around renewable resources (Libiszewski, 1992). Socio-environmental conflicts and ecological distribution conflicts are synonyms, sometimes also seen as synonymous to environmental conflict (Martinez-Alier & O'Connor, 1996; Temper et al., 2018). They are described as "social conflicts born from the unfair access to natural resources and the unjust burdens of pollution" (Martinez-Alier and O'Connor, 1996), placing their main focus on inequality and access. Climate-conflicts arise from a change in availability or access to natural resources due to climate change (Mazo, 2010; Scheffran et al., 2012) and can thus be considered a sub-type of natural resource conflicts. The unequal distribution of burdens and benefits, profits and power generated from resource exploitation is the direct socio-economic and political context that creates resource grievances (Must, 2016; Lessmann & Steinkraus, 2019). Without strong agreements on the access to, and the management of, natural resources, disputes and competition can develop into violent conflicts (Must 2016; Olsson and Gooch, 2019b).

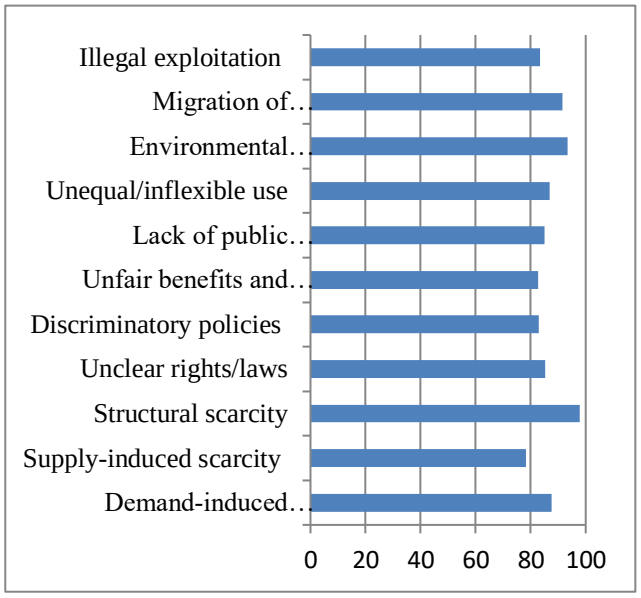

Figure 3: Socioeconomic and political drivers of renewable resource conflicts

3.3. Strategies for prevention of renewable natural resource conflicts

Table 1 shows the various perceived conflict prevention approaches to avoid, minimize, and resolve conflicts. These are useful where natural resources are a direct sources of conflicts. The approaches include supporting sustainable livelihoods (M = 3.4), reducing vulnerability to resource scarcity (M = 3.57), increase availability of scarce resource (M = 3.60), discourage/stop degradation (M = 2.90), framework for good resource governance (M = 3.28), civil society as part of resource governance (M = 3.36), proper trans-boundary information (M = 3.80), and effective resource-sharing agreements (M = 3.56). The above agrees with UNO and EU (2012), understanding livelihood methods in a particular location, especially if livelihoods compete for the same limited natural resources, is critical to developing conflict avoidance or management techniques (Chikaire, Ajaero, & Atoma, 2022). The threats to minority groups and indigenous peoples, in particular, must be assessed. Addressing inequitable access, reducing corruption and improving transparency, preventing environmental degradation, establishing and enforcing rights and rules over natural resource use, fostering parliamentary oversight, enhancing public participation in the design and acceptance of such rules, and ensuring the transparent identification of any

poachers are all examples of ways to improve resource governance.

Table 1: Renewable natural resources conflict prevention strategies

Strategies	Mean	SD
Support sustainable livelihoods	3.44	0.81
Reduce vulnerability to resources scarcity	3.57	0.91
Increase availability of scarce resources	3.60	1.51
Discourage and stop degradation	2.90	0.75
Framework for good resources governance	3.28	0.56
Civil society as part of resource governance process	3.36	0.71
Proper trans boundary information	3.80	0.45
Effective resource-sharing agreements	3.56	1.12

Accepted mean =2.50 and above

4. Conclusion

Conflicts over renewable resources generally arise as who should have access to and control over the natural resources (cropland, water, pasture, forests and sacred areas), and who can influence decisions regarding their allocation, sharing of benefits, management and rate of use. It is critical to note that disputes and grievances over natural resources are rarely, if ever, the sole cause of violent conflict. The drivers of violence are most often multi-faceted (unclear rights, lack of legislation, uneven distribution among others). However, disputes and grievances over natural resources can contribute to violent conflict when they overlap with other factors, such as ethnic polarization, high levels of inequity, poverty, injustice and poor governance. For resolving the natural resource conflicts, there should be equal distribution of resources, clear rights to resources and good land governance measures.

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