

Building Resilience of Rural Farm Households in the Aftermath of Resource-Use Conflicts in Enugu State, Nigeria

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Abstract

This paper examines how farm families mitigate, withstand and bound back from shocks and stresses after violent conflicts with grave consequences. It specifically examines resilient capacities of rural farm households, effects of such conflicts on farm households, and resilient strategies for reducing/preventing occurrence of violent conflicts in rural communities. A total of 300 farm families were selected randomly from the study area. Questionnaire and oral interview were used to elicit information. Data were analyzed descriptively using mean and standard deviation. Result showed that violent conflicts leads to death of farm workers as shown by a mean (M) score of 2.89, farm abandonment (M=3.50), loss of crops and animals (M=3.40), increased hunger and starvation (M=2.90) among other effects. To adapt, mitigate and endure shock resulting from this situation, farmers diversify income and livelihood (M=2.83), use of remittances (M=2.47), participate in co-operative activities (M=2.80), produce high value added crops (M=2.81), supporting new practise and change (M=2.67), have access to market for sale of produce (M=2.70). To reduce future occurrence of conflicts, proper land use planning, compensation of land owners, strengthening conflict management committees, provision of rural basic infrastructure among others should be pursued by government at all levels.

Keywords: Resilience; Conflicts; Farm; Farmer; Land; Households

Introduction

Nigeria has emerged as Africa's largest economy, but despite this distinction, Nigeria is a cause for concern for humanitarian organizations. Economic growth is inextricably linked to oil markets, which has led to sluggish growth in recent years. The benefits of growth have not been equitable either: in 2010, nearly two out of three Nigerians lived on less than \$1.25 USD per day [1]. Recurrent humanitarian crises and ongoing and emergent conflict in the Niger Delta and the North East continue to

disrupt lives and livelihoods. In the North East Boko Haram has been responsible for the deaths of over 17,000 and displacement of 3.3 million people since 2009 [1]. Conflict poses a major threat to poverty alleviation and development by destroying infrastructure and markets and leading to deficiencies in economic and health status indicators.

Conflicts in Nigeria generally fall into three broad categories: identity-based, resource-based and political power-based conflicts. The multiple communal conflicts,

which have resulted from the manipulation of ethnic and religious identities (including violent extremism) as well as those fueled by the settler-indigene claims over authentic citizenry, fall under the identity-based category of conflicts. Conflicts over competition for resources such as land amongst farmers and pastoralists or grazers, as well as struggles for control of natural resources such as petroleum in the Niger Delta region, are considered resource-based conflicts. Violent conflicts orchestrated by political dynamics such as elections and the struggle for power at both national and local levels typify power-based conflicts [2]. Resource -based conflicts between crop farmers and pastoralists which have become so common today in Nigeria is our major concern in this work.

Crop farmer and pastoralist communities in Nigeria's South-east region have long suffered from violent conflict that is largely centered on competition for key natural resources, such as land and water. In addition to the obvious and devastating costs in human life, these conflicts take an enormous toll on the economic health of families and households and undermine local economic progress. For instance, a Mercy Corps study conducted in 2013 showed that 39% of pastoralist and farmer community members in Kaduna and Nasarawa had failed to pursue their livelihoods over long stretches of time due to fear or insecurity. Likewise, eroded trust due to violent conflict was found to prevent productive economic behavior [3].

Violent conflict between farmers and pastoralists over scarce natural resources in the South-east region of Nigeria has trapped communities in a cycle of insecurity and underdevelopment. For some time now, conflict has impeded the economic growth of the region and the country, as well as the financial health of households. As one recent study showed, households would increase their income by at least 64%, and up to 210%, if farmer-pastoralist violence were to reduce to near zero [4]. Conflict destroys livelihoods and leads to displacement; conversely, livelihood insecurity induces migration, which in some cases creates disputes over land and leads to violent conflict [4]. Households and communities would not continue to suffer and therefore need to be helped to adjust, cope and withstand these situations. Building capacity of households becomes imperative.

Therefore, building household and community resilience to conflict and other major shocks is critical for preserving development gains and ensuring sustainable long-term growth. Resilience in this work refers to the

capacity of a group of people – usually at the community level – to monitor, anticipate, respond to and manage both known risks and future uncertainties. It is the ability of a community or society, through incremental and transformational change, to absorb shocks, adapt to stresses and bounce back better from both. The shocks and stresses that communities face can be extremely diverse. They include natural hazards (such as floods, droughts or hurricanes), as well as political, economic or social shocks (such as a financial crash, political upheaval or outbreak of a disease epidemic). And a resource-use conflict is explicitly included as a shock or stress factor [5]. Conflict can be a major shock that affects communities and undermines resilience. Conflict, particularly violent conflict, can directly undermine wellbeing through its impacts on physical and psychological health, basic service provision and livelihood security. It can increase people's exposure to other hazards, for example, by displacing whole communities into unsafe areas, such as densely-populated camps [5].

Conflict can drive individuals to sell assets, and undermine social networks that help people manage other risks, such as drought, disease, etc However, prior to this study, the socio-economic cost of farmer-pastoralist conflict to households has been studied and understood, but there is none on the resilient capacities built by rural households to face the shock caused by resource-use conflicts. This study seeks to provide a more comprehensive understanding of what constitutes resilience in the face of shock occasioned by struggle for the control of either land or water. The specific objectives of the work were – a.) To ascertain the effects of resource-use conflict on the livelihood activities of the respondents; b). Describe resilient capacities built by households in adjusting to conflict shock; and c) identify resilient strategies for reducing conflict occurrence

Methodology

Enugu State is one of the states in the eastern part of Nigeria. The state shares borders with Abia State and Imo State to the south, Ebonyi State to the east, Benue State to the northeast, Kogi State to the northwest and Anambra State to the west. Enugu, the capital city of Enugu State, is approximately 4 driving hours away from Port Harcourt, where coal shipments exited Nigeria. Enugu State has an estimated population of 4,267,837 people in 2017 projected from 2016 census figure. It is home of the Igbo of southeastern and few Idoma/Igala people in Ette (Igbo-Eze North) of Enugu State, Nigeria. The average temperature in this city is cooler to mild (60 degrees

Fahrenheit) in its cooler months and gets warmer to hot in its warmer months (upper 80 degrees Fahrenheit) and very good for outdoor activities with family and friends or just for personal leisure. Enugu has good soil-land and climatic conditions all year round, sitting at about 223 meters (732 ft) above sea level, and the soil is well drained during its rainy seasons. The mean temperature in Enugu State in the hottest month of February is about 87.16°F (30.64°C), while the lowest temperatures occur in the month of November, reaching 60.54°F (15.86°C).

The lowest rainfall of about 0.16 cubic centimeters (0.0098 cu in) is normal in February, while the highest is about 35.7 cubic centimeters (2.18 cu in) in July. Enugu was selected because conflicts have occurred between the farmers and Fulani nomads and it is the gateway through which the nomads enter southeast from the North-central, settle and graze before moving to the other states of the Southeast.

Multi-stage sampling technique was used in selecting sample for the study. The first stage involved the purposive selection of the Local Government Areas where these conflicts occurred and here we chose Uzo-uwani, Nkanu West and Udi Local Government Areas. The second involved the purposive selection of the communities in the Local Government Areas, where conflicts between crop farmers and pastoralists have occurred. We as well selected Nimbo (Uzo-uwani), Ishi-ozalla (Nkanu West) and Ogui-Agueke (Udi) communities from the three Local Government Areas. The third stage involved the proportionate selection of 105 crop farmers from a total of 1050 affected farmers from Ishi-ozalla, 69 crop farmers from a total of 695 crop farmers from Ogui-Agueke and a selection of 126 affected crop farmers from a total of 1260 affected farmers from Ishi-ozalla communities. This gave a total sample size of 300 crop farmers affected by the conflicts obtained and compiled by the community heads.

The household heads included widows who fend for themselves and family. Again, mean was computed for objectives 1 and 3 which looked at the effects of conflicts on the respondents and resilient strategies for reducing conflicts occurrence on a 4 point Likert type rating scale of strongly agree, agree, disagree and strong disagree assigned values of 4,3,2,1. The values were added and divided by 4 to obtain a discriminating mean value of 2.50. Any value with mean equal to or greater than 2.50 was considered effects of conflicts and strategies for reducing conflicts and vice versa. Mean was also computed on the resilient capacities built by respondents (objective 2) on a 3 point Likert type rating scale of

strongly agree, agree and disagree assigned weights of 3, 2 and 1. The values were added and divided by 3 to obtain a discriminating mean value of 2.0. Any value with mean equal to or greater than 2.0 was considered resilient capacities and mean values less than 2.0 was considered no capacity resilience.

Results and Discussion

Effects of Resources Use Conflicts on Livelihood Activities

Conflicts and its related shocks affect the poor disproportionately as shown in table 1. Conflicts represent a major disruption to daily life. Household reported displacement/migration of labour with a mean (M) response of (M=3.27), reduced mobility (M=2.68), reduced access to natural resources (M=2.53), increased prices of goods/agricultural products (M=3.34), reduced trading (M=3.64), increase hunger and starvation (M=2.90) and loss of crops and animals (M=3.40). One of the primary effects of violent conflict is displacement—sometimes because armed actors intentionally force people to flee; sometimes as a by-product of violence and livelihood destruction.

Displacement is not random: frequently, aspects of people's identity (i.e., their gender, socioeconomic status, clan affiliation, politics) determine who is displaced. Displacement disconnects people from their previous livelihoods, forces them to adapt to new circumstances, and transforms the livelihoods and roles of those left behind [6]. Displacement forces households to develop new strategies to survive, some of which might be dangerous, destructive, and/or illegal. At the same time, these shifts may also open up new opportunities for groups who were marginalized under the previous social and economic systems

As this displacement occurs, agricultural labours is affected as strong men/women will also migrate to their found home, leaving their home law empty. Most times also, farm workers will be in fear of moving and even walking freely. This fear of being attacked and even killed reduces mobility of the farmer who now restricts himself to safe areas. Prices of goods and agricultural products will sky-rocket due to short in-supply and high demand, this affects trading as well. The result of high food prices will be increase hunger and starvation, which causes nutritional disease and ultimate death.

Other effects were increased rate of malnutrition, wasting and stunting (M=2.01), destruction of houses (M=3.10), loss of productive assets (M=2.90), farm abandonment (M=3.50), loss of lives/death of farm worker (M=2.89), reduced quantity/quality of food (M=3.0), loss of crop yields (M= 2.84) and theft of crop produce from barn and field (M=2.91). During and after

conflicts, food shortages will lead to hunger, malnutrition, wasting (thinness) especially in children), stunting, crops and animals will be missing at times killed by thieves and others in the community. Quantity/quality of food will be small due to scarcity leading to high prices of the product and high demand as well.

Effect Statement	Mean	SD
Displacement/migration of labour	3.27	0.816
Increased prices of goods/agricultural products	3.34	0.04
Reduced mobility	2.68	0.858
Reduced access to natural resources	2.53	0.877
Reduced trading	3.64	0.825
Increased hunger and starvation	2.9	0.981
Increased rate of malnutrition, wasting & stunting	3.01	1.042
Loss of crops and animals	3.4	0.678
Destruction of houses, property and farm stead	3.1	0.741
Loss of productive assets	2.9	0.982
Farm abandonment	3.5	0.837
Loss of lives/death of farm workers	2.89	1.028
Reduced quantity and quality of food	3	0.671
Loss of crop yield	2.84	0.966
Theft of crop produce in barn	2.91	0.75

Table 1: Effects of resources use conflicts on livelihood activities. Field survey, 2017 Mean 2.50 and above accepted.

Capacities to Make Households Resilient to the Effects of Violent Conflict

Building resilience is key to survival of rural farmers after violent conflicts in any African rural community. Resilience building is key to investment in agriculture and even humanitarian efforts. Table 2 showed the various ways/avenues, rural farmers affected by resource-use conflicts involving the nomads were able to withstand the various shocks occasioned by the invasion of their areas by the Fulani nomads. The rural farmers employed the following;

Resilient capabilities: livelihood/ income diversification with a mean (M) response of (M=2.83), labour migration (M=2.37), and access to productive assets (M=2.81, building fences to protect their crops (M=2.74), access to

bank account (M=2.04), supporting new practices (M=2.67) and flexibility in decision making (M=2.44). These practices are termed adaptive capacities. Diversification, both in terms of crop production and other strategies such as trading or sale of forest resource product like cash now and mushroom helped farmers recover from large scale and frequent crop damages. Others use tree-varieties to build fences around their farms to protect it from the rampaging cattle.

There were also profound shifts in the movement of male headed- household away from home to places they could provide manual labour for daily pay. Farmers who also save money in the bank through other means depended on such savings to cushion the effects of ability of a household to cope with and respond to change depends heavily in access to and control over key assets

[7]. These assets are both tangible (natural, physical, and financial) and intangible ones (human and social) [8]. Those who have vehicles, motor bikes, for transporting goods fared better than those without. Land is also another important asset, the farmer with several plots (fragmented) of land were far better. Both farmers and community members were ready to alter existing practices, resources and behaviours, or in some cases, to adopt new ones. This was necessary to remain dynamic and functioning- this is called innovation [9]. When both communicator/individuals anticipate changes and incorporate relevant initiative into future planning, they become flexible, adjust and include new information and knowledge into present/future lives.

Another form of resilient capacity for rural farm households is called absorptive capacity. These include the use of remittances received to cope with shock resulting from resources-use conflicts by rural farm households. Use of remittance has mean responses of 2.47. During and after violent conflict, rural household members who migrate send money to family members left behind for their up keep. If the family head moves, he sends money monthly to the wife and children, this helps keep the family going until the income improves. Another is access to insurance /social safety net (M=1.75), which the farm households do not use at all since they are not under any insurance policy cover. Other capacities include skills training/ acquisition opportunities (M=2.54), and production of high value added crops (M=2.81). After destruction of crops and other forms of assets, the rural farm household takes up acquisition of new skills/training to adjust to their new situation- such training includes hair-dressing, craft, weaving, basket making, and other minor repair works. While others produce high value added crops in order to survive, such crops cashew, cassava, pineapple, rice etc

Transformative capacities in particular seem to make significant contributions to household resilience. A better enabling environment comprised of basic community services like village institutions, markets, infrastructure and access to electricity reduces the negative impact of conflict on all measures of child malnutrition.

They are access to market for business transaction (M=2.70), participation in village co-operative society (M=2.80), availability of institutions and entitlement (M=2.30). Access to market is important because greater access to information and buyers steadily adds to farmer's market knowledge and give them greater confidence to diversify to high value product. Participation in village co-operatives, institutions and entitlements all provide buffer to absorbing shock in rural communities. Co-operatives help and empower member through share contribution and communal work actions for members.

Members fall back on money given to them by co-operatives in times of need. These contributed funds are distributed to members in need who contribute financially to the co-operative. Membership in social networks often strongly influences resilience in conflict contexts. Beyond the concept of "social capital" as a livelihoods asset, social networks—and the ability to call on them for assistance are critical to people's resilience during conflict [6]. Social networks help people to stay safe during conflict, meet basic needs, and recover in the aftermath. Membership in a social network is often a vital factor in how people access remittances and other resources, how and where they migrate, and whether and how they access labor opportunities.

Where a community has strong institutions and rules that govern belief systems, behavior and organization structure, members are able to respond to shock arising from human interaction [10]. Other capacities not available to the responded were access to electricity (M=1.63), access to infrastructure (M=1.64), knowledge and information (M=1.64). These are not available to the farmers, which should be addressed in the future study though very important. Knowledge can also play a role in ensuring local empowerment and raising awareness of the needs of particular groups within a community [11]. Therefore, the way in which a system generates, collects, analyses and disseminates knowledge is an important determinant of adaptive capacity – with obvious links with the institutional context and the governance of knowledge.

Capacities	Mean	SD
Livelihood/income diversification	2.83	0.746
Labour migration	2.37	0.86
Use of remittances received	2.47	0.7
Building fences to protect crops	2.72	0.446
Access to bank accounts	2.04	0.576
Access to insurance /social safety nets	1.75	0.433
Access to electricity	1.53	0.704
Access to rural infrastructure	1.64	0.774
Access to market for business transaction	2.7	0.664
Participation in Village cooperative activities	2.8	0.72
Skills training /Acquisition opportunities	2.54	448
Production value added crop	2.81	0.701
Access to productive assets	2.08	0.496
Availability of institutions and entitlements	2.3	0.579
Knowledge and information (early warning system)	1.64	0.442
Supporting new practices and change	2.67	0.749
Flexibility in decision-making	2.44	0.561

Table 2: Resilient Capacities of Rural Farmer. Field survey, 2017, Mean 2.00 and above accepted.

Resilient Strategies for Reducing Conflict Occurrence

The following twelve options for reducing conflict and increasing resilience in the study area and Nigeria at large are presented: Proper land use planning; this strategy has mean response of (M=2.34). Given the ongoing encroachment of farming, settlement, urban expansion, and other large scale development activity on pastoralist rangelands and migration routes, states should implement prior recommendations around land use planning. These prior recommendations include revisiting land tenure and land use policy nationally (and addressing disparities between groups considered “indigenes” and “settlers” in their ability to access to political office and land ownership); ensuring availability of pasture and water through expanding grazing routes and reserves [3,4].

Compensating landowners of grazing reserves (M=2.41), Government should give adequate monetary compensation to owners of land taken for developmental purposes so as to assuage their hunger. Livelihood development through education (M=2.47), Improved

provision of government livestock extension services and facilities, in areas such as crop productivity, improved land quality, animal healthcare and disease management, and diversification of the agricultural sector will bring benefits to all stakeholders and simultaneously reduce vulnerability for farmers and pastoralists. Establish and fund grazing reserves and stock routes (M=2.40), The National Assembly should review and pass the bill currently under consideration that seeks to create a National Grazing Reserve Establishment and Development Commission. This Commission will work with states to review existing reserves, assess priorities for establishing new reserves, and provide infrastructure and services for all reserves [3,4].

To strengthen enforcement of existing laws, state governments should raise public awareness about existing grazing reserves and stock routes, as well as land use regulations. Establish and strengthen conflict management committee (M=2.29), Few dispute resolution mechanisms or re-conciliation processes are considered effective or truly representative across farmer and pastoralist communities. State governments should establish or strengthen representative conflict

management committees that include traditional, religious, youth, and women leaders; civil society and human rights representatives; security officials; and government leaders. State and national governments should support the establishment of community-sanctioned, formalized alternative dispute resolution mechanisms. Improve security and justice system (M=2.30), security agents often lack the resources to respond adequately to conflict, and deep mistrust caused by security agencies' impunity, inability to respond, or biases—between communities and officials hampers an effective response [3,4].

States should strengthen existing joint task forces, including military, police, government, and judicial actors, responsible for passing recommendations to the national level, communicating key initiatives to the public, and liaising with community leaders. Support agricultural and livestock production (M=2.13), by relying on traditional methods, farmers and pastoralists are missing opportunities for increased productivity of land and herds. Furthermore, the lack of a proper herd tracking system allows for widespread cattle rustling, which exacerbates farmer-pastoralist conflict. State Ministries of Agriculture should increase funding for livestock and veterinarian extension workers who can support the health of herds, and for farming extension workers who can provide on-site training in modern farming techniques. The federal and state Ministries of Agriculture should enact a comprehensive plan to track livestock at state and local levels and regulate the sale and slaughter of all cattle in the country.

The federal and state governments should support livelihood restoration for farmer and pastoralist communities devastated by violent conflicts. Integrated interventions may include joint economic initiatives across conflict lines, youth capacity development, and financing and investments in soil and pasture rehabilitation. Good land administration/governance (M=2.50) Good land governance means that land which belongs to all in the hand of government is well managed, inclusive, and results in desirable outcomes. The principles of good governance can be made operational through equity, efficiency, transparency and accountability, sustainability, civic engagement and security [3,4].

Land administration system that is designed to enhance a pro-poor and gender-sensitive agenda is likely to place a high priority on areas such as achieving security of tenure for lessees and sharecroppers, the recognition of informal and customary property rights and the development of gender-neutral inheritance rights. Provision of insurance/social safety net (M=2.13), here poor farmers will have resources and other tangibles to fall back on during crises period. The government has a part to play in this regard as they provide the citizens with what is needed to live a meaningful life. Provision of rural electricity (M=2.95), and provision of rural infrastructure (M=2.14) and information /training on early warning (M=2.50). Rural infrastructure and access to electricity reduces the negative impact of conflict on all measures of child malnutrition and ensures food security of households.

Strategies	Mean	SD
Proper Land use Planning	2.34	0.764
Compensating landowners of reserves	2.41	0.678
Livelihood development through education	2.47	0.755
Establish and fund grazing reserves and stock routes	2.4	0.749
Establish and strengthen conflict management committees	2.29	0.597
Improve security and justice system	2.3	0.606
Support agricultural and livestock production	2.13	0.563
Good land administration and governance	2.8	0.599
Provision of rural electricity	2.95	0.747
Provision of rural infrastructure	2.14	0.747
Information/Training of Farmers on early morning	2.5	0.634
Provision of insurance/social safety net opportunity	2.13	0.563

Table 3: Resilient Strategies for Reducing Conflict Occurrence. Field survey 2012. Mean 2.00 and above accepted.

Conclusion

Resource use conflicts have grave consequences on human, the economy and overall well being of humanity. It leads to loss of life, destruction of property, disruption of social and economic life. Despite the effects, community needs to push ahead as they employ certain strategies/capacities to cope. These capacities include income/livelihood sources diversification, use of remittances and savings, acquisition of skills, membership of cooperatives for group work and assistance. Provision of insurance, safety nets, education and training, provision of rural infrastructure and proper land use planning will help in reducing resources use conflict among various users.

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