

Food is Inevitable but the Land is Mismanaged: Exploring the Impacts of Local Actors Utilization of Land Resources on Food Security in Nigeria

Fajobi Tolulope Adetayo^{1*}, Raheem Olalekan Akeem², Olajide Francis¹

¹Department of Sociology and Anthropology, Obafemi Awolowo University, Ile-Ife, Nigeria

²Department of Sociology, University of Ibadan, Ibadan, Nigeria

ABSTRACT

Land is a sine qua non of human existence, and has been conceived as integral and most valuable resources, which are indispensable for human development. Hitherto, in spite of massive land space and fertile soil, land mismanagement constitutes a serious challenge to the attainment of sustainable food security in Nigeria. Ostensibly, the increased level of food importation in the country is a function of a number of factors from inadvertent mismanagement of land resources by local actors. The study explores the extent of involvement of local actors in utilization of land resources on food security. It also assesses the challenges of land mismanagement on food security, and examines the influences of land mismanagement on rural-urban migration vis-à-vis food insecurity in Nigeria. Sustainable Land Management and Marxism theories were engaged. Descriptive research design was engaged, which uses in-depth interview guide in sourcing for useful information. Purposive and snowball sampling techniques were engaged for the study. Data collected were analysed using content analysis. The study concluded that mismanagement of land in Nigeria has encouraged decline in quality of environment, quality of food production, and price increase in the food commodity, which has a debilitating effect on food security in the country.

Keywords: Climate change, Development, Food insecurity, Land resources, Mismanagement, Rural –urban migration

INTRODUCTION

Development in human society relies heavily on the degree of resource availability and effective application and management by the actors within the system. In essence, development today is hinged on improving quality of human life, and environment, which can be achieved through one of its indicators such as, sustainable land resource management. Apparently, land is a sine qua non of human existence and has been conceived as integral and most valuable resources which are indispensable for human development.

Today, in spite of massive land space and fertile soil, land mismanagement constitutes a serious challenge to the attainment of sustainable food security in Nigeria. It is needful to say that Nigeria is one of the largest importers of agricultural products on the continent with slow pace in food production. In

essence, Williemien Viljoen (2017), tralac Researcher on Africa's recent trade performance, averred that Africa's agricultural import has increased from \$17 billion to \$61 billion between 2001 and 2016; furthermore, Nigeria is enlisted among the 2016 Africa's main importers of cereals alongside Egypt, Algeria and South Africa. Also, United States Department of Agriculture, (2013) contends that at nearly \$6 billion, wheat was a major contributor to Sub-Saharan Africa's record of agricultural imports in 2011, and Africa's leading agricultural importers are Nigeria, South Africa, and Angola, and with a later inclusion of Ghana. These four markets comprise more than 80 percent of U.S shipments (United States Department of Agriculture, 2013). Apparently, the increased level of food importation in Nigeria is a function of a number of factors from inadvertent mismanagement of land resources by local actors; the limited knowledge of local farmer; use of outdated techniques, and

Correspondence to: Fajobi Tolulope Adetayo, Department of Sociology and Anthropology, Obafemi Awolowo University, Ile-Ife, Nigeria, Tel: 7039071666; E-mail: adetayofajobi@gmail.com

Received: February 13, 2021; **Accepted:** August 25, 2021; **Published:** September 06, 2021

Citation: Fajobi TA, Raheem OA and Olajide F (2021) Food is Inevitable but the Land is mismanaged: Exploring the Impacts of Local Actors Utilization of Land Resources on Food Security in Nigeria. Global J Interdiscipl Soc Sci. 10:p016.

Copyright: © 2021 Fajobi TA. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

equipment to plough and plant on farmland; and the indiscriminate mining of productive land for economic uses. Also, the farmer-herdsmen crisis on the control of land resources has adversely affected soil fertility, soil productivity, and thereby putting pressure on food security in the country.

As of 2018, population growth rate is higher than economic growth rate, leading to a slow rise in poverty. According to a 2018 report by the World Bank, almost half the population is living below the international poverty line (\$2 per day), and unemployment peaked at 23.1% (World Bank, 2018). A large proportion of the population in developing countries is dependent on agricultural activities for livelihood. According to World Bank, agriculture is the main source of income for 2.5 billion people, out of which 1.3 billion people are landless and marginal laborers. Approximately 86 percent of the poor rural population of the world is employed in the agriculture sector (ECG, 2011) thus, making agriculture productivity important for the economic growth of a nation. But despite the economic growth recorded in recent years, progress in human development has been quite unimpressive in Nigeria considering various indicators such as poverty incidence, inequality and access to basic social services.

Over time and space, large hectares of land is mismanaged for other purposes and uses such as urban expansion in Nigeria; this influences climatic change, which in turn distorts the process of attaining self-sufficiency in food production in the country. Also, increasing poor utilization of land resources for economic profits and benefits without the plan of replenishing the land to its original state and quality put food security at a negative inclination. The retrogressive state of the productive usage of land resources in the country is being buttressed by the recent land resource control crisis between the local farmers and the herdsmen; and with poverty being created in the society, the quality of life is affected and food insecurity is promoted. Consequently, unsustainable utilization of land resources in Nigerian communities will encourage people with limited economic viability to migrate elsewhere in order to survive the situations that threaten their existence occasioned by decline in environmental safety, and food security. Predictably, in few years' time, there will be decline in food production with the consideration of how land resource is being utilized in Nigeria, if things move on at this rate. Against this background, this research explore how mismanagement of land resources has affected the attainment of sustainable food security in Nigeria. The study explore the extent of involvement of local actors in utilization of land resources on food security. It also assesses the challenges of land mismanagement on food security, and examines the influences of land mismanagement on rural-urban migration vis-à-vis food insecurity in Nigeria.

CLIMATE CHANGE AND FOOD SECURITY

The global concerns for environmental protection, poverty alleviation and sustainable development stem out of the disparity or incongruence between population growth (at geometric rate) and resources development (at arithmetic rate). The magnitude and tempo of degradation of the earth's surface

has intensified due to increase in the drives for technological advancement, civilization and economic development that legitimately demand the mining and burning of fossil fuels, the destruction of forests and agricultural land for highways and industries, and the release of effluents from industrial and agricultural processes. However, uncontrolled and unregulated drives to fulfill these developmental agenda result in the release of large quantities of "greenhouse" gas into the atmosphere (Geist and Lambin, 2001, 2004; Williams, 2003; Seto and Kaufmann, 2003; McConnel and Keys, 2005). Also, the relationship between poverty and the environment has become part of global concerns. In fact, sustainable development is impossible without efficient environmental management; in the same vein, poverty alleviation is also impossible without tackling the problem of environmental degradation. The achievement of poverty reduction as an economic development goal is hinged on the environment and its resources .

According to the latest estimates by Satterthwaite (2009) the entire African continent was responsible for only 3.7% of the world's annual CO₂ emissions, compared to China with 21.5%, the United States with 20%, and the European Union with 14%. This is in spite of the fact that African forests take in 20% of carbon absorbed by trees across the world (Minter and Wheeler, 2009). From 1980 to 2005, sub-Saharan Africa had 18.5 per cent of the world's population growth but its share in the growth of CO₂ emissions was just 2.5 per cent. WHO estimates that around 7 million people die every year from exposure to fine particles in polluted air; whereas, more than 90% of air pollution-related deaths occur in low- and middle-income countries, mainly in Asia and Africa, followed by low- and middle-income countries of the Eastern Mediterranean region, Europe and the Americas (WHO, 2018). In West Africa, in 2010, the number of people that died due to flooding was highest in Nigeria with *118, followed by Ghana *52, Sudan *50, Benin *43*, Chad *24, Mauritania *21, Burkina Faso *16, Cameroon *13, Gambia *12, with other countries reporting less than 10 dead (UN Office for the Coordination of Humanitarian Affairs (UN Office for the Coordination of Humanitarian Affairs (OCHA), 2010).

Metu, Okeyika & Maduka (2016) averred that environmental issues are a serious problem of food in Nigeria. They pointed to flood, drought, desertification and climate change as factors affecting availability of food supply through loss of farmland in Nigeria. It was further elucidated that environmental degradation has been a serious threat to food production in Nigeria. In context, it is to be noted that Nigeria witnessed an unprecedented rainfall as a result of extreme weather in 2012 and 2017: the consequence of which is severe flooding that caused loss of Agricultural crops, livestock and human lives. However as argued in several quarters, environmental issue affecting sustainable food security in Nigeria is more of consequence of human activities, which is borne out of land resource mismanagement. As noted by Metu, Kalu & Ezeuekwe (2015), the 2012 flood in Nigeria led to the loss of the GDP worth 2.6 trillion while the share of agriculture value added to total GDP drop from 23.89% to 22.05%, (WDI, 2014). Akinola (2012) further stated that unrestrained human activities in

Nigerian cities have contributed immensely to environmental destruction and ecological crisis; these activities themselves are not bad; they are bound to occur if there has to be development and progress but, lack of effective control has been the major problem.

LAND RESOURCES MISMANAGEMENT: LOCAL ACTORS INVOLVEMENT

Survival which is the ultimate goal of every society relies heavily on the capability of the societal members to attain food security. This feat can be attained through effective participation and utilization of agricultural factors such as land in such a way that will reflect effective usage. Resource utilization requires the involvement of land users that are meant to take full responsibility of efficient management to achieve societal goals. Oluwatayo, Timothy and Ojo (2019) contend that land acquisition and usage has implications for sustainable food and livelihood security in Nigeria.

Similarly, Akinola (1997, 2008) in his studies found that the impact of oil extraction, brewery and cement industries, gold mining, road construction and steel plant have direct negative impact on the welfare of citizens. In addition, these projects led to loss of employment opportunities, air and water pollution, deforestation, decrease in soil fertility and ill-health. For instance, the impact of International Brewery, Ilesha, Nigeria, led to a reduction of 54.5% in the yield of farm products (both food and cash crops) (Akinola 1997, 2008). Thus, such negative impact varies among the development projects: steel plant, 10.0%; and road construction, 33.0% for rural areas and 57.6% for urban areas (Akinola and Awotona 1997). In another view, According to Akinola and Simon (2012), it was discovered that excavated sites during the constructions of Lagos- Abeokuta and Ota-Idiroko international highways have left some injurious foot prints of pockets of dug sites with the consequence on human welfare in those communities. Also, the bare surface areas are currently degraded by massive excavation and digging in Ado-Odo/Ota community in Nigeria. At a glance, this presents a picture of rough impact of digging and confirms the extent of the environmental degradation caused by sand-digging. The common impact includes a series of environmental problems: soil erosion, loss of cropland, deforestation, ecosystem destruction, and extinction of species and varieties.

In another view, farmers and herdsmen in many localities and different countries make their livelihood within the same geographical, political, and socio-cultural conditions which may be characterized by resource scarcity (Braukämper, 2000). Farmer-pastoralist conflicts have been associated with the conflict of land resource use exacerbated by dwindling resources (Blench, 2004). Some researchers have theorized on this conflict (Okoli and Atelhe, 2014), where conflict and violence that ensues between the two local land actors were attributed to environmental factors and exploitation of scarce resources. According to a study on the effect of overgrazing on land degradation in China, it was observed that grassland degradation in China rose by 2 million hectares per year. The interpretation is that China experience reduction in biodiversity, biomass production, increase soil erosion and

nutrient loss due largely on land mismanagement (Jianjun, Emily, Nicholas, Yanyan and Zhengwei, 2013). Similar situation occurs in Nigeria whereby the popular pastoralists (Fulani herdsmen) embarked on uncontrolled grazing. As noted by Suleiman, (2004) traditional grazing method and looking through of natural vegetation that caused people to walk across the farmland has far reaching effects on the quality and nutrient of soil and often lead to land degradation. He further expressed that livestock are destructive to the vegetation cover as animal sometimes eat all the vegetation cover until the soil is exposed and plants regeneration becomes difficult. Thus, overgrazing especially in Northern Nigeria where herdsmen are predominant causes of land degradation. Also, excessive trampling by puddling the soil surface accelerates soil deterioration and erosion.

Suleiman (2004) and Barlowe, Adelaja and Babladelis (2013) also contend that excessive use of land without any alternative means of replenishing it connotes mismanagement behaviour. These scholars believed that deep poverty embedded in the land caused most farmers who depend heavily on the land for living to opt for immediate benefit of the land at the expense of long term sustainability. They tend to overuse the land through excessive production, consumption and embarking on living styles that degrade the land and deplete its resources. Suleiman (2004) noted that poverty induced land mismanagement is a common phenomenon in sub-Saharan Africa.

LAND RESOURCES MISUSE ON FOOD SECURITY: PREVAILING CHALLENGES

Food security is a current issue in Nigeria just like in developing countries and other Sub-saharan Africa (Oluwatayo, Timothy and Ojo, 2019). This claim was substantiated by the reports of FAO (2020) which noted that about 307 million people are hungry in Africa. Achieving food security in its entirety sets a huge challenge in a country like Nigeria, as a result of a wide scope of problems. More than 90 per cent of agricultural production in Nigeria is rain-fed with about 79 million hectares of arable land, of which 32 million hectares are cultivated (Nwajiuba, 2012, cited in FAO, 2012). According to Attah (2012) Nigerian food crisis is a product of colonial disorientation that has led to the neglect of peasant agriculture and food crops sub-sector as well as over-reliance on cash crops production and the oil sector. According to Titilola and Jeje, (2008), land mismanagement has far reaching effects on the earth surface and therefore on man. Land use coupled with the effort of small farmers is the key instruments for achieving sustainable increases in farm yield and productivity. This proves that there is a nexus and a level of proportionality between land mismanagement and food security.

Similarly, the pastoralists are also competing with large-scale agricultural schemes that narrow the grazing lands. The use of tractors, herbicides and fertilizers have revolutionised agriculture in the country leading to more and more grazing lands being farmed extensively (Iro, 2010). Thus, the increase in farmland brought about by technology advancement in Nigeria leave little avenue for the pastoral to source grass for their animal: a situation that encourages the pastoral to divert their animals'

direction easily into farmlands and destroy crops, which affect food production in the country. As Okoro, (2018) put it, struggle for survival and protection of economic livelihood (including, farmlands, crops and cattle) appears to precipitate conflict between herdsmen and farmers across many communities in Nigeria. The conflicts have not only heightened the level of insecurity, but have also demonstrated high potential to exacerbate the food crisis in Nigeria and other affected countries due to loss of farmer lives, animals, crops and valuable properties (Cotula, Toulmin & Hesse, 2004)

In another word, the appropriation of arable lands for residential and commercial purposes based on the population pressure in urban centres; and the pressing need to extend towards the outskirts of cities which were originally the few farmlands of small-scale farmers that produce food crops that sustain the national population. Due to urbanization, many people are moving from rural to urban areas where modern facilities are available; population pressure in cities and town has made residential accommodation a peculiar problem. The congested urban places are in need of expansion but the lands where this expansion is to be made is scarce (Bashar, 2008). This plunges food production and leaves it at an ebb.

Gauri (2019) also linked food insecurity to land degradation, which has contributed a lot to decline in soil fertility. He argued that vast tracts of land are facing desertification due to various human and natural activities such as overgrazing, water pollution, intensive agriculture, increasing use of fertilizers and pesticides and deforestation. This connotes that as human population increases, so its activities on the land; hence, declining soil fertility is inevitable; the situation that pose serious challenges to humanity in its bid to secure food in future.

LAND MISMANAGEMENT ON RURAL-URBAN MIGRATION: ITS INFLUENCES ON FOOD INSECURITY

Most environmental problems came along with the birth of industrial revolution, which also brought along with it mass exodus of people to urban areas. The industrial revolution with its complex technological and economic changes produced spectacular increases in world population and cities. According to Leitmann (2005), in the developing countries, the rural poor migrated to cities and accelerated urban population growth that usually led to the chaotic and repulsive urban atmosphere. Sub-Saharan Africa has long been one of the least developed and least urbanized regions of the world with most sub-Saharan African economies still heavily dependent on subsistence agriculture. By 2030, about 53% of Africa's population is expected to be living in urban areas (Cohen, 2004).

In another view, Oduwaye (1998) attributes part of the problem of rapid urbanization to the rapid rate of migration from rural areas to urban areas, among other causes. He claimed that the tremendous pressure brought on by unplanned urbanization has put pressure on land, resulting in urban sprawl and in largely unmet demand for basic urban services and infrastructure such as water, electricity, sanitation, access roads, public transport,

effective drainage and waste disposal. Ajayi, Oviasogie, Azuh and Duruji (2014) accentuated that unplanned settlements in developing countries are the product of rapid urbanization, which is bringing migrants from rural areas to industrialized centres and main cities in increasing numbers.

Studies (Okoli 2014; Odoh and Chigozie, 2012; Abbass, 2012) have attributed the influence of global climate change, and the contending desertification and aridity that has reduced arable and grazing lands, forcing pastoralist to move southwards in search of pasture for their livestock on the farmer-herder conflict, which have negatively have affect food security in Nigeria. Climate change- induced rainfall shifting patterns/ amount and desertification reduces crop lands, and farmers have to follow these patterns, leading to overlap on grazing lands. The Fulbe herders in Nigeria, for example are faced with rapidly vanishing grass, forcing them to switch from the Bunaji cattle breed, which depends on grass, to the Sokoto Gudali, which readily browses (FAO, 2001).

THEORETICAL EXPLANATION

The theoretical engaged for the study is sustainable land management theory, and Marxism theory. Sustainable land management theory (SLM) theory posited that productivity and sustainability of a land use is determined by the interaction among land resources, climate and human activities. It therefore states that the use of land resources including water, soils, animals and plants to produce marginally for the changing human needs is necessary while at the simultaneous basis, long term productive potential of these resources and environmental maintenance is expected to be functional SLM is based on four principles: Targeted policy and institutional support; the integrated use of natural resources on farms at the ecosystem scale; land user driven and participatory approaches and; Multilevel, multi-stakeholder involvement and partnerships at all levels.

In relation to this study, Nigeria's efforts to sustain use of land resources, maximizing flexibility and improve food security are inevitable in the face of climate change and variability. Selecting the right land uses for given biophysical and socio-economic conditions and proper implementation of SLM are essential for minimizing land degradation and rehabilitation of degraded land. The activities of the oil exploration in the south-south and the unbridled migration of the Fulani nomads with the cattle that usually cause them to pass through the farmland across the country have debilitating effects on the food production. Hence, need for quick measure to curb the menace of food shortage for human survival. Marxism on the other hand posited that every land in the societies belongs to the government, but distribution of the land is made to various investors after collecting their taxes, kickbacks and commission from the investors with no measures put in place to check their activities on the land. Thus, Marxism theory had emphasized lack of ownership of land as the bane of holistic human development. This argument supported this study with the deep explanation relating to the absence of regulatory framework that will consider the underprivileged farmer in the distribution and management of land for farming. Indeed, all the landowners with interest in

agricultural produce must have paid substantial amount of money-levies to secure parcel of land from government. However, few people that are financially buoyant could own productive land; consequently, the underprivileged farmers are technically scheme out with no concrete support. Thus, majority of the privileged people that were able to secure land show less interest to food production but rather engaging in activities harmful to the land; the situation which has implication for food security in the country.

METHODOLOGY

The study was carried out in South western part of Nigeria especially in Ado-Odo/Ota Local Government Area (LGA), Ogun State, with latitude 60 40'59.99"N and longitude 3040'59.99" E, and Iseyin Local government Area (LGA), Oyo State with latitude 7051'9.25" N longitude 3055'52.5" E. The study areas were selected based on their history with persistent land mismanagement facilitated by the activities of herdsman-farmer conflicts, and indiscriminate land excavation and mining. The areas were reputable for large scale production of agricultural produce, and animal rearing. The study employed descriptive research design through qualitative approach. Primary sources of data collection were engaged. In-depth-interview guide were used to conduct interview sessions for the participants. Purposive and snowball sampling techniques were used to select six participants (farmers, sand excavators, and community leaders' in-charge of land matters, that is, Baale and Olori-Ebi) in each of the study areas totalling 12 participants the study area. Participants were selected based on gender, occupation, knowledge, and experiences on land related matter in Nigeria. Data collected were subjected to content analysis.

Discussion of Findings

Data obtained from the fieldworks on the subject of discussion were analyzed, presented and discussed. The discussions were done in line with the focus of the research of the paper.

Involvement of Local Actors in the Utilization of Land Resources on Food Production

Findings from the interviews conducted showed that lack of effective utilization of land resources by the landowners for agricultural practices, and unwholesome activities of herdsman on land especially on farmland has conspicuously contributed to the decline of large scale food production in the country. Thus, utilization of land by landowners for agricultural business without grasps of agricultural techniques and methods, and also, crop destruction via increasing activities of herdsman on farmland has undermined quality and sufficient food production. These have further spurred food insecurity in the country. This is supported by Blench (2004), and Okoli & Atelhe (2014), that farmer-pastoralist conflicts have been attributed to environmental factors and exploitation of scarce resources, which have made land unproductive for food production in Nigeria. Some of the participants explained further that:

Inefficient land utilization is a setback for agricultural business as it leads to food insecurity. This occurs when the farm produce is not as high as before. Most times, the landlords or holders do not have understanding and knowledge on how to use our land effectively, Sometimes, interested farmers are unable to have access to land while some lands are acquired by people who care less about farming and those lands are unused (IDI, Male, Farmer, 62years, Iseyin Community, Oyo state).

Relatedly, other participants opined further that: Those people who mismanaged land here, are the herdsman because the activities of their cows on our farm make it difficult to plant crops that will produce quality yields.....It affects the farmers the most because when the herdsman with their cows walked through the farm, and we plough such land with no fertilizer to sustain the land, it will affect the farm output in a bad way (IDI, Female, Farmer, 31years, Ado-odo Community, Ogun State).

.....the Fulani herdsman are the major group mismanaging the land in this community .Their activities with the land affected farm produce negatively in this area.....It affects the farmers and the consumers the most because if the farmers did not have good soil to plant, it will results into food insecurity(IDI, Male, Farmer, 48years, Iseyin Community, Oyo State).

In line with the above summation, it was revealed by the participants that landowners and herdsman were not the only actors impacting on land resources negatively; farmers were also fingered to have contributed to unwholesome utilization of land resources in the country. This was done through increasing mono-cropping, and negligence towards application of quality fertilizer, which rendered the land unproductive for quality and increasing farm output. This is supported by Suleiman (2004) that farmers tend to overuse land through excessive production, consumption and embarking on living that degraded the land and deplete its resources In addition, the findings also showed that increasing and unbridled activities of sand excavators on productive land is also one of the challenges that limits famers access to quality and productive land, which has also impeded the quest for self-sufficiency in food production in the country. These activities have made food production unstable and constitute challenges to attainment of food security in Nigeria. This is in line with Akinola & Simon (2012) that massive excavation and digging during construction work in Nigeria have encourage environmental problems which have resulted into loss of cropland, soil erosion and ecosystem destruction. This was explained further from the excerpts of the participants that:

.....farmers are one of the major perpetrators of poor land mismanagement because some of these farmers do not practice crop rotation on their land, and also applied insufficient fertilizers to the land thereby killing the productivity of the land which make such land infertile.....It affected the farmers the most when land is not adequately managed (IDI, Female, Farmer, 50years, Ado-odo Community, Ogun State).

Corroborating further, a male farmer states that:those that excavated land damage land here because when such activities occurs, it will take long time for such land to be productive.....It affected everybody and especially the farmers

because they will not see quality land to farm. There will be shortage of food production, food insecurity, and decline in access to food for the consumers (IDI, Male, Farmer, 30years, Iseyin Community, Oyo State).

In another words, increasing presence of industrial activities, and increasing migration of people from neighbouring communities in search of available opportunities and economic viability were some of the major actors contributing to low performance of land resources for food production in the country. In essence, environmental degradation through waste disposal from large number of industries contributed greatly to low level of food production in Nigeria. In all, these activities with its attendant negative implication have put undue pressure on the land resources thereby creating food insecurity in the country. Two of the participants explained thus:

“.....companies and industrial activities put land into poor conditions because this area is an industrial area from Atan to Agbara. Also people like a well-known religious leaders here, acquiring much land and subjected the environment to poor state through improper waste sewage link along Atan affected the land severely. Sand diggers and sand packers around Atan community also cause problem to the land mismanagement in this area.....all these activities affected farmers mostly (IDI, Male, Olori ebi, Landowner 36years, Atan Community, Ogun State).

.....Influx of people from neighbouring states to have their residential buildings here contributed to land mismanagement in this community. Secondly, activities of industries, whereas this area is the largest area with industries in Southwest with over 45 industries, the activities like industrial trucks carrying loads of goods from one place to another in the local area degraded the land.In addition, trees felling to pave way for road construction, and, industrial waste disposal also contribute to the mismanagement of the land, which put undue pressure on food production in the country (IDI, Male, Baale, landowner, 46years, Ota Community, Ogun State).

Impact of Land Resources Mismanagement on Food Security

Findings from the interviews revealed that mismanagement of land resources in Nigeria has contributed greatly to low level of food production which threaten standard of living of people in the country. This has encouraged drop in crop yields, and thereby resulted into increasing price of food commodity in the country. Importantly, unsustainable utilization of land resources by human-induced activities has far reaching effect on dwindling food production, consumer access to food commodity, and quality of life, which has further heightened food insecurity in the country. This is in line with Titilola & Jeje (2008) that land mismanagement has a far reaching effect on earth surface and on man. The study contends further that land use coupled with effort of small farmers is the key instruments for achieving sustainable increases in farm yield and productivity. This was further explained from the excerpt of the participants that:

“unsustainable utilization of land has severe effects on standard of living of people because the farm will no more be yielding as

it is supposed to be yielding, The farmers will be losing and there will not be sufficient crops or foods for the consumers because where the farmer is expecting certain metric tons, he/she is getting lower of it, and eventually the cost of food will be high and income will be low (IDI, Male, Baale, landowner, 65years, Ado-Odo Community, Ogun State).

Land mismanagement is inimical to food security because human activities on the land should be geared towards improving the land for food production. Reverse is the case here as land excavation, unused land, unbridled grazing and land insecurity has significant effect on dwindling farm produce. It leads to inflation, food scarcity, hunger and difficulties in survival of the people. As a matter of fact, food insecurity is the main issue in Nigeria. (IDI, Male, Olori-Ebi, Landowner, 36years, Iseyin Community, Iseyin, Oyo State).

Supporting further, one of the participants states that: some people see it as an avenue for them to make money if land is being mismanaged and the negative side of it, is that, such activities on land reduces the quality of life in the society, through decline in food production”(FGD, Male, Olori-ebi, Landowner, 36years, Atan Community, Ado-Odo/Ota, Ogun State).

Importantly, lack of regulatory framework to manage the issue of herdsmen-farmer crisis in the country has spurred increasing low level of food production in the Nigerian communities. This has led to lack of interest of farmers to invest more on their farmland as the crisis negated desires for improve welfare, and income generation via their farm produce, which has heightened food insecurity in Nigeria. This is in line with Cotula, Toulmin & Hesse (2004) that herdsmen-farmer conflicts have not only heightened the level of insecurity, but have also demonstrated high potential to exacerbate the food crisis in Nigeria due to loss of farmers' lives, animals, crops, and valuable properties. In another word, the findings also showed that lack of enabling infrastructure to transfer the farm produce to the market has not really encouraged the farmers to invest more in food production, which has led to dwindling income generation for the farmers. This is more visible in the excerpts of the participants that:

..... the land we depended on for quality food products is not yielding as we expectedwhen those herdsmen with their cows come around January and February, which is the planting period for us, they always destroyed our land and farm produce, which affects our income. The little we save from farmland is what we use to survive (IDI, Female, Farmer, 31years, Ado-odo Community, Ogun State).

..... when we plant and sell the crops to the market, it is difficult to get the proceeds and most farmers always complain that people are not coming to buy the proceed from them. Working on the farm for one year and not receiving the returns on the proceeds of the farm produce in time is sometimes frustrating (IDI, Male, Farmer, 39years, Ado-odo Community, Ogun State).

Nevertheless, unbridled industrial companies activities also contribute to dwindling farm output in Nigeria. This makes it difficult for the farmers to generate sufficient income, and thereby spurred lack of interest in large scale food production in

the country. Consequently, this has contributed to poor standard of living of people, increasing crime rate, and youth unemployment in Nigeria communities. This is supported by Gauri (2019) that food insecurity is linked to land degradation, which has contributed severely to decline in soil fertility, which was facilitated more by human and natural activities such as water pollution, overgrazing, and intensive agriculture. This was further explained from the excerpt of the participants that:

.....most people here involve in trading and farming because there are lots of markets here. The activities of the industries with their industrial machine cause untold hardship to farmers output here, which make it difficult to generate sufficient income to sustain the farmers (IDI, Male, Olori-ebi, Landowner, 41years, Atan Community, Ogun State).

.....the way the land is being mismanaged here through the activities of industrial companies and the logger with their uncontrolled felling trees affected the standard of living here. We have high rate of crime in this Ota environs because no meaningful employment for the youths, which could have been sourced through farming but the land has been render unproductive (IDI, Male, Sand Tipper Driver, 42years, Atan Community, Ogun State).

Land Mismanagement and Rural Urban Migration vis-a-vis Food Insecurity

Economic motive is one of the drivers of migration, as people usually move from their perceived difficult terrain in search of greener pasture. Migration can occur in various dimensions, which could be rural-urban migration, urban-rural, rural-rural and urban-urban migration. Unsustainable utilization of land resources in Nigeria has been a major drives towards rural urban migration in the country. It was further affirmed that excessive mining of land resources coupled with flooding has not helped food production in the concerned community in Nigeria. These have encouraged increasing rural urban migration of people in the country. This is in line with Oviasogie, Azuh and Duruji (2014) that unplanned settlements in developing countries are the product of rapid urbanization, which is bringing migrants from rural areas to industrialized centres and main cities in increasing numbers. Some of the participants explained further:

The economy of this community is not stable and food price is so high here. I need to feed my family and will relocate soon to another area. Also there is problem of flooding here and will not want it to affect my family at all (IDI, Male, Sand Tipper Driver, 33years, Atan community, Ogun state).

However, unwholesome activities of local actors on land resources in Nigeria, with resultant negatively economic situation of the communities have not encourage meaningful investment of capital and labour in food production. Thus, it has facilitated mass exodus of people to neighbouring city, and even to the country sharing border with Nigeria. This is further revealed in the excerpts of the participants thus:

I will soon relocate to a city because this community is not conducive for me again, the business is not stagnant, the community is waterlogged, the farm is not producing at the

optimum again, and crime rate is high. I cannot endure it here, but in the city, I will be able survive (IDI, Male, Landowner, Olori-Ebi, 34years, Ado-odo community, Ogun State).

There will not be anyone that will want to live in poorly managed environment and unproductive land. To farm on land that is mined excessively and with issues of flooding will be waste of time. I am a farmer, I need to farm, and I will surely relocate to another state where I could farm because my survival as a human depends on farming and it's very important to me (IDI, Male, Farmer, 39years, Ado-odo community, Ogun State).

Furthermore, insufficient infrastructure in the rural areas where lands are available for food production presented a great challenge to the battle against food insecurity. This is believed to be the multiplier effect of local actors activities on land resources, that encourage increasing migration of human resources within and outside the country, and destruction of human lives, which could have aided quality and large scale food production towards attainment of food security in Nigeria. These further discourage the available farmers to involve more in large scale food production in the country. This is in line with Okoli (2014); Odoh and Chigozie, (2012); Abbass (2012) that attributed influence of global climate change, and the contending desertification and aridity that has reduced arable and grazing lands, forcing pastoralist to move southwards in search of pasture for their livestock on the farmer-herder conflict, which have negatively affect food security in Nigeria. One of the participants states that:

The economic situation here is not moving as it supposed to be moving because of flooding, the roads are bad and not motorable for transporting our farm produce, so we sells cheap and we are not motivated to continue farming business. Our decision is affecting food production, we know but our people are migrating to neighbouring states and even to cotonou in Benin republic for means of survival (IDI, Male, Baale, Landowner, 52years, Atan Community, Ogun State).

Supporting further, one of the participants opined that: Similarly, killing of farmers in their farmland by the Fulani's has discouraged several farmers from farming. They had decry the level of insecurity in the farmland develop fear of loosen their lives. These events had reduces the level of farm produce in our community as farmers run for their dear life to city for safety. However, since majority of food in our states comes out of here, the consequence is obvious, food insecurity will set in (IDI, Male, Baale, Landowner, 52years, Iseyin Community, Oyo State).

CONCLUSION

Over the years, Nigeria has made several efforts to revive food production in Nigeria through various policies. In essence, among the policies formulated so far with the aim of enhancing food security in Nigeria include, border closure policy, and indigenization of food production in Nigeria. Apparently, while these could be regarded as laudable effort by the government, little attention is paid to the land mismanagement in Nigeria, which is one of the emerging challenges facing food security globally. Thus, it has been established in this study that local

actor activities on the land in Nigeria has not made the previous policies on food security achieved sustainable success in Nigeria.

The study affirmed that local actors such as, sand excavators, land owners, farmers, and herdsman involvement in the land utilization in Nigeria has facilitated poor management of land resources, which has impact negatively on food production in Nigeria. Thus, unwholesome activities of the local actors on land resources has further impeded Nigeria's quest to attained food security in the country. Specifically, it was worthy of note that unbridled movement of herdsman on farmland for cows grazing with frequent clashes with farmers have often rendered the land unproductive towards attainment of self-sufficiency in food production in Nigeria. This has spurred decline interest among farmers in engaging in quality and sustainable food production in the country. Equally, despite farmers contributions to food production in Nigeria, their activities on land also often make the land unproductive for quality food production. These were done through lack of crop rotation, and application of unsustainable fertilizer, which hindered the quality of land productivity for attainment of food security in the country

These situation has also promoted climate change through increasing flooding in major food producing areas of the country leading to rural-urban migration usually with unplanned urbanization as a consequence, which has resulted in the exodus of human resources, increasing crime rate, and youth unemployment in Nigeria. Hence, this study affirms that the resultant implication of land mismanagement in Nigeria has encouraged decline in quality of environment, quality of food production, and price increase in food commodity, which has a devastating effect on food security in Nigeria. However, this study recommends that land mismanagement deserve urgent attention to achieve the goal of food security in Nigeria in line with Goals 2 of Sustainable Development Goals. As a matter of fact, more effort is needed to sustainably manage the unbridled activities of local actors in the utilization of land resources in Nigeria in order to attain self-sufficiency in food production in the country. This could be achieved through routine sensitization, communication, local community dialogue, and sustainable land resources protection framework on the needs to ensure sustainability of land resources that will enhance quality food production towards attainment of food security in Nigeria.

REFERENCES

1. Abbas I. M. No Retreat No Surrender: Conflict for Survival between Fulani Pastoralists and Farmers in Northern Nigeria. *European Scientific Journal*. 2012; 8(1):331-346.
2. Ajayi O.O, Oviasogie F.O, Azuh D.E, Duruji M. M. Urban Design and Sustainable Development: A Case Of Makoko Area Of Lagos State, Nigeria. *European Scientific Journal*. 2014; 2.
3. Akinola, S. R. "Environmental Impact of Gold Mining on the Local Community in Ijesha Region, Osun State, Nigeria", *Ife Research Publications in Geography*, Obafemi Awolowo University, Ile-Ife. 1997; 6(1,2):133-138.
4. Akinola S. R, Awotona A. "The Impact of Road Construction on the Local Environment in Nigeria: A Case of Road Projects in Osun State, Nigeria", in Meyer, Peter B. and Lyons, Thomas S. (Eds.) *The Small City and Regional Community*, University of Louisville, Kentucky, U.S.A. 1997; 191-202.
5. Akinola, S. R. "Reducing Environmental Degradation and Poverty through Environmental Governance in Nigeria", in S. Padmaja, N.C. Gautam and Mohd. Akhter Ali (eds.) *Environmental Impact Assessment Studies and Planning Perspectives*, BS Publications, 44-309, Giriraj Lane, SultanBazar, Hyderabad, 29 A.P. 2008; 41-74.
6. Akinola, S. R. "Overcoming Tyranny and Underdevelopment in the Niger Delta through Appropriate Human Resources Development and Utilization." In Okechukwu Ukaga, Ukoah Ukiwo & Ibaba S. Ibaba (eds.). *Natural Resources, Conflict and Sustainable Development: Lessons from the Niger Delta*, Routledge, Taylor & Francis Group, New York, USA. (2012).
7. Akinola, S. R. & Simon, R.F (2012) Sand-Digging and Soil Excavation as an Environmental Degradation Factor in Ado-Odo/Ota Local Government Area, Ogun State: An Interrogation of the Appropriateness of Construction Technology In Nigeria.
8. Attah, A. W. *Food Security in Nigeria: The Role of Peasant Farmers in Nigeria*. 2012; 173-190
9. Barlowe R, Adelaja S, Babladelis P. *Land Resources Management: Economic Foundations and New Direction*, Michigan University Press. (2013).
10. Bashar M. *Public Land Policy, New Trends: Challenges in Nigerian Institutional Frameworks for State and Public Sector Land Management*. (2008).
11. Blench R. *Natural Resource Conflicts North-Central Nigeria: A hand book and case studies* CLE St. Ives. 2004; 1:164.
12. Braukämper U. *Management of Conflicts over Pastures and Fields among the Baggara Arabs of the Sudan Belt. Nomadic Peoples*. 2000; 4(1): 37-49.
13. Cohen B. "Urban Growth in Developing Countries: A Review of Current Trends and a Caution Regarding Existing Forecasts." *World Development*. 2004; 32(1):23-51.
14. Cotula L, Toulmi C., Hesse, C. *Land Tenure and Administration in Africa: Lesson for experience and emerging issues*. London. 2004; 44.
15. ECG (2011) In Lavlu M. *Agricultural Productivity and Food Security in the Developing World*, (2012).
16. FAO (2001). *Pastoralism in the new millennium*. Animal Production and Health Paper 150.
17. FAO (2012). *Pastoralism in Sub-Saharan Africa: Know its Advantages, Understand its Challenges, Act for its Sustainability*. No 5.
18. Food and Agriculture Organization (FAO) (2020). *The state of Food Security and Nutrition: Safeguarding against Economic Slowdowns and Downturns*. License: CC BY-NC-SA 3.0 IGO.
19. Gauri, S. G. *Land Degradation and Challenges of Food Security: Review of European Studies*. Published by Canadian Centre of Science and Education. 2019; 11(1).
20. Geist H. J, Lambin E. F. *What Drives Tropical Deforestation? A Meta-Analysis of Proximate and Underlying Causes of Deforestation Based on Subnational Case Study Evidence*. LUCC Report Series, No. 4. Louvain-la-Neuve, Belgium: LUCC International Project Office, International Geosphere-Biosphere Programme, (2001).
21. Geist, H. J. & Lambin, E. F. "Dynamic Causal Patterns of Desertification." *BioScience*. 2004; 54(9):817-829.
22. Ibimilua, F. O. (2011). *Linkages between Poverty and Environmental Degradation*. *African Research Review*. 2011; 5(1).
23. Iro, I. (2010). *Grazing Reserve Development: A Panacea to the Intractable Strife between Farmers and Herders*. Accessed 22 November 2014.
24. Jianjin C, Emily T. Y, Nicholas H, Yanyan Q, Zhengwei R. *The Roles of Overgrazing, Climate change and Policy as drivers of*

- Degradation of China's Grassland: NOMADIC PEOPLES. 2013; 17(2): 82-101.
25. Leitmann, J. (2005). *Sustaining Cities – Environmental Planning and Management in Urban design*. PP.78. McGraw-Hill.
 26. Metu A. G., Kalu U. C. & Ezekwe, R. U. (2015). Demographic pattern and Sustainable Development in Nigeria: In Mbanefo A.C and Nnonyelu Eds. *Challenges of Sustainable Development: A Social Science Approach*, Awka. Fab Ameh Nig Ltd, pp 129-140.
 27. Metu A.G, Okeyika K.O & Maduka, O. D. (2016). *Achieving Sustainable Food Security in Nigeria: Challenges and Way Forward*. 3rd International Conference on African Issue. University Press ISSN:2449-0754.
 28. Minter, William and Anita Wheeler (2009). "Climate Change and Africa's Natural Resources: African governments and outside powers must be accountable." 2009-10-29, Issue 455.
 29. OCHA (UN Office for the Coordination of Humanitarian Affairs), (2010). "377 dead in West and Central African flood."
 30. Odoh, S.I. and Chigozie, C. F. (2012) 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. *Arabian Journal of Business Management Review*, 2(1): 110-124.
 31. Okoli A.C. and Atelhe G.A. (2014). Nomads against natives: A political ecology of Herder/Farmer conflicts in Nassarawa State, Nigeria. *American International Journal of Contemporary Research*, 4(2): 76-88.
 32. Okoro, J. P. (2018). *Herdsmen-Farmers' Conflicts: Implication on National Development (Nigeria in Perspective)*. Paper Presented at the 1st International Conference of Social Sciences (ICOSS'2018) held at National Open University of Nigeria. 25th June, 2018.
 33. Oluwatayo I. B, Timothy, O. & Ojo, A. O. (2018). *Land Acquisition and use in Nigeria: Implications for Sustainable food and Livelihood security*. DOI: 10.0557/intechopen.79997
 34. Satterthwaite, D. (2009). "Big Emitters: How Growth in Consumption Drives Climate Change." Briefing. The International Institute for Environment and Development (IIED), December, 2009. London.
 35. Seto, K. C. & Kaufmann, R. .K. (2003). Modeling the Drivers of Urban Land Use Change in the Pearl River Delta, China: Integrating Remote Sensing with Socioeconomic Data. *Land Economics* 79(1):106-121.
 36. Suleiman, L. (2004). The Phenomenon of land Degradation in Nigeria: A Review of Effects and current solutions. *A Journal of Applied Science and Technology*. Namoda Tech-scope, Vol 6 No 1.
 37. Titilola, S.T. & Jeje, S. K. (2008). Environmental Degradation and Its Implication for Agricultural and Rural Development: The Issue of Land Erosion. *Journal of Sustainable Development In African*. Vol 10, No2. Pp 122-139.
 38. United States Department of Agriculture (2013). *Agricultural Imports Soar in Sub-Saharan Africa*, International Agricultural Trade Reports August 20, 2013.
 39. Willemien, V. (2017). The face of African agriculture trade, tralac Researcher, comments on Africa's recent agricultural trade performance 17 May 2017.
 40. Williams, M. (2003). *Deforesting the Earth: From Prehistory to Global Crisis*. Cambridge, UK: Cambridge University Press.
 41. World Development Indicator (WDI), (2014). *The World by Income: Publishing and Knowledge Division*, The World Bank, Washington DC 2043. ISBN (electronic) 978-1-4648-0164-8.