

Environmental Changes and Food Crisis in Southern Tiv area, Central Nigeria since the Colonial Period

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Abstract

There is a critical relationship between the environment and several aspects of economic production. Agricultural production results in several environmental problems. The Southern Tiv area has had physical environmental peculiarities and high population densities different from other Tiv areas dating to the pre-colonial period. These environmental issues are linked to the physical environmental setting and a combination of food production methods and cultural activities of the people. In the Southern Tiv area, food and fuel wood production activities caused environmental changes over time, questioning the essence and sustainability of the people's material production culture and livelihood security. The colonial economy, which emphasized cash crop production and taxation, was a critical factor in deepening the environmental problems by increasing economic production activities and the agrarian crisis in the area. The paper uses primary and secondary sources to examine the significant environmental issues in the Southern Tiv area caused by food and fuel production and related activities. It assesses the impact of these environmental problems on food production and food deficits during the period in question. This knowledge helps understand the trajectory of the environmental problems and food problems necessary for shaping socio-economic policy for tackling contemporary issues and the future direction toward sustainable livelihoods.

Keywords: Food security, Environment, Tiv, Colonial Period

Introduction

On a general note, such issues as conflicts, poverty, economic shocks such as hyperinflation and the rising cost of commodities, and environmental shocks are critical in explaining the global food problem. It is important to note, too, that, as many scholars have agreed, the reasons for food insecurity are many, and they vary from place to place. Some scholars and experts have attempted to link the post-colonial food crisis in Nigeria to the colonial economy, especially concerning seemingly insignificant changes in the focus of fiscal and



agricultural policies since the end of colonial rule.¹For instance, as it were in the colonial economy, the post-colonial Nigerian state continued the policy of cash crop production to the detriment of food production. In addition to the above, inadequate land, inadequate social and economic infrastructure, poor marketing structure, environmental problems, inconsistent agricultural policies, misplaced priorities in policies such as food importation, poor policy implementation, mismanagement, and corruption, among other constraints, made it difficult for the post-colonial Nigerian state to meet her domestic food needs. Food and fuel or energy production activities have remained significant sources of livelihood security, especially in exchange, distribution, and consumption in much of Africa and the rest of the developing and developed world. This set of activities representing an essential phase in the human development trajectory has remained an important driver of environmental changes in much of the world. In terms of post-colonial local council delimitations, the Southern Tiv area, which is a part of the area referred to as Tiv Division by the colonial government, comprises four local government areas, namely: Vandeikya, Konshisha, Ushongo, and Kwande, out of the fourteen local government areas occupied currently by the Tiv of Benue state, Nigeria. The Southern Tiv area has had physical environmental peculiarities and high population densities distinct from the rest of the Tiv area dating to the pre-colonial period. The interpretations of the environmental issues in the Southern Tiv area are located in the broad ecosystem of the area. These environmental issues are collectively a function of not only the natural physical environmental setting but also a combination of economic production methods and cultural activities of the people. In the southern Tiv area, food and fuel wood production activities caused environmental changes over time, challenging or questioning the essence and sustainability of the people's material production culture and livelihood security.

The colonial economy, which emphasized cash crop production and taxation, was a critical factor in deepening the environmental problems by increasing economic production activities (which heightened land consciousness and put so much pressure on land resources) and agrarian crisis in the area. The paper seeks to examine the significant environmental problems in the Southern Tiv area (caused by food production and fuel production and related socio-cultural activities) and to interrogate the impact of these environmental problems on food production and food deficits in the area in the colonial period as the basis for understanding the nature of post-colonial environmental issues and implications of the food economy.

¹See, for instance, Emmanuel O. Akubor, "The Impact of Colonialism on Food Security in Nigeria", in *Madyeng: Journal of Central Nigerian Studies*, pp.91-107.

The Nature of Environmental Problems, Economy and Agrarian Crisis in Southern Tiv area, 1900- 1960

According to the United Nations definition, 'food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and preferences for an active and healthy life.² However, as some have argued, delivering food security, is also essential to reduce the environmental impact of food production.³Smith and Gregory have argued that food security is underpinned by effective food systems, which are a set of dynamic interactions between and within biogeophysical and human environments. These include several activities(producing food, processing food, packaging and distributing food, and retailing and consuming food) which lead to many associated outcomes, some of which contribute to food security(i.e., food availability, access to food, and food utilization) and others which relate to environmental and other social welfare concerns. They argue that since food security is affected when food systems are disrupted or stressed, food security policy must address the whole food system.⁴Many scholars and experts have agreed that there is a critical relationship between the Environment and agriculture. For instance, Toor, Rehman, Adnan, Kalsoom, and Shahzadi have argued that Environment is the primary determinant of the productivity of agriculture. Agriculture directly depends on the broader Environment and uses about a 3rd of the world's land surface.⁵

Some experts have argued that the production of agriculture results in several environmental problems, such as a change in climate, loss of biodiversity, degradation of soil, and water pollution.⁶ Degradation of

²Pete Smith and Peter J.Gregory, 'Climate Change and Sustainable Food Production,' Paper presented at the Conference on the Theme, 'Future Food and Health,' at the King's College Conference Center, University of Aberdeen, 26th - 27th March, 2012.p.1and 2.

³ Pete Smith and Peter J. Gregory, 'Climate Change and Sustainable Food Production,' Paper presented at the Conference on the Theme, 'Future Food and Health,' at the King's College Conference Center, University of Aberdeen, 26th - 27th March, 2012.p.1and 2.

⁴Pete Smith and Peter J.Gregory, 'Climate Change and Sustainable Food Production,' Paper presented at the Conference on the Theme, 'Future Food and Health,' at the King's College Conference Center, University of Aberdeen, 26th - 27th March, 2012.p.1and 2.

⁵M.D Toor, F. Rehman, M. Adnan, M. Kalsoom, and L. Shahzadi, "Relationship Between Environment And Agriculture: A Review", in *Suntext Review of Biotechnology, Vol 1. No.2* November, 2020, 111

⁶M.D Toor, F. Rehman, M. Adnan, M. Kalsoom, and L. Shahzadi, "Relationship Between Environment And Agriculture: A Review", in *Suntext Review of Biotechnology, Vol 1. No.2* November, 2020, 111

soil usually refers to several processes, such as desertification, erosion, compaction, salinization, and encroachment of invasive species.⁷ Soil erosion and a decline in soil fertility were the major environmental problems in the area. The degradation problems are traced to natural – geological circumstances and human activities.⁸ Bush burning for game hunting and food production activities, indiscriminate felling of trees for food production, and cultural and energy purposes caused deforestation. The continuous cultivation of available land led to soil exhaustion resulting in environmental degradation problems. Food production among the Tiv, like in most parts of Africa up to the era of the colonial economy and after, relied on climatic factors, simple technology, traditional methods of cultivation, and essentially communal and family labor supply. Environmental degradation affected the quality, quantity, and levels of food production and food consumption patterns, and all these had corresponding effects on rural income generation and purchasing power.

Briggs first documented the problem of food shortages in Tiv land during the Second World War, in which the food shortages were attributed to land shortages caused by declining soil fertility and population density.⁹ During this period, the increasing emphasis on producing export crops such as beniseed, cotton, and soya beans worsened the food situation. Thus, cash crop production and increasing population growth put pressure on land resources in the area. But most significantly, the movement of rural populations from the southern and central Tiv areas whose soils had low fertility to the areas of higher soil fertility- northern and eastern Tiv parts became the most plausible alternative to fulfill the demands of the colonial economy.

On a general note, the British colonial administration introduced agricultural policies in line with the objectives of the colonial economy. One of the earliest attempts by the colonial administration in this regard was the opening of the Agricultural Centre at Yandev in 1926 in the present-day Gboko local government area. This agricultural center was responsible for administering agricultural matters in the Benue Province. Generally, the colonial agricultural policy thrusts in the Benue Province included: experimental work, improvement of farming methods, maintenance of soil fertility, and improvement of crops as

⁷M.D Toor, F. Rehman, M. Adnan, M. Kalsoom, and L. Shahzadi, "Relationship Between Environment And Agriculture: A Review", in *Suntext Review of Biotechnology*, Vol 1. No.2 November, 2020, 111

⁸AnongoLyam, "The Benue Environment In The Twentieth Century", 106-108.

⁹G.W.G Briggs, "Soil Deterioration in the Southern Districts of Tiv Division, Benue Province," in *Farm and Forest Vol, II*, 1941. See also G.W.G Briggs "Crop Yield and Food Requirements in Tiv Division, Benue Province," in *Farm and Forest Vol, V*, 1944.

well as extension work which involved passing information to the farmers, especially when such information was tested.¹⁰

Demonstration farms were established in Southern Tiv areas by the British colonial government. In the Kunav area in the present-day Vandeikya local government area, there was the Ute Demonstration Farm, Experimental Farm at Adeiyongo, and the Ihugh Demonstration Farm. Closely related to this was establishment of tractor units in the study area.¹¹ Apart from the above, the British vigorously pursued a forestry policy. In one colonial correspondence in this regard, it was observed that:

Several of the native authorities in Kunav and Gaav have applied for areas to be demarcated for them as communal forest areas, and some householders have decided to protect belts of grass and shrubs around their houses for natural regeneration¹².

Forestry policy was pursued to tackle the problem of deforestation, which was one of the causes of soil erosion. Consequently, the colonial authorities prohibited the unauthorized felling of trees. They expected that afforestation schemes would tackle the problem of soil erosion in the Southern Tiv area. Equally, bush burning was prohibited to protect the natural vegetation.¹³

Also, leguminous natural manures were introduced to improve the soil through better farming methods and grass destruction. The provision of manure crops aimed at improving Southern Tiv exhausted soil. Furthermore, the colonial administration sought to introduce changes in the distribution of male and female labor for increased productivity and profitability in the available soil conditions. It was the thinking of the colonial officers that the males performed the heavy work of clearing the land for new farms and making the yam heaps, and the necessary tasks after these were left mainly by the men for the women.

¹⁰J. E. Agaba, "Colonial Agricultural Policies in Idoma Land" in O.O Okpeh, A. Okau and S.U Fwatshak (eds), *The Middle Belt in the Shadow of Nigeria*, (Makurdi: Oracle Business Ltd, 2007), 200.

¹¹NAK/MAKPROF (FED) 4/1/1686, UTE DEMONSTRATION FARM /AR/1935, NAK/KADMINAGRIC, 1/1/143 TIV MODEL SETTLEMENT Scheme Mbaakon Tractor Unit, 1946-51. Also NAK/MAKPROF (FED) 4/1/862 Agric Farm at Ihugh /AR/1933-1936 and NAK/KADMINAGRIC 1/1/24136, Ihugh Demonstration Farm, Benue Province /AR/1934.

¹²NAK/MAKPROF (FED) 4/30/AR/REP/T/6 Half Yearly, And Annual Reports, 1944-1949. Tiv Division, Benue Province. Annual Reports, 1945.

¹³NAK/MAKPROF (FED) 4/1/1553, Southern Tiv Areas: Farming Conditions in (ii) Experimental Farm at Adeiyongo.

Following such thinking, the authorities proposed that the males should also perform much of the agricultural labor the Tiv believed was for the females. Such labor tasks included planting, weeding, and harvesting crops. It is clear from the available evidence that the colonial administration no doubt anticipated difficulties in achieving this aim. However, it was not to be discouraged, and the colonial administration was bent on carrying it out. It was stated, for instance, that "If there is 20 percent of success in the first year, our efforts would be fully justified and the necessary money well spent."¹⁴ The administration attempted to introduce manure production using livestock, especially local cattle, and goats. The authorities believed manure would significantly improve various crops and produce other results in mixed farming and cattle use for cultivation and plowing.¹⁵

Apart from all these issues analyzed above, the agricultural department was also involved in advisory work, the disbursement of planting implements, running school farms, and organizing agrarian shows. In Southern Tivland, there were situations where the authorities proposed monetary rewards for those that adopted the "new methods."¹⁶

The provincial government and the native administrations in the Benue province handled agricultural matters. While the central government gave the local government the directive to finance all experimental work, the native administrations were to fund the extension work in the division. The officers did the schemes' practical aspects in the various agricultural units. The native authority worked with the farming officers to enforce these new agricultural methods. The attempts to introduce some changes in Southern Tiv agriculture met with mixed reactions from the people.

In some cases, the people demonstrated receptivity, but in most cases, they showed a negative attitude toward these new methods. The people treated the practices that directly concerned the improvement of the soil with some level of cooperation. There was a success in forestry matters and the use of green manure to tackle the problem of soil erosion and the general improvement of quality. There was also success in the weeding propaganda, which the government believed to help improve green manure crops and eradicate grass. On the whole, the

¹⁴NAK/MAKPROF (FED) 4/1/1553, Southern Tiv Areas: Farming Conditions in (ii) Experimental Farm at Adeiyongo

¹⁵NAK/MAKPROF (FED) 4/1/1553, Southern Tiv Areas: Farming Conditions in (ii) Experimental Farm at Adeiyongo.

¹⁶NAK/MAKPROF (FED) 4/1/1553, Southern Tiv Areas: Farming Conditions in (ii) Experimental Farm at Adeiyongo.

negative response that met some of the alien agricultural methods resulted in the conclusion in some circles that:

...the farmers do not wish for increased yields. So long as they can grow sufficient for themselves and their families, and collect enough ready cash for tax, they are content. Unless, however, they take a more realistic view subsequently, they may find themselves wishing that they had paid more heed to the advice of agricultural officers.¹⁷

The statement portrays the Tiv people as resistant to change and innovations. But it becomes suspect, especially when viewed against the backdrop of the socio-economic and political changes that occurred throughout the Tiv area in the colonial era. The colonial authorities had administrative difficulties to which the failure of agricultural policies may be attributed. For instance, the need for more executive and senior agricultural staff for persuasion and supervision posed challenges to implementing these policies. Similarly, the lack of modern machineries, such as tractors, caused difficulty in implementing the farm mechanization the colonial administration hoped to introduce.¹⁸ Communicating these new methods to largely illiterate peasants took a lot of work to realize these agricultural objectives. The need for adequately trained extension workers in Southern Tivland also affected the implementation of agricultural extension work. Consequent to the failure of soil conservation and environmental protection measures, soil infertility remained a significant problem with adverse effects on crop yields and productivity.

Environmental Problems and Rural Crisis in Southern Tiv Area up to the Early Decades of the 21st Century

Writing in the first decade of post-independent Nigeria, Udo, in his work entitled "Food -Deficit Areas of Nigeria."¹⁹ identified some areas he referred to as congested districts of the East Central State and the South-eastern State; the Sokoto districts; the Niger Delta; Southern Tivland and Okene Districts; the Cocoa Belt; the Jos Plateau and the Kano-Katsina Region as 'food-deficit' areas of Nigeria. Among the indicators of food deficits presented by the author are farm size, output per farmer, dietary intake of the people, and quantity and value of food

¹⁷NAK/MAKPROF (FED) 4/1/1553, Southern Tiv Areas: Farming Conditions in (ii) Experimental Farm at Adeiyongo.

¹⁸NAK/MAKPROF (FED) 4/1/4545, Land use And Migration, Tiv Tribe, 1948-52.

¹⁹R.K. Udo, "Food-Deficits Areas of Nigeria", in *Geographical Review Vol. 61.No.3*. July 1971.

imports. Land shortage and the diversion of labor into other activities were primarily responsible for the low per capita output in the food-deficit areas. Other factors also govern the number of land farmers cultivates, including the availability of labor and seeds. Therefore, the land shortage is not an adequate measure of a food deficit or a labor shortage.²⁰

The author identified the causes of the food deficit in these areas. For instance, the food deficits in the Sokoto- Katsina Region were caused by high population densities, poor crop yields, and land shortage, which led to the fallow reduction. Floods that made the swamps unsuitable for cultivation and soil impoverishment resulting from overgrazing by sheep, goats, and cattle were essential characteristics of the region. Udo grouped the Southern Tiv and the Okene Districts based on geography-physical conditions, the type of crops grown by the people of these areas, and their reaction to food situations – large-scale rural-rural migrations. Udo believes that the population density in the Southern Tiv land was less than 400 persons per square mile exception of a few areas of about 500 persons per square mile, and that poor farming methods rather than acute land shortage were responsible for food deficits in the area.²¹ The author argues that the Tiv people moved from one part of their territory in search of new farmlands, destroying vegetation and soils instead of practicing 'organized rotation of fallows.' As such, climatic conditions supported the cultivation of root tubers and grains. Cash crop production provided the means for obtaining food imports. However, contrary to Udo's view that no 'organized rotation of fallows' was practiced by the Southern Tiv, the Bohannans' had earlier presented a clear picture of the nature of crop rotation, fallow cycles, crops, cultivation practices, and some of the challenges of food production and food consumption patterns in this area especially land shortage (which hindered longer fallow duration) which Udo believes had little or no influence on food deficit in the region.²² There is little or no evidence to show that the food situation in these food-deficit areas became positively altered, leading to food security and sustainable livelihoods over the remaining decades of the twentieth century up to the first decades of the twenty-first century. On the contrary, food problems, their sustaining factors, and other new developments deepened in the Tiv area.

²⁰R.K. Udo, "Food-Deficits Areas of Nigeria", in *Geographical Review Vol. 61.No.3.* July 1971. 432-433.

²¹R.K. Udo, "Food-Deficits Areas of Nigeria" 419.

²²Paul and Laura Bohannan, *Tiv Economy*, (London: Longmans,1953)., chapter four. See also P. Bohannan, *Tiv Farm and Settlement*, (London: Her Majesty's Stationery Office,1954 chapter four.

In retrospect, outside of simple innovations in cropping and cultivation practices, little significant changes were recorded in food production methods and techniques among the Tiv, especially in introducing modern technology for large-scale food production. As in the past, the Tiv food economy remained dependent on climatic factors, simple technology, traditional methods of cultivation, and essentially communal and family labor supply. While natural –geological circumstances and human activities continued to affect environmental degradation as it were in the colonial era, the application of chemicals for clearing fields, weeding of grasses on cultivated fields, crop fertilization, and protection also contributed to environmental degradation in the post-colonial period.²³ As it were, population growth in the Southern Tiv area deepened the pressure on land resources. The data in Tables 1 and 2 below shows some remarkable increase in the population of Konshisha, Kwande, Vandeikya, and Ushongo local government areas of Benue state between 1991 and 2006.

Table 1: Population Figures of the Southern Tiv area, 1991

S/NO	LGA	MALE	FEMALES	TOTAL
1	Konshisha	71,731	73,883	145,614
2	Kwande	89,476	90,851	180,327
3	Ushongo	61,121	62,045	123,166
4	Vandeikya	80,007	81,856	161,863

Source: National Population Commission.

Table 2: Population Figures of the Southern Tiv area, 2006

S/NO	LGA	MALE	FEMALES	TOTAL
1	Konshisha	114,192	112,300	226,492
2	Kwande	125,442	123,200	248,642
3	Ushongo	96,062	95,873	191,935
4	Vandeikya	117,449	117,118	234,567

Source: National Population Commission.

The population data above shows a significant upward shift in the area's population. For instance, the Konshisha local government area's total population was recorded as one hundred and forty-five thousand six hundred and fourteen persons in the census of 1991 but increased

²³ For the causes and effects of environmental degradation in Benue state, see AondofaAligba, "Issues On Environmental Protection and The Law: The Benue State Experience", in *The African Journal Of Environmental Law And Development*, (AJEDS)Vol.1 1,2005,72-73; M.O Odey, "Implications Of Food Production Activities On Benue Environment And Economic Development", in *The African Journal Of Environmental Law And Development*(AJEDS)Vol.1 1,2005,107-109.

to two hundred and twenty- six thousand four hundred and four hundred and ninety-two persons in 2006. Also, the total population of the Vandeikya local government area in 1991 was one hundred and sixty-one thousand, eight hundred and sixty-three persons but increased to two hundred and thirty-four thousand, five hundred and sixty-seven persons in the 2006 national population census. The data depicts a significant population growth in the southern Tiv area within sixteen years, sufficient to cause an imbalance in the man-land ratio and negatively impact the soil's carrying capacity. Population growth entailed increasing food production activities through food production methods and fuel wood production activities that deepened environmental degradation, especially soil erosion and loss of soil fertility that proved damaging to sustainable environmental protection. Poor soil quality was affected by soil erosion and loss of soil fertility, just like other critical factors such as labor continued to have a profound influence on the quality and levels of food economy of the area up to the first decades of the 21st century.

Successive administrations of Benue state consistently failed to transform the living standards of particularly the rural populace who remained the food producers of the state and, by this, change agricultural production, the primary occupation of the rural masses, through deliberate policies of agricultural and rural transformation, including environmental protection measures. Almost all the state's initiatives, policies, and programs of socio-economic development suffered a range of problems which include, among others, mismanagement and official corruption, misplaced priorities, lack of policy continuity or implementation, lack of an effective mechanism for implementation, poor coordination, and effective service delivery. The continuous loss of soil fertility led to decreasing farm sizes and poor annual crop yields, frequently resulting in food shortages, hunger, and insufficient purchasing power due to diminishing incomes, particularly during planting or cropping seasons. As evidence has shown, the above scenario became a perennial course for many households over the years. It had negative implications on the general livelihood security of the food-producing communities. The continuous loss of soil fertility and the growing number of persons in households dependent on the land for livelihoods led to several responses by the people and effects. Among these responses and outcomes were seasonal and permanent migrations, contestations, and violent conflicts over land portions, which disrupted economic activities, including food production, distribution, access, availability, and nutrition crisis.

Conclusion

The study has shown that the environmental issues in the southern Tiv area were collectively a function of both the natural physical environmental setting and a combination of economic production methods and cultural activities of the people. Food and fuel wood production activities caused environmental changes, challenging or questioning the essence and sustainability of the people's material production culture and livelihood security. The colonial economy, which emphasized cash crop production and taxation, was a critical factor in deepening the environmental problems, land consciousness, pressure on land resources, reduction in food production, food deficits, and poor incomes. As demonstrated in the study, efforts were put in place by the colonial administration to tackle these problems through soil conservation, soil improvement, environmental protection measures, improvement of farming methods, and improvement of crops for continued capital maximization in the area, which was in line with the objective of the colonial economy in the Benue Province as was the case elsewhere. Some aspects of the agricultural policy did not produce the expected results because of a lack of desired cooperation on the part of the people and administrative challenges on the part of colonial authorities. As it were, increased food and fuel wood production activities of the post-independence era deepened environmental issues, especially soil erosion, and loss of soil fertility. Thus, poor soil quality affected by soil erosion and loss of soil fertility continued to profoundly influence the quality and levels of the food economy of the area up to the first decades of the 21st century. The findings of this study are essential for understanding the trajectory of environmental issues and food problems in the Tiv area necessary for shaping socio-economic policy to tackle contemporary issues and the future direction for sustainable livelihoods.