

The Effects of Agulu – Nanka Erosion on the Socio-Economic Life of Agulu and Nanka Communities of Anambra State

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Abstract:- This paper generally reviewed worldwide devastating sway of erosive forces, and in particular, the damages and the effects of Agulu-Nanka erosion complex on the socio- economic life of Agulu and Nanka communities. Questionnaires, interviews and oral discussions were used to collect data on the number of households displaced, number of houses, hectares of farmland gulped and local communication network cut off by the landslide. The data generated were analyzed using descriptive statistical percentages. Out of the 200 questionnaires distributed, 154 (77%) were recovered. Results show that 54 (35%) of the 154 households interviewed were displaced by the landslide, 2 domestic rivers silted, 235 Ha of farmland destroyed, 80 houses gulped and 13 rural roads cut off. Suggestions as to future and control efforts to be followed have also been given.

Keywords:- Agulu – Nanka, Erosion, Damages, gullies, socio –economic life.

I. INTRODUCTION

Land is the primary support for life. All human activities are directly or indirectly hinged on the land. Food, shelter, our weights and all development efforts depends on the availability of the land. However, the capacity of the land to meet up with the above objectives is being threatened seriously by erosion.

According to Graham (1944), when soil is eaten away by natural agencies, the phenomenon is known as soil erosion. Soil erosion is simply a systematic removal of soil, including plant nutrients from the land surface by various agents of denudation (Ofomata 2000) Erosion is the rape of the earth (Jacks and White 1939). On the other hand, Hudson (1976) defined soil erosions as a smoothing or leveling process with soil or rock particles being carried, rolled or washed down by force of gravity. Onyeagocha (1980) described erosion as an accelerated phenomenon which results form the movement of soil by water, wind or other agents and deposition of such detached soil elsewhere. On the other hand, Glenn (1966) observed erosion as to include soil forming as well as soil eroding processes which maintain soil in a favorable balance/deterioration and loss of soil as a result of man's activities.

The problem of soil erosion is worldwide. Madu, (2000) observed that worldwide environmental resource base (Land, Water and Air) are being damaged by increasing human population and their insatiable demands. Brigg and Euid (1980) reported that America's agricultural lands have been disappearing at the rate of nearly 30 million acres per year. In Nicaragua, wind erosion threatened commercial cotton production, a vital element in Nicaragua's international balance of payments. (Gerald 1978). According to Richard (1976), Teton Dam in Montana state of U.S.A. collapsed on June 5th, spewing 250,000 acre feet of water along a 100 mile stretch of Teton-snake river. Raging water up to 60ft deep ripped through Madison, Jefferson, Bonneville, Fremont and Bringham destroying homes, offices, equipments, animals, crops and lush farmlands. In Gambia, patches of eroded soil are clearly visible from the air (William 1977). Frank (1976) reported that more than 6 million acres of land were damaged by wind in Great Plains of portage in Montana State of U.S.A during their 1975 -76 erosion seasons, the most extensive damages since the drought of the Mid 1950s. According to Jacks and White (1939) Turkey has suffered severely from erosion in the past, all the east while ports on the Southern side of Anatolia are now silted up. Prolonged utilization has ruined the land round the head water of the yellow river in China, - the worst eroded region in the world (Jacks and White 1935). Here in Nigeria, soil erosion is a major ecological problem. On August 31st 1980 in Ibadan, nine hours of continuous rainfall caught the old city off guard, as the notorious Ogunpa river overflowed its banks. Some 150 people died, thousands were rendered homeless and property worth millions of Naira was destroyed. (National Concord Editorial July 25th 1986). Furthermore, Onyeagocha (1980) identified some serious erosion sites at Bauchi, Imo, Plateau Oyo and Rivers States of Nigeria. In the same vein, Obiekezie *et al* (2000) observed that landslides, gully erosion and ground subsidence have devastated the territory of Anambra State of Nigeria. Eze (2000) also submitted that degradation of natural resources in Anambra State and almost everywhere in Nigeria is one of the greatest threats to future food production capabilities and sustained development.

The improvement of the socio-economic lives of the rural people is one of the challenges of the Nigeria National development Programme. It is therefore a growing consensus among Foresters, Agriculturists, Economists and Rural development experts that erosion control is desirable, not only on social welfare grounds, but also as a means and strategy of making land available to foster the overall growth of the agricultural economy in Nigeria. This is more evident because the rate of disappearing land area, especially in densely populated area like Agulu-Nanka has devastating impact on agricultural growth and development of an area where the majority of the population rely mainly on the productivity of the land for livelihood.

II. METHODS

Agulu Nanka lies between longitude 7° and 7.30°E and latitude 6° and 6.30° North of equator. The erosion complex itself lies about 80 kilometers south west of Enugu and about 48 kilometers east of the Niger River. Although the site lies within the moist rainfall belt of Southern Nigeria, the vegetation is predominately derived Savanna, dominated by a continuous occurrence of oil palm trees (Okafor 1986). The rainy season is between April and October (Ndubude 1980). The soils of Agulu-Nanka consists of acid sands, laterite and alluvial (Udo 1970). The people of Agulu-Nanka Area are occupationally farmers, businessmen and traders. Agricultural crops cultivated include cassava, yam, maize, banana and vegetables.

Data on the damages caused by the Agulu-Nanka erosion complex were collected through questionnaires form a total of 154 households in the study area in 2006. Interviews and oral discussions were additional sources of data. The data collected included the number of households displaced by the landslide, number of houses, hectares of farmland gulped and local communication network cut off. The data generated were analyzed using descriptive statistical percentages and means.

III. RESULTS AND DISCUSSION

The number of questionnaires distributed and returned is presented in Table 1 while the number of households effected and the general damages caused by the erosion complex are shown in Table 2.

Out of the 200 questionnaires distributed, 154 (77%) were returned (Table 1). From Table 2, a total of 54 households (35 percent) have been affected one way or the other by the erosion complex. A total of 40 houses and 325 hectares of farmland belonging to the 54 affected households were gulped by the landslide. The Agulu-Nanka Erosion complex has posed a big challenge to forestry, companies, local population and the nation in general. The problem has defied all efforts to control it. The erosion is spreading like wildfire to other neighborhoods' like Oraukwu, Nnobi, Awgu and Ebenebe. The landside has become more potent and active, gulping everything in its course. People are retreating, abandoning homes, livestock, economic trees and farm lands. The erosion has so affected the local people that they have given it a local name – “Mbuze na – agba – egbe”, meaning “Landslide with an explosive sound. These devastating conditions have led to untold socio-economic problems. Apart from destruction of homes, farmlands, and economic trees, the erosion has caused siltation of rivers, streams and consequent loss of biodiversity and water supplies for domestic purposes, for instance, the Agulu lake was formed as a result of the damming of the upper Idemili River by sand deposits eroded form gullies which open into the Idemili Valley near Adazi market.

There is the destruction of aquatic life in the affected rivers. The gullies are a nuisance, interrupting communication as well as despoiling farmlands. There is also the impoverishment of the soil over wider areas resulting from deforestation and its replacement by open tussocky grassland. The problem of finding alternative plots for those whose houses and farmlands had disappeared in land slide and those whose lands were put out of cultivation as a result of conservation regulations passed by the local authority exists. If compensation and resettlement are to be made to the displaced, the source of such compensation presents a problem. There is the problem of population swell of the neighborhood towns and villages because those whose lands have been gulped by the erosion are trooping to other areas in search of new homes and means of sustaining life. The erosion has further hindered infrastructural development of the area.

IV. CONTROL EFFORTS

Due to the huge amount of money required to control erosion on a large scale, control measures have up till now been on a small scale. Several uncoordinated, un-sustained and limited efforts have been made at one time or another towards containing the soil erosion. Some of the local people still see the gullies as the work of angry gods. Hence, they spend time trying to appease the gods instead of fighting the erosion.

However, in 1976, the Federal Government of Nigeria commissioned an Italian consulting firm, “the Niger –Techno” to carry out a detailed feasibility study of the former East central state (now Anambra, Imo, Enugu and Ebonyi states) and to make recommendations on erosion control measures. Also in 1980, another contract was awarded to Ronasco international for erosion control, in seven in communities of Anambra state. The villagers have also legislated that everyone must dig as many sumps as are necessary in his compound to

ensure that flood water does not flow away from his compound to another's or to public roads. They also organize their own tree plantings and banned the cultivation of lands around the gullies.

V. CONCLUSION

The Agulu-Nanka Erosion is a serious ecological problem that attracts the attention of every visitor in the area. The main cause is high human activities combined with heavy rainfall and soils of high erodibility. People are retreating, abandoning homes, economic and social cultural investments. Families have been separated and the cultural set up of the people has been upset. Erosion control effort in the area has been uncoordinated and un-sustained. Even though erosion control is quite an expensive program, it is also economical to conserve the land for future generations. Moreover, employment opportunities offered to the local populations as a result of erosion control Programs and activities is well another meaningful way of achieving the poverty alleviation. The skills acquired by the workers can go a long way to ensure a sustainable ecological and environmental management.

VI. RECOMMENDATIONS

Having discussed the Agulu-Nanka Erosion complex, and the socio-economic problems posed, the following recommendations are hereby made:

1. The Federal Government should continue to make funds available until the erosion is completely arrested.
2. The local Authorities conservation Efforts should be encouraged by providing them with tree seedlings free of charge for massive reforestation of the area.
3. An appeal fund for erosion control in Agulu-Nanka area should be launched.
4. All debris and refuse in and around Anambra state should be channeled to the gullies to help fill them up and reclaim land.
5. Forest Guards should be permanently posted to the erosion sites to help stop the collection of firewood from the area.

Tables

Table 1. Percentages of Distributed / Returned Questionnaire.

Town	No of Quest Distributed	No of Quest Returned
Agulu	100	80
Nanka	100	74
Total	200	154
Percentage	100	77

Table 2. Number of Households Affected.

Town	Households interviewed (No)	Households Displaced (No)
Agulu	80	28
Nanka	74	26
Total	154	54
Percentage	100	35

Source Field Survey 2006

Table 3 Infrastructural Damage

Town	Rivers Silted (No)	Farmland Destroyed (Ha)	Houses Destroyed (No)	Roads Cut Off (No)
Agulu	1	166	21	9
Nanka	1	159	19	4
Total	2	235	40	13

Source Field Survey 2006

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