

Environmental and Socio-economic Impact of Desertification and Drylands Development: An Empirical Investigation of some Selected States of Northern Nigeria

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Abstract

This paper examines the impact of desertification and drylands on the environment and socio-economic conditions with particular emphasis on the Northern part of Nigeria for its empirical analysis. Data for the study were derived from interrelated sources. Secondary data were from the existing works on desertification and land degradation, while those of primary came from personal interviews of a cross section of people from the severely desertified states of Sokoto, Kano, Borno, Katsina and Yobe out of the eleven desertification frontline states in Nigeria. These states are characterized by sandy soils and low annual rainfall. The results of the descriptive statistics revealed that, desertification is a major environmental and socio-economic problem with a serious compounding of negative effects on the livelihood of the population of the northern part of Nigeria thereby reducing their chances to cope with difficult periods. It degrades the environment and reduces the present and potential productivity of arable lands, forestlands, and rangeland. It increases landlessness and food prices. The study shows that some villages and major access roads in Borno and Sokoto states are being buried with sand dunes. Arable fields are turned to dust bowls in the affected states thereby rendering their land unfit for the production tree and tuber crops due to salinization and erosion. The menace led to extreme social disruption, famine and migrations of Fulanis with their animals to the Southern part in search of greener pasture. A decline in forage resources from desertification caused reduction in the number and productivity of animals in the Northern parts of Nigeria with a decrease in the milk production of cows. Also found from the study were decline in the fish catch, hunting losses, loss of biodiversity, reduction in vegetation cover, deterioration of the conditions of human life, interruptions in the road network due to sand encroachment, financial and socio-economic losses in terms of increase in the cost of supplying water to villages and health problems by the government. Due to dust and salt in the air, the high salt levels of drinking water polluted by mineral fertilizers and herbicides are high in the states. Endemic in the areas are number of contagious diseases (especially typhus and gastro-intestinal illnesses), several eye diseases (most children there wear glasses), and very high infant mortality rate. The Challenges therefore involve proper establishment of water management programs that will provide the population with good quality drinking water in the affected areas, sand dune fixation, revegetalization of the affected areas, soil desalinization.

Keywords

Desertification, dry land, environmental, socio-economic and Northern Nigeria