

Short Communication

Land Degradation in a Changing Agrarian Context – Case of the Communal Areas of Zimbabwe

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ABSTRACT

The broad objective of this study was to assess the nature and extent of the land degradation, causes and possible strategies to alleviate the problem in Sub Saharan Africa. Particular emphasis was paid to the Zimbabwean situation which is under structural re-organization. A semi structured interview schedule was used to collect data from respondents. The results of the study showed that land degradation is ubiquitous in most farming areas and the main causes are extensive land clearing, poor farming methods such as monocropping, and mismanagement of catchment areas. This development has reduced the aesthetic value of the land, increased the costs of production and destruction of biodiversity. There is, therefore, need for local demand driven environmental programs targeting smallholder farmers.

Key words: Land degradation; Communal areas; Zimbabwe

INTRODUCTION

Land degradation remains a challenge for many developing countries across the globe. This is mainly because of its effect on the sustainability of agricultural production, which in turn impacts on poverty alleviation among the rural poor. Sustainable utilization refers to an integrated system of plant and animal production practices having site-specific application that will in the long run satisfy human food and fiber needs, enhance environmental quality, make most efficient use of non-renewable resources, sustain economic viability of farm operations, and enhance quality of life for farmers and society as a whole (Dyson-Hudson, 1980).

In Zimbabwe, the land ownership was typically skewed towards the white minority who until the land and agrarian reforms in 2000 possessed more than half of the country's prime land. Currently smallholder farmers, who are generally resource constrained, by and large dominate the agricultural landscape. However, this development has also seen a concomitant increase in new environmental challenges for the country. If sustainability of land use is to be achieved in the newly resettled areas, there is need for an understanding of the extent and breath of the current environmental problems besieging the agricultural sub sector. Many of the battles in which the environmental movement has engaged involve arresting land degradation in the country (Wilson, 1990). The current research attempts to identify the nature and extent of the problem of land degradation, describe its underlying causes as well as its effects in a context ushered in by the land and agrarian reforms.

MATERIALS AND METHODS

Sampling Frame. The study considered communal areas in Mashonaland East Province of Zimbabwe. Stakeholders located in these areas such as officials from the Natural Resources Board and Ministry of Agriculture gave their qualitative assessments of the problems and solutions.

Sampling Method. A total of 20 officials drawn from the Natural Resources Board, Ministry of Agriculture and other government departments were selected from Mashonaland East. They were selected using a purposive sampling approach according to zones in which they were responsible. A semi structured interview schedule was then used to elicit for the required data.

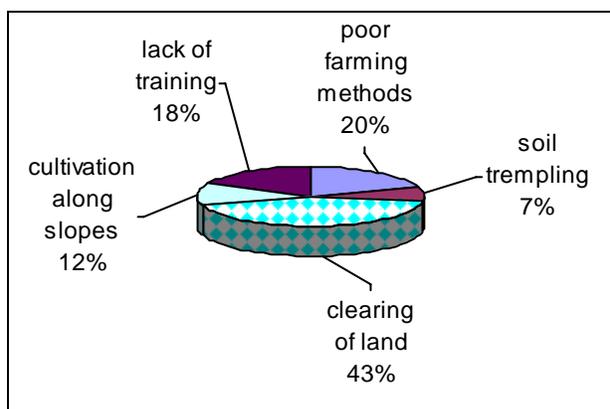
Data Analysis. The data collected in this research were largely qualitative. Thus simple descriptive statistics were employed.

RESULTS AND DISCUSSION

Land degradation conceptualized. Respondents conceptualized land degradation as a process whereby the land cannot optimally support growth and development of living organisms due to erosion of the top fertile soil. The land's productive potential moves from a climax condition to a less productive degraded state. Land degradation, in Zimbabwe, is characterized by dry dust soil that can easily be carried away by wind and rain, compacted or mud soil where water cannot easily infiltrate, lack of vegetation and ground cover, and poor quality crops or harvests especially from the school garden or field.

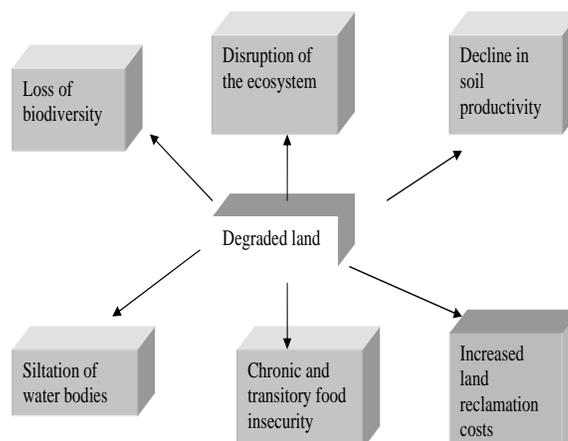
Underlying causes of land degradation in newly resettled areas. The key underlying causes of land degradation, according to the department of Natural Resources Board (Fig 1) include poor farming methods such as intensive sole or monocropping, over trampling soil with tractor or ox drawn implements e.g. ploughs, clearing of land for cultivation, failure to replace lost nutrients from the soil and cultivation on slopes without proper conservation measures in place and lack of access to appropriate training in environmental issues.

Fig. 1. Underlying causes of land degradation



Degraded lands in newly resettled areas have numerous bad ripple effects to the environment (Fig. 2). Plant and animal life die due to poor or little food supply thus there is loss of biodiversity, people (farmers) fail to produce enough to eat, people become prone to various diseases, rivers and dams dry up due to siltation resulting in the death of aquatic life and disruption of food chain. In the long run, the whole ecological process in terms of water cycle, mineral cycle, plant succession and energy flow is disrupted with the subsequent occurrence of floods, droughts, pests and disease outbreaks and complete breakdown of the human social fabric. This has a negative impact on the country Gross Domestic Product (GDP).

Fig. 2. Effects of land degradation



CONCLUSIONS AND RECOMMENDATIONS

The problem of land degradation is literally a ubiquitous problem in the current agrarian setup. The attributing causes include land clearing, poor farming methods and lack of institutional support structures. A concerted national effort in the form of appropriate training environmental programs is required if sustainable development is to remain an achievable objective for the country. However, such programs need to be demand driven.

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