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Conservation, Livelihood and Democracy: Social Dynamics of Environmental Changes in Africa

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Preface

There has been a tendency in Africa, as elsewhere, to view the environmental problem in ecological, physical and technical terms. The social aspects of environment have been largely neglected both in analysis and policies. This has contributed to the high failure rate of official conservation programmes and policies in most African countries both in the colonial and the post-independence period. The purpose of this paper is to provide a social perspective on the extent, emergence and amelioration of the environmental crisis in sub-Saharan Africa.

The available indices point to a grim picture of environmental degradation in Africa as expressed in soil erosion, deforestation, desertification and sedimentation and pollution of waterways. Although there are serious doubts about the reliability of these data, circumstantial evidence and in-depth micro studies corroborate this picture. There is even greater paucity of information on the social manifestations of the environmental crisis. The problem is further compounded by the difficulty of isolating the impact of environmental factors from the many variables which impact on social conditions.

Natural disasters provide the most dramatic illustration of the social impact of changes in environment. The great droughts of the early 1970s and the 1980s resulted in the deaths of hundreds of thousands from starvation and malnutrition. Tens of millions were forced to abandon their homes in search of food. There was large-scale decimation of livestock that contributed further to the impoverishment of the rural people. The cumulative degradation of natural resources has jeopardized the livelihood sources for scores of millions of farmers, herders and forest dwellers. The effects have been felt through declines in yields and food production, dwindling access to forest produce and game, declining productivity of grazing land and increasing scarcity and cost of wood fuel. The environmental crisis has reinforced urban migration, disrupted community life and provoked local, national and regional conflicts. Women and girls have been especially adversely affected because of their role in food production, family upkeep and fetching of water and wood fuel.

In the pre-colonial period, the local communities had by and large succeeded in evolving systems of resource use and management which combined livelihood security with resource conservation. These systems were disrupted during the colonial period by the expropriation of land for white settlers and for plantations, commercialization of agriculture, inappropriate macro economic policies and ill-conceived infrastructural projects. Many of these policies were continued in the post-independence period. Rapid and accelerating population expansion in recent decades has greatly increased the pressure on resources.

The past patterns of economic development are socially and ecologically unsustainable. There is urgent need for new approaches designed to integrate resource conservation with livelihood improvement. A key element of this approach is the progressive transfer of responsibility to local communities and organizations for the management of natural resources. There is impressive historical evidence of the ability of pre-colonial societies in Africa to adapt production systems and livelihood strategies to local ecological conditions with environmental sustainability. There are also numerous contemporary experiences from different ecological zones of the ability of local communities to restore and improve degraded resources through technical innovations, social mobilization and institutional and organizational improvements.

For a locally based resource conservation strategy to work, it will be necessary to transfer responsibility and resources to local communities, initiate property reforms relating to ownership, use and access to resources, and strengthen the technical and managerial capabilities of organizations of rural producers. Because of the enormity of the challenge, these efforts can only succeed if they are supported by sympathetic individuals,

organizations, national authorities and the international community. External assistance will be required to solve technical problems, elaborate programmes for raising labour and resource productivity, conduct field research and furnish food, materials and cash. But it is important that such assistance should reinforce local efforts, enhance local capabilities, build upon indigenous knowledge and skills and respect community priorities.

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Introduction

Concern with environment is not a recent phenomenon in Africa. Already at the turn of the century there were serious debates and learned discussions about the deteriorating soil conditions and excessive deforestation in the Cape Colony in South Africa (Grove, 1987). Likewise the British, German and French colonial authorities were preoccupied with this problem in the 1920s and 1930s and took a variety of preventive measures (Darkoh, 1987; Korir-Koch, 1991). Many of these measures were of a coercive nature often relying on forced labour for construction of structures for soil conservation and compulsory destocking to ease the pressure on rangelands. They were deeply resented by farmers, pastoralists and forest dwellers. It was therefore not surprising that governments which came to power after independence decided to abandon them. However, after a period of benign neglect in the early years of independence, African governments have become increasingly alarmed by the state of the environment and are now setting in motion wide-ranging measures to arrest and reverse its degradation.

Throughout much of this period, there has been a tendency to view the environmental problem in physical, ecological and technical terms. The problem is defined as loss of soil, disappearance of forests, extinction of wildlife and plant species, spread of deserts, pollution of waterways and sedimentation of dams and irrigation facilities. The villain of the piece is the nomadic herder, the subsistence farmer and the forest dweller whose galloping numbers and primitive methods of earning a livelihood are portrayed as putting intolerable pressure on limited and fragile resources. The measures devised to cope with the problem have focused on technical solutions involving land use and alleviation of human and animal pressure on resources. Conceived by government officials and international experts, they have been imposed upon a largely passive if not an outright hostile populace. It is not surprising that most of these measures have failed to achieve their objectives.

In recent years, some attempts have been made to view the environmental problem in a holistic framework integrating physical and ecological with social and political processes. This is an important advance but the full implications of this approach continue to be largely neglected or insufficiently reflected in the design and implementation of measures for environmental rehabilitation and conservation. The purpose of this paper is to present a social perspective on the environment problem and to outline an approach to resource conservation informed by this perspective.

A social approach to environment focuses on issues of ownership, control and management of natural resources. It addresses questions of power and conflicts of interest (Redclift, 1987, 1992; Vivian, 1992). It brings out the complex and multiple interactions between social and natural systems. It pays attention to institutions, motivation and incentives. And it stresses the vital links between resource conservation and human needs. Thus a strategy for environmental improvement is unlikely to succeed if it neglects the social dimension. Reliance upon purely ecological, technical or economic approaches is undoubtedly one of the reasons for the failure of many conservation programmes and policies.

The next section looks at some indices of environmental stress. Starting with the conventional physical measures, the paper discusses the principal social consequences of environmental degradation. Section 2 contains an analysis of the dynamics of environmental deterioration. Special attention is paid to the traditional systems of resource management and their breakdown under colonial rule, the processes of modernization and population expansion. Section 3 outlines an approach to conservation based on livelihood security and community empowerment. This approach is built around a strategy promoting a progressive

restoration of sovereignty over natural resources to local communities and a strengthening of their capabilities in partnership with the state and the international community.

Given the vast scope of the paper in terms of both the region and the issues covered, it has not been possible to provide detailed empirical and analytical justification of the propositions advanced. The sources cited furnish further support to the points made here. This paper should rather be seen as providing a broadbrush social perspective on the extent, emergence and amelioration of the environmental crisis in sub-Saharan Africa. The focus is on natural resources and the rural sector. No attempt has been made to discuss industrial and water pollution or urban environmental problems.

1. Environmental Degradation from a Social Perspective

There is a close relationship between indices of environmental stress and the extent of social hardship and suffering. The data on such physical and social indicators are often incomplete or unreliable but in conjunction with other evidence they point to a dramatic picture of environmental damage in the continent.

1.1 Some Physical Indices of Environmental Deterioration

From all accounts the environmental crisis in Africa is serious and getting worse. The available indicators point to an alarming deterioration in the quality and quantity of natural resources. Just to mention a few commonly cited figures, Africa's 703 million hectares of forests are being cleared at the rate of 3.7 million hectares (or 0.6 per cent) each year; deforestation outstripped the rate of new tree planting by 29 to 1 (World Bank, 1989); more than 63 per cent of the original wildlife habitat has been lost (McNamara, 1990).

Soil erosion has assumed serious dimensions. The affected areas are experiencing soil loss at the rate of 10 to 200 tons per hectare. More than 35 per cent of the land north of the Equator is affected by either erosion or salinity (FAO, undated). It is reported that 80 to 90 per cent of Africa's rangelands and 80 per cent of cropped land in the dryland areas may be affected by soil degradation (World Bank, 1989). Nearly 34 per cent of African land is under threat of desertification (FAO, undated). There is growing pollution of waterways and sediment levels in rivers have been increasing at 5 per cent per annum in countries like Nigeria, Tanzania and Zimbabwe.

Most of the above figures are averages for the continent as a whole or for sub-Saharan Africa. For certain countries the situation is much worse. The Sahelian countries are suffering more acutely from the encroaching desert. In Ethiopia, annual loss of topsoil has been estimated at a staggering figure of 3.5 billion tons (Harrison, 1987). Nearly 50 per cent of the land area in Tanzania is subject to soil erosion and requires remedial action (Blackwell et al, 1991). The