DESERTIFICATION IN NAMIBIA

RURAL - URBAN INTERACTIONS

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ABSTRACT

Namibia is the driest country south of the Sahel and as such provides an interesting case study of approaches to combating desertification in southern Africa. With a relatively small population of 1.6 million (1991) and a large land area of over 800 000 km^2, Namibia, nevertheless, produces the lowest number of calories per capita of any of its neighbouring states in the SADC region. Independent only since 1990, land management in Namibia is constrained by the legacy of a long colonial history. In particular, opportunistic movement of people and their livestock to available water and grazing has been steadily curtailed over the past century. Fenced commercial farms occupy forty-eight per cent of the land surface while forty-three per cent is comprised of partially fenced communal lands, the remainder taken up by parks and protected areas. More than half of the population lives on communal farmland within 50 km of the northern borders of the country where rainfall is above 250 mm, higher than in the south or west. Perennial rivers form the northern and southern borders of Namibia, while all rivers within the country are ephemeral and groundwater provides 51% per cent of water used.

The urban history of Namibia is equally convoluted and based on the colonial past. The early colonisers settled at harbours on the desert coast and in the central highlands where the climate was conducive to livestock. A number of smaller towns were scattered throughout the commercial farm area to support farming. In the 1970's each of the 'homelands' was provided with its own capital, hastily constructed to meet the needs of apartheid policy. Today, the population growth rates in the urban areas are almost three times that of the overall population.

Desertification, or the loss of productivity of the land and its associated resources, in Namibia is primarily a result of the combination of aridity, rapidly growing population, and inappropriate legislative and institutional support for land management. Its physical manifestations in Namibia are primarily bush encroachment on commercial farmlands and deforestation, decreasing soil fertility and over grazing on communal farmlands while its social manifestations are an ever growing gap between rich and poor and migration to urban centres.

At the local level, types of livelihoods, manifestations of desertification as well as identified solutions vary throughout the country. In the south and west, aridity prevails with rainfall averaging less than 150 mm. In the southern communal areas

small stock farming is the main source of income while in the west small stock prevail but potential for tourism is supported by rugged, spectacular landscapes populated by free-ranging rhino, elephant and other wildlife. In the east rainfall is higher and cattle farming predominates. It is only in the far north and north east of the country that crop farming is possible and at least partially successful in most years. Throughout the country, however, lack of a communal land bill with a concomitant lack of security of land tenure, absence of land use planning, varied effectiveness of traditional authorities and low or moderately effective service provision to communal farmers all affect the sustainability of current land use. On the other hand, the potential for improved land management is high.

As a consequence, the emphasis in Namibia's Programme to Combat Desertification, has been on providing information and skills, including organisational skills for communal farmers, rather than on purely technical approaches to halting, for example, deforestation or bush encroachment. This programme is promoted jointly by the Ministries of Environment and Tourism and of Agriculture, Water and Rural Development and an NGO, the Desert Research Foundation of Namibia. Their focus on sustainable natural resource management includes addressing policy and planning issues and empowerment of communal users of natural resources.

During the height of apartheid in Namibia, the large population in northern Namibia was treated as a labour reserve and only males could move out to jobs elsewhere in the country or to neighbouring countries. This tradition continues wherein many people of working age, predominantly men, travel to towns to find work. Women and children remain in the rural areas. At the same time, wage earners in town invest in livestock, for cultural, prestige and financial purposes, and send them to the communal areas to be managed on a day to day basis. Similarly, many of the women who work in town send their children to be raised in the rural areas by members of their extended families. In many instances this leaves older people, who at over 60 years receive a meagre social pension, not only to maintain their own livelihoods but also to take care of children and livestock over which they do not have decision making powers. This arrangement constrains potential for improved natural resource management in rural areas. These practices also have exacerbated the growing gap in well being between those living in towns and earning a living and those remaining in the rural areas.

It must be pointed out, however, that free movement between rural and urban settings and within rural areas is fully supported by Namibia's constitution that states that people can live anywhere in Namibia without restriction. However, some owners of large livestock herds, often absentee farmers living in town, are misusing this concept. To date, this discrepancy between intent and practice is neither being recognised nor being addressed. The result is that management and control of natural resources, for sustainable use, is particularly difficult despite frequent statements and assertions to the contrary.

Responsibilities for management of natural resources are predominantly vested in central government ministries. Only the largest and more established local authorities are responsible for their own water, sanitation, waste management,

power, roads and other essential services. Decentralisation to regional level (the equivalent of states or provinces) is a current policy of government, however, to date there is little financial backing for this change.

To illustrate the relationship between urban and rural populations in the context of desertification, water will be used as a vehicle for discussion. As a very arid country, water is a central focus of all inhabitants. Water has been used to combat what is seen as desertification and, at the same time, the inappropriate supply of water, often as 'emergency' drought relief, has served to exacerbate the desertification process. Three inter-related localities will be used to add detail to the example.

Olifantputs is a small village of about 20 households in the northwest of Namibia. It has been a communal area throughout colonial times. Until about 20 years ago the area was used for seasonal grazing. Then a borehole was provided and a permanent village established. This borehole falls under the regional office of the Directorate of Rural Water Supply, Ministry of Agriculture, Water and Rural Development, and a Water Point Committee has been organised recently to manage water use and oversee the diesel water pump. Now, because of growing population and livestock herds, in Olifantputs but also in neighbouring villages, the area is again used seasonally. Early in 1999, most of the herders and livestock had moved out of the area, including people involved in desertification discussions and borehole management, as grazing was almost used up despite ample water still available. By April a few of the herders and cattle have returned as a small amount of grazing was present after several months of rest and slight rains.

Fransfontein is the former 'homeland' administrative centre with jurisdiction over Olifantputs. Khorixas, established in the 1960s, is the nearest town to Olifantputs and now the regional centre. Fenced farms that were returned to communal management when 'homelands' were being enlarged in the 1960s surround it. Many of the people of Olifantputs and similar villages, with their livestock, move to Khorixas if they do not go to one of the surrounding fenced farms where extended family relationships, and payments, require their accommodation. The municipality and town council of Khorixas fall under, and their salaries are paid by, the central Ministry of Regional and Local Government and Housing. This ministry oversees sewage and water supply within the town while the bulk supplier fills the town's reservoir. Absence of a water demand management programme, decrepit water reticulation and lack of training or experience of the municipal persons responsible contribute to an overwhelming 58% loss of all water piped to the reservoir. This is despite limited hours of water supply to consumers in two short spells during daylight hours. The bulk supplier taps an ever widening area of commercial farms for groundwater, lowering the water table in an area where recharge rate is unknown but mean rainfall is approximately 150 mm, decreasing productivity for town and surrounding farmlands simultaneously.

Residents and migrants forage for their own fuel wood and grazing in the surrounding townlands. This high pressure on vegetation causes a shift from perennial to annual grasses and reduction of regeneration of woody vegetation in

those occasional years when rainfall is sufficient, while people are forced to pay for fuel wood brought into town from distant farms. Although electricity is available, many residents or migrants are unable to pay for it or the appliances required.

Many people with homes and livestock in the rural area also have homes and work in Namibia's capital, Windhoek. Experience and expertise amongst municipality staff support water management in this town so that despite a 43% increase of population over the past ten years, consumption of water has remained the same. Pricing, information, recycling and reuse are important components of this process of water demand management. While this approach has bought time for Windhoek, even greater population increases will require additional sources of water supply.

Meanwhile, the inability to pay for electricity means that fuel wood is disappearing from the townlands around Windhoek and truckloads of fuel wood are brought in and sold in the market. Incomes earned in Windhoek, where Namibia's large civil service is centralised, are used to maintain people and livestock in, *inter alia*, Olifantputs and Khorixas.

Foreign donors, sometimes through foreign NGOs, have been directly involved in resource management in newer municipal areas, e.g. waste water management. Local NGOs are not involved in management of resources within small urban centres in communal areas but concentrate on rural activities. One or two local NGOs in larger centres focus on environmental concerns. Few of either category are in the west, as the focus for development is in the more populated north of Namibia.

Problems of the smaller urban centres differ in kind and magnitude from those in larger towns. Most larger towns have evolved from colonial origins and the larger ones are run by an experienced cadre of technical experts. Most of these towns are aware of Agenda 21 if not actively implementing all their responsibilities according to its guidelines. Most smaller towns, particularly those established as 'capitals' of homelands during the 1960s, were poorly constructed and are now run by persons often inexperienced and without technical training. As a consequence, the central government in the form of the Ministry of Regional and Local Government and Housing plays a major role in the smaller municipalities while larger ones manage themselves. Similarly, citizens groups play a more active role in larger centres, for example focusing on green space and waste clearance in dry riverbeds, than they do in smaller, newer ones. Educational, experience and cultural differences play a role in these varied approaches. It is in the area of these differences that solutions to desertification are to be found.