

SECOND CARNEGIE INQUIRY INTO POVERTY  
AND DEVELOPMENT IN SOUTHERN AFRICA

Man-Land Relationships in  
the Eastern Cape  
by

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## MAN-LAND RELATIONSHIPS IN THE EASTERN CAPE

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The emphasis in the paper is on the adverse impact that man has had on the physical environment. In writing about the drought-stricken areas of West Africa, Glantz (1978) came to the tentative conclusion that the beneficial effect of a good, long-range weather forecast would be limited because of existing social, economic and political restraints. Within the South African context, and with special reference to the Eastern Cape, it is contended that these are also the main restraints preventing the rehabilitation of the physical environment, not the lack of technology or knowledge of the land itself. The areas discussed include Ciskei and the white-owned farms in the False Karoo and Grassveld regions of the magisterial districts of Bedford, Cradock, Graaff-Reinet, Maraisburg, Middelburg, Pearston and Somers East. These districts are located in the Cape Midlands and Eastern Karoo and are collectively referred to as Midkar. Although Ciskei and Midkar differ in many respects, for example in population structure and dominant vegetation cover, both are experiencing a movement of people from the land to the urban centres and a decline in the quality of the physical environment. These two factors are characteristic of most rural areas in Southern Africa.

The following conclusions reached by the Commission of Enquiry into Agriculture (1970, p.219) are relevant to Midkar: "The most important defects in the farming systems in the Extensive Small Stock Region are embodied by the fact that farming systems in many instances, are not adapted to the environment ... With the denudation of the soil by water and wind erosion and excessive grazing pressure, a vicious circle of progressive drying up of the soil is created which in turn lowers the usefulness of the rainfall and which adversely affects the development of the plant cover". The principal recommendation made by the Commission (1970) was to reduce stock numbers. Nevertheless, on the basis of the natural carrying capacity of the veld, which in Midkar varied from 1,1 ha per small stock unit (S.S.U.) in the east to 1,9 ha in the west, Daniel (1975) calculated that 27% of the farms in the False Karoo region were overstocked and 36% in the Grassveld region. The calculations were derived from a 15,8% sample of the

farms in the False Karoo and a 12,8% sample of the Grassveld farms. The excess number of S.S.U. in the sample area was 19 492. Using the appropriate multiplication factors, the excess number of S.S.U. for the whole area would be 131 665. These are high totals even when allowance is made for the fact that supplementary feeding had not been taken into consideration.

Roux (1981) recognizes three overlapping stages of desertification in the Karoo as a result of overgrazing. The first phase extended from the mid 19th C. to the first quarter of the 20th C. In the second phase that lasted until the nineteen sixties, a sparser and less palatable vegetation cover became established. As a result of increased runoff there was greater erosion and the rainfall became less effective. The third phase, which largely coincided with phase two, led to an increase in the density of undesirable species of vegetation. According to Roux (1981, p.104) "Karoo vegetation has now reached a most critical stage in phase three which, if mismanaged, will inevitably develop into a stage four situation". The warning is clear.

In Ciskei there is also much evidence to indicate the poor quality of the physical environment. In a territory where 60% of the population is classified as rural, agriculture, hunting, forestry and fishing accounted for only 8% (R10 980 000) of the G.D.P. in 1980 (Benso, 1981). The contribution to this total by the rural population amounted to an average of R29.00 per capita. Furthermore the country is not self-sufficient in maize production, 47% of the land is moderately or seriously eroded and 39% of the pastures are overgrazed (Ciskei Commission 1980). The Karoo vegetation is spreading in Ciskei as a result of gross overgrazing and poor grazing policies practised by both Black and White farming groups.

Acocks (1975) states that while migrations of plants take place over millions of years, man can accelerate and even reverse natural processes of change. The Karoo invasion illustrates " ... an artificial reversal of the

evolutionary replacement of the southern scrub vegetation by a sward of grass of tropical origin" (Acocks, 1975, p.3). It is interesting to compare three veld type maps prepared by Acocks - the first of existing patterns in 1950, the second showing what the conditions could have been like about the year 1400, and the third predicting the distribution of the veld types in the year 2050. In 1400 sweet grassveld was found very close to Graaff-Reinet and all around Cradock and Queenstown, and Alice was characterized by forest and scrubforest. In 1950 the sweet grassveld had been replaced by the Karoo which had advanced to the east of Cradock, and by mixed grassveld near Queenstown. Bushveld had replaced the forest around Alice. If the prognostications are correct for the year 2050 Karoo vegetation will be found to the east of Queenstown and Alice while the areas around Graaff-Reinet and Cradock will be dominated by desert and succulent Karoo. Acocks provides the perspective for change in the Eastern Cape as a whole.

In assessing what is known about the physical environment it needs to be clearly stated and documented, that there has been no lack of surveys, commissions and legislation dealing with drought and the declining quality of the environment. The following list, which is not intended to be exhaustive, indicates what has occurred.

1. 1914: Report from the Select Committee on Droughts, Rainfall and Soil Erosion.
2. 1923: Final Report of the Drought Investigation Commission.
3. 1944: Report of the Reconstruction Committee of the Department of Agriculture and Forestry.
4. 1951: Report of the Desert Encroachment Committee.
5. 1968: Interim Report of the Commission of Enquiry into Agriculture.
6. 1970: Second Report of the Commission of Enquiry into Agriculture.
7. 1972: Third (Final) Report of the Commission of Enquiry into Agriculture.

The conclusions reached in most of these reports were very similar and may be summarized as follows: climatic hazards; destructive farming systems (e.g. overgrazing, cutting down trees and bush); low educational standards; shortage of working capital and farming units that were too small. The response by the Government to the investigations is reflected in legislation such as the Forest and Veld Conservation Act (1941) and the Soil Conservation Act (1946), as well as the Issuing of White Papers e.g. the White Paper on Agricultural Policy in 1946. However, the need for further Commissions is a clear indication that the legislation had not been effectively applied.

Returning to Glantz's tentative conclusion there is little evidence to suggest that in South Africa the failure to adapt farming systems to environmental conditions is due to a lack of knowledge or a scarcity of investigations into the state of agriculture. Knowledge and technology are available but they are not being effectively applied. In order to try and explain this failure in application, attention is turned to the influence of social, economic and political issues as possible obstacles to improved man-land relationships.

In the Midkar region there has been a net outflow of whites since 1904. According to Gibbs' five stage model of population concentration (1963), stages III and IV have been reached, viz., a rural urban migration which exceeds the natural increase of the rural population and a decline in the number of whites in the local towns as a result of migration to the larger urban centres. In a study of a larger area of the Cape Midlands and Eastern Karoo than defined in this paper, Truu (1971), found that approximately 75% of the whites aged 18 and over had permanently left the region though their parents still lived there, and the 1980 census shows a continuing decline in the number of white urban dwellers. For example, in Graaff-Reinet the whites declined from 5 093 in 1970 to 4 554 in 1980. The decrease in Cradock for the corresponding period was from 4 257 to 3 892. These trends have important ramifications which need to be mentioned but will not be discussed in this paper. The number of full-time labourers and their

dependants living with them averaged 9 and 20 respectively per farm in the False Karoo and 12 and 23 in the Grassveld region. Approximately two-thirds of both the labour force and dependants were black (Daniel, 1975). Should one farm be abandoned or incorporated with another property the number of people directly affected could vary between 29 and 35. If dependants not living on the farms are included in the calculations these figures would rise to 40 and 50. In this respect one has to recognize the existing problem of unemployment in the towns and the fact that surplus farm labourers have been resettled in Ciskei.

In view of the outmigration of whites in Midkar it is pertinent to ask what type of person has remained in the area and in particular what type of farmer persists in overstocking his farm. Inter-relationships were therefore sought between overstocking, the age of the farmer, his standard of education, the debt burden he carried, whether there was a manager on the farm, and farm size. There were, however, no clear correlations between these parameters. Overstocking occurred amongst farmers of all age-groups and educational qualifications; farms with no debt were overstocked as were farms that had been entirely inherited; and there was no clear relationship between overstocking and farm management and farm size (Daniel, 1975). If overstocking is a random phenomenon, the problem will be more difficult to solve. It is important to know what is hindering an improvement in farming methods - more detailed research is needed in this sphere.

In Ciskei the deterioration of the environment is aggravated by:

1. the pressure of population on the land - an increase of 3% p.a. means that the rural population could increase by about 11 400 a year;
2. the high dependency ratio - 49% of the population is under the age of fifteen;
3. the low levels of education - 31% of the economically active population is illiterate according to the Report of the Commission of Inquiry into the Economic Development of the Republic of Ciskei (1983);

4. the high incidence of migrant workers - estimated at 87 000 by the Ciskei Commission (1980);
5. the resettlement of people from outside Ciskei, (e.g. at Ntabathemba, Zweledinga and Elukhanyweni) estimated at 100 000 in the last decade by the Ciskei Commission (1980) and 142 000 by the Surplus People Project report (1983);
6. and the relentless daily search for fuel, be it wood or cowdung.

Much has been written on population issues but very little on alternative sources of fuel, in the black rural areas. The stage has been reached in many areas where large population numbers are preventing the regeneration of any tree species, large or small. The Thornhill resettlement provides an example of vegetation annihilation. In 1976/1977 about 40 000 people moved from the Herschel district and were settled on the flanks of Ntabathemba, the hill of hope. The area, suited to extensive stock farming, was dramatically changed into an area of dense human settlement with disastrous results on the physical environment. From the air, this area stands out as a reddish patch of bare soil, virtually devoid of vegetation. In 1976 Ntabathemba had a good cover of thorn trees and bush. By 1981 hardly a tree was to be seen on the slopes of the hill. These slopes are now subject to greater run-off and erosion by water and wind. What has happened here is happening in all areas of denser settlement, unless located near plantations. The influx of large numbers of people has upset any balance that may have existed before between man and his environment. The change is readily observed but there is no hard data as a result of measuring it. This type of political development can only hasten the decline in vegetation cover forecast by Acocks.

The World Development Report (1981, p.40) provides some information on the fuel problem in the poorer countries. "Perhaps as much as 930 million cubic metres of wood, 400 tons of animal waste and the same amount of crop residues are being burned in developing countries every year. This is equivalent to 5 million barrels of oil per day and represents roughly one-quarter of the energy used in developing countries, and just under 5 percent of the world's

energy consumption". The report also refers to the creation of a virtual desert in a radius of 70 km round Niamey, the capital of Niger, due to woodcutting. The energy crisis in the underdeveloped rural areas of South Africa has been recognized by the Energy Research Institute at the University of Cape Town. Their work deserves the maximum publicity to make the public aware of the mutilation of the environment that is taking place as a consequence of the extensive use of wood for fuel, even to the extent of the roots of trees being completely removed. Man is playing a direct role in the destruction of the vegetation cover.

The field of man-land relationships is vast. By concentrating on two areas in the Eastern Cape an attempt has been made to show the negative impact of man on the environment - an environment that should be a major supplier of food, raw materials and indeed employment. As the environment deteriorates in quality it will become increasingly more difficult to maintain existing standards of health and welfare, productivity and development. Man's inability to manage the land correctly is increasing the degree of poverty and reducing the options open to development programmes.

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