Reviewing land degradation

As part of a national review of land degradation, five workshops were held in the Eastern Cape during 1997 to gather information about soil and veld degradation. Based on the insights of agricultural extension officers and conservationists, three consensus maps were produced (see over). These represent the status of soil and veld degradation and an overall measure of land degradation in the province. In terms of this analysis, the Eastern Cape is one of three most degraded provinces in South Africa.

Provincial profile

The Eastern Cape is fairly densely populated. The 1995 census recorded nearly 6.5 million people living in 169,600 km². Population densities are greatest in the Port Elizabeth and Uitenhage districts and in the former homeland areas. 75% of the population of the Eastern Cape lives in poverty, the highest percentage of any province.

Commercial farming takes place mainly in areas previously administered by the Cape Province. Communal forms of land tenure predominate in the districts that were part of the former homelands of Ciskei and Transkei.

The natural vegetation of most of the coastal belt is savanna, with some fynbos in the west. Inland, Nama-karoo is found in the west and grassland in the east. While small sections of the southern coastal strip have a dry sub-humid climate, most of the western half of the province is arid and the eastern and coastal parts semi-arid.

Agricultural land use

64% of land in the Eastern Cape is used for stock farming, including beef cattle, sheep, goats and game. Crops are farmed on 20% of the land and include maize, vegetables, pineapples and citrus. Commercial forestry makes up 5% of land use and only 1% of land is set aside for conservation.

Overall, the area of land used for crops and grazing decreased slightly during the period 1988-98. Land degradation was partly responsible for this. Other factors included the droughts of the mid-1980s and early 1990s, violence and stock theft in the communal areas, increased production costs, lack of support for communal farmers and the collapse of agricultural infrastructure. While agricultural land use was declining, there was a rapid increase in the rate of growth of settlement areas. The scrapping of influx controls and the provision of housing, roads and services by the Reconstruction and Development Programme encouraged urbanisation and the growth of rural settlements.

Land degradation issues

The Eastern Cape has one of the highest provincial indices of soil degradation (see over). In general, the communal areas are significantly more degraded than the commercial farming areas. Magisterial districts with the highest soil degradation index values include Herschel, Qumbu, Mount Fletcher, Engcobo and Middledrift. Cropland, grazing land and forestry areas are all affected by gully and sheet erosion. Wind erosion and salinisation are problems in croplands, particularly in commercial farming areas.

The Eastern Cape has a fairly high provincial veld degradation index (see over), with commercial farming areas amongst the worst affected. The magisterial districts of Komga, East London, Queenstown, Uitenhage and Herschel have the highest veld degradation index values. In commercial farming areas, bush encroachment, change in species composition and alien plant invasions are the most serious veld degradation problems. Agriculturally important alien species include black wattle, prosopis, prickly pear and nasella tussock. In communal areas where mixed herds of cattle and goats limit bush encroachment, deforestation and loss of plant cover due to overgrazing are of greater concern.

If all magisterial districts in South Africa are considered together, eight of the twenty districts requiring priority attention in terms of land degradation are found in the Eastern Cape.

Priority magisterial districts

Engcobo Mount Fletcher Herschel
Mqanduli Middledrift Qumbu
Mount Ayliff Xhora

Combating land degradation

The levels of soil and veld degradation are declining in some commercial farming areas of the Eastern Cape. Reasons for this include good agricultural extension services, farmer study groups, government-subsidised soil conservation works, bush clearing and stock reduction schemes, conversion to game farming, and strict application of agricultural legislation. On the other hand, insufficient access to land, poor infrastructure and a lack of education and finance have resulted in overstocking and poor land management in many communal areas. These conditions should be taken into account when developing sustainable land use policies and programmes to address land degradation in the Eastern Cape.
The location of the Eastern Cape, showing the percentage of each magisterial district managed under a communal land tenure system.

The total Veld Degradation Index (VDI) for the 78 magisterial districts of the Eastern Cape:
The VDI incorporates the severity and rate of veld degradation, as well as the % area of veld in the magisterial district.

The total Soil Degradation Index (SDI) for the 78 magisterial districts of the Eastern Cape:
The SDI incorporates the severity and rate of soil degradation for all land use types, adjusted for the % area of each land use type in the magisterial district.

The Combined Degradation Index (CDI) for the 78 magisterial districts of the Eastern Cape:
The CDI is the sum of the total SDI and VDI for each magisterial district.

Where can I get more information?
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For more information about the national review of land degradation and its products, visit the following web-site: www.nbi.ac.za/landdeg