



Relating vegetation condition to grazing management systems in the central Keiskamma catchment, Eastern Cape Province, South Africa

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An investigation of the temporal changes in vegetation condition across the communal villages of the central Keiskamma catchment, Eastern Cape Province, in relation to local grazing management systems was conducted. Landsat TM images of 1984 and 1999, in conjunction with SPOT imagery of 2011 were used to assess the spatial trends in vegetation. Information regarding the functionality of local grazing management structures was obtained through structured interviews. Vegetation condition was related to grazing management systems using the logistic regression in Idrisi Selva remote sensing software.

Analysis of vegetation condition trends revealed a consistent deterioration of vegetation condition in villages with weak grazing management systems. A statistically significant correlation between vegetation condition and grazing management systems was identified. High levels of vegetation degradation were associated with villages that did not adhere to sound grazing management practices. The introduction of another layer governance in the form of elected municipal committees weakened traditional village management structures. Strengthening traditional management committees should be the point of departure for vegetation restoration.