

KwaZulu-Natal Land Cover Mapping

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The coastal belt of KwaZulu-Natal has undergone rapid transformation since the initial land cover mapping exercises in 1994/1995 and 2000. This is of great concern to the conservation and planning fraternity in the province who require an up-to-date assessment of the land cover and how it has transformed in the last 10 years. This forms the foundation for information decisions on land use in the province. This source of data is critical in developing a strategy for the conservation of biodiversity in the province.

The presentation will discuss the project which was initiated to develop an up-to-date GIS compatible land cover dataset for the KZN province for the coastal belt. This analysis of land cover was conducted using recent medium-resolution SPOT satellite imagery. Crucial to the outcomes of the project was making the resulting dataset compatible with the National Land Cover datasets from both the NLC94 and NLC2000 initiatives. Care was taken to ensure the compatibility of the dataset with the FAO Land-Cover Classification Scheme (LCCS).

The presentation provides a summary of the technical details associated with the production of this up-to-date digital land-cover dataset. Field survey methods combined with remote sensing techniques were used to create a statistically verifiable dataset. The approach followed provides a methodology to produce an enhance land-cover datasets which can be used to monitor land-cover changes and their implication on the environment as a whole. This approach has been used throughout southern Africa and forms the basis of many land cover initiatives.