An integrated approach to secure multiple ecosystems benefit through sustainable land management in the productive but degraded landscapes of South Africa

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Abstract

Over 80% of South Africa's land is used for agriculture with livestock herding being the dominant rural land use. Approximately 1.5 million hectares of land in South Africa is degraded leading to the loss of ecosystem services. Arresting land degradation and achieving sustainable land management (SLM) is critical for ensuring ecosystem integrity, as well as continued productivity and benefits to livelihoods. While the long-term preferred solution is to reduce the costs of ecological restoration in South Africa and increase the productivity of the land, this requires an innovative approach to SLM and should entail: i) enhancing the capacity of government, institutions and local communities to mainstream SLM into policies, plans and programmes; and ii) implementing climate-smart ecosystem rehabilitation and management measures.

To address the challenges of increasing food production, building resilient livelihoods, while rehabilitating critical ecological functions, a research project titled: "Securing multiple ecosystems benefit through SLM in the productive but degraded landscapes of South Africa" has recently been launched. The project uses scientific understanding, institutional and human capacities to put in place land management, livestock and agricultural production systems that simultaneously increase primary productivity, rehabilitate land and ecosystems and build resilience of natural resource dependent communities. The research is carried out in three South African landscapes (Eastern Cape province, Karoo and Olifants sub-basin) and addresses: (1) the micro-meso level that considers the key-factors that affect horizontal up-scaling; (2) the meso-macro level (vertical up-scaling) for SLM, targeted at enhancing the quantitative understanding of the (future) impact of continued land degradation at multiple scales; and (3) the enabling environment, which deals with policies, human and institutional capacity required for effective implementation of SLM.

This paper describes the integrated research approach adopted by the SLM project to strengthen the enabling environment for the adoption of knowledge-based SLM models for land management and land/ecosystem rehabilitation in support of the green economy and resilient livelihoods through capacity building, improved governance and financial incentives.

Keywords: capacity building, community driven, Olifants sub-basin, resilient livelihood

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