



## Keep Talking & Monitoring: the importance of longitudinal research & community-based monitoring to support sustainable land management in southern Africa

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Projects come and go with researchers, development practitioners and government staff initiating new forms of community engagement in environmental monitoring and land management practices. We analyse interventions from Botswana and Swaziland and highlight that for benefits to be long-lived and lead to sustainable land management, requires community engagement in project design, implementation and for project outputs to be used in developing community-led environmental monitoring tools that can then help to guide local decision-making systems. We stress the vital importance of continued participatory engagement of researchers with community leaders and key government staff beyond the timeframe of their initial research such that longitudinal research approaches can realise significant benefits to all concerned. In dynamic (non-equilibrium) dryland environments, it is vitally important that research approaches address temporal and spatial variability by mapping patterns of change, using a range of participatory tools to enhance understandings of the causes of land degradation and the opportunities for shifts towards more sustainable land management. Decision-support tools, such as rangeland assessment guides produced for various Kalahari rangeland settings in Botswana (via a UNEP project and affiliated research), provide opportunities to support more sustainable land management. However, at present benefits are not being fully realised as project and research staff move on after projects end. Similarly, findings from mixed farming systems in Swaziland (assessing a JICA-funded project) show problems in maintaining new institutional structures to manage rangeland degradation, whilst issues on arable areas associated with parasitic weeds (*Striga asiatica*) remain problematic. Findings from longitudinal research in Swaziland also show that community understandings of environmental problems have evolved over 10 years and identify new problems associated with intensified drought events linked to climate change.

Returning to communities (even if irregularly) after project completion enables identification of local-level knowledge and institutional problems that are often the underlying cause of the post-project failings. In many cases, such failings have led to a lack of sustained benefits as significant community-level goodwill and knowledge is developed during projects, but limited input and guidance through remaining institutional channels means that any strong grounding for success is not harnessed or sustained. It is vital that researchers work pro-actively with formal state institutions (notably agricultural extension services) to ensure that research and development project outputs are understood and used in the post-project phase. Continued engagement with local and institutional actors through longitudinal research assessing multi-stakeholder partnerships and local management practices can realise significant additional benefits far beyond the small time and cost implications of such continued engagement. Shifts to trans-disciplinary, multi-stakeholder working need to address the need for such longer-term, longitudinal research processes to ensure that benefits are not immediately lost and that new forms of sustainable land management can indeed be sustained.