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## The Integration of Stakeholder Knowledge – How Do Namibian Farmers Perceive Natural Resources and their Benefits?

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## Abstract

In Namibia 45 per cent of the national land area can only be used as rangeland. Directly or indirectly, its natural resources provide the livelihoods for the majority of Namibians. Yet, the rangelands are increasingly threatened by degradation. Sustainable management of these ecosystems is challenging due to the complex interactions between irregular climate patterns, vegetation and water dynamics and land use intensity. Research aiming for a better understanding of these systems can assist in finding optimal management strategies for natural resources. However, when scientific assessments require realistic management scenarios and when information is needed for decision making and the subsequent implementation of locally optimised management, users of resources as well as policy advisors should from an early stage be involved in the process. This ensures the joint production of knowledge among users, policy advisors and scientists, and helps to identify hindrances to sustainable management practices for different stakeholders. Findings on local knowledge and preferences can point to suitable approaches for management and the development of an adequate ecosystem response and ensure better communication between stakeholders and scientists. Within the transdisciplinary project OPTIMASS we focus on management options available to commercial livestock farmers in Namibia. In order to merge scientific and applied user knowledge we use the conceptual frame of Ecosystem Services (ESS). This framework lends itself to visualise the aims which are motivating management decisions meant to achieve benefits from an improved ecosystem functioning as perceived by stakeholders. Based on interviews conducted with cattle farmers and other experts, data on management options, the perception of ESS, expected benefits and environmental variability on farms were collected. To use their resources more sustainably, one important management option for farmers could be the de-bushing of their farms as a response to the encroachment of bushes. Further options are the adaptation of the rotational grazing system and the sowing of perennial grasses for restoration of the grass layer. We will present our results on management options with regard to grazing and water management. This study is aiming to contribute to progress in the management of natural resources by identifying the underlying motivations for management decisions and their impact on the ecosystem.

Keywords: Namibia, natural resources management, Savannah

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