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Rangeland forage availability and management in times of drought – A case study of pastoralists in Afar, Ethiopia

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Rangeland forage availability and management in times of drought – A case study of pastoralists in Afar, Ethiopia

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Abstract

Many Eastern African rangelands comprise marginal land, where climatic conditions are poor, access rights are increasingly limited, and land degradation is progressing. We conducted participatory land use mapping and vegetation assessment to identify the most important rangeland locations and their condition in Afar, Ethiopia. Further, we conducted 79 interviews across six villages to assess pastoralist adaptation strategies during drought times. In the dry season, livestock feed resources represented rangelands far away from the village (in 76% of the cases) while 50% and 40% of pastoralists also used cake concentrates and crop residues, respectively. During the wet season, rangeland resources close to villages, albeit with rather low herbaceous cover (<25%), contributed 80% to livestock forage. In times of severe drought, migrating with livestock was the most common (70%) adaptation, in combination with purchasing feed (50%) while <40% of the pastoralists sold or slaughtered animals. Afar pastoralists applied little conservation and mitigation methods, most commonly they removed livestock pressure to allow the pasture to recover. Overall, pastoralists in Afar still strongly depended on natural rangelands and their resources. Hence, to manage these sustainably a monitoring scheme must urgently be established for investigating rangeland quality and resilience to drought and grazing pressure.

Keywords
Cattle; Crop residues; Herbaceous and woody vegetation; Livestock; Natural resources