

Bestelmeyer, BT, GS Okin, MC Duniway, SR Archer, NF Sayre, JC Williamson, JE Herrick. 2014.
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Desertification is an escalating concern in global drylands, yet assessments to guide management and policy responses are limited by ambiguity concerning what this term means and what processes are involved. In order to provide greater clarity, we propose that assessments of desertification and land transformation be placed within a state change-land use change (SC-LUC) framework. SC-LUC views desertification as state change occurring within the context of particular land uses (such as rangeland or cropland) and interacting with land use change. State changes amenable to reversal are distinguished from regime shifts, which are state changes involving persistent alterations of vegetation and/or soil properties. Pressures driving change from rangeland to other uses may be low, fluctuating, or high and may influence and be influenced by state change. We discuss how the SC-LUC perspective can guide more effective assessment of desertification and management of drylands.