



## **Livestock systems and rangeland degradation in the new World Atlas of Desertification**

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Land degradation and desertification (LDD), which are widespread in global rangelands, are complex processes. They are caused by multiple (but limited) number of biophysical and socioeconomic drivers that lead to an unbalance in the capacity of the land to sustainably produce ecosystem services and economic value. Converging evidence indicates that the key biophysical and socioeconomic drivers include agricultural or pastoral land use and management practices, population growth, societal demands (e.g., urbanization), and climate change (e.g., increasing aridity and drought). The new World Atlas of Desertification (WAD) describes these global issues, documents their spatial change, and highlights the importance of these drivers in relation to land degradation processes. The impacts of LDD on the atmosphere, on water and on biodiversity are also covered.

The WAD spatially illustrates relevant types of livestock and rangeland management systems, related (over-under) use of resources, various management activities, and some of the common features and transitions that contribute to LDD. For example, livestock grazing in marginal areas is increasing due to competition with agricultural encroachment and, hence, vulnerable lands are under threat. The integration of stratified global data layers facilitates identifying areas where stress on the land system can be linked to underlying causal issues. One of the objectives of the new WAD is to provide synthesis and tools for scientists and stakeholders to design sustainable solutions for efficient land use in global rangelands.