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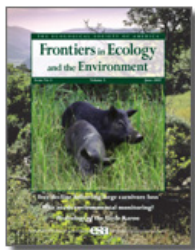
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Reviews

Linking ecosystem services and water resources: landscape-scale hydrology of the Little Karoo

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There is growing acknowledgement of the dependence of human society on ecosystem services and of the fact that service delivery is being compromised by human impacts on ecosystems. This paper describes the linkage between landscape-scale hydrology and ecosystem services, and how degradation of the landscape is believed to have altered the delivery of those services. The Little Karoo, an arid environment in South Africa that encompasses a remarkable diversity of plant species, has been degraded by inappropriate agricultural practices, mainly overgrazing, cultivation, and irrigation. Landscape linkages, such as hydrological flows and the recycling of organic matter and nutrients, have been disrupted, resulting in net losses at all scales, from the shrub patch to the river basin. Land rehabilitation, while in most cases too expensive at the farm scale, may be economically feasible at the river basin scale, provided that some of the economic benefits are used to rehabilitate and manage areas as socioecological systems.

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