Adaptive management for diverse stakeholder goals: A participatory grazing management experiment

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Rangelands encompass diverse agricultural land resources that provide multiple provisioning, regulating, cultural, and supporting ecosystem services. Managing for multiple services is of major importance to a variety of stakeholder groups on rangelands; and many land managers and agencies have already adopted this approach. However, connecting research and policy with practical, on-the-ground management and conservation practices for multiple outcomes remains a challenge. To address this challenge, our research group has partnered with diverse stakeholders to conduct a novel, long-term participatory adaptive grazing management experiment at the UC Sierra Foothill Research and Extension Center in California. We invited ranchers, conservation practitioners, and rangeland professionals to discuss goals and recommended management strategies for grassland and woodland pastures across the research center. We hosted 55 participants over two workshops, in which we asked about their individual and group goals and recommendations: participants were divided into 4 groups – ranchers, conservation scientists, rangeland professionals, and a mixed group with members from each of these stakeholder groups. The identified goals and recommended practices clearly differed between participant groups. Following all-group discussions, a final strategy of investigating rotational and continuous grazing systems at moderate stocking densities was adopted. Representatives from each stakeholder group were selected to serve on an advisory board, which will continue to direct adaptive management and decision-making over the course of the experiment. These types of active stakeholder collaborations enable us to more fully link social and ecological systems, which is a critical first step in sustaining multiple ecosystem services across rangeland landscapes.