



Wilderness and woodland ranchers in California: A total income case study of public grazing permits and their impacts on conservation

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Mediterranean woodlands in California are managed as agro-silvo-pastoral systems producing a number of commercial products as well as a huge variety of environmental services, including private amenities for the landowner. In many parts of the woodlands, grazing on government owned (public) lands has traditionally had an important role in private ranching. In recent decades the risk of conversion to alternative uses (such as urban development or vineyards) has threatened these woodlands due to the increasing opportunity costs of capital. Understanding the economy of these woodlands and the potential effects of public grazing policies on the total income perceived by the landowner is crucial when considering strategies attempting to slow or stop land use change. However, traditional cash-flow analyses are lacking crucial information needed to understand all the elements that have an important role in the economic decisions that landowners make about their woodlands.

For more than half a century, the use of public lands by private ranchers has been one of the most controversial debates in the American west. Wilderness conservationist groups have denounced grazing as destructive and argue for the removal of any kind of livestock. Ranchers have fought for their right to hold public grazing leases, arguing that they are crucial for the continuity of private ranching and consequently for the conservation of extensive rangeland habitat that otherwise could be converted to alternative uses.

In this study, we apply the Agroforestry Accounting System (AAS) methodology to a California oak woodland case study to estimate the total private income generated in an accounting period. The presented case study is characterized by a household economy with self-employed labour and with part of the grazing dependent on public land leases. The AAS methodology extends traditional cash-flow analysis in order to estimate the total private income that would accurately explain the woodland mixed economy where household rationality, market, property rights, and lifestyle and amenity values shape woodland management.

We present the results of the assessment of total private income, and its allocation among the different production factors in the current situation and in an alternative scenario where public grazing leases are removed and the landowners have to decide what to do with the size of the herd. We discuss the potential effects that this policy would have on the total income perceived by the landowner and on woodland management. The implications in terms of the conservation and continuity of these extensive Mediterranean rangelands are important since ranchers might give up their ranching activities, due to the reduction in their total income, and sell their properties for alternative uses. Lifestyle and amenity values, however, seem to have an important off-set role in the conversion of these woodlands and we recommend their quantification and inclusion in woodland economic analysis.