A Strategy for Oak Woodland Conservation: The Conservation Easement in California

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Conservation of agricultural lands is an international priority. In the United

Abstract

States, where land is traditionally protected through government land retention or acquisition, why have private non-profit organizations taken the lead in conserving environmentally important agricultural lands such as California's silvopastoral oak woodlands? Resembling Spain's dehesa, with high biodiversity value and predominantly private ownership, thousands of hectares of California woodlands are being converted to residential and urban use each year. The fastest growing land conservation method in California is the "agricultural conservation easement." Considered a free-market approach to land conservation, landowners voluntarily sell or donate the right to develop their lands in the form of an easement, most often to a non-governmental land trust. Now a permanent part of the California oak woodland landscape, easement characteristics make them more acceptable to landowners than many other conservation models, but also make their effectiveness at the landscape level difficult to assess. Compared to the Spanish Natural Park, easements are voluntary for all participants and tailored to each property's ecological and economic conditions, incentives to landowners are clear, costs to the government are comparatively low, and they are permanent. On the other hand, there is uncertain monitoring or oversight, no centralized prioritization of conservation values, properties may be widely scattered, and though public funds are often used, the public may not even know where easements are

Keywords: Private agriculture, intensification, ranching, dehesa, land use, *Ouercus*, Natural Park

Introduction

Conservation of privately-owned agriculture lands, the preservation of "working landscapes," is increasingly an international priority (Aplin, 2002). In parts of California and west-central Spain with a Mediterranean climate, there are large areas of open oak woodlands, managed as part of extensive livestock operations. About 2 million hectares of California oak woodlands are used for grazing, and most are in private properties of between 800 and 960 ha (Campos-Palacín et al.,

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2002). Like the Spanish dehesa, California woodlands have high biodiversity value, a perceived lack of oak recruitment, and are vulnerable to changes in land use and management. Overshadowing ecological concerns about oak recruitment in California is a rapid conversion of woodland to housing, and shifts into intensive high value crops, especially wine grapes.

Driven by urban out-migration and a booming second home market, oak woodlands have declined by thousands of hectares per year over the last decade and are projected to continue to decline through 2040 (CDF-FRAP, 2003) (Fig. 1). With land use planning a responsibility of counties and municipalities, zoning regulations are subject to small scale political influences and often change. In addition, they seldom preclude the subdivision of large properties into small "ranchettes" of 1 to 10 ha, and such small properties do little to protect biodiversity values and traditional agriculture (CDF-FRAP, 2003).

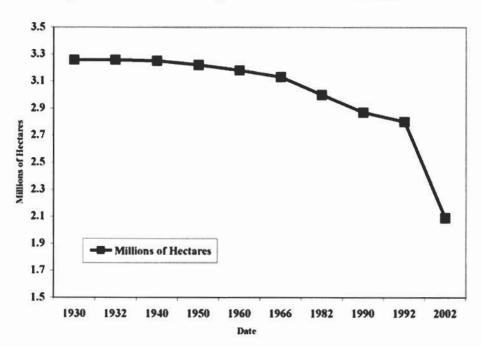


Fig. 1: Oak Woodlands in California, 1930-2002. Differences, particularly between the last two dates, may be exaggerated because of changes in mapping criteria and technology despite the fact that the two numbers have the same source in the State's resources assessment program (Adapted from: Bolsinger, 1988; Ewing et al., 1988; Holzman, 1993; Huntsinger and Fortmann, 1990; Huntsinger et al., 1997; CDF-FRAP, 2003).

Recently, private non-governmental organizations (NGOs), including the Nature Conservancy, American Land Conservancy, the Marin Agricultural Land Trust, and the California Rangeland Trust, have taken the lead in conserving California's silvopastoral oak woodlands through the establishment of agricultural

conservation easements (http://www.lta.org/findlandtrust/CA.htm). Such easements are now the fastest growing land conservation method in California and the United States (Gutanski and Squires, 2000) (Table 1). In the United States, where traditional American land conservation models are based on public land ownership, why are NGO-brokered agricultural conservation easements becoming so important?

Table 1: Land Protected by Local and Regional Land Trusts in the United States (LTA 2003).

Hectares Protected	1990	2000	Increase 1999-2000
Total	772,364	2,519,267	226%
Conservation Easements	182,264	1,047,985	475%
Owned by Land Trusts	176,250	504,783	186%
Transferred to other organizations			
or agencies	413,849	946,305	129%

Agricultural conservation easements defined

A conservation easement is a restriction on private land title that permanently limits the use of all or part of an agricultural land ownership in order to protect its "conservation values." The landowner continues to own the land, continues agricultural production, and is still able to sell the land on the open market, but the portion of title that allows development or subdivision of the land is held by a land trust, Indian Tribe, or government agency. The land trust definition used by the Land Trust Alliance (http://www.lta.org/) is "a nonprofit organization that, as all or part of its mission, actively works to conserve land by undertaking or assisting direct land transactions – primarily the purchase or acceptance of donations of land or conservation easements." The number of NGO land trusts in the United States has increased rapidly, from 479 in 1985 to 1,263 in 2000 (http://www.lta.org/aboutlta/census.shtml).

Conservation easements, by restricting land to its agricultural value, can reduce federal and state inheritance and property taxes for the landowner if legally defined conservation values are protected in the easement, and there is a legally valid conservation easement purchaser or donation recipient. In California a "conservation value" may be natural, scenic, historical, agricultural, forested, or open space (Cal. Civil Code § 815.3). A valid conservation easement holder is either a land trust with a conservation mission or a government agency. A landowner may sell or donate a conservation easement to the land trust or agency. Donations can reduce income or inheritance taxes, as federal law credits donations to qualifying non-profit organizations against taxes. The land trust or agency holds the rights to subdivide or develop the property, and it is understood these rights will never be used, making the easement "perpetual."

Easement stipulations are negotiated between each buyer and seller/donor. An incentive-based method of land conservation, conservation easements are established voluntarily. Easements are seen by some as a "free market"

approach, because the landowner is marketing (or donating) the option to develop land. The easement agreement may include a management plan specifying activities that can be undertaken on the land, and/or require the landowner to work with the easement holder in making some decisions. The easement contract may set conservation goals or monitoring indicators, or may require nothing but keeping the land intact and in agriculture. Monitoring and enforcement are the responsibility of the easement holder.

Easement value

The price of an easement, or the value of the donation of an easement, is termed the "easement value." The value of the land after an easement has been placed on the land restricting development is referred to as its "restricted value." For example, if land can be sold for \$6,000.00 per ha to a developer, and is valued at \$1,000.00 per ha for agricultural production, the "easement value" is \$5,000.00 per ha. Easement value is highly variable, depending on the amenity values of the property and the proximity to urban areas, but the average in a recent study of 46 programs in California was approximately \$5,000 per ha (Kan-Rice and Sokolow, 2003). A landowner may be willing to accept a payment lower than the market-defined easement value, because of the non-monetary value to the owner of keeping the land for lifestyle, legacy, and amenity benefits.

Easements are the one permanent land conservation method in the U.S. that encourages private agriculture on protected land. Each easement is unique to the property, landowner, and funder. By offering tax relief for landowners and sometimes direct grants to NGOs for easement purchase, federal and state governments support the creation of easements. For example, the recently passed federal "Farm Bill" (Public Law No. 107-171 Farm Security and Rural Investment Act of 2002) provides millions of dollars in funding for NGO-brokered conservation easements. Landowners who receive federal funds for farm easements must implement conservation plans developed by the U.S. Department of Agriculture's Natural Resources Conservation Service. Though their long-term effectiveness is not known, and the potential for long-term problems is great (Merenlender et al., 2004), landowners, governments, and non-profit agencies each have reason to support conservation easements as a land conservation tool.

The failure of national reserves and parks

Since the late 1800s, the central approach to land conservation in the United States has been national government reservation or acquisition (Raymond and Fairfax, 1999). About half of California is public land, owned and managed by the federal government. Numerous governmental agencies manage public land for diverse purposes. Those with the largest holdings in the United States are the Forest Service, the Bureau of Land Management, and the National Park Service.

The flaws in the public lands model of conservation have become increasingly apparent. Historic land disposition practices resulted in the more productive and well-watered lands being claimed by private landowners, along with critical

wildlife habitat (Scott et al., 2001; Maestas et al., 2001). Consequently, at least some of the habitat for 95% of all federally threatened and endangered flora and fauna is on private land, and 262 or 19% of these species survive only on private parcels (Wilcove et al., 1996). Public land decision-making is plagued by costly and time-consuming litigation, accusations of insensitivity to local needs and conditions, and chronic underfunding and the consequent lack of needed staff and materials.

Agricultural conservation easements can provide wildlife habitat, watershed, and open space without the costs of acquisition, management, and maintenance. These costs are very high, particularly with legal challenges typical of almost every management decision. Agricultural conservation easements are usually partially funded through private foundations and individual donors, and partially through state or federal grants. Landowner tax benefits represent significant public investment in easements. In a recent survey by the American Farmland Trust (granted, not a disinterested party!) 75% of Americans supported using government funds to support agriculture if conservation benefits were provided (Tarrance Group, 2001).

Why are easements so popular?

Most California oak woodland ranches are owned by a ranching family living and working on the ranch. In general, they rely on a base herd of cattle to produce calves each year for market. Surveys have shown oak woodland ranchers to be highly motivated by non-monetary lifestyle benefits (Liffmann et al., 2000; Huntsinger et al., 1997; Sulak and Huntsinger, 2002). Most of them take off-ranch employment to support their ranching lifestyle. The vast majority believe that urbanization is a major threat to the continuation of ranching. Though they are in general strongly opposed to "regulation," to land acquisition by the government, and to involuntary governmental land use designations, most of them would like to see their land remain a ranch in perpetuity. They consider ranching a socially and economically beneficial land use, and part of California heritage (Liffmann et al., 2000).

Appeal to landowners

Ranchers like easements because participation is voluntary and does not explicitly involve the government. Surveys of ranch owners have shown that most ranchers feel "over-regulated," and consider "over-regulation" a threat and reason to sell the ranch. They often believe that land use planning and zoning is unfair – a form of restricting use of the land for the benefit of others without compensation to the landowner (Liffmann et al., 2000). Conservation easements are not considered "regulatory," and involve the government only indirectly. Landowners often find the NGOs that hold many easements palatable, especially

because some, like the "California Rangeland Trust," are ranching oriented.

The economic benefits of easements can help ranchers stay on the land.

Competition with industrialized operations and inexpensive grain-based feeds

has eroded profits to range-based producers typical of the oak woodlands. Land appreciation often grossly exceeds agricultural income (Hargreave, 1993). Traditionally, in cash-short times, a small parcel of the ranch property would be sold off to create a capital infusion for the operation or the family. In fact, about 1% of oak woodland ranch property was sold each year from 1985-1992 (Huntsinger et al., 1997). With an easement, the landowner can access the capital value of land appreciation without reducing ranch size.

A conservation easement can assure that the property will remain intact after the death of the owner. Without an easement, inheritance taxes, disagreements among heirs, or the disinterest of heirs in ranching can lead to the break up of the property. Stipulations about management practices the owner wants to continue can also be written into the easement contract.

The ability to negotiate contracts that reflect the particular interests of the landowner is appealing. Though easements usually do not include public access, this is beginning to change, with some NGOs negotiating for access and paying a subsequently higher price for the easement.

Keeping the land in agriculture is valued by landowners. Many feel strongly that public ownership of land is wrong because it removes land from "productive use" that benefits society and from the local tax base (Liffmann, 2000). When landowners find neighbors placing easements on their property, it often makes them more willing to put easements on their own property. They believe that a property surrounded by a community of ranchers has a better chance of remaining agricultural.

Appeal to conservationists

Conservation organizations sponsor conservation easements for many of the same reasons landowners and governments do. Transactions bypass government bureaucracy. Conservation easements allow NGO's to trump local zoning ordinances and planning that can frequently be politically motivated rather than environmentally sound. Like government participants, NGO's leave day-to-day management to the landowner. The tax benefits and funding from government programs supplement private money with public sources. Conservation easements are the antithesis of "one size fits all" government programs. An easement may protect a particular species, local landscape feature, or community characteristic. Easements can be small or large, and can be part of an international program, such as the Nature Conservancy, a statewide program like the California Rangeland Trust, a county program like the Marin Agricultural Land Trust, or a town or neighborhood trust. Supporters, like landowners, can shop for the easement that suits them.

Easements have the capacity to protect a lot of land at a lower cost than outright purchase. California has over 65,000 ha under agricultural easements held by 190 NGO's (California Resources Agency, unpublished). In Marin County, one of the earliest areas to use conservation easements to preserve ranches, a recent survey showed that 27% of ranches had easements on them, and another 19% were considering them (Gale, 2003) (Fig. 2). Combined with a large National Park, and areas zoned for agricultural use as part of a coordinated

county land use planning effort, easements have helped to maintain the rural character of much of the county. Diversified and specialty production has been linked to the presence of easements in this setting (Gale, 2003).

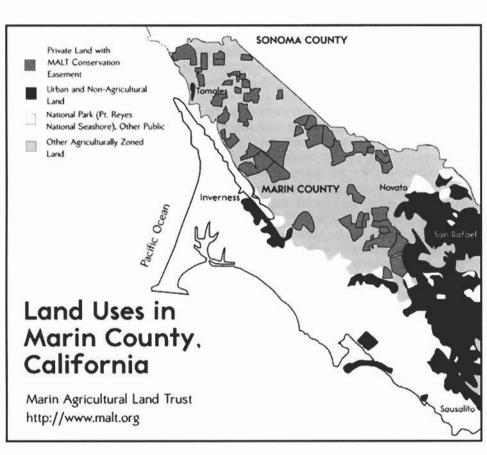


Fig. 2: Marin Agricultural Land Trust: Example of an easement program in San Francisco Bay Area oak woodlands that is coordinated with local planning and National Park designations (hppt://www.malt.org/farming/map.html).

For an NGO, a conservation easement is a permanent and tangible success. Properties with conservation easements may be viewed as part of donor tours or events, and in some cases, donors and/or the public have some form of access to the site. If nothing else, organization publications and website feature photos and stories about specific properties. Donors are able to connect with this very concrete result of their donation. On the other hand, the general public most often has no idea where easement lands are.

Concerns and drawbacks

From the landscape perspective, easements do not facilitate comprehensive planning or assessment because they are so individualized (Merenlender et al., 2004). Locations cannot often be anticipated, easement characteristics and restrictions are highly variable, and the people and groups involved in each easement differ. Where easements occur may not be in the ecologically "optimum" place. Though larger land trusts have often developed science-based priorities for the location and selection of easements, this is not always the case. The future is also somewhat uncertain. As land trusts age, properties are passed down or sold, and social and ecological goals evolve, what will happen to easement properties? How will continued monitoring be carried out or funded? What was a flexible voluntary tool for the first generation could become to be seen as a regulatory burden to later generations (Cheever, 1996).

Both public and private funds are being used for the purchase of easements, but accountability for the outcome of public expenditure is limited, and public access is rare. Some argue that easements may preclude the construction of affordable housing. Easements can enhance the value of adjacent properties, benefiting wealthy landowners. Easements also keep land in large property ownerships, which can be seen as perpetuating inequities. Countering that is the idea that the restrictions on the land through the conservation easement represent a "shared title" with the public or representatives of the public interest.

Conservation easements may conflict with county land use planning goals, and could reduce local property tax income. For example, more than one California county has tried to limit the establishment of easements, or make their establishment subject to county approval. However, such challenges have not held up in court. In fact, avoiding the cost of services required by new development may outweigh any lost tax revenue The changing nature of ecosystems, science, and social goals challenge the "permanence" of easements and easement management contracts. Some would argue also that easements are a "dead hand" in the market — once established they limit the ability of changing markets and social goals to influence land use (Mahoney, 2002).

Easements most often provide little support for agricultural enterprises aside from the preservation of the resource base. Although they are one of the few American conservation approaches for agriculture, they do not necessarily encourage good practices or provide regular aid to struggling operations. Monitoring of easement compliance is often left solely in the hands of the land trust.

Many of these concerns are addressed when easements are coordinated with local land use planning and are planned to complement governmental land designations, as in Marin County (Fig. 2). Easements are nested within agriculturally zoned land, where their presence supports the economic and thus legal viability of the zoning designation by helping to maintain markets and agricultural infrastructure, including the local creamery. In a rare exception for U.S. public lands, agricultural production is permitted on the public lands to support the agricultural infrastructure. This situation remains relatively rare in California, where easement designations are generally more haphazard.

Comparison to the Spanish Natural Park

Comparing the agricultural conservation easement to Spanish natural park designation can help to illustrate and clarify conservation easement characteristics and their divergence from other land conservation models (Table 2). In both designations, private land may continue to be managed by a landowner for agriculture and other rural enterprises, and is not available for conversion or development. Government authority can change the designation of the land. In California, a government entity can "condemn" a property or easement to make it available for a needed public use. In Spain, a natural park can be disestablished through a regular governmental process.

Table 2: Spanish Natural Park and California Agricultural Conservation Easement Characteristics, Oak Woodland Ranches.

	Natural Park in Spain	Conservation Easement		
Landownership	Private	Private		
Extent	May be all or part of individual	Maybe all or part of individual		
	agricultural enterprise land base	agricultural enterprise land base		
Type of Legal	Regulatory designation by regional	Permanent change to title, a legal		
Authority	government, an exercise of police	partition of ownership that is		
	power	binding to all future landowners,		
		certain property rights are		
		transferred to a land trust		
Monitoring and	Autonomous region government	Holder of easement, often land		
Enforcement		trust or government agency		
Duration	Governmental decision	Perpetual, though can be		
		condemned by government in		
		public interest		
Choice of	Decided by government	Voluntary by landowner and		
property		easement holder		
Incentives to	Not great. Government subsidies	One time-payment (or donation) of		
landowner	continue, ecotourism and labeling	"easement value," ongoing tax		
	opportunities, potential for com-	relief in many but not all cases		
	pensation, other benefits (rare).			
Day to day	Landowner or employee	Landowner or employee		
management				
decision making				
Predominant	Hunting, cork harvest, development	Subdivision and construction, tree		
forms of		removal		
restriction				
Management and	Management and goals can change	Easement goals and stipulations		
land use		established at the time of initiation;		
flexibility		highly variable from easement to		
Б 1:	D 11: (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	easement		
Funding sources	Public (may include local, regional,	Public (includes federal and state,		
D 1.1'	national and international sources)	sometimes others) and private		
Public access	Restricted to rights of way. Natural	Rare but can be negotiated.		
	Park lands are identified and mapped	Location of easements not		
		necessarily publicized.		

There are some important differences. The conservation easement is a voluntary agreement. In Spain, the government chooses land for natural parks and there is little choice on the part of the landowner. This allows for some centralized assessment of where parks should be located, but can also lead to conflicts with landowners.

Additionally, the enabling legality of each program is different. In the United States, conservation easements are a product of tax law, and are the buying and selling of a component of the title of land. Natural parks are a tool of police law, and only governmental regulatory authority can establish a natural park land designation. Conservation easements can be held by a private or public conservation organization.

In terms of on-going management and the future of these operations, Spanish landowners with land in a natural park find themselves committed to working with a government agency and its employees for the duration of the park designation. Ranchers with conservation easements can work with a land trust instead — and may select the land trust that they feel best represents their point of view. The terms of a conservation easement, flexible or stringent, are "permanently" set at the establishment of the easement. Negotiation of goals and management practices may or may not be allowed by the original stipulations of the easement.

In Spain as well as in California, questions are often raised about whether or not either of these conservation efforts truly educate or motivate landowners to manage with conservation in mind. Landowners in both places seek maximum flexibility and choice in their management, while many conservationists would prefer more stringent limitations on landowner decision-making and management practices. Conservation of private land that relies on private management will likely always be a balancing act between these two poles. In the end, the framework established for ongoing negotiation may prove to be the most critical factor in the long-term outcome of these kinds of programs.

California offers a good example of why public ownership is inadequate for protecting biodiversity and wildlife habitat, because it is about 50% public land, controlled by government agencies that almost all have some conservation programs and environmental safeguards, and often, explicit conservation mandates. Yet California has 217 state-designated "threatened and endangered" plants and 77 threatened and endangered animals (CDFG, 2000), many of which rely on land in private ownerships. Woodland conservationists must recognize the need to work with private landowners in ways that reduce conflict and increase cooperation, and reward landowners for the environmental benefits they produce. Conservation easements are one such option, and with some sort of coordinated planning, their benefits can be magnified.

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