



Land Use, Conservation and Agricultural Practices in the Guaymí Biological Corridor: Survey Results and Analysis

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Executive Summary

Background: Following are results of a July 2015 survey of land-owners from the Guaymí Biological Corridor in Coto Brus, Costa Rica. While the area was previously devoted to coffee production it has been largely converted to pasture. The resultant increasing distance between remaining forest segments has led to significant biodiversity loss.

Purpose: The goal was to gauge the respondent's perceptions of potential land-use decision incentives. And, based on this, suggest alternatives to outright property acquisition for connecting remaining forest segments; fortifying the biological corridor.

Methodology: Ten of the approximately thirty persons owning land within or near the corridor were administered questions concerning potential influences on their land use decisions and agricultural practices determined through review of relevant literature and interviews with local inhabitants. These included topics such as motivations for their various land use activities, environmental concerns, future aspirations, use of sustainable production techniques, and beliefs about Costa Rica's payment for ecosystem services program. The survey was designed by a group of law and science professionals and was administered by a local specialist through face to face interviews.

Key Findings: A large majority of the sample (80%) is involved with cattle and relies on the use of pasture. Most of those (63%) ranched based on its profitability with 50% making between 0 and 50 million colones a year and 13% making over 100 million. Many expressed concern over wildlife preying on cattle if conservation was increased.

Silvopasture represents an agricultural practice that could yield more favorable conservation outcomes while maintaining the economic productivity of cattle, even in the face of predation. The owners describe their use of silvopasture as low both in the hectares dedicated to the practice and in terms of trees per hectare. Despite this 100% of the respondents reported higher yields since its introduction.

Another indicator of environmental concern is the participant's relationship with their country's PES program. While only 10% actually receives a PES payment, 100% of the respondents claim to be doing activities compensable under the program. While 50% appreciate the concept of PES, issues such as lack of information, high start-up costs, and complicated contracts prevent enrollment.

Property Numbers and Key Attributes

	Size (ha)	Forest (ha)	Forest Activity	Like PES	PES Enroll	PES Reason	Pasture (ha)	Silvopasture Use & T/ha	# Cattle	Cattle (€/yr)
1	160	10	Protection	Yes	No	Not Profitable	76-125	Low 15	> 150	> 100 M
2	113	15	Regeneration	Yes	No	Too Complicated	25-75	Low 10	76-150	NR
3	100	20	Protection	Yes	No	Not Profitable	76-125	Low 100	1-75	NR
4	100	50	Protection	Yes	Yes	NR	25-75	None NA	1-75	0 – 50 M
5	30	5	Protection	NR	No	Lack of Info	25-75	None NA	1-75	0 – 50 M
6	48	0	Watershed	NR	No	NR	25-75	NR 50	1-75	0 – 50 M
7	63	5	Management	NR	No	NR	25-75	Low 100	1-75	NR
8	53	50	Reforestation	Yes	No	Prohibitive Cost	0	NA NA	0	NA
9	72	15	Protection	NR	No	Lack of Info	0	None NA	0	NA
10	193	50	Management	NR	No	Too Complicated	> 126	NR 140	76-150	0 – 50 M

NA = Not Applicable; T/ha = trees per hectare; NR = No Response