

PRICE VS VALUE OF ECOSYSTEM SERVICES IN SOUTH ISLAND HIGH COUNTRY LAND REFORM

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In this paper, a spatial hedonic price model is specified and used to estimate the impact of ecosystem services and agricultural production values on the price per hectare for ex-leasehold land before and after privatisation through South Island tenure review. Land sales pricing data (dependent variable) includes prices at 2 points in time 1) at completion of tenure review negotiations for a) the Crown to purchase leasehold rights to add to the public conservation estate, and b) the new freeholders to buy freehold rights to the land being privatised; and 2) post-privatisation sales on the open market. Independent variables, measured spatially, will include ecosystem services identified by Department of Conservation ecologists and other experts, location, micro-climate, and indicators of agricultural capacity.

This analysis allows us to determine the extent to which the value of the ecosystem services can be appropriated by the landholder when the land is sold. It also allows for a preliminary estimation of ecosystem service values, which is of interest to policy makers concerned with open space preservation and land use conflict resolution.

Under “tenure review”, a New Zealand pastoral lessee negotiates with the Crown to surrender part of his leasehold to conservation and acquire a freehold interest in the remainder. Much of the ex-leasehold land provides valuable ecosystem services. Spatial analysis with Geographic Information Systems (GIS) reveals that 34% of the Crown pastoral estate subject to tenure review to date has important landscape values; 56% has recreation, historic, and cultural values; and 42% contains ecological values.