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Conservation auctions assist private biodiversity conservation

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On private properties, conserving wildlife habitat corridors that allow for daily and seasonal species dispersal is a major natural resource management challenge. How can landholders on adjoining properties be encouraged to cooperate to manage linked areas of private land sufficient for biodiversity conservation?



Credit: DesertUplands

One option recently trialed, and outlined in *The Rangeland Journal*, is a 'conservation auction'. Implementation of this market-based instrument in the Desert Uplands region of western Queensland saw landholders join forces to protect biodiversity across a corridor of remnant grassland (rangeland), spanning 11 properties and 62 000 ha, and a further 22 992 ha of unconnected remnant vegetation. The total cost was only \$2 per hectare per year.

Research team member Dr Jill Windle, of Central Queensland University, says conservation auctions – which include Australia's pioneer auction system, Bush-Tender – fund conservation works on private land where there is little incentive for land managers to undertake the work privately. Private land managers are invited to submit bids to undertake these works and the bids are assessed, ranked and funded by the facilitating organisation, based on value for money. Contracts between a funder (such as, say, a catchment authority) and a land manager are then established, with the landholder receiving periodic payments for agreed management activities.

However, unlike BushTender, the Desert Uplands auction focused on establishing a 'linked landscape' for biodiversity conservation, rather than conserving unconnected pockets of land. To achieve this, three bidding rounds were conducted, rather than the usual single round. After each bidding round, landholders were told in which quartile their bid competitiveness fell, and were provided with a map of the region showing the location of all other bid proposals.

'The auction was a new conservation scheme in a region where most landholders had no experience with grants or conservation agreements,' Dr Windle says.

'The multiple bidding round gave them an opportunity to learn about the process and the market, to change the location of their bid to better align with other bids in their area, and potentially to improve their bid price in the next bidding round.'

The bids were assessed on three key priorities – linkage with other bids, biodiversity values and land condition

(assessed by field visits) – producing a single 'environmental benefits' score that could be compared against the cost of the proposal.

The research team also allowed for incomplete corridors or strategic 'stepping stones' in bid proposals, to encourage participation by the relatively small pool of landholders in such a large region.

'A total of 26 bids were received from 22 landholders, of which 15 bids were ultimately successful,' Dr Windle says.

'These bids accounted for \$343 000 in funding, provided by the Burdekin Dry Tropics regional NRM group, and covered the conservation costs for 84 992 ha of remnant vegetation for two years.'

Successful bidders were then contracted to protect biodiversity by maintaining or improving their land condition – measured by the minimum grass biomass levels at the end of the dry season. After the first year of the two-year contracts there was an average improvement in grass biomass of 51 per cent, with small declines (5–10 per cent) on only three properties. While no control sites were used to confirm that the biomass increase was due solely to contracted management improvements, anecdotal evidence suggests the auction process encourages landholders to over-supply their contractual services, providing a wider range of benefits than initially envisioned.

Importantly, some participating landholders also indicated that they would be willing to enter into 15-year agreements, or even perpetual conservation agreements, suggesting that the project had generated trust in the process.

'Landholders need to be engaged if the conservation of native ecosystems is to be improved, especially in the Desert Uplands where 99 per cent of vegetation types listed as "endangered" and 97 per cent listed as "of concern" occur on private, unprotected land,' Dr Windle says.

'We recommend that these types of funding mechanisms should be utilised more widely to improve the management of rangeland areas.'

More information:

Windle J, Rolfe J, Mccosker J and Lingard A (2009) A conservation auction for landscape linkage in the southern Desert Uplands, Queensland. The Rangeland Journal 31, 127-135.

Project report: http://resourceeconomics.cqu.edu.au/FCWViewer/getFile.do?id=7479

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