Science for Saving Species

Research findings factsheet

Project 6.3



Protecting nature on private land using revolving funds: Assessing property suitability

In brief

Revolving funds are a financially self-sustaining conservation tool used to protect threatened biodiversity on private land. Globally, more than 684,000 ha have been protected using revolving funds. Since the first fund was established in Australia in 1989 over 145,000 ha has been protected across over 150 properties.

Revolving funds are used by conservation organisations to buy private properties with important ecological values, which are then resold to new owners under conditions requiring them to protect those values, with the resales enabling further property purchases.

This research identified the key factors influencing property investment decisions by revolving funds. We found that fund managers are selecting properties with high conservation values, high threats to conservation values, low opportunity for conservation through other means, high likelihood of resale and low risk of financial loss. This low risk approach has ensured the financial sustainability of the funds but may also have resulted in lost conservation opportunities.

We suggest that considering both ecological values and financial returns at a portfolio level could allow funds to protect a broader range of properties. For example, balancing a property of very high ecological value that may incur some financial loss at resale, against a property with lower ecological values but higher financial returns.

















LEFT: Eucalypt forest, Gippsland, Victoria. Image: John Tann, Flickr, CC BY 2.0

Background

The acquisition of private land with conservation value can be a powerful way to protect threatened species and ecosystems. However, acquisition can be expensive for conservation organisations, particularly in areas where land values or management costs are high. An alternative to buying land is to enter into permanent protection agreements with private landholders (such as in-perpetuity conservation covenants) that restrict them from engaging in activities that harm the ecological values of their land, such as the presence of threatened species or ecological communities, or landscape connectivity.

Some conservation organisations use an innovative "revolving fund" approach that combines targeted land acquisition with permanent conservation agreements. A revolving fund is a pool of money that conservation organisations use to acquire land with high conservation value, which they then resell to new owners, under the condition that they protect the land with a permanent conservation covenant.

Main aim of the research

We aimed to understand the decision-making process of revolving fund managers in selecting properties and in particular which factors are most influential.

We also aimed to identify recommendations to this process that could increase the ecological conservation benefits of revolving funds. The proceeds from the sale then "revolve" as they are used to purchase, protect and resell additional properties. Conservation organisations thus intervene in the property market to protect ecological values, when properties face the threat of development.

One of the key benefits of the revolving fund approach is its ability to be self-sustaining.

But to reach this potential, managers must select the right properties to acquire. If unsuitable properties are acquired, the revolving fund might start shrinking, or the conservation organisation may be stuck with a property that can't be resold. This would obviously reduce the ability of the revolving fund to effectively deliver worthwhile conservation outcomes.

Table 1. Key	statistics f	or the r	major r	evolving	fund	programs	currently	operating	in Australia	as of
June 2017.										

Organisation	State	Year of operation	Total fund size	Properties 'revolved'	Area protected (hectares)
Nature Conservation Trust of NSW	NSW	15	\$10M	34	23424
Queensland Trust for Nature	QLD	13	\$7M	17	104000
Nature Foundation SA	SA	15	\$1.4M	28	12242
Tasmanian Land Conservancy	TAS	13	\$6.5	28	2928
Trust for Nature	VIC	28	\$4M	57	6852
		Total	\$28.9M	164	149446



What we did

We undertook interviews with the managers of each of the five main revolving funds around Australia on the factors which influence their property selection decisions.

We then built a Bayesian Belief Network (BBN) model of the revolving fund property selection decision. BBNs are graphic models useful for conditions of uncertainty that feature many variables and the conditions that depend on each. Our BBN provided a useful way to step through the highly uncertain decisions about selecting suitable properties for revolving fund investment.

To help improve the efficacy of revolving fund programs, we built our BBN model to integrate and systematically explore the various factors influencing the revolving fund property selection decision.

First, we built a conceptual model based on information gathered in interviews with revolving fund managers, then we revised and parameterised the model with them in an expert elicitation workshop. The focus of this workshop was on identifying the "suitability" of a property for revolving fund purchase, and how much to pay for it.

Next, we undertook a sensitivity analysis of the BBN to identify the most influential nodes in the network, and finally we interrogated the model and used four exploratory "test" properties to see how it performed.

Key findings

Apart from consideration of ecological values, fund managers consider financial values (e.g., purchase price, resale price, resale time) and social values (e.g., local amenity values, visual attractiveness of the site).

Through interrogation of the model, we found that managers consider the most suitable properties to be those that have:

- high conservation values
- low risk of financial loss
- high threats to conservation values and low opportunity for conservation through other means
- high likelihood of resale.

The factors most influencing managers' decisions about how much to pay for property were:

- amount of funds available for purchasing
- nature and severity of ecological threats
- availability of options for protection by other means.

Taken together, the results suggest that revolving fund managers are taking a low-risk approach to property selection. While this low-risk approach is likely contributing to the continuing sustainability of the revolving fund programs, it may be preventing the purchase and protection of properties that are otherwise suitable for conservation protection.



Further Information

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Implications and recommendations

The findings from our research will be particularly important to the managers of revolving fund programs, as well as private land conservation policy-makers.

The wide range of factors and the consequent complexity of the property selection decision may constrain the effectiveness of the revolving fund approach. Moreover, evaluating all of these attributes can strain the limited resources of conservation organisations. Therefore, being able to identify the decision factors that most influence success in the use of revolving funds for biodiversity conservation could help managers to focus their decision-making on what counts the most.

By targeting properties that are both very high ecological priorities and very low financial risks, fund managers have maintained the financial sustainability of the revolving fund programs. While this approach has ensured the sustainability of the program, it also limits the pool of properties to choose from. For example, it may be limited to those properties that can be purchased at or below market value, where the conservation covenant can have minimal impact on the resale price, and in regions with stable or increasing property prices, where resale time frames are likely to be relatively short.

The implication of this is that some properties with significant conservation values may not be being considered as suitable for purchase, due to the risks of financial loss at resale or of extended resale times.

Our results lead us to recommend that fund managers consider risk at the portfolio level rather than the individual property level, balancing both the ecological values and financial risks of properties as a group. For example, this could mean that several properties with lower ecological values but higher resale values are used to balance a loss from a property with very high ecological values but the likelihood of a loss at resale or a prolonged resale time.

Policy makers may also consider incentives to encourage revolving fund programs to consider higher-risk acquisitions where the ecological benefit is very high. For example, it may be worth considering "revolving" a property even if it's unlikely that all costs will be recovered or where it might take a long time to find a willing purchaser in order to protect species or ecological communities of high conservation significance that are found on that property.

This type of approach may be essential to protecting threatened biodiversity on private land in areas where acquisition without resale is currently considered too expensive (e.g., peri-urban areas) or where existing landholders are likely to be reluctant to enter into conservation agreements (e.g., agricultural areas).

Additionally, we offer the following guidance for the managers of

revolving fund programs to help in their property selection decisions:

- 1. Set clear, strategic conservation priorities to guide decisions.
- 2. Establish clear guidelines on the characteristics that make a property suitable for purchase.
- Identify regions where the property market demand aligns with conservation priorities (e.g. recreational or treechange regions).
- 4. Establish clear guidelines to help identify how much to pay for properties, and in which circumstances to accept a financial loss.
- 5. Develop strong partnerships with other conservation organisations using revolving funds.

Cited material

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