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Social Return on Investment in the Rangelands; We Think What We Are Doing is Important, But Does Anybody Else Care?

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Abstract

Social Return on Investment (SROI) is an internationally recognised methodology used to measure and value the impact of programs. Like a traditional cost-benefit analysis, SROI examines economic outcomes, but also includes the social, environmental and cultural outcomes created by the investment. These outcomes are evaluated against their cost, using financial proxies to estimate their relative value. SROI is particularly valuable in the indigenous natural resource management context, because of the strong 'value' or importance of non-economic (particularly cultural) costs and benefits. The Alinytjara Wilurara Natural Resources Management Board (AW NRMB) undertook a study of the economic, social, environmental and cultural impacts of large feral herbivores in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands, in the far northwest of South Australia. Camels, donkeys and horses present significant impacts for the community in terms of vehicle collisions, community health, damage to infrastructure and water pollution. With the costs incurred by pest animals in the APY lands valued at \$4.2m and possible benefits valued at \$140,000, the study found that there was a net cost impact of approximately \$4m. This study also found significant cultural impacts of pest animals, which requires further analysis. Future investment models that consider a broad range of costs and benefits, are considered appropriate for Australian rangelands, particularly Indigenous-owned land.

Keywords: social return, investment, pastoral, feral animals, APY.

Introduction

The Alinytjara Wilurara Natural Resources Management Region (the AW Region) (Fig. 1) covers the northwest quarter of South Australia (in Pitjantjatjara, alinytjara means 'north' and wilurara means 'west'). The Region spans more than 250,000 square kilometres and has a low human population of approximately 3,500 people (ABS 2013). The AW Region contains some of the hottest and most remote areas in South Australia. Water is a limiting factor - rockholes, springs and soaks are the only source of water available in dry times, and average rainfall is less than 300mm per year.

There is no private land in the AW Region; the main land tenure is inalienable freehold title and almost 50% of SA's national park and conservation estate (AWNRM 2011). The key NRM challenges for the AW Region are common to many rangelands regions and include total grazing pressure, weeds, fire, feral animals, and rockhole and visitor access management. The AW Region has significant unemployment and a chronic lack of long term jobs: the biggest single employer is government funded ranger work, and there is very little private investment.

AW NRMB are currently undertaking a Healthy Country Planning (HCP) process- a bottom-up approach to the development of the next regional NRM Plan. HCP is highlighting that all communities want jobs, local economic development, and opportunity to stay on country.

Recognising that ongoing government investment in NRM is tenuous, often being subject to political policies, alternative and diversified investment partnerships must be considered. A Social Return on Investment (SROI) approach can help foster these partnerships as SROI provides evidence for NRM outcomes as well as interrelated social and economic outcomes.



Fig. 1. The Alinytjara Wilurara region in South Australia

What is Social Return on Investment?

SROI (The SROI Network 2012) is a framework to understand and measure social, economic and environmental outcomes of activities. Developed from traditional cost-benefit analysis, it includes qualitative and quantitative findings to present a story of change. The AW NRM Board have developed a policy on SROI with the principles that NRM creates social, economic and environmental benefits and that the outcomes of NRM are fundamental to the well-being of Aboriginal people. The policy aims to:

- Increase investor confidence and diversity of funding partners
- Increase the relevance of, and raise awareness of NRM to the wellbeing of Aboriginal people to communities and service providers within the region.

SROI has already been utilised to demonstrate the value of Indigenous Ranger programs in economic terms. Kanyirninpa Jukurrpa Martu Living Deserts Project was estimated to provide a \$55 million dollar value over five financial years, from a \$20 million investment (Jupp *et al.* 2015). A \$35.2 million dollar investment (from 2009-2015) into five Indigenous Protected Areas (IPAs) across Australia, generated social, economic, cultural and environmental outcomes with a value of \$96.5 million (SVA 2016).

AW NRMB commissioned a desktop study to determine the impact (positive and negative) of pest animals in the APY Lands. The animals in scope include feral camels (*Camelus dromedarius*), horses (*Equus caballus*) and donkeys (*Equus asinus*). The APY Lands occupy 103,000 square kilometres, and are home to 90% of the human population in the AW region.

Information on the impacts of feral animals was collected through published literature, information held by government agencies and interviews with pastoral landholders, conservation managers, and relevant agency officers. The study aimed to reveal an annual impact amount (in 2016 dollars). No attempt was made to calculate a net present value (NPV) of all expected future impacts.

Key findings

63 impacts were identified as part of the study. Of the impacts, around a quarter were able to be assigned an estimated monetary value. Impacts to the APY Lands cumulatively total approximately \$4.2 million per annum for costs and approximately \$141,000 per annum for benefits (Table 1), resulting in an overall estimated net cost impact of approximately \$4.0 million per annum (Peevor 2016).

Through the course of the study on the APY Lands, other related impacts that accrue to the State, were identified. Taking a state-wide perspective, impacts cumulatively total approximately \$4.4 million per annum for costs and approximately \$384,000 benefits, resulting in an overall estimated net cost impact of \$4.0 million per annum. The main difference between the APY Land and State-based impacts are government related costs, including subsidies, and benefits to the stock transport industry.

Table 1. Costs and Benefits of feral animals to the APY Lands and State of South Australia

Type	APY Lands	State
Costs		
Pastoral properties	\$677,016	\$677,016
Road safety	\$2,297,759	\$2,297,759
Remote settlements	\$160,473	\$160,473
Government and research	-	\$137,535
Greenhouse gas	\$1,044,340	\$1,044,340
Subsidies	-	\$60,938
Total Costs	\$4,179,588	\$4,378,061
Benefits		
Greenhouse gas	\$94,456	\$94,456
Animal sales	\$46,565	\$46,565
Supply chain	-	\$242,500
Total Benefits	\$141,021	\$383,521
Net Costs	\$4,038,567	\$3,994,539

Discussion

With a clearer understanding of the costs of feral animals to the APY Lands, we can use this evidence to demonstrate the broader returns of investing in feral herbivore control programs. As an example, the APY Pastoral Program currently has four full time, and one casual employee, and 10,500 head of cattle agisted across 29 paddocks. Economic and land use research indicates an APY pastoral business could stock 20,000 head of cattle and employ 16 people full time. A key component of a pastoral business is feral herbivore control, to reduce impacts on infrastructure and ensure grazing pressure is managed for optimal land condition and cattle production. Pastoral employees would undertake fencing to keep animals away from major roads, and feral animal management through capture and transport for animals that have market value.

The AW NRM Board and Primary Industries and Regions SA (PIRSA) are working collaboratively with APY Pastoral to develop a sustainable pastoral enterprise. An indicative cost for running the pastoral program (including all capital and operational budget) over four years is \$5 million (\$1.25m pa) (Clinch, M. pers. comm. 2016).

The ~\$1 million per annum investment into a pastoral program will provide benefits far beyond the scope of natural resource management. The program will provide employment (and the associated social benefits of meaningful work), reduce feral animals, contribute to a sustainable business, save human lives, reduce road vehicle collisions, and reduce carbon emissions. As the analysis by Peevor (2016) demonstrates, for every \$1 invested, there is at least \$3 derived in social return. Beneficiaries include Anangu (people), SA Police, Motor Accident Commission, Department of Planning, Transport and

Infrastructure, SA Health, Australian Government, APY Pastoral. These benefits apply not only at local APY level, but accrue for the whole of the State (e.g. reduced road toll, reduced ongoing health and medical impacts from accidents, reduced reliance on welfare etc).

In addition, business modelling has shown that the pastoral business can be self-sufficient within 10 years (Rural Business Solutions 2015), thus negating the need for ongoing government investment. Operating expenditure will be funded by APY Pastoral, adding further long-term return on investment for government funds expended in the short term.

The results of the study have been presented to both the APY Board and the AW NRM Board. The level of engagement from Indigenous stakeholders has varied; there is very keen interest from the AW NMRB, perhaps because of their recent involvement in developing SROI policy. Further conversations need to continue with APY to explain the value of this SROI approach in funding programs on the APY Lands.

Conclusions

The study presents a compelling case for investment in a specific NRM project that delivers leveraged and ongoing public good benefits:

- Aligning public and private interests for long term benefit
- Community safety, employment, private business development, savings to government agency budgets and contribution to other agency KPIs.

Under AW NRMB direction, Natural Resources Alinytjara Wilurara are seeking to adopt a SROI approach across our on-ground programs to quantify benefits beyond NRM. Specifically for feral animals in APY, further work is required to quantify the cultural costs and benefits of these animals.

The next steps include approaching relevant agency Chief Executives; the Department of Health (DOH) through the “Healthy Parks, Healthy People SA” agreement between DEWNR (Department of Environment, Water and Natural Resources) and DOH, SAPOL, Motor Accident Commission etc, to seek funding for a program that meets their outcomes as well as NRM outcomes.

The APY Pastoral Program is perfectly placed to be the “beacon on the hill” and a model for attracting new funding based on outcomes. We have the opportunity to demonstrate that as NRM practitioners, what we are doing is important because we create value much broader than just environmental outcomes. The key is working collaboratively with other partners to ensure they are clearly part of the story so that they too, will care.

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