Opportunities for increased farm income and sustainability benefits

Sustainable Wildlife Enterprises

Maranoa Kangaroo Harvesters and Growers Cooperative Ltd

Kangaroos and other native wildlife have long competed with Australian grazing systems and production.

Through regional cooperation across property boundaries, landholders have an opportunity to convert a liability into an asset, while contributing to more sustainable land management, biodiversity conservation and earning carbon and biodiversity credits.

Australian agriculture needs to operate in new and different ways to counter declining farm viability and land degradation. Sustainable use of wildlife is an opportunity for innovation and adaptation and can lead to improvements in soil health and structure, biodiversity conservation and reduced carbon emissions.

Where wildlife resources are mobile across properties on the rangelands, co-operatives of landholders can collaborate to reap the financial benefits from conservation through sustainable use.

The economic and productivity incentives are likely to come from:
- improved pasture performance and total farm sustainability
- increased business diversity and resilience to extreme environmental events, and
- increased properties values.

A pilot project to test these outcomes is being run by the Maranoa Kangaroo Harvesters and Growers Cooperative Ltd in south-central Queensland.

For further information visit www.awt.com.au
The Maranoa Kangaroo Harvesters and Growers Co-operative Ltd was established over three years with support from the National Landcare program and the Rural Industries Research and Development Corporation.

The Co-operative is centred on Landcare Groups at Mitchell in the upper reaches of the Maranoa River in southwest Queensland. The Co-operative owns and operates chiller boxes, and takes kangaroos from harvesters operating on properties of members. It also plays an active role in assessing kangaroo populations and developing best-practice standards, which include standards on animal selection, harvesting, field dressing, transportation, chilling and trace back from processors.

Conventional farming techniques have seen broad-scale environmental degradation in Australia’s rangelands. However, native species are well adapted to Australia’s unique environment, allowing them to survive climatic extremes and thrive with little impact. Attaching a value to these natural resources through commercial development has the potential to provide alternative sources of income, especially in areas where traditional systems are no longer as profitable.

The SWE initiative provides landholders with the opportunity to explore new and innovative industries based on the use of native species and landscapes, whilst maintaining and enhancing the profitability and sustainability of existing farm activities.

The SWE pilot in Maranoa supports participating landholders by providing access to administrative and scientific advice in planning, establishing, and marketing enterprises and in evaluating commercial, natural resource and wildlife management outcomes.

The profits are retained by the Co-operative and the Landcare Group, however in time they could be returned to members and investors on the basis of their contribution. For landholders, the generation of income from kangaroos means that kangaroos are a resource, rather than a pest, with consequent incentives for alternative land management.

The Cooperative is a pilot that seeks to assess the capacity of SWEs to provide incentives for landholders to maintain and enhance native biodiversity and to achieve broad scale improvements in resource condition when developed alongside regional land management initiatives. It is trialling the concepts and ideas of the FATE program (www.fate.usyd.edu.au).

The success of the Cooperative to date is apparent in the awards won by a number of its members. In 2007 and 2008, the Chairman, Jeff Campbell, won the Qld and Australian Landcarer of the Year awards, whilst in 2010 Sharyn Garret won the Qld Rural Woman of the Year Award for her role as Secretary of the Cooperative.

Landholders gain feedback and access to up-to-date research through a framework of adaptive management, a process aimed at achieving ongoing review and improvement of management practices.

**Potential participation in carbon markets**

The SWE trials give landholders an option to participate as the carbon market grows. Considerable greenhouse gas (GHG) savings are possible through greater use of kangaroos on the rangelands in lieu of cattle and sheep.

<table>
<thead>
<tr>
<th>1.7 t CO2e-/head/year</th>
<th>0.003 t CO2e-/head/year</th>
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<tbody>
<tr>
<td>450kg steer yield 60% meat ~12.4 kg CO2e- / kg beef</td>
<td>20kg Roo yielding 70% meat ~0.4 kg CO2e- / kg roo</td>
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(sources: 12 DSE 243kg yield 0.5 DSE Equivalent DSE (24 roos) 336kg yield)

(*rates are preprocess, 2 years growth, average weights*)
Benefits

The aim of the SWE initiative is to increase the productivity of rural industries in a manner that also delivers improved biodiversity and land conservation outcomes. The potential benefits of the Maranoa SWE initiative include:

To landholders:
- Diversified or alternative income streams that increase farm resilience
- Reduced total grazing pressure through greater involvement in kangaroo management
- Improved pasture performance and total farm sustainability
- Increased biodiversity and improved landscape and soil health
- The ability to participate in potential future carbon markets
- The ability to produce and market products of greater value due to a focus on best-practice and associated environmental benefits, and
- Increased properties values.

To government:
- Diversification of Australian agriculture and increases in rural socio-economic resilience.
- Improved sustainable farm management and biodiversity conservation on rangelands
- Landscape-scale change in land management practice
- Improved community skills, knowledge and engagement
- Assisting Australia to reduce greenhouse gas emissions, and
- Utilising the marketplace to resolve growing environmental issues.

To the environment:
- Reduced carbon emissions as Kangaroos emit substantially less methane than conventional stock.
- Reduced damage to landscapes through the reduction of hoofed grazers
- Encourage the return of wildlife by regeneration of natural vegetation systems such as native pastures, and
- Protection of high biodiversity environments.

To harvesters:
- Gaining exclusive rights to properties and security of access
- Reward for implementing higher professional standards potentially resulting in higher returns per carcass,
- Access to training and development, resources, information and equipment.

To kangaroo processors:
- A value chain that supplies highest quality product, reliably and accurately described.
- Opportunities for product innovation
- Ability to market product as conservation plus.

For Landcare groups and natural resource management bodies, the cooperative assists manage total grazing pressure, combat feral animals and weeds. Furthermore, it creates a structure for landholders to take a more active role in kangaroo management, in cooperation with governments. It offers the opportunity for kangaroo management agencies to conditionally devolve more rights to collaborating groups.
Developing the Cooperative

For the Maranoa Kangaroo Harvesters and Growers Cooperative Ltd to achieve its goals, the cooperative model needs to be fully implemented. This requires substantial inputs of time, effort, and some money, and will require stronger relationship of trust and cooperation between landholders, harvesters and kangaroo processors.

Investment in the pilot by governments and high risk funders is needed because transactions costs of establishment are high and lessons learnt could have wider applications.

To continue to build on the excellent foundation that has been laid by the SWE pilot in Maranoa, the following ‘next steps’ have been proposed:

1. Gain greater industry and government support for the project as a pilot.
2. Strengthen management structures, the role of Coop members, enable outside investors and review processes for equitable profit sharing.
3. Conduct wildlife population surveys and movement studies to update wildlife management plans.
4. Improve kangaroo management at a cross-property level, both to meet production objectives and for better management of total grazing pressure.
5. Conduct biodiversity and habitat surveys as basis for claims of improving landscape.
6. Conduct carbon life cycle analysis of the whole of the kangaroo production chain.
7. Develop methodology and standard for carbon market for verifying emissions reductions from changed land use.
8. Repeat measurements of methane emissions from kangaroos under controlled circumstances.
9. Support the marketing of produce that has conservation benefits.
10. Establish collective bargaining arrangements to gain best market terms for kangaroo products.
11. Implement best-practice quality assurance programs such as harvest management measures that continue to improve meat quality.
12. Implement GPS-based trace back systems that enable labelling and branding based on ‘conservation-friendly’ land management practices.

Further Reading

Ampt, P and Baumber, A., Building Cooperation and Collaboration in the Kangaroo Industry: http://rirdc.gov.au

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