

Farmland investment and markets for ecoservices – attracting finance sector investment in ecosystem protection

Shawn Butters, Malory Weston and Cullen Gunn

Kilter is a fund and asset manager offering wholesale investment opportunities in Australian farmland and water. Kilter projects aim to deliver investors long-term, stable, inflation-protected returns through transformational investment and management of Australia's rural land and water systems. Redevelopment of agricultural land assets married with ecosystem protection is a key feature of Kilter landscapes – supporting yield history, asset appreciation and long-term sustainability.

The Kilter strategy has a focus on large-scale intervention in both underpinning ecological systems and overarching market-based systems to deliver asset enhancement at scale for long-term improved yields and growth. Landscape-scale intervention creates significant commercial opportunities for balancing water use, agricultural production and ecological function.

Returns are generated through yields from precision agriculture, water use solutions, ecosystem services and growth in the value of transformed assets. Precision agriculture and irrigation water use solutions generate the majority of yield. Ecosystem service payments while small in percentage terms help ensure affordable long-term ecosystem protection. The core investment offering is underpinned by the Kilter view of the environment as an operating envelope containing, provisioning and sustaining production off land and water assets, rather than a minor factor of production or an externality.

Current investment portfolio

There are three Kilter projects currently operating, involving a total investment commitment of \$194 million. Of this total, in excess of \$110 million has been deployed to date. Kilter has a target of establishing projects with committed capital of \$350 million over the next five years.

Kilter is currently managing over \$80 million worth of water entitlements and 9,000 hectares of agricultural landscape in northern Victoria encompassing both dryland and irrigated farming (Figure 1).



Native grasslands that remain in north-central Victoria are part of the Natural Grasslands of the Murray Valley Plains community, recently listed as 'critically endangered' at a national level. ©Photo, James Fitzsimons



Figure 2a. Lunette of Stevenson Swamp at purchase 2009.



Figure 2b. Same lunette two years later.

Kilter manages VicSuper's Future Farming Landscapes (FFL) investments¹ in this region. These landholdings are being managed for sustainable agricultural and biodiversity outcomes, with land use ranging from smaller zones of irrigated intensive agriculture to larger areas of low intensity/low input grazing and protected biodiversity (VicSuper 2011).

Locally significant areas of public land supporting high value biodiversity include riparian frontages on the Little Murray and Loddon Rivers; some Ramsar wetlands; and protected areas such as Winlaton Nature Conservation Reserve, and Mannaor, Tutchewop, Dartagook, and Stevenson Swamp Wildlife Reserves occur in this focus area. Kilter-managed lands are adjacent to all but one of these protected areas, with Stevenson Swamp being particularly significant as it is not only part of the Kerang Wetlands Ramsar Site but is surrounded by Kilter managed-land (VicSuper 2011). Revegetation of Stevenson Swamp lunette was undertaken upon purchase and achieved with a combination of passive restoration (including removal of grazing), direct seeding, and planting (with the seedlings watered using a simple reticulated system) (Figures 2a and b).

FFL leased Crown frontage has been protected against grazing and other disturbance such as agricultural activity to at least 100 metres from a water body. Additionally, Crown frontage licences are being converted where possible from grazing to conservation status. Within the larger FFL area, an area of about 13.4 km² (in excess of 20% of FFL) of 'Ecological Estate' has been identified as either:

- supporting remnant vegetation worthy of protection, or
- subject to revegetation and restoration activities including direct seeding, planting and passive regeneration of indigenous species. These ecosystems are largely chenopod grasslands (considered endangered) and chenopod woodlands (endangered or vulnerable depending on bioregion).

Also being managed is a further 13.4 km² (20% of FFL area) of low-input grazing country based on indigenous plant species. A further 1.8 km² (3%) is planned for diverse forms of forestry. Relative to the irrigated agricultural history of the last century FFL has a strongly positive rather than negative impact on biodiversity health across FFL lands. The resting of fragile soils and indigenous vegetation over the last three years has contributed to a substantial recovery of soil quality and seed set of various indigenous species. A proportion of this seed is collected and progressively sown along with the planting of seedlings. No 'weedy' species are introduced to FFL landscapes (VicSuper 2011).

In an ecological sense Kilter landscape projects have the following elements:

- Recognition that change at many levels across rural Australia is inevitable – Kilter uses change to drive innovation and create opportunities
- A principal focus on protection and renewal – old landscapes but new management regimes offering new opportunities and markets
- Large-scale intervention in projects of 10,000 hectares or larger in Victoria, and on a significantly larger scale in other mainland states
- The management of the dynamic relationships between farmlands, ecosystems and people as a key to delivery of risk weighted profits in rural landscapes. Each can drive performance and, with Kilter management, the whole becomes greater than the sum of the parts
- A balance between areas suitable and capable to sustain precision irrigated agriculture and the protection and management of key ecological sites that generate additional investor returns (such as vegetation offsets, carbon sequestration, salt credit trading, and flood mitigation services).

¹ VicSuper is a Victorian-based public offer superannuation fund.



The future health of the swamps and river floodplains in the Murray-Darling Basin depend on cooperation between the public and private sectors.
©Photo: James Fitzsimons

Investing in natural capital

A key limiting factor in future economic development is the availability and functionality of natural capital, including those life-supporting services that have no substitutes – ecosystem services.

The Kilter focus on asset enhancement (both agricultural and environmental) involves large-scale intervention in both underpinning ecological systems and overarching market-based systems.

A range of grant programs have been tried in the past including the Australian Landcare Program, Natural Heritage Trust V1 and V2, National Action Plan for Salinity and now Caring for our Country. The results from these programs have provided many important localised benefits and ecosystem improvements (while acknowledging the National Audit Office concerns about measuring performance (Commonwealth of Australia 2001)).

However, the scale of activity required to protect biodiversity is well beyond incentive programs alone – a new ‘additional’ approach to investment in protection is required for the future. This new approach must:

- Have consistent long-term metrics and clear outcomes (not changing with the political cycle as grants do)
- Be good value for money
- Operate within a government-developed market framework for transactions
- Operate outside of reliance on government recurrent expenditure
- Operate without reliance on government to transact/facilitate deals
- Be simple, accessible and optional for all participants
- Strengthen links and respect between city resource users and rural resource/service providers
- Ensure ecosystem protection and enhancement beyond the normal background ‘duty of care’
- Be accountable and feed into larger reporting monitoring and evaluation frameworks (i.e. System of Environmental-Economics Accounts (United Nations 2012)).

There are many examples of significant contributions to biodiversity and ecosystem protection through voluntary efforts and specific activity of the non-profit sector. Indeed to date Kilter's view is that the non-profit holders of conservation lands (such as Trust for Nature (Victoria), Bush Heritage Australia and the Australian Wildlife Conservancy) have paved a leadership path in protecting natural resources at scale for future generations – often in partnership with government.

Kilter however operates in a different space. It has established itself to deliver returns to investors from the reconfiguration and redevelopment of farmland and water assets – and it is keen to ensure that ecosystem protection can directly build on the return base for investors.

Kilter has been and remains an advocate for a broader range of market-based initiatives to support conservation and rehabilitation of biological assets on private land. Kilter as a private land manager dedicates a part of its implementation program to sourcing returns from investment in ecosystem protection and rehabilitation. Kilter hopes that eco-markets can develop further to encourage greater uptake by landholders in ecosystem protection.

Why is this important now?

Generally, the population tends to believe technology can produce food, fibre and energy, without really thinking about where any of it comes from. But technology has produced no alternative to the complexity and processing ability of soils and landscape ecosystems.

Producing more food for an ever-burgeoning population will be critical for the future. In the same way that we think and agonise about food security we should however concern ourselves with soil security – it is even more fundamental. Soil security is the maintenance or improvement of the world's soil resource so it can keep providing sufficient food and fibre.

An important limit to agricultural intensification is soil degradation which according to the United National Environment Programme has been rising since the 1950s. About 85% of agricultural land contains areas judged to have been degraded by erosion, salinity, compaction, and other factors. Soil degradation has already reduced global agricultural productivity by 13% in the last 50 years (Wood et al. 2000).

Kilter holds a view that profitably meeting consumptive market needs for food and fibre will mean sustaining improved long-term agricultural production. This in turn depends directly on protecting and enhancing the health and long-term function of ecological (land and water) systems. Profit comes from the right production produced sustainably and delivered to the right markets.

The demand for food coupled with land scarcity will drive new pressures and opportunities for rural land in Victoria and Australia over coming decades. For example ABARES's recently released report into foreign investment in Australian agriculture suggests 44 million hectares of agricultural land is now wholly or partly owned by foreign entities, up 60% from the 1980s (Moir 2011).

This is consistent with ongoing local trends to increase both scale and intensity of farming activities. Australia, and more particularly Victoria, is well placed to deliver clean and green food and fibre to the rest of the world but the right market signals (rather than straight regulation) will be needed to ensure concurrent protection of ecosystems and the biodiversity within them.

By most accounts margins in traditional farming are not high. Improving yield returns to investors by 1–3% can make a significant difference to overall project returns and help buffer volatility from traditional agricultural markets. Ecosystem payments structured to offer private landholders the option to source an extra 1–3% yield would create interest. As part of an integrated farming system there is scope for engaging corporate, family corporate and family farming businesses in delivering broad scale ecosystem protection.

In addition, non-profit organisations could help offset ongoing liabilities associated with managing landscapes for biodiversity and ecosystem protection. Scale of landscape intervention is important, and this has been recognised by many groups. In recent years, Bush Heritage has substantially increased its land under management with a vision for 2025 to protect one per cent of Australia. Access to ongoing payments for ecoservices would help manage ongoing liabilities (e.g. pest plant and animal management).

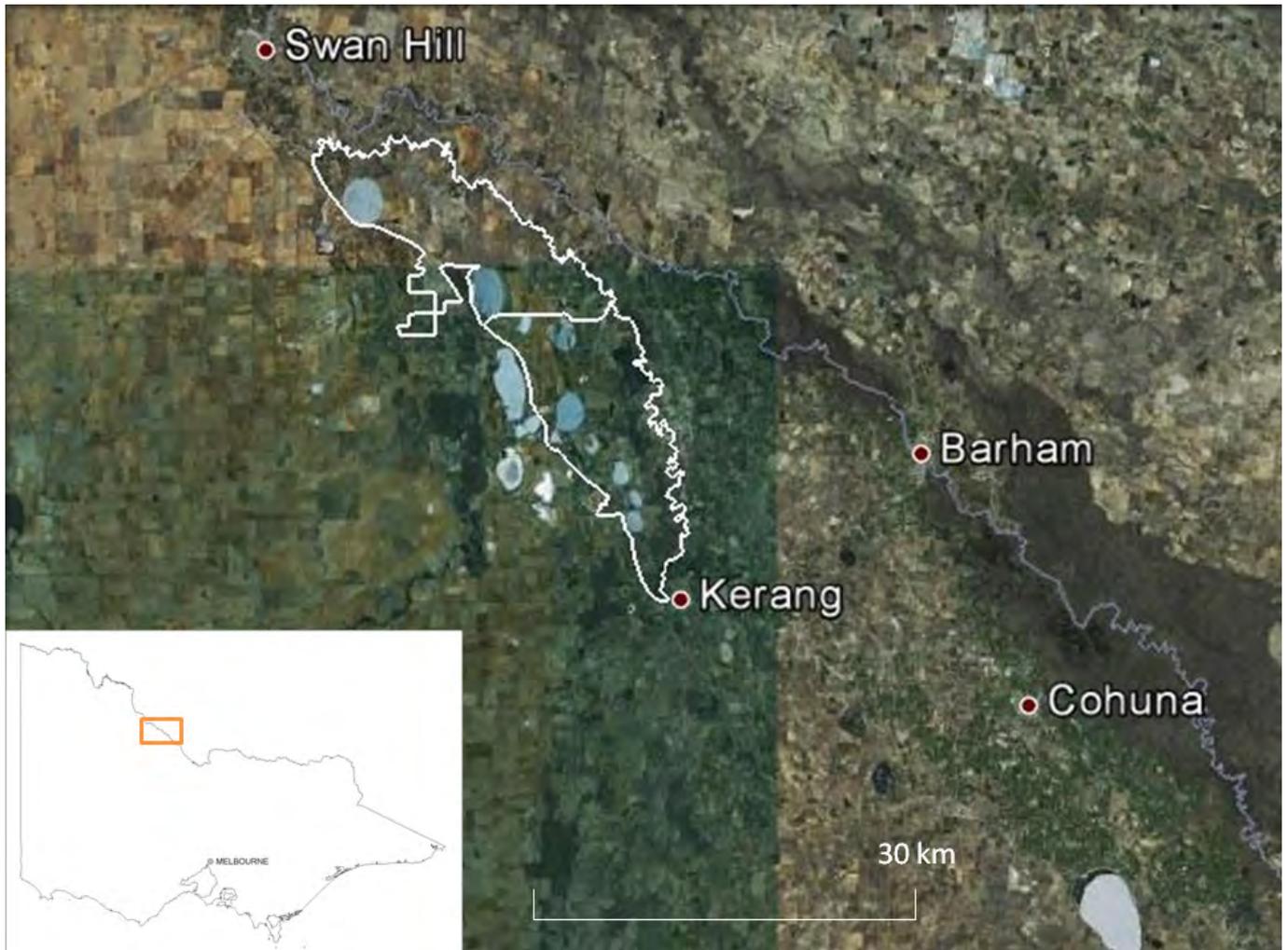


Figure 1. Kilter target landscape area. (Inset: Landscape area in state context).

The ability of corporate agriculture to rapidly and fundamentally change landscapes at scale is a potential positive. Most will recognise that a social licence to operate requires servicing community and regulatory obligations. However this does not ‘lift the bar’ above the ‘status quo’ response.

Market signals that provide additional and diversified yield opportunities for land owners would offer the opportunity for a much broader uptake of ecosystem protection and enhancement activities.

Concluding comments

Population increase and the drive to access food, fibre and water will see significant transformation of rural land. The scale and pace of land use change in Australia will likely surprise many over the next decade.

In addition other overlapping pressures such as climate change need also be addressed. While the precise scale, nature and location may be uncertain, climate change impacts will occur. The precautionary principle needs to be applied to help protect and enhance Australia’s natural capital.

To bolster other protection efforts Kilter holds the view that ecosystem service provision must become an industry in its own right, giving landholders the option of accessing a market framework to deliver ecological protection and enhancement.



The Kerang Wetlands, internationally recognised under the Ramsar Convention, are in Kilter's target area. ©Photo: James Fitzsimons.

References

Commonwealth of Australia (2001). *Performance Information for Commonwealth Financial Assistance under the Natural Heritage Trust*. Audit Report No. 43 2000–2001 Performance Audit. Department of Agriculture, Fisheries and Forestry and Department of the Environment and Heritage, Canberra.

Moir, B. (2011). *Foreign Investment and Australian Agriculture*. Rural Industries Research and Development Corporation, Canberra. Available at: <https://rirdc.infoservices.com.au/items/11-173> [accessed 1 August 2012].

United Nations (2012). *System of Environmental-Economic Accounts*. Available at: <https://unstats.un.org/unsd/envaccounting/seea.asp> [accessed 1 August 2012].

VicSuper (2011). *VicSuper Full Performance Report 2011*. VicSuper, Melbourne.

Wood, S., Sebastian, K. and Scherr, S. (2000). *Pilot Analysis of Global Ecosystems: Agroecosystems*. International Food Policy Research Institute and World Resources Institute, Washington, D.C.

Authors

Shawn Butters

Malory Weston

Cullen Gunn

Kilter Pty Ltd

PO Box 85

Bendigo Central, Victoria 3552 Australia

sbutters@kilter.net.au

mweston@kilter.net.au

cgunn@kilter.net.au

Biographies

Shawn Butters has worked in rural land and water management since 1984. After completing his degree Shawn worked with the Victorian Farmers Federation across the Victorian Farm Tree and Land Management Groups and assisted in their conversion to the emerging Landcare movement. He then left for deer farming and the family business became the largest processor and marketer of Australian venison across the eastern seaboard. Shawn joined the public sector and worked in catchment and land management for 12 years. The work was at local, regional, statewide and national levels. Shawn then rejoined the private sector and worked as an independent consultant, eventually heading a small consultancy team that worked principally in policy and joining research to policy. This worked to the opportunity to jointly develop Kilter. Shawn has worked with Kilter since its inception in 2006.

Malory Weston has 20 years' experience in natural resource management. Before joining Kilter in January 2008, Malory worked as a consultant with EWR, largely in the areas of environmental policy and management. Employment prior to this included roles with North Central Catchment Management Authority (in catchment management); the Victorian Department of Sustainability and Environment in science communication; and the Victorian National Parks Association, focusing on marine conservation. Malory taught natural resource management and environmental management at tertiary level for about ten years, as well as working as an independent consultant to the Australian Government to deliver a variety of natural resource management projects.

Cullen Gunn has worked in rural land and water management since 1993. After completing his postgraduate diploma Cullen spent time with the then Victorian Department of Conservation, Forests and Lands, and worked as a Landcare Group Facilitator in northern Victoria. Through 1996 to 1999 Cullen worked at the Corangamite Catchment Management Authority, compiling the first Regional Catchment Management Strategy then with the Victorian Department of Natural Resources and Environment helping manage assessment and delivery of the Natural Heritage Trust program in Victoria. Cullen was self-employed as a consultant before being appointed as the Executive Officer for the Victorian Catchment Management Council in 2001, leaving in 2003 to become a Director of ES Link Pty Ltd. Since its inception in 2006 Cullen has worked for Kilter.