Key messages

1. Greening Australia was established more than 30 years ago to help deliver national policy priorities across the country

2. Despite best intentions the shift to a regional delivery model has facilitated inefficiency – it is timely to transition to new models for regional and local delivery – a thematic-based approach is worthy of consideration

3. With the innovations in the last decade, there are fewer barriers than ever to delivering enduring landscape change more cost-effectively

4. Much has been achieved, there is much more to do – the possibilities for healthier landscape are immense and directly linked to health, wellbeing and prosperity of Australia

5. We need to bring the Australian community along with us to secure long-term investment certainty as the pay-back periods are real but very long

6. Better program alignment can help leverage private and other government investments (philanthropic, biodiversity offsets, water infrastructure, EPBC Act)

1. Greening Australia's Experience over 30 Years:

Greening Australia was formed in 1982 as a national delivery agent for the Australian Government to combat landscape degradation. With over-clearing of native vegetation recognised as a key driver of landscape decline, through enhanced salinity, expanding weeds and pests problems and declining biodiversity and agricultural productivity, the Australian Government intervened and provided leadership establishing the Billion Trees Program that Greening Australia delivered across the nation.

With Greening Australia on-the-ground getting the job done across the country, the Landcare movement began to develop, resulting in the establishment of the Decade of Landcare in the 1990's with $340M invested, and in 1997 the Natural Heritage Trust was established with $2.5B (Youl et al 2006). The Blueprint for a Living Continent called for 'a delivery mechanism that will transform Australia's landscapes' designed to 'cut bureaucratic red tape' and 'provide accountable institutions owned by regional communities' (Wentworth Group of Concerned Scientists 2002). 56 baseline-funded regional bodies were established, which, according to Youl et al (1996), were meant to "bring together community and government to plan, finance, oversee and monitor natural resource management (NRM)".

Through the period of Caring for Our Country establishing and the transition to the 'regional model' Greening Australia's experience was a challenging one. Despite having regional capacity and capability around the country, our experience was that the vast majority of baseline-funded regional bodies sought to replicate that capacity with their baseline funding, and then compete with Greening Australia and other not-for-profit organisations for further aspects of program delivery. In 2013 for example,

Greening Australia had standing capacity in 26 regional areas delivering innovative and cost-effective restoration but only meaningful long-term delivery partnerships with regional bodies in 6.

As State Governments have reduced their funding that supports bilateral arrangements for regional bodies, we are experiencing more barriers to implementation and therefore, less activity reaching the paddock, with a natural and understandable predilection of these organisations to maintain their staff compliment. Unfortunately for the Australian Government this has resulted in the maintenance of significant institutional capacity across the country with declining real returns in the landscape. The 'regional model' is a good idea in principle, but the way it has rolled out has not met with its original intention, it is time to refine the 'regional model' and get greater outcomes from the existing levels of investment.

Greening Australia has maintained its capacity and capability in the relative absence of significant support from Caring for Our Country through establishment of philanthropic and private sector partnerships, partnerships with State Governments and their utilities and by being at the vanguard of innovation demonstrating new and more efficient delivery techniques at both local and regional scales.

Through the last 30 years Greening Australia has leveraged approximately $60M in cash and in-kind contributions from partner organisations and landholders. In 2014 we maintain the following capacity as a key national delivery agent for the Australian Government:

- 180 staff in 30 locations across Australia;
- 11 native plant nurseries (capacity to produce 3,000,000 tubestock/annum) and 9 seedbanks (25 tonne capacity);
- extensive on-ground infrastructure, equipment and machinery to support landscape restoration including a fleet of 25 native seed direct-seeding machines;
- local community networks involving thousands of land managers across the country;
- technical knowledge and skills in all aspects of NRM including planning, on-ground restoration, community engagement, training and monitoring and evaluation; and
- relationships with corporate partners, private donors and philanthropic trusts.

This capacity is applied locally and regionally across the country, within a simplified and efficient business management framework (i.e. one contract for delivery of outcomes with the Australian Government can deliver locally across the country). While recent reviews of the Caring for Our Country program have mandated the establishment of partnerships with delivery agents under the baseline funding agreements, we are yet to experience any real change at the regional or local level.

We have a vision to create healthy natural landscapes where people and wildlife co-exist, and a new strategic plan *Conservation without Borders* that is well-aligned with the Australian Government's priorities, and we see new opportunities to develop more efficient delivery mechanisms to give effect to the original aspirations of the regional delivery model.

2. What has worked well:

In any review there is a tendency to be critical and not celebrate was has worked well. In our experience there have been some outstanding success stories from Caring for Our Country and the Biodiversity Fund programs particularly.

Innovation

During Caring for Our Country there were opportunities for the Australian Government to invest directly in innovative programs. These were competitive rounds where projects were put forward and considered in the national context. Despite the challenges of competing against baseline-funded organisations in open-call funding rounds, some fantastic innovative partnership programs were supported, the Grassy Groundcover project in Victoria and the Whole of Paddock Rehabilitation program in Southern NSW, ACT and Western Australia are two examples (see case study boxes below).

Dramatic improvements in the quality and scale of biodiverse restoration have been achieved by the 'Grassy Groundcover' and 'Whole of Paddock Rehabilitation' programs. At the micro-scale the Grassy Groundcover program has demonstrated the art-of-the-possible – restoring richly biodiverse native grasslands to sites previously considered 'too hard' as they were high in nutrients and infested by exotic species (Gibson-Roy et al. 2010). At the macro-scale the Whole of Paddock Rehabilitation program has been a breakthrough in the scale of broad landscape repair, bringing landholders along from restoring linear windbreaks along the edge of a paddock, to doing the whole paddock at once – delivering new large patches of native vegetation in over-cleared landscapes (10's-100's ha; Streatfield et al. 2010; Cummings et al. 2011).

Each of these programs has provided breakthroughs in land repair that fill significant knowledge and capacity gaps in the 'how to' of restoration. If these programs were supported to be rolled out across the nation – significantly more could be achieved with the resources already allocated in the budget [especially in the over-cleared and heavily grazed agricultural landscapes of the eastern seaboard and south-west Western Australia].

Despite the clear breakthrough achievements in these programs they have not attracted continued support from regional NRM bodies, and only sporadic support from the Australian Government.

CASE STUDY

Whole of Paddock Rehabilitation: showcasing partnerships, innovation, cost-effective delivery and large scale outcomes.

Greening Australia's Whole of Paddock Rehabilitation (WOPR) offers an innovative approach to combat increased land degradation problems by restoring paddock health and providing a range of benefits to farm production. Incentives for large-scale native plant revegetation, coupled with a fixed-term stewardship payment to landholders, helps land managers to better address the effects of climate change, biodiversity loss, paddock tree decline, salinity and other land degradation issues. WOPR integrates conservation and production in a practical, cost-effective and user-friendly program.

A Caring for Our Country grant of $800,000 in 2010 delivered the following outcomes in two and a half years:

- 1081 hectares (ha) of land rehabilitated at an average cost $740 / ha
- 630 km of direct seeding of native trees and shrubs was installed
- 42 landholders were engaged rehabilitating an average paddock size of 25 hectares
- 15,223 supplementary tubestock were used over a subset of sites
- Stewardship payments were paid to landholders on 762 hectares (remainder are hobby farmers and not eligible for stewardship support)

In traditional linear corridor plantings a major cost component is fence construction. In this program only 16 km of fencing was needed, compared to the 430 km that would have been required to revegetate 1081 ha in a traditional 25 m wide linear corridor. This cost saving of the fencing alone, even conservatively priced at $3,000/km, is $1.3 million.

Every hectare reported is a hectare of actual change in land condition on the ground:

On-ground Outcomes

Importantly, some of our key constituents do claim success from the interventions supported by the Australian Government. Our programs have also become more 'farmer-friendly' through time and found a good intersection of land repair to balance private and public good outcomes:

- Tony and Jenny Magee from Rye Park commented "we are very happy with the results and we can see an improvement in the landscape as well as the bottom line".
- Chris and Margot Shannon said "the [Caring for Our Country] funding from Greening Australia to make up for the loss of production didn't cover the whole loss, but it went a long way towards it and we're happy to put a bit in financially to make sure it's a success because we get a big advantage out of it."

Further examples in Tasmania and Western Australia demonstrate we are delivering new broad scale gains restoring biodiversity and productivity simultaneously (see text boxes below), however the connection between the on-ground application and the national reporting and commentary is less than it could be.

Clear biodiversity and production outcomes have been delivered through the programs. There are excellent examples of non-government monitoring of outcomes being achieved, including our own database stretching back more than 15 years monitoring the on-ground actions taken to reverse landscape decline. We have used that database to monitor the re-establishment of declining woodland birds in a regional context, and found that our plantings are bringing birds back, and the larger the plantings the better. This finding has been corroborated by a similar research program in neighbouring landscapes where revegetation plantings on farms "supported several bird species of conservation concern. These included the Flame Robin and the Speckled Warbler" (Lindenmayer et al 2012).

The key challenge for program administrators, highlighted previously by the National Audit Office, is being able to compile and report the changes occurring. It is particularly difficult when programs are intermittent, baseline funded delivery agents have other State Government priorities to administer, we are trying to deliver long-term outcomes, and program and reporting policies change with changes in Government administration. State of Environment reporting could transition towards this focus, utilising regional environmental accounts as a robust platform for monitoring change through time.

CASE STUDY

Tasmanian Midlands: showcasing partnerships, Conservation Action Planning, long term commitments, leveraged funding, and large scale outcomes.

The 1000 ha Tasmanian Midlands Conservation and Restoration Project has all of the elements of a successful landscape scale restoration project.

All of the major stakeholders are part of the project and are working to their strengths – including;

- Greening Australia – Restoration planning and implementation at scale
- Landholders – long term partner, investor, and land manager in strategic areas
- Tasmanian Farmers and Graziers Association, business modeling for landholders
- Tasmanian Land Conservancy / Bush Heritage Australia – private conservation reserves
- University of Tasmania – threatened fauna connectivity research and eucalypt genetics research
- NRM North – field days, communications and support
- Tasmanian Govt resource management and conservation – strategic advice and support

Critical to the success is the partners have a shared vision, developed through the Conservation Action Planning process and fauna habitat connectivity mapping. Each partner works within their core strength, engendering collaboration rather than competition.

Landholder agreements have been based on business modeling, enabling legally binding 25-130 year agreements, with shared ownership of future biodiversity, carbon and other environmental credits likely to be valuable in the future. This ensures all parties are committed for the long-term.

Funding for the $5.5m project comes from:

- government environment programs $2,200,000
- government research programs $1,500,000
- private philanthropy $1,000,000
- landholders $500,000
- private businesses – carbon and biodiversity offsets / business sponsorship $300,000

This project, the largest restoration project in Tasmania, has a 30 year vision to restore over 100,000ha of critical habitat in partnership with landholders to allow people and wildlife to co-exist and thrive.

CASE STUDY

Western Australia Wheat-sheep Belt: showcasing partnerships, innovation, integration of biodiversity and production, and large scale outcomes.

The Integrated Biodiverse Native Fodder System (IBNFS) is an innovative land use model that targets previously cleared land where historic land use has been inappropriate and has resulted in degradation and loss of productivity. The key objectives of system are to:

- Improve biodiversity, soil function and pasture production of traditional grazing systems
- Address localised land degradation and loss of biodiversity
- Assist in landholder to adopt drought proofing activities and practice change for climate variability

The model utilises the establishment of multi-species native plantings generally in a shelterbelt design to assist in stabilising and repairing soil structure and improve grazing potential using native vegetation.

The concept has an inherent flexibility built into the design stage of the implementation to allow land managers to best fit it into existing farm management practices.

Species selection is made from over 20 regional species that have proven fodder potential and each site matches species best suited to landscape and soil conditions. Establishment follows normal high level revegetation preparation (ripping, weed and pest management) and usually uses a combination of direct seeding and hand planting of tube-stock.

Following establishment the planting is monitored regularly to evaluate success and check for insect or other pest damage. After approximately 2 to 3 seasons (the timeframes varies from site to site depending on the site conditions) a process of managed rotational grazing is introduced. Careful discussions between the Greening Australia staff involved in the project and land managers are being used over the initial developmental years of the program to learn what the best practice management and monitoring program is for these new fodder systems.

Over time currently unproductive land will deliver a boost in productivity by the addition of the new fodder species as well as improving the pasture potential of the inter-row between the shelterbelts. The system acts to:

- Relieve the autumn feed gap
- Reduce reliance on supplement feeding
- Responds to current rainfall trends; and
- Utilises summer rainfall [unlike traditional pasture which become degraded by unseasonal rainfall]

CASE STUDY

Tracking outputs and measuring outcomes: showcasing on-ground effectiveness, monitoring and evaluation, long-term interest.

With records stretching back to 1991 we have tracked the location and nature of our interventions in the landscape. Our project tracking system contains location-specific information on what was done (e.g. direct seeding, planting, weed control), how it was done (e.g. what species were used, what site preparation was used), who did it (e.g. landholder and project manager name, funding program details) and what is being measured to monitor success (e.g. type and nature of monitoring).

We have developed and maintained this system across funding programs, through time, because we are committed to implementing best-practice landscape restoration, learning through time, and ultimately our vision of delivering healthy and sustainable landscapes.

Having the infrastructure in place to track project outputs enables the assessment of selected outcomes by bespoke monitoring programs through time.

For 12 years Greening Australia has been following the birdlife of revegetation on farms around the ACT and southern NSW. From Boorowa to Braidwood, Gungahlin to Goulburn, the changing fortunes of birds in 95 plantings and direct-seeded patches, 28 remnant woodlands and 10 paddocks has been monitored through droughts and wet years.

Particularly exciting has been the recording of 15 species of declining woodland birds such as the Speckled Warbler, Red-capped Robin, Diamond Firetail and Southern Whiteface, using revegetation sites.

Analysis of the vegetation at the sites found that more bird species were recorded in the older revegetated sites and those that were larger and block-shaped rather than linear, and had greater structural variation in the height and density of the trees, shrubs and ground layer.

Photo: D. Cook

Photo: H. Perkins

Photo: D. Cook

3. What could be improved:

Program Administration

Based on what Greening Australia has been able to achieve, the amount of program investment available, and what is achieved across the program, we consider there is a strong case for developing more efficient delivery models. Following the principle of local or regional delivery of national priorities, there are various administrative arrangements that could enhance delivery efficiency, including:

- opening of regional delivery support to competitive forces;
- transitioning to thematic based delivery agents that focus on excelling in focus-areas of capability (e.g. restoration, conservation or landscape planning, nature reserve creation, innovation, monitoring and evaluation, agricultural extension);
- establishment of fewer longer-term agreements, enabling reduced transaction costs (administration, overhead, reporting, compliance), and enhanced long-term reporting of outcomes; and
- enhanced program alignment, for example by coordination of biodiversity offset obligations and program delivery, more could be done with the existing resource base.

Community Engagement and Planning

There is a greater need for engagement with the broader community – to raise awareness of landscape condition and why it is important for us to invest in its health and wellbeing. Programs like the Green Army will elevate the needs of the local environment in the social conscience of the nation, but there needs to be a coordinated and sustained conversation with the community about why landscape is important, and how investing in its wellbeing is good for all Australians (e.g. returns on investment, landscape capacity for enhanced agricultural production and biodiversity conservation, health and wellbeing of regional communities).

Engaging communities in setting priorities for local landscapes has been a mantra of establishing the 56 NRM regions and NRM plans over the last decade. However NRM planning, in many regions, has continued to be a top-down process with minimal community consultation and engagement built in towards the end of the process. To truly engage communities in NRM planning it is recommended that local people and organisations (outside of the institutional NRMs) be included at the start of the NRM plan development and be supported by a facilitated process to maintain their involvement all the way through. Greening Australia recommends that ground-up, collaborative NRM planning processes such as Conservation Action Planning be used to significantly improve the development of NRM plans across Australia.

Longer-term Investment Profiles

Establishment of longer-term investment streams and partnership arrangements would be useful – primarily because the tools of the trade take a long time to develop (e.g. connections with landholders, seed supply, staff capability and capacity) and the outcomes being delivered also take a long time to materialise (e.g. improved water quality, enhanced production, rebounding bird populations). Accordingly it makes sense to match the investment profile with the timeframes of the returns. Special purpose investment vehicles to deliver longer term on-ground outcomes should be considered. Also,

the reporting and acquittal requirements within long-term agreements should also be made more flexible to enable the delivery agent to take account of weather patterns in local delivery timetables.

The scale of investment needs revisiting. The question of 'how much is enough' comes back to the vision for our Australian landscape, expected increased returns on agricultural production and appetite for conserving and restoring our unique flora and fauna. One option for a continued stream of resources is to broaden the GST base to include fresh food, with that proportion of the tax-take from fresh food hypothecated to a landscape repair trust fund, for long-term condition investments at the necessary scales.

Monitoring, Communication and Innovation

Monitoring, evaluation and communication of the programs could be better-undertaken by a third-party. On ground interventions do work, have worked, and are working - the problem is that Governments and Administrators and Programs come and go, are not prone to communicate outcomes and none are around long enough to join the dots between the investment and the dividends. State-of-environment reporting could transition towards being a unifying process that presents and reports updated data on land condition and the success and impact of interventions from different programs through time.

Investing in innovation, capacity building and knowledge sharing should be considered an enabler to more efficient outcomes. The notion that 'all dollars must be on-ground' is antiquated and needs to be reconsidered. What is important is that the outcomes are delivered most cost-effectively, not where the dollars go *per se*.

4. Key messages:

1. Despite the best of intentions with the shift to a regional delivery model, there has been much inefficiency built into the model that has been adopted – it is time to transition to new models for regional and local delivery – a thematic-based approach is worthy of consideration

2. With the innovations in the last decade, there are now fewer barriers than ever to delivering enduring landscape change more cost-effectively

3. Much has been achieved, there is much more to do – the possibilities for healthier landscape are immense and directly linked to health, wellbeing and prosperity of Australia

4. We need to bring the Australian community along with us to secure long-term investment certainty as the pay-back periods are real but very long

5. Better program alignment can help leverage private and other government investments (philanthropic, biodiversity offsets, water infrastructure, EPBC Act)