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Conference overview

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Abstract

Three themes of this conference were the progress that's been made in recent years in achieving landscape scale restoration, the enormity of the challenges, and the promise of a 'turbo-charged' carbon future. Case studies of successful restoration efforts suggested several principles, introduced by the keynote speakers and reinforced by presentations throughout the conference. These were the importance of considering social and institutional as well as biophysical aspects of restoration, the value of partnerships between the private and public sectors, identifying mechanisms for change, and establishing clear value propositions for those in a position to act. Despite this, the lack of evidence of any net impact of restoration efforts at continental scale and the challenges presented by climate change had the potential to overwhelm any sense of success at local and regional scale. However two factors offered significant hope. The growth of the private sector as owners and managers of a significant private conservation estate, and the emergence of carbon markets. A message from several speakers was that we need a bold vision for the transformation of Australia's landscapes and new alliances with some unfamiliar partners in industry and commerce to take advantage of these emerging opportunities.

Introduction

Eighteen years ago, Greening Australia hosted the first national conference of landscape restoration practitioners and researchers in Adelaide. Since then, environmental management and restoration in Australia has not been short of its problems or its critics. We've become so used to criticism of the way funds have been allocated, failure to use evidence-based decision making and the absence of monitoring programs to keep track of where we've been that we've tended to miss signs of progress. This conference provided an opportunity to reflect on just how far we've come since then and provided some real grounds for optimism. Three things in particular stood out. Principles for effective restoration, the need to avoid being overwhelmed by the enormity of the challenges, and the promise of carbon markets.

Principles for effective restoration

The theme of the 1990 Adelaide conference *Sowing the Seeds* was direct seeding and the mantra local provenance. This was at the height of the Landcare movement and the prevailing assumption was that awareness, education and inspiration were all it would take to motivate people to 'do the right thing'. Public funds would only be required to prime the pump of good will and the paths to adoption were straight and paved.

A feature of the presentations at Toowoomba was that they went well beyond these assumptions, dealing with more sophisticated social and biophysical conceptual models of the problems at hand and acknowledging the importance of a value proposition – what

would attract people to take on restoration, what is the cost, and who pays? This typically involved partnerships between government, the community and the private sector and multiple disciplines operating at several spatial scales.

The opening presentation by Kathy Viatella (this volume) provided a clear example of these principles. The success of The Nature Conservancy's efforts in southern California hinged on two factors. The first was recognising that threats to the plant and animal communities they wished to protect had to be managed at regional scale, but the power to act lay at the local scale through planning law. The second was identifying permits for development offsets as the mechanism by which local planning law could be used to achieve regional conservation goals.

Stuart Bunn's case study (this volume) of the Healthy Waterways partnership in SE Queensland illustrated some of the same principles. Interdisciplinary science at large scale was necessary to understand the sources and pathways of sediment and other pollutants entering Morton Bay. Combined with an understanding of the costs of intervention, this was used to prioritise interventions for the treatment of point source and diffuse pollutants. An annual score card that simply and effectively communicated the state of the environment to local government and the community has proven to be an effective mechanism for change. Sue McIntyre (this volume) reinforced the need for a sound conceptual understanding of the restoration challenge in her keynote on the fate of Australia's grassy woodlands. Her adaptation of the state and transition model incorporating research by Dorrough *et al* (2007) identified fertiliser use by land holders as a largely overlooked but potentially very effective mechanism for achieving conservation and restoration goals.

The emphasis on cost effectiveness and the need to develop partnerships between government and industry was evidence of the new social contract in science that has emerged over the last few decades. These examples and many other conference papers demonstrated that it is no longer acceptable for research to be carried out in isolation of the people for whom it is ultimately intended, or to assume that it is other than the researchers' job to communicate the research findings.

Avoiding overwhelm

After such a promising start, two confronting pieces of information threatened to take the wind out of most people's sails. The first was Mark Howden's presentation (this volume) on the enormity of the challenge that climate change presents to restoration. His most sobering observation was that by 2018, the coldest year we experience will be hotter than the hottest experienced by our grandparents. His description of 'cascades of uncertainty' and the lack of regional scale precision in climate predictions cast doubt on the concept of local provenance so dearly held by restoration ecologists until now. Mark's advice was to look for 'no regrets' solutions, where restoration efforts are likely to survive under most scenarios.

The other confronting news came from several speakers who reminded delegates that the major indicators of Australia's environmental health are trending in the wrong direction. Joern Fischer (this volume) called this the sustainability gap (Fischer *et al* 2007), the gap between the magnitude of the challenge and the smallness of our politics. Sue McIntyre (this volume) reminded us of one measure in particular, the still declining

national trend in woody vegetation cover (defined as 'Kyoto forest', 2m high and 20% cover). The prognosis is slightly better with evidence that this trend is slowing and likely to reverse soon. But despite the promise of technology, we still can't assess vegetation change remotely or detect with confidence the effects of our intervention efforts to date.

This bad news was countered to some degree by two positive messages. The growth of the private conservation sector and the emerging carbon markets.

The growth of the private conservation sector has been one of the most promising trends in the field of restoration in the last decade. This reflects the global growth of Sustainable Alternatives Networks as they are described by the UN Environment Program. Virtually every sector of the economy now has a shadow in the form of these loose affiliations of groups developing alternative ways of carrying out what has been up till now the province of government and big business. These networks are evident in agriculture, food production, housing, transport, energy and nature conservation. Many of these movements originated thirty years ago at the time of the last oil shock.

With the current intersection of concern over food, water, climate, oil and credit, these networks are coalescing and emerging as increasingly viable alternatives to the status quo. The private conservation sector in particular has shown itself to be a flexible, viable and well organized manager and owner of a conservation estate that now extends to hundreds of thousands of hectares in Australia and millions of hectares world wide. Their efforts complement the public conservation estate. The significance for environmental research is that, as we saw in the case of The Nature Conservancy (Viatella, this volume) they are increasingly demanding evidence-based tools and techniques to guide their managers and decision makers and provide greater confidence for their very savvy investors.

The turbo-charge carbon future

In his welcoming address, Greening Australia CEO David Williams (this volume) introduced the promise of a 'turbo-charged' future for landscape transformation driven by the emerging carbon market. Speakers from industry peak bodies and the finance sector reiterated this potential and made it clear that landscape restoration has the potential to enter a new phase.

Bluegum dreaming

In his keynote address on the second day, Alex Campbell related a cautionary tale story about the introduction of commercial Bluegum forestry in the 1980s. Many people working in natural resource management at the time saw this development as an opportunity to drive their vision of a new agricultural mosaic, with multipurpose commercial plantings delivering environmental benefits of soil and water management and provision of wildlife habitat. His point was that in hindsight, it was naïve to think that this new industry would take that form without some purposeful intervention through negotiation, partnerships and incentives. Commercial plantings of Bluegums were instead fuelled by legislation that enabled Managed Investment Schemes which favoured large scale plantation forestry and saw whole farms bought and leased with mixed social and environmental outcomes at regional scale. The lesson for restoration this time around is that the industry has to actively influence the structure of the new regime and the way in which it is rolled out. Presentations by Rick Humphries (this volume), Drew Wagner (this volume), Gary Stoneham (this volume) and Lloyd Fleming

(this volume) made it clear that a new set of alliances will need to be forged if restoration is to benefit from the carbon market.

Conclusions

In the workshop 'Visions for future landscapes' on day 2, Joern Fischer (this volume) made the observation that to be as cool as a scientist these days, you have to talk about efficiency and practicality. It's uncool he said to talk about big, bold visions. Government, science and NGOs have for many years taken on the language and behaviour of the corporate sector (Ralston Saul 1997). Some environmental NGOs in Europe are now questioning the wisdom of appealing to the wallet over the heart. There were many strong regional visions represented at the conference from flagship projects like Gondwana Link, Habitat 141, Birdsville to Bay and Alps to Atherton. To build on its experience and take advantage of emerging opportunities, the restoration community is faced with two tasks. To articulate a bold vision that metaphorically and literally joins the dots between these regional projects and the myriad local successes, and to communicate this vision to a new set of potential partners in commerce and industry who can help to bring it to fruition.

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