

# Connectivity Conservation: a strategy to accelerate effective action from the practitioner's perspective

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# Queensland, Australia Climate Action Beacon

# CONNECTIVITY CONSERVATION:

a strategy to accelerate effective action from the practitioner's perspective.

Gondwana Link, the Great Eastern Ranges Initiative and the National Landcare Network

Policy Discussion Paper 2/23

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### INTRODUCTION

This paper draws upon our decades of experience in effective community led action across large landscapes. It complements and builds upon the policy discussion paper of Mackey et al<sup>1</sup> (2023) on the importance of connectivity conservation for protecting and restoring biodiversity and ecosystems in Australia, including as part of Australia's response to climate change.

Our aim is to promote discussion about where and how the Australian Government can be most effective in providing strategic support for additional initiatives that enhance the repair and restoration of the Australian environment, an endeavor that has gained extra importance following recent national commitments to global biodiversity framework goals. Our focus is on inclusive approaches that strengthen social fabric and community-based initiatives, particularly in rural areas.

Successive State of the Environment Reports have documented continuous decline in the ecological health of Australia<sup>2</sup>. Yet few initiatives are demonstrating progress towards reversing that decline. Nevertheless, a range of government programs continue, the privately funded conservation sector has expanded rapidly, carbon offset programs have grown significantly, and Australia now has the prospect of significant private investment in the environment.

### **KEY POINTS**

The strategies we propose will directly assist in the achievement of Australia's post 2020 biodiversity goals and targets and in meeting the national target of 43% reduction in carbon emissions by 2030 and net zero by 2050. They will correct some of the shortcomings identified in the review of *Australia's Biodiversity Conservation Strategy 2010–2030*<sup>3</sup> and can strengthen our role in achieving the goals of the United Nations Decade of Ecosystem Restoration (2021-30)<sup>4</sup>.

The strategies we propose also align very closely with the 2021 ALP National Platform, which includes the statement:

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#### Natural environment

Labor acknowledges that Australia's natural environment is in an overall state of decline and many of our unique species are threatened as never before by a combination of intensified climate change and loss of habitat.

It also notes the UN Secretary-General's view that nature-based solutions could provide one third of the net reductions in greenhouse gas emissions required to meet the goals of the Paris Agreement. For these purposes, Labor will revisit and reinvigorate historic programs initiated by previous Labor Governments.

#### It will:

• support the continued development of a comprehensive, adequate and representative National Reserve System, identifying as a priority those areas where the need to halt biodiversity loss is most urgent and also large intact areas that are still able to function in ecologically natural ways.

• work for the extension of Landcare programs which support environmental restoration and sustainable agriculture, mobilising volunteer effort but also assisting in the creation of employment at local and regional level; and

• implement a strategic, landscape-scale approach to managing biodiversity, having regard to the National Wildlife Corridor Plan which provides a framework for large landscape-scale connectivity conservation at regional and continental level.

To build and support the implementation of this platform, we propose five connectivity conservation strategies that meet the urgent need to accelerate ecological restoration In Australia. They are based upon an understanding that meaningful impact can only be achieved by scaling up well supported effort at the local community level. This is where the greatest operational efficiencies occur, where the practitioner knowledge has been accumulated over decades, where the local and regional sense of place ensures programs continue through any difficulties that arise, and where the geographical realities and community relationships support and encourage integrated effort in ways that are an essential complement to 'top-down' policies and programs. In our view these qualities have been well demonstrated through decades of work by landcare groups across Australia.

The strategies we propose are to:

- 1. Establish a National Framework for Restoring Landscape Health to promote connectivity conservation within and beyond regional boundaries, including cultural connectivity such as First Nation songlines. Its development would be guided by an advisory panel comprising practitioners, researchers, First Nations organizations and policy makers.
- 2. Establish a National Community Connectivity Fund to accelerate work already underway by including connectivity criteria in current grant programs and providing additional funds which support local community efforts to scale up their connectivity restoration programs.
- 3. Strengthen the community base required to maintain and re-establish connectivity networks across a multitude of landscapes through increased funding for local Landcare groups.

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- Secure and restore areas critical for landscape connectivity through a 'Sustainability Adjustment' Program which would contribute to blended finance projects purchasing and restoring strategically placed parcels of land, including through the proposed Nature Repair Market.
- 5. Build on the success of existing initiatives achieving long-term landscape scale connectivity conservation by strengthening core funding and enabling a greater focus on the acceleration of on-ground work and a wider sharing of experience.

### **HISTORICAL CONTEXT**

For many years the government and community conservation agenda has been dominated by six main approaches:

Establishment of a 'Comprehensive Adequate and Representative' (CAR) protected area **system**, largely managed by the States. Protected areas are an essential mechanism for conserving our natural ecosystems and wildlife, yet much biodiversity invariably remains unprotected and many reserves are not large enough or sufficiently interconnected to be ecologically adequate in a time of climate change and global ecological decline. The need for more and betterconnected protected areas was recognized at the recent COP15 in Montreal<sup>5</sup> and the Australian Government's new commitment to conserving and connecting 30% of both terrestrial and marine ecosystems that followed was a positive step in the right direction. While necessary, protected areas alone are insufficient to conserve biodiversity and must be complemented by conservation action in the remaining 70%.

- 2. Regulation of larger development proposals through various State government environmental powers and the Commonwealth's EPBC Act – with recent commitments to strengthen the operation of the EPBC Act being very welcome. However, this activity is concerned with prevention of major individual acts of degradation and pollution, rather than the cumulative impacts from historical development and a variety of smaller proposals.
- **3.** Various arrangements which support scientific research, largely theoretical and undertaken through disconnected academic ventures, with arguably less attention given to the mechanisms which deliver much needed technical and scientific support to practitioners. However, the science is clear and has been for decades - without the rapid implementation by practitioners of transformative approaches restoring habitat across whole landscapes, Australia will continue to lose species and the ecological services that healthy landscapes provide.
- 4. Reactive and narrowly focused emergency actions focused on recovery of individual rare and endangered species, with the Recovery Planning process tending to focus on services that provide species-specific actions rather than broader habitat restoration. There have been individual successes with this approach, but they come with high operating and maintenance costs, and will remain fragile until greater attention is given to essential habitat requirements and the restoration of broader ecological functions.
- 5. Programs to mitigate dispersed examples of degradation and decline, with funding largely delivered through the NRM region



Reforest Now, a Landcare NSW member group had just planted 23,258 rainforest trees in torrential rain over 3 days. Reforest Now has planted over 500,000 trees since 2019 and aiming to plant 300, 000 rainforest trees of ~200 different species. The planting site runs along 7 kilometres of the Wilsons River in Clunes NSW, near Byron Bay. **Image credit** Paul Daley

structure. This approach dates back to the Howard Government but there seems to be little data available to demonstrate its effectiveness. While there have been some successes in treating some specific local instances of degradation, and possibly slowing the rate of overall decline, there is no evidence of progress in reversing the larger trends evident over the last two decades. Additionally, in some regions of Australia the federally funded NRM regional approach appears to have reduced local community capacity and action and enabled extensive cost shifting by State governments<sup>6</sup>.

6. Core funding provided directly to locally based caring for country programs developed and implemented by First Nations organizations. This notably successful approach has produced widespread ecological, social and cultural benefits across large areas of Native Title lands in Australia, and was recognized as such in the 2021 State of Environment Report. The approach – of providing core funding to local communities working on locally agreed priorities - mirrors the original government support provided to Landcare groups in the 1980s and 1990s, a period of rapid growth in both the Landcare movement and its effectiveness across large areas<sup>7</sup>.

In the past few decades other significant changes have occurred:

- The privately funded conservation sector has expanded considerably, particularly through the growth of groups who secure private properties and manage them for conservation. They have increasingly established their own research and data collection capacity to support evidencebased decision making.
- Despite the growth in the overall number of locally based Landcare groups, their geographic coverage has reduced in agricultural and pastoral regions. This is a consequence of the centralising impact of the NRM region approach and of changes in funding arrangements. A significant number of agriculturally focused Landcare groups have been absorbed into the better funded industry groups, who have a much greater production focus than was the case during the establishment years of Landcare.
- There has been a reduction in the size and scope of many State government departments involved in land management. As a consequence, local groups are increasingly having to undertake land management tasks that were once undertaken by State agencies, while State agencies are now more policy-focused despite having less ability to ensure those policies are implemented.
- There has been an increased need for short term responses to increasingly frequent major natural disasters—drought, megafire

events, storm events and floods. They largely deal with the aftermath of such events, and greater attention needs to be paid to prevention through understanding and responding to the local, regional and global causes.

- A select few large landscape scale, cross-tenure, multi group initiatives have established and persisted, achieving measurable change. We particularly note the ongoing success of Gondwana Link, the Great Eastern Ranges Initiative and the Indigenous Desert Alliance. We deeply regret the loss of many other initiatives that worked at scale for some years but declined after the change of national government in 2013. These include the demise of the SA NatureLinks, Trans Australia Eco Links and Habitat 141 initiatives.
- As the impacts of climate change have become better known, Government has invested heavily in the energy transition. However, the funds available for naturebased solutions and the mitigation of ecological damage caused by climate change, have been static or reduced.

The narrow focus of successive governments on carbon sequestration in the land sector has largely missed a huge opportunity to bolster protection and restoration of native vegetation within an ecological context and strengthen long-term carbon retention. Policies and programs have ignored the most cost-effective and highest integrity climate mitigation strategy - protection and restoration of our most significant and resilient ecosystem carbon stocks. Connectivity conservation presents a climate mitigation advantage by ensuring biodiversity outcomes are the driver and ecological integrity is a key outcome. This provides increased stability, resilience and residence time for the carbon storage achieved and decreases the risk of future loss to the atmosphere. It also ensures higher levels of social acceptability.

### **AUSTRALIA'S INTERNATIONAL CONTEXT**

Australia was the first country in the world to establish a connectivity conservation framework for landscape scale conservation. After the change of government in 2013, the framework National Wildlife Corridors Plan was abandoned, many previously established connectivity programs consequently lapsed and Australia now lags many jurisdictions, including the United States, in connectivity policy development and practice. Nevertheless, the ALP platform for nature conservation, if implemented well, would restore our capacity and standing<sup>8</sup>.

In October 2022 State and Commonwealth Environment Ministers agreed to set a national target of protecting 30% of Australia's land and 30% of our oceans by 2030. As part of achieving that goal, the Australian Government is currently

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exploring the recognition of 'Other Effective Area-Based Conservation Measures' (OECMs)<sup>9</sup>, which are a defined category under the United Nations Convention on Biological Diversity (CBD) and recognised by the International Union for the Conservation of Nature (IUCN) who have produced guidelines on their establishment and operation<sup>10</sup>. Connectivity conservation initiatives can make a significant contribution to achieving valuable OECMs, perhaps particularly through the ability of reserve areas to meet CAR objectives. They are essential for improving the often neglected 'Adequate' and 'Comprehensive' elements of the CAR approach. Connectivity initiatives buffer and reconnect existing protected areas and have a major role to play in maintaining and enhancing the integrity, resilience, stability and adaptive capacity of those areas in the face of climate change.

The years 2021-2030 are the UN Decade of Ecosystem Restoration, established to prevent, halt, and reverse the loss of nature. The Gondwana Link program in Western Australia has been recognized by UNEP as one of the *Founding 50* implementers for the global effort. An Australian Restoration Decade Alliance, made up of 21 leading Australian organisations, including Gondwana Link and the Great Eastern Ranges Initiative, has been established to promote the Decade and to support information exchange between its members. A statement of agreement across members of the Alliance has been established<sup>11</sup>.

Despite the UN Decade's significance and support on a global level we are unaware of any Australian Government programs that directly support it.

### STRATEGY

We must address causes rather than the symptoms. Landscape scale protection and restoration initiatives provide the most effective pathway for the delivery of resilient, long-term nature-based solutions to mitigate and adapt to climate change and ecological decline. These solutions are best delivered through straightforward mechanisms that directly reverse the causes of decline. We are concerned that some mechanisms currently being proposed, such as the Nature Repair Bill, are unnecessarily interventionist and rely too heavily on unpredictable and largely untested market mechanisms.

We propose a five-point strategy which builds upon existing approaches to drive a rapid scaling up of locally led ecological initiatives that can reverse the current decline. The strategies recognise that well supported local community efforts are fundamental to achieving the levels of change required.

The strategies we propose are to:

1. Provide guidance and promotion for connectivity conservation and cultural restoration efforts by establishing an advisory panel of researchers, practitioners, First Nations organizations and, policy makers to determine national priorities and guidelines, identify national restoration priority areas and to promote the importance of restoring connectivity at a continental scale.



ReForest Now volunteer Tess celebrating the soil and volunteer impact for environmental restoration. Image credit Franzi Kinzel.

- 2. Accelerate work underway by including connectivity criteria in current grant programs and establish a National Community Connectivity Fund specifically for local communities wishing to significantly scale up their efforts through strategically placed restoration and connectivity conservation projects.
- **3.** Strengthen the community base for connectivity efforts by supporting active community based landcare groups focused on projects that repair past environmental damage and build resilience in both ecological and community infrastructure.
- 4. Secure and restore areas critical for building connectivity through a 'Sustainability Adjustment' program contributing to blended finance projects which purchase and restore strategically placed parcels of land essential for the re-establishment of connectivity between important areas of natural habitat, including Australia's conservation estate.
- 5. Build on the success of existing long-term landscape scale connectivity conservation initiatives by strengthening their core funding and enabling a greater focus on both increased on-ground achievements and a wider sharing of experience.

### **MORE DETAIL ON THE STRATEGY**

## **1.** Provide guidance and promotion for connectivity conservation

There is an urgent need to prioritise and support habitat restoration efforts across Australia, particularly those that can achieve habitat restoration at a nationally significant scale. Key elements of the science are already developed but need to be brought together with the practical knowledge of those who have already successfully operated programs and developed technical prowess.

It is of the greatest importance to work from the understanding that, ecologically, much of Australia (especially the semi-arid and arid biomes) is the land of 'boom and bust' wildlife movements and that ecological and evolutionary processes work at very large scales, well beyond the scope of a single landscape or region<sup>12</sup>.

We propose establishment of a Landscape Health Advisory Group tasked with developing a National Framework for Restoring Landscape Health through respectful, considered and meaningful consultations. This would build on the 2012 National Wildlife Corridor Plan while also complementing the National Climate Resilience and Adaptation Strategy and the National Biodiversity Conservation Strategy. It would encourage the expansion of integrated nature and culture-based solutions for issues of climate, biodiversity and health while addressing weaknesses identified through the Review of *Australia's Biodiversity Conservation Strategy 2010–2030.* It would also support the regional planning approach foreshadowed in the Government's *Nature Positive Plan*, released in December 2022.

Australia has been culturally connected for millennia by songlines and other culturally significant pathways that continue to be of great importance to First Nations people, and are a living part of Australia's cultural heritage. The physical restoration of these pathways supports First Nations aspirations by strengthening cultural and ecological connectivity. Significant pioneering efforts for the achievement of these objectives at scale are already underway across key landscapes. For instance, in the Cultural Corridors program underway in the Wudjari Nyungar section of Gondwana Link, the Wudjari people, represented by the Esperance Tjaltjraak Native Title Aboriginal Corporation, work cohesively across 1 million hectares of land in an area that is a mixture of farming and original habitat.

Development of a National Framework would enable:

- existing science and experience to be drawn together into a cohesive action plan that encompassed the ecological priorities and the practical realities applicable for the achievement of transformative change across multiple tenures;
- b. identification of an initial tranche of National Wildlife Connectivity Priority Areas, including (as appropriate) areas covered by programs already operating as well as other known strategic areas for wildlife migrations and key refugia and dispersal points;
- c. community nomination of National Wildlife Connectivity Priority Areas, and their assessment through processes to be established and applied by the Advisory Group;
- promotion of stronger integration of connectivity values across government programs and their inclusion in national environmental laws;
- e. a partnership with First Nations organizations to achieve synergies between the restoration of critical connectivity across habitats and, based on their knowledge, permission and guidance, the structural restoration of key storylines and songlines across Australia; and
- f. development of guidelines for future funding programs that support the establishment of national and regional-scale connectivity conservation areas, including in areas where biodiversity is threatened by urban growth and where social inequality has impacted on both urban communities and wildlife.

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# 2. Accelerate work underway by including connectivity criteria

Despite the pivotal importance of connectivity for the protection of essential wildlife movement and the restoration of ecological function, work to improve habitats through habitat connectivity receives minimal attention in environmental grant rounds. We propose it be ranked as a priority criterion in all funding rounds for on-ground work, and that a specific National Community Connectivity Fund be established to direct funding to long-term community led initiatives.

The value of this approach was evidenced through the work of the earlier Commonwealth Biodiversity Fund, which attracted many ambitious proposals from a wide range of organisations and supported projects lasting up to 5 years. Successes included the establishment in Great Eastern Ranges of the Kanangra-Boyd to Wyangala Partnership in Central Western NSW and the Jaliigirr Biodiversity Alliance on the North Coast of NSW. They persist to this day as vibrant exemplars of connectivity conservation in practice.

A National Community Connectivity Fund would have a particular focus on the priority areas identified through the proposed Landscape Health Advisory Group, and support programs designed and implemented at a local level within a wider connectivity context (such as the Glideways and Flyways programs across the Great Eastern Ranges).

# 3. Strengthen the community base for connectivity efforts

Any growth in connectivity conservation in Australia, at macro and local scales, will rely heavily on the support and involvement of locally engaged communities who have maintained the capacity to undertake a wide range of projects that repair past environmental damage and build resilience in both ecological and community infrastructure.

The National Landcare Network, with the support and endorsement of its eight state member bodies and their thousands of members, has already made a funding submission to Government, seeking \$50 million per year over five years<sup>13</sup>. This support is essential underpinning for efforts to restore connectivity across a multitude of landscapes. Given Landcare's proven track record<sup>14</sup>, this investment would guarantee a return to regional communities of at least an additional \$350 million.

### 4. Sustainability Adjustment

Australia's farming areas were established long before the concept of sustainability was understood, particularly across landscapes. As a result, a number of ecologically critical areas have been irretrievably lost and, in many cases, marginal and degradation susceptible land which would have been better left uncleared has been unnecessarily damaged<sup>15</sup>.

This is particularly the case in areas like inland south-western Australia, where vast expanses of public land were rapidly alienated to agricultural use from the late 1950s onward, causing significant degradation, salinisation and ecological damage. In that region the



**Tag along Tour Welcome:** 'Noongar Elder Eugene Eades welcoming visitors with a smoking ceremony on the 800ha Nowanup property, where restoration plantings have connected the Corackerup Nature Reserve with linear habitats along Corackerup Creek, in the Fitz-Stirling section of Gondwana Link.' **Image credit** Michelle Stanley

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restoration of 20,000ha of strategically placed land within a 20 million ha agricultural area, would fill critical habitat gaps and achieve 1000kms of connected and intact habitats – effectively across the climate gradient from the wet forests to the dry inland<sup>16</sup>.

Governments across Australia have previously operated rural adjustment programs for social and financial reasons, including one Gippsland program to rationalise land use that reduced damaging downstream flooding<sup>17</sup>. In Western Australia the provisions of the Rural Adjustment and Finance Corporation were used to provide adjustment incentives to landholders affected by significant clearing controls who were willing to sell their land for private conservation purposes<sup>18</sup>. Until recent years the Australian Government also successfully operated a National Reserves System (NRS) program that supported purchases of ecologically critical habitat by state conservation agencies and a range of private conservation interests. A combination of these approaches is required to realise the benefits of rationalising land uses to better meet a range of contemporary objectives.

A Sustainability Adjustment Program is proposed to provide Commonwealth Government support for the voluntary acquisition of land identified as high priority for ecologically critical linkages, or to buffer ecologically critical areas from damaging land uses.

The establishment and operation of this program would build on the strengths of both the previous Rural Adjustment and National Reserve Systems programs. It would possibly best operate similarly to the current Clean Energy Finance Corporation, but through a land-based approach. The program would contribute to blended finance strategies permitting the purchase and restoration of strategically placed land essential to the restoration of ecological and cultural connectivity at scale - strengthening the links between important areas of natural habitat. We envisage that at least some of this activity can be conducted on a 'revolving fund' basis, whereby properties are promptly secured from willing sellers at market prices and then on-sold to conservation interests. State-based models using this approach have operated well in some jurisdictions for many years.

A Sustainability Adjustment Program, operating in conjunction with the guidelines and geographic priorities identified in the proposed National Framework for Restoring Landscape Health, will also accelerate development of an active Nature Repair market in Australia.

There is also a possible role for the application of incentives for sustainability adjustment that encourage and enable the range of conservation land purchase and revegetation measures, already underway and funded through carbon credits, to focus on priority conservation areas and away from high priority agricultural areas.

# 5. Through modest funding, build on the success of existing long-term landscape scale initiatives

Despite policy fluctuations over recent decades, the existing large-scale landscape repair programs have grown steadily, largely independent of government support. Gondwana Link and the Great Eastern Ranges Initiative provide invaluable foundations from which a larger and more robust national strategy can be built. They have already demonstrated considerable leverage capacity in attracting significant funding for on-ground works, tapping into the considerable public understanding and support for large scale connectivity restoration.

They have also demonstrated that substantial cost efficiencies can be achieved through focused and collaborative effort undertaken at the grass roots. Both programs operate very small core teams, who work with often precarious program funding, while focussing on building the capacity and involvement of their affiliated organisations to achieve on-ground change. And they have persisted through two decades of turbulent financial markets and political agendas.

Despite their lean budgets and success in attracting funding to vital projects, these initiatives have long struggled to achieve core funding for their overall programs. The Great Eastern Ranges program across eastern Australia operates over 3,600 kms with a core staff of 4 FTE while the Gondwana Link program operates over some 1000 kms with a core staff of 3 FTE. While this is commendable efficiency, core staff must spend considerable effort seeking funding and other resources to maintain their organisations. This detracts from their essential work supporting and inspiring collaborative efforts across their landscapes.

As an example of their leverage ability: from its very modest core annual budget of around \$340,000 Gondwana Link has directly facilitated over \$13 million into on-ground efforts over the past 18 months, with significant additional funds being secured by affiliated organisations. Great Eastern Ranges has achieved some \$5 million in cash and in-kind over the past two years, with over 80 per cent applied to on-ground activity.

It is proposed that the Commonwealth support a transition process, through a core fund of \$1.5 million per year over five years, which would enable these organisations to achieve rapid growth in their connectivity efforts, adopt more inclusive management structures and employ sufficient staff to remain sustainable.

They would then provide a body of practice and experience able to be drawn on to support the development of other large landscape approaches across Australia.

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