Mapping Conservation Futures in Changing Australian Environments

Project Summary

This project brings together Traditional Owners, natural resource managers, private landholders, industry, government, research and conservation groups to develop culturally-sensitive, integrated planning and knowledge-gathering systems that can enable culturally-relevant, feasible conservation action.

The project will build an integrated, open-source Conservation Knowledge System that brings together knowledge systems, aspirations, data and predictions to support decision-makers, Traditional Owners, land managers and communities to make future-focused strategies that build resilience.

Through a series of case studies, the project aims to pilot approaches to regional planning at socially and culturally-relevant scales (e.g. Country, catchment, natural resource management region), drawing on the best available knowledge and data. This will including cultural knowledge of Country, ecological and biogeographical knowledge, climate and biodiversity predictive systems, natural resources, social information and economic data.

The aim is to develop a knowledge system that scales effectively between local, regional and national scales, and to pilot integrated planning approaches that can guide land management and conservation policies and actions, and strengthen protections for cultural heritage, biodiversity and environment.

The problem

Australia is suffering higher biodiversity loss than any other developed nation. We have already recorded 110 species as lost to extinction since European settlement, with many more no doubt passing unrecorded. Many landscapes are suffering degradation and decline, from interruptions to waterways to loss of ecosystem integrity and complexity. Our Threatened Species list grows unabated. Australia's Strategy for Nature and Threatened Species Strategy call on the need for more robust and comprehensive knowledge and data systems, yet the breadth of cross-sectoral information resources needed to design regionally appopriate, effective actions to restore species and landscapes is not currently readily available or accessible. There are significant gaps in available knowledge, nad even where relevant datasets exist, they are stored in many different forms, over different scales and across many disparate platforms. There is an urgent need to bring together these knowledge systems, along with networks of stakeholders, that can support effective action to preserve conservation and heritage values in our evolving landscapes.

One of the most pronounced gaps in the development of integrated knowledge systems is the need for much greater representation of the voices, values, priorities, and heritage of First Peoples in decision-making. Most widely-available national knowledge systems lack any information on the places and species that are of the most important for Country and its Traditional Owners. This is for understandable reasons – there are important sensitivities needed to safeguard Traditional Knowledge of Country, maintain data sovereignty of Traditonal Owners, and ensure that information is protected and not appropriated or used without permission or out of context. Nevertheless, this has the significant consequence that, in a lot of planning that might be done – for example, by governments, or industries, or western land managers – these important places, species and values remain invisible.

Our approach

Together we will build a new, open-source **Conservation Knowledge System** that will make available Traditional Knowledge, other ecological information, community aspirations and opportunities for collaborative conservation action across landscapes. The Conservation Knowledge System will map our unique and threatened ecosystems Australia-wide, identify and pull together data sources across Australia, and attempt to fill gaps in knowledge that currently hold back our efforts to protect heritage and environmental values and plan effectively for the future. For the first time, this system will integrate

complex landscape information from many sectors and sources to support cultural heritage and conservation planning, for the benefit of Traditional Owners, natural resource managers, conservation agencies, the agriculture and resources sectors, governments, environmental groups and communities.

The project will work with Traditional Owners and First Nations experts on heritage, climate, environment and data sovereignty to ensure that the advanced knowledge and future aspirations of Australia's Traditional Owners are represented in culturally-sensitive and meaningful ways, and are accorded a central place in planning and protection systems. The approaches taken to this will be led by Traditional Owners and underpinned by relationships of trust and strong systems that protect and acknowledge intellectual property and honour Country and lore.

A key initiative to bring people and knowledge together and to test and refine the value of the knowledge system will be through **Regional Collaborative Planning**. Regional case studies will bring together Traditional Owners, natural resource managers, private landholders, industry, government, research and conservation groups to develop and test approaches to integrated cross-sector planning that integrate knowledge and values across culturally and/or ecologically-defined regional landscapes. This approach aims to pioneer a new way of thinking and working together to realise landholder and Traditional Owner aspirations and promote development options that are good for people and nature.

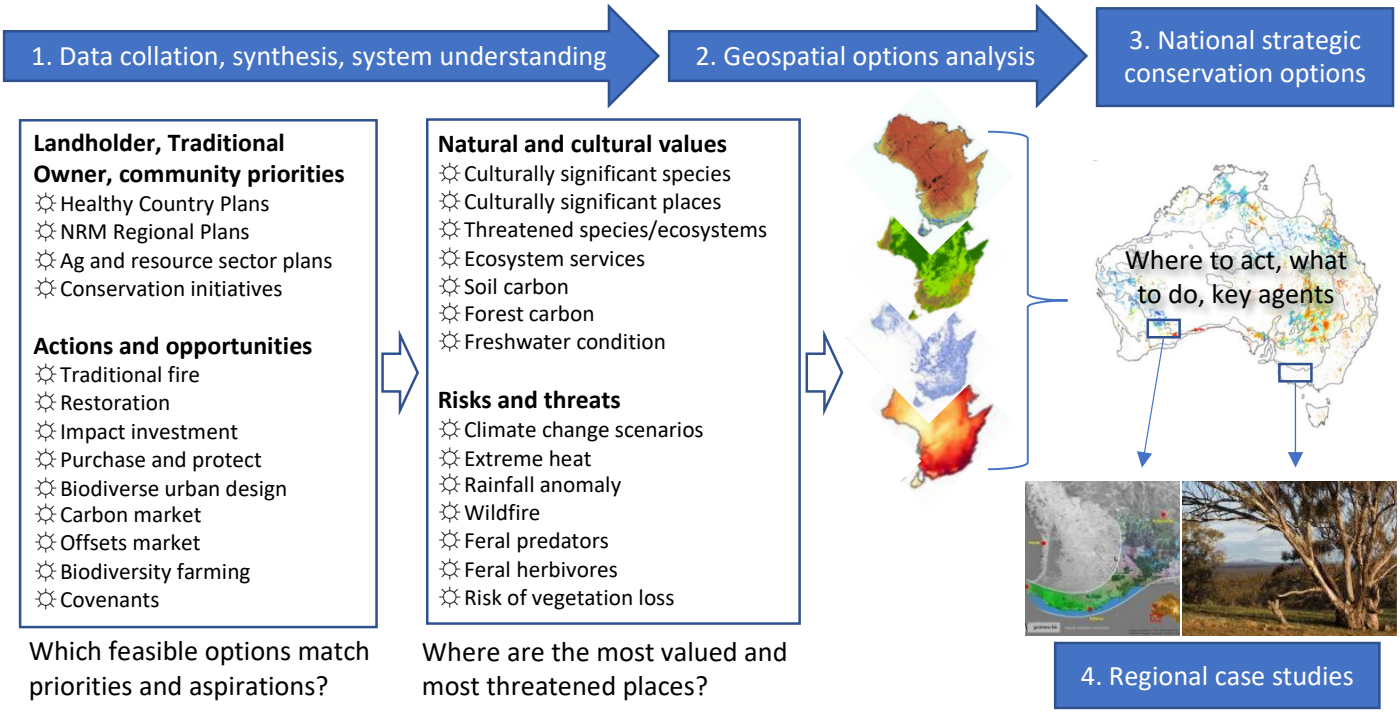

Figure 1. *The four knowledge-gathering and analysis phases of our proposal that will result in a purpose-built toolbox providing information on key elements that underpin land use decision making. Each layer can be included or excluded based on the shared goals of stakeholders in a bioregion or landscape (up to National scale).*

Collaboration

This project is a significant collaboration across sectors and organisations. Current co-investing partners include: The University of Melbourne; Bush Heritage Australia; the University of Queensland; the Ian Potter Foundation; the Hermon Slade Foundation; the Victorian Government Department of Environment, Land, Water and Planning (DELWP); Natural Resource Management (NRM) Regions Australia, The Nature Conservancy and the Australian Conservation Foundation.

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