

Showing and sharing knowledge in the Fitzroy catchment



Northern Australia
Environmental
Resources
Hub

National Environmental Science Programme

World class research to support sustainable development in northern Australia

Project case study update

NESP project leaders Ro Hill (CSIRO) and Ricky Archer (NAILSMA)

Traditional Owners want better ways to show and share knowledge of their country

Researchers worked with Traditional Owner groups in the Kimberley region to identify their priority research needs as part of a 2015 Northern Hub scoping project. Traditional Owners said they needed better ways to show and share both scientific and their Indigenous knowledge of their country. This project started in November 2016 by identifying which ways might work best to show and share knowledge about the river. People were interested in the idea of building a physical 3D map and drawing an 'influence map' showing the people and their connections in the Fitzroy River catchment. In July 2017, Prescribed Bodies Corporate (PBC) and claimant group members from across the catchment came together to

learn more about using these types of tools. In December 2017 at a workshop in Fitzroy Crossing, Traditional Owner adults began drawing influence maps of key relationships and also assisting a group of their schoolchildren who worked on building the 3D map of the catchment.

3D maps bring together Indigenous and scientific knowledge

- This helps facilitate managing, documenting and decision-making about country for Traditional Owners.
- Maps are used to show location, terrain, vegetation and to tell and share stories.
- Creating a map that shows land contours in three dimensions creates a place where Indigenous knowledge can be discussed among Traditional Owners, and facilitates inter-generational knowledge transfer and sharing.



Community members building the 3D map.

- A 3D map (2m x 2.6m x 1m) was created for the Fitzroy River catchment by Traditional Owners—both adults and schoolchildren—from nine language groups, who glued together foam contour layers.
- The surface of the map is soft and flexible to allow pins to be added to mark important places and tracks, allowing Traditional Owner groups to show one another places of cultural significance, knowing they can take the information (pins) away later and protect their cultural and intellectual rights.
- The places and tracks marked with pins can be saved as digital data if Traditional Owners decide to keep a more permanent record
- The map was painted white so that spatial data can be projected onto the surface, bringing western science knowledge to the map.
- The 3D model can show overlays between social and cultural spatial data with economic, land use and land ownership data, helping decisions about how to use different areas for different economic purposes.

Influence maps help facilitate discussions about showing and sharing knowledge

Traditional Owner groups worked with the researchers to create catchment influence or 'power' maps. These show how Indigenous organisations and groups, industry and various other organisations in the catchment are

connected through resources, policies, culture, kin, tenure and information exchanges. The maps also show how influential each group can be in achieving key actions of the Fitzroy River declaration. The resulting maps are a tool for further discussions among groups and organisations in the Fitzroy catchment about creating successful partnerships to look after the river.

Using these knowledge sharing tools

The 3D map and influence maps of people connections act as tools to support Traditional Owners make decisions and advance their aspirations about management of the catchment. Key aspirations of the Traditional Owners are to establish a catchment plan and management body based on cultural governance and to support Indigenous-driven economies with multiple benefits.

What's coming up?

Three more workshops are planned. In July 2018, Traditional Owners will come together to use the 3D map and outcomes from the influence map to support showing and sharing their knowledge. In late May 2019, Traditional Owners will again use the 3D map to look at scenarios (ideas and spatial data) for future development. At the final workshop in July 2019, Traditional Owners will come together to summarise what they have learnt from the project and agree on how to communicate this broadly.



The 3D map nearing completion.



Influence mapping workshop.

Project summary

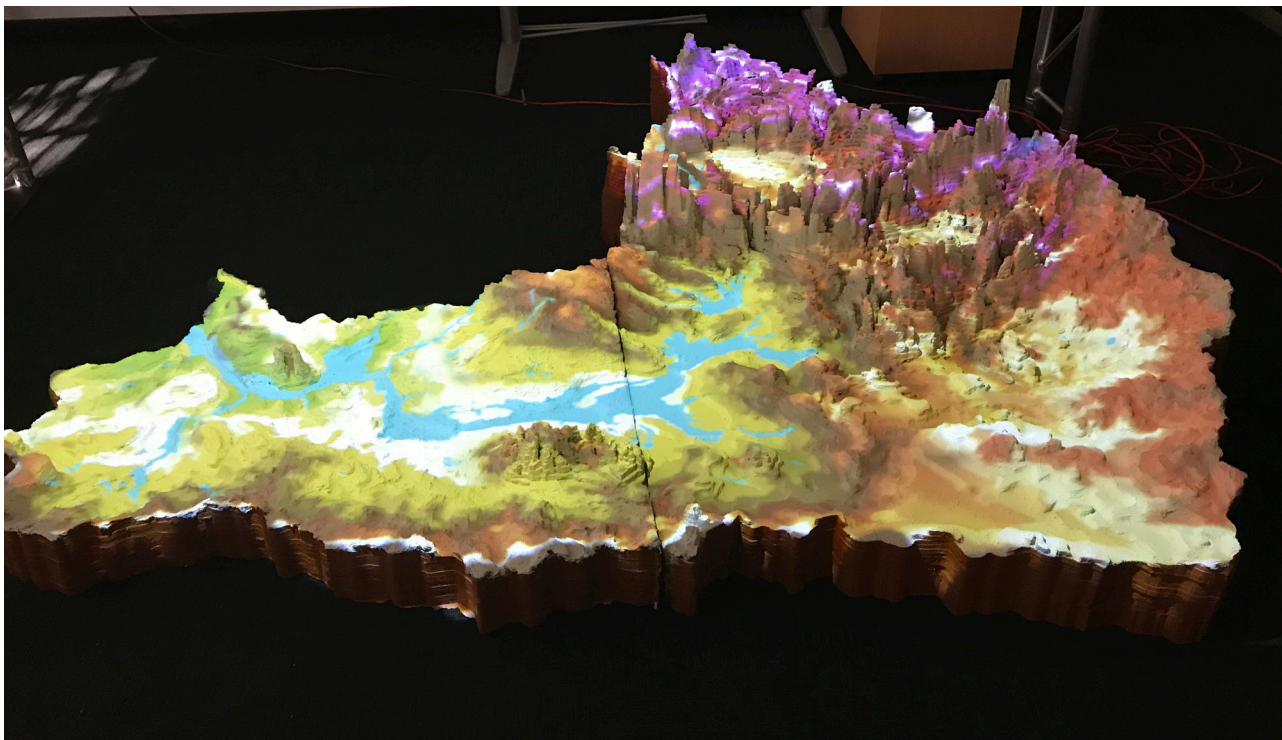
Indigenous land management (ILM) occurs over significant proportions of northern Australia that contain many high-value environmental assets. Effective land management is vital to northern Australian development, and Indigenous land managers have a strong desire to engage in the increasing level of development planning. Traditional Owners hold substantial knowledge about using, managing and safeguarding northern Australia's natural and cultural resources, and a significant body of scientific research is also available. However, these knowledge resources have not yet fully empowered Traditional Owners' land management and development capability.

Effective knowledge brokering can help overcome barriers and the project's co-research approach places Indigenous people as central to driving the design, testing and knowledge brokering tools. Two case studies are supporting Indigenous land managers to a) explore stakeholder influence

mapping and build a 3D map of country to assess risks and opportunities in the Fitzroy River catchment of Western Australia, and b) evaluate the potential of walking in country for land management with the Waanyi and Garawa people in the Nicholson



Groups came together to share what they had discussed.



The finished 3D map with spatial data projected onto it.

region of the Northern Territory, and use the results for more holistic planning. The project will deliver:

- tailored knowledge brokering tools and guidelines for their use
- knowledge sharing among Indigenous land managers across northern Australia through workshops and digital networking activities
- a diagnosis of the conditions under which knowledge brokering can improve Indigenous adaptive management of environmental assets.

GETTING THE MOB TOGETHER

Thanks to the people from the nine language groups involved in this project: Kija, Ngarrarnarnji, Jaru, Bunuba, Gooniyandi, Yi-Martuwarr, Nyikina Mangala, Warrwa, Wilnggan.

Thanks also for the great support for the project from: Goolarri Media Team, Kimberley Land Council, Griffith University, University of Western Australia, school teachers and teaching support, Fitzroy Valley District High School students, Frankensound and Protective Cases, and interpreters from the Kimberley Interpreter Service.

Further information

Contact Fitzroy catchment case study leader Ro Hill at ro.hill@csiro.au

The project page can be found on the [Hub website](#), along with the [start-up factsheet](#).



This project is supported through funding from the Australian Government's National Environmental Science Program.



**Northern Australia
Environmental
Resources
Hub**

National Environmental Science Programme

nespnorthern.edu.au

nesp.northern@cdu.edu.au



/NESPnorthern



@NESPnorthern

June 2018