

Better decisions from better understanding

Indigenous people have a large stake in water resource planning and management based on their distinct cultures, ways of life and substantial land holdings. Across Northern Australia, for example, rivers and wetlands provide important sources of food and medicine for Indigenous communities.

Yet, Indigenous interests and values in water are poorly understood by decision-makers. Some Indigenous values are also difficult to quantify in water allocation decisions or to incorporate into management objectives.

To overcome these barriers and make better decisions about how water is used and looked after, we need to improve our understanding of the importance of river systems to Indigenous people, as well as the relationship between Indigenous use and values, and river flows.

What's the significance of water?

This project will work closely with Aboriginal communities to look at the importance of water (in rivers and under the ground) to people's daily lives.



Photo: Skyscans



Photo: Skyscans

It will document the social significance of water and, through surveying the residents of river communities, quantify the economic benefits households derive from their use of aquatic resources.

Spatial mapping of resource use will assist in documenting the significance of water and river systems to Indigenous people as well as clarifying links between significance and river flows.

Maintaining values

The findings will be combined with the work of other river studies to examine the relationship between river flows (i.e. how much water is carried down the river at what times of year), river health, what lives in rivers, and how Indigenous people use and value these features. This will help in assessing the potential impacts of altered water levels – or flow regimes – on patterns of Indigenous resource use. It will also allow recommendations to be made to maintain customary practices.

Working together with Aboriginal and non-Aboriginal land and water managers, the project will also develop a participatory program for the local monitoring of changes to rivers wetlands and groundwater.



Two-way learning

The project provides an opportunity for different types of knowledge to be brought together and for those involved to learn from each other. Researchers will work very closely with Traditional Owners to learn more about the rivers, including finding out where important water places are, and documenting observed changes in water quality and ecosystem health. This knowledge will be integrated with scientific knowledge and techniques of the research team to build a more complete picture of the ways river systems work and the relationships people have with these systems.

Who is on the team?

The project is led by Dr Sue Jackson from CSIRO who will be working with Dr Marcus Finn and Ms Emma Woodward of CSIRO and colleagues from Charles Darwin University.



Sue Jackson with Harry Watson. Photo: Michael Douglas

Where is the research happening?



The research will focus in the Daly River catchment of the Northern Territory, and the Fitzroy River catchment in Western Australia. The project started in October 2007 and will finish in 2010.

How will this research help?

This project will provide water planners, water managers and catchment groups with a range of outputs including:

- information about the social and economic significance of water, rivers and wild resources to Indigenous people in the Daly and Fitzroy catchments;
- a systematic assessment of the relationship between river flows and the value of rivers and wetlands to Indigenous people;
- a tested method to assess, incorporate and monitor Indigenous values in water planning.

With this knowledge, researchers, and Indigenous people will be in a stronger position to incorporate social assessments in water allocation decisions and planning.

Land-owners and managers in both catchments will have a stronger capacity to undertake monitoring on river and wetland health, which will serve to strengthen approaches to water management and protection.

Indigenous land-owners and managers will be contracted to work on the project, and training will be provided to local field assistants in survey and other research techniques. Cultural advisers will be engaged to ensure that Indigenous Knowledge is properly integrated into the research.

Research agreements with Aboriginal organisations will provide a better understanding of local concerns and priorities in relation to research activities and appropriate ways for researchers to operate.

Team contacts

For more information on this project contact:

Sue Jackson
CSIRO Sustainable Ecosystems, Darwin
Sue.Jackson@csiro.au
phone: 08 8944 8415



Australian Government
**Department of the Environment,
Water, Heritage and the Arts**
Land & Water Australia
National Water Commission

To find out more about TRaCK
visit www.track.gov.au
email track@cdu.edu.au
phone 08 8946 7444

