

# River Futures in Australia's Tropical North

Assessing Scenarios for tropical rivers and coasts

## A complex puzzle - putting together the “big picture”

Australia's tropical rivers and estuaries are large, complex systems. To better understand them TRaCK researchers will be undertaking more than 20 projects that break down this complexity into manageable bits that can be studied. New insights will be gained into the:

- environmental, economic and social values of Australia's tropical rivers;
- characteristics that define and set northern rivers apart;
- amount of water, sediments, nutrients and carbon in tropical rivers and estuaries, where they come from and how they move through these systems;
- food web connections from the river out to the floodplains and from the headwaters down to the estuary;
- possibilities for new sustainable enterprises, based around river resources; and
- way that changes in the environmental, economic, social and cultural conditions of rivers and estuaries might look.



*Photo: Andrew Brooks*

We will know a lot more about what makes these unique rivers tick. But how do we put the pieces back together to reach meaningful conclusions? What will this new knowledge mean for the farmer looking to improve production, an indigenous landholder concerned about the downstream effects of a dam or a policy maker in government faced with difficult decisions over how much water to allocate to the environment?

The issues are complex and inter-connected but there is a clear need to cut to the chase, make decisions that are informed and properly account for different community perspectives.

This research project pulls together the findings from other TRaCK projects to help cut through the complexity, in ways that are useful to those who are at the front line of decision making on tropical rivers.

### What future for tropical rivers?

Different community and government interests will be invited to develop realistic stories (or scenarios) for the future of tropical rivers, based on their own aspirations and what the research tells us. This will be captured in a “visions for the future” document. Using models, participants will then explore the likely positives and negatives. “What if” questions can then be asked to see how things might change in the future if the stories for tropical rivers are altered.



This project is where the new knowledge generated through TRaCK research mixes with the real world concerns of the community and with the practical needs of decision makers - where the high tech world of electro-fishing and radio-isotopes meets policy, business and culture.

### Who is on the team?

This project will be carried out by a team of researchers from Charles Darwin University, CSIRO and the Environmental Research Institute of the Supervising Scientist.



### Where is the research happening?

Research will be conducted in three catchments, one in each State/Territory (Mitchell (Qld), Daly (NT), and Fitzroy (WA)). Work in the Daly and Mitchell catchments is underway and the project will finish in October 2010.

### How will this research help?

This research will enable Governments to more clearly hear and understand community aspirations for Australia's tropical rivers and factor these views into decision making on key natural resource issues such as water allocation and land clearing. The trade-offs between competing interests in river resources will be more easily understood, explicit and able to be managed. This will lead to policy making that better includes the community and improves decisions.

For indigenous landholders, ranger groups and organisations this research will allow the skills and capacity built in other TRaCK projects to be put to use by communicating the river values that are important to them and actively shaping decisions that affect them. Through this research, indigenous landholders will be better positioned to understand and say how they want the future to unfold, and to be heard alongside other community interests.

The research will provide useful tools to catchment authorities, NRM boards and landcare groups, when dealing with competing interests in river resources. Community participation and contribution to their planning and on-ground land management activities will be more active, better targeted and useful.



Photo: Ian Dixon

### Team contacts

Further information on this project can be obtained from:

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### How can you be involved?

Participation is central to this project – TRaCK researchers will be involving a broad cross section of community interests ranging from landholders to indigenous groups, catchment authorities, and policy makers.

The project team will be involving the community through a number of catchment groups such as the Daly River Management Advisory Committee and Aboriginal Reference Group (NT) and the Mitchell River Watershed Management Group (Qld).



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