Socio-economics: costs and benefits

An activity within the Flinders and Gilbert Agricultural Resource Assessment, which is part of the North Queensland Irrigated Agriculture Strategy

The Flinders and Gilbert Agricultural Resource Assessment will quantify the socio-economic costs and benefits of different irrigation scenarios in the Flinders and Gilbert catchments.

Thousands of hectares of soil are potentially suitable for irrigated agriculture across northern Australia but access to sufficient water is a constraint to development.

In recognition of these challenges and opportunities facing northern communities and primary producers, the North Queensland Irrigated Agriculture Strategy (NQIAS) commenced in January 2012.

The $10 million NQIAS is a collaborative initiative, funded by the Australian Government Office of Northern Australia and the Queensland Government. It provides a unique opportunity to leverage the resources and efforts of federal, state and local tiers of government, to access world class scientific expertise, and to build on the enthusiasm and resourcefulness of local communities.

CSIRO is conducting one component of the NQIAS, the Flinders and Gilbert Agricultural Resource Assessment. This two-year, $6.8 million project will be completed by December 2013. Key parts of the Assessment will be undertaken by the Queensland Government and TropWATER (James Cook University).

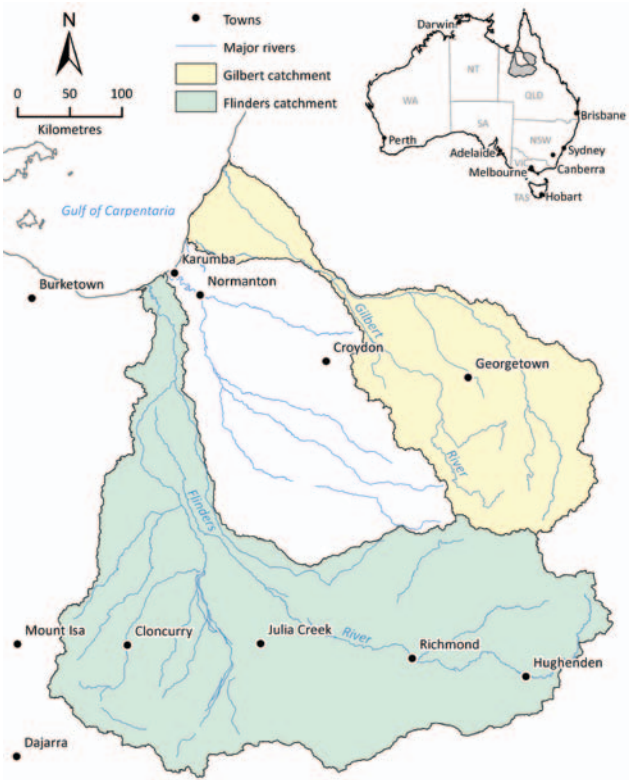
The Assessment will provide a comprehensive and integrated evaluation of the feasibility, economic viability and sustainability of water resource development.

The techniques and approaches that will be developed can be applied elsewhere in northern Australia.

This Assessment aims to answer the following questions:

- What soil and water resources are available for irrigated agriculture?
- What agricultural products could irrigation support?
- Is irrigated agriculture economically viable?
- Is irrigated agriculture sustainable?

The Assessment involves 13 different activities. This factsheet explains one of these activities – quantifying the socio-economic costs and benefits of new irrigation development in the Flinders and Gilbert catchments.



The Assessment will focus on the catchments of the Flinders and Gilbert rivers in north-west Queensland.

Socio-economics

Development of water and land in northern Australia has potential to create new economic opportunities for communities in the region.

To ensure long-term viability, development needs to be both environmentally and economically sustainable.

New agricultural activities need to be profitable in the long term and have acceptable impacts on the environment

Water and land management involves deciding how the resources are shared between the environment and different human uses including drinking water, farming, and businesses. Sound water management involves accounting for the economic potential on-farm and in regions and communities, as well as accounting for potential environmental costs.

CSIRO has been asked by the Federal Government to look at water and agricultural development opportunities in the Flinders River and Gilbert River catchments of the north-west Queensland.

Australian Government
Department of Regional Australia, Local Government, Arts and Sport

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One part of this research will involve estimating the economic viability and environmental sustainability of agriculture development, to understand what crops might be grown by producers and what costs may be involved.

The research will involve talking to producers and the broader community about what they see are the economic and environmental benefits and costs of agricultural development in the Gulf.

CSIRO project team

CSIRO scientists will undertake research into the economics of agriculture and the flow-on effects to regions, communities and the environment from agriculture development.

The project team, led by Neville Crossman, has worked in cropping and grazing farming systems (irrigated and rain-fed) in the Murray-Darling Basin, south-western Western Australia and the Mallee cropping zone in South Australia and Victoria.

The work they do helps government and communities understand the economic and environmental costs, benefits and trade-offs following agricultural development. The work aids planners and the general community to make better informed decisions about what is done on the land and where it is done.

The Flinders and Gilbert Agricultural Resource Assessment is at the catchment scale, so the project team is interested in talking to producers and community representatives from across the Flinders River and Gilbert River catchments.

Neville Crossman and Lisa Brennan are both on the socio-economic project team.

The team will work closely with groups such as the Flinders River Agricultural Precinct group, a similar group in the Gilbert catchment, the Mt Isa to Townsville Economic Zone Inc as well as the Queensland Government, local shire councils and the regional natural resource management groups.

The researchers are interested in talking to a wide cross-section of producers and community representatives so you are welcome to share your thoughts with Neville and his team.

At the end of the project Neville and the team will write a report and will seek feedback from those who provided information for the research.

This report will help the Federal, Queensland and shire governments understand the economic potential of agriculture development in the Gulf, the impediments that may need to be overcome to help development, and the environmental and social issues that need to be carefully managed to ensure development is sustainable.

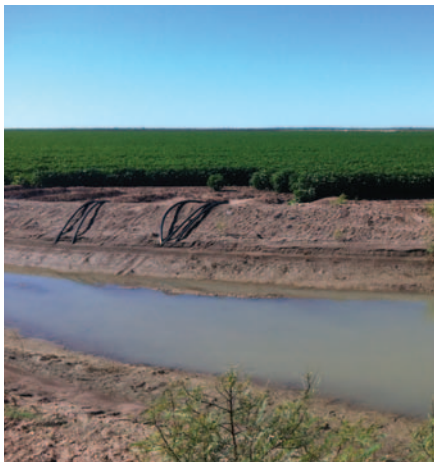
On the ground

Neville and his team will be in the Flinders and Gilbert catchments to meet people to better understand the economic opportunities from agricultural development both on the farm and in the region. The team would also like to hear whether there are any concerns about agricultural development and what people think may be getting in the way of development occurring. This input will help focus the research and will help government understand what can be done to ensure development is timely and economically and environmentally sustainable.

The research will happen mainly in 2013 and the final report will be completed by the end of 2013.

This activity is part of a bigger CSIRO research project that includes other scientists: hydrologists, groundwater specialists, ecologists and computer modellers. Their work will be synthesised at the end of the project.

If you are interested in participating or have any questions about this research, you can contact Neville by telephone or email using the contact details below.



Irrigated cotton in north Queensland.
Image: Neville Crossman

The Flinders and Gilbert Agricultural Resource Assessment is being conducted for the Office of Northern Australia in the Australian Government Department of Regional Australia, Local Government, Arts and Sport under the North Queensland Irrigated Agriculture Strategy http://www.regional.gov.au/regional/ona/nqis.aspx *The Strategy is a collaborative initiative of the Office of Northern Australia and the Queensland Government. One part of the Strategy is the Flinders and Gilbert Agricultural Resource Assessment, which is led by CSIRO.*

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