

# Submission to the Northern Australian Land and Water Taskforce

From: Tropical Savannas Management Cooperative Research Centre

## Introduction

The Tropical Savannas Management Cooperative Research Centre (TS-CRC) strongly supports the initiative to examine the potential for further land and water development in northern Australia and welcomes the opportunity to comment on a number of general issues.

Having conducted research across northern Australia since 1995 in a range of disciplines the TS-CRC has built up a unique network of scientists who have worked collaboratively across both scientific disciplines and geographical jurisdictions. Graziers, conservationists, fire managers and indigenous groups in particular have been brought together to address issues of common concern to them all across the north (Figure 1). We believe this approach has worked well and we urge the Taskforce to establish similar networks when evaluating the complex problems that it faces.

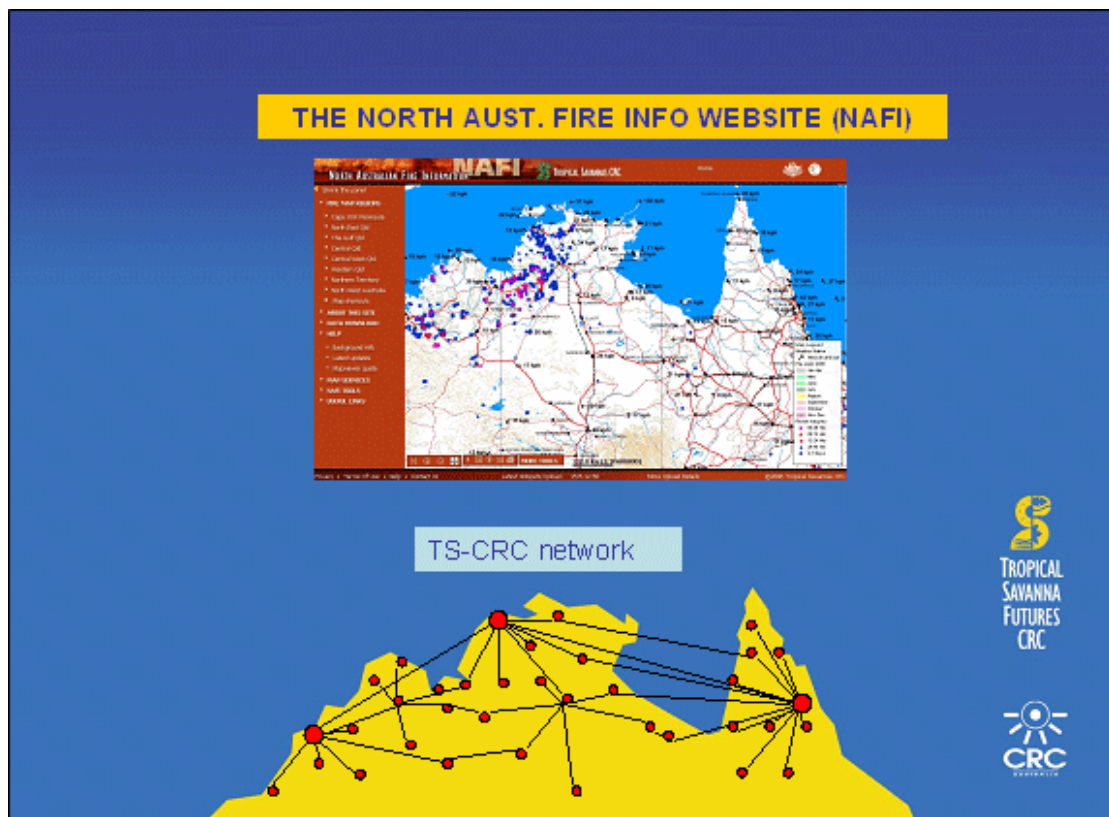


Fig 1. Sphere of influence of the Tropical Savannas CRC and an example of the type of information made available on one of its websites.

## Overview

We believe that the potential for land and water development cannot be assessed in isolation. History shows that there have been many aborted attempts at development schemes in the north which have failed through too narrow a focus e.g. growth of rice at Fogg Dam outside Darwin; growing sugar cane in the Daly River. Consequently we endorse the Prime Minister's observation, when announcing the Northern Australian Land and Water Taskforce, that 'There is a knowledge gap in the north that must be filled'.

Northern Australia has the largest expanse of intact rivers and catchments in the continent but the amount of data available on these is sparse and the first challenge must therefore be to develop a much more detailed working knowledge of these systems. We know, for example that:

- rainfall patterns and intensity can vary markedly from year to year. Any estimate of sustainable capacity to support increased water usage must take this into account.
- some rivers e.g. the Daly, the Gregory and the Jardine are aquifer-fed and continue to flow even at the end of the dry season. How robust are these systems and what would be the long-term consequences of increased water extraction from them?
- there are more than 60 major rivers in the north and hundreds of smaller streams flowing directly into the sea. Many of these exhibit marked ranges in volume of flow both within a single year and often from year to year. This must be factored into any estimate of long term sustainable capacity.
- some of Australia's largest and most diverse wetlands are located in northern Australia. How would they be affected by changes in water usage?

There are many, many more questions which need to be answered in detail and with confidence before long-term planning decisions can be made.

Quite simply we need more data and we need it gathered over a sufficient length of time that we can have some confidence in ironing out the short term effects of individual abnormally dry, or wet, years.

In addition to the purely biophysical approach there also needs to be a practical recognition that there is a need for serious engagement with indigenous groups across northern Australia if these challenges of water supply are to be addressed. The demographics demand it, given the growth in the indigenous population across the north.

Let us hasten slowly with this ambitious project. It needs to be underpinned by rigorous and detailed science cutting across a variety of disciplines before the true impact of any changed water policies on a region can be assessed with any confidence.

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