



## About Dr Ted Christie and Land Use, Land Use Change and Forestry



(Updated 16 June 2017)

**Ted's expertise in LULUCF activities was acquired across a broad span of professional disciplines: Science, law and conflict resolution.**

***Ecological Research into the Conservation and Management of Semi-Arid Natural Grazing lands: Senior Scientist***

On graduating in agricultural science, the formative period for Ted's professional career development, was the 11 years spent in research and extension with the ***Department of Primary Industries in Queensland's pastoral zone***. Initially, at Blackall - and then a Foundation Member of the Charleville Pastoral Laboratory.

**Research focus:** *Livestock carrying capacity, sustainable pastoral land use, modelling of semiarid natural grasslands and revegetation of degraded lands.*

Ted spent three years of this appointment at Macquarie University, Sydney, completing a PhD in ***physiological plant ecology*** while holding an ***Australian Wool Corporation Senior Post-Graduate Studentship***.

**Research focus:** *Environmental adaptations of semiarid native pastoral grasses: phosphorus nutrition, photosynthetic pathways ( $C_3$ ,  $C_4$ ), water and temperature.*

On returning to the Charleville Pastoral Laboratory from Macquarie University, Ted completed ***four years of field research into ecosystem processes in  $C_3$  and  $C_4$  semiarid grasslands in SW Queensland***. This formed the framework for a net primary production model and livestock carrying capacity for semi-arid grasslands.

**Research focus:** *Above-ground green biomass production rate; below-ground root production & turnover rate; litter production & decomposition rate; mineral cycling; soil water balance – **today, all key elements of carbon sequestration.***



A major long-term research project proposed, planned and initiated solely by Ted was ***Production and Stability in Grazed Semiarid Rangelands: Forage Utilisation & Stocking Rate***. Funding was received from the Australia Wool Corporation. The project mimicked landholder livestock decision-making where

annual rainfall was low and highly variable i.e. by varying annual livestock stocking rate based on the available forage at the end of the summer rainfall growing season.

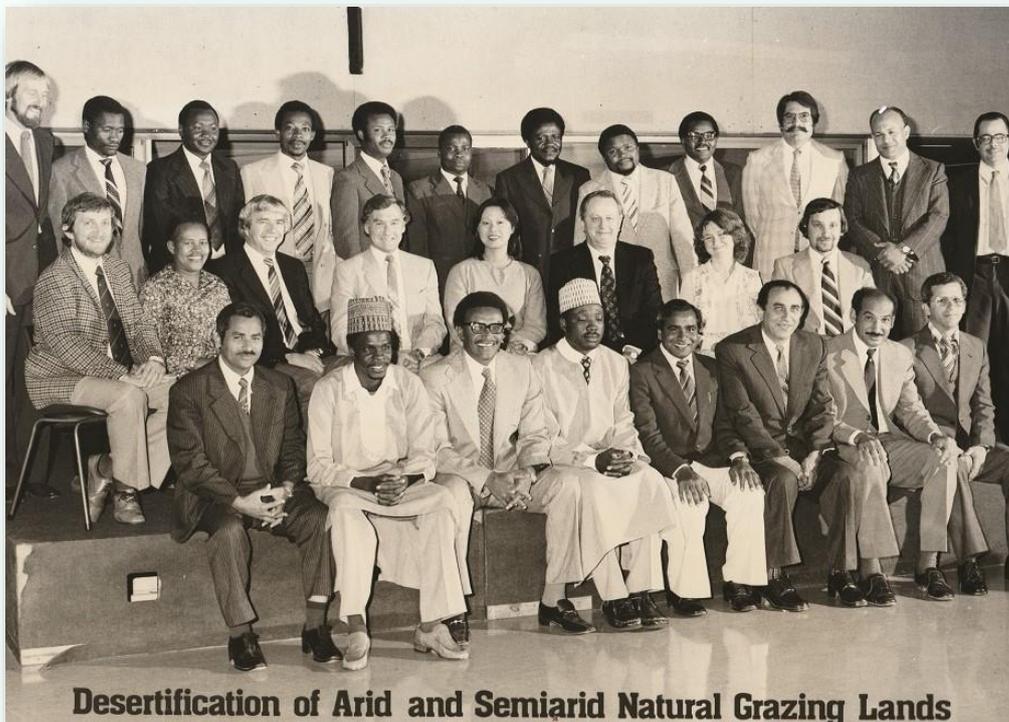
**This approach contrasted to the traditional research approach of relying on set (“fixed”) stocking rates year in-year out.** Ted completed the



first year of research into this project before taking up an academic appointment.

***Research and Teaching: Griffith University, Brisbane, Queensland:  
Associate Professor (Applied Ecology)  
Desertification & Management of Arid & Semiarid Grazing Lands***

During his tenure at Griffith University, Ted proposed, planned and convened an ***International Training Course: “Desertification and Management of Arid and Semiarid Grazing Lands”*** for the ***Australian Development Assistance Bureau***. It was part of Australia’s Foreign Aid program for that year. Twenty-four delegates from 12 developing countries participated: ***Lesotho, Swaziland, Malawi, Kenya, Ghana, Nigeria, Sudan, Ethiopia, Egypt, India, Mexico and Brazil.***



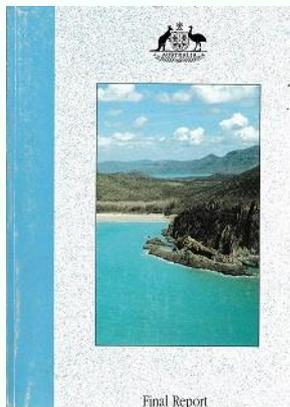
***Scientific Committee on Problems of the Environment - “SCOPE 21”-  
The Major Biogeochemical Cycles [C, N, P, and S Cycles: Major  
Reservoirs and Fluxes] and Their Interactions’: Stockholm, Sweden***



Ted was an invited contributor to an international Workshop - “SCOPE 21”- held at Stockholm, Sweden and **convened by Dr Bert Bolin**. SCOPE is an interdisciplinary body of natural science expertise which addresses constraints of society on the environment as well as the human response to environmental issues...

**Research focus:** *The goals of the SCOPE 21 Workshop were to provide an up-to-date critical review of the existing knowledge of biogeochemical cycles and their interactions; which then provided the framework to consider their implications for many scenarios in the context of increasing CO<sub>2</sub> levels and climate change.*

***Appointed, Commissioner to the Federal Government’s Commission of  
Inquiry into Shoalwater Bay, Capricornia Coast.***



The ***Shoalwater Bay Military Training Area*** was acquired by the Federal Government’s Department of Defence for defence training purposes in 1965. The area of the Military Training Area is 454,500 hectares. It was first used by troops who were deployed to the Vietnam War in the 1960s.

The objective of this public inquiry was to ***evaluate impacts of competing land use interests*** and to make recommendations to the Federal Government for ***future land uses of the Area***.

As part of the Inquiry’s decision-making processes, Ted prepared a discussion paper for public comment on the use of ***multi-objective analysis*** to evaluate competing land use interests for achieving ***sustainable development***. *The final document incorporated all public submissions received before it was published.*

**This publication recognized that achieving sustainable development required the multiple and competing objectives of sustainable development – ecological, economic, social (including cultural) - to be counter-balanced, equitably: That a sustainable solution could not be weighted in favour one objective e.g. economics.**



***Appointed Chair, CSIRO Meat, Dairy & Aquaculture Sector Research Advisory Committee***

Dr Ted Christie was Chair of this Sector Advisory Committee during the period the late Sir Malcolm McIntosh was Chief Executive of CSIRO (1996-2000).

The focus of the then Chief Executive was to preside over a major organisational restructure: The reshaping of CSIRO's science effort for the 21<sup>st</sup> century and the building of closer ties between science and industry.

A feature of the latter goal was the formation of 22 Sector Advisory Committees, composed of influentials, primarily from industry.

**The role of the 'Meat, Dairy and Aquaculture Sector Advisory Committee' was to provide guidance to CSIRO for its research priorities - based on the needs of industry and government: For production systems that were cost effective, internationally competitive, managed risk and ecologically sustainable.**

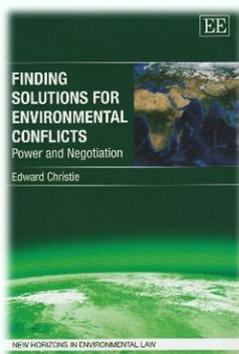
Prior to this appointment, Ted had had been a Member of the *CSIRO Division of Wildlife and Ecology Scientific Advisory Committee* and the *CSIRO Division of Tropical Crops and Pastures Scientific Advisory Committee*.

***Appointed Chair, Queensland Government's Ministerial Advisory Committee: Vegetation Management***



Following Queensland's *Vegetation Management Act* coming into force in September 2000, Ted was **Chair of this Ministerial Advisory Committee from December 2000 - April 2004**. The purpose of the legislation was to regulate the clearing of vegetation. The Ministerial Committee provided advice to the *Minister for Natural Resources* on the Regional Vegetation Management Plans prepared across the State by regional planning groups. Specifically: -

**To ensure regional plans managed vegetation in a way that achieved the multiple purposes of the Act e.g. to conserve remnant vegetation; ensure clearing did not cause land degradation; prevent the loss of biodiversity; allow for sustainable land use...**



Ted Christie is the author of the cross-disciplinary book – **Law/Science/Conflict Resolution** - “*Finding Solutions for Environmental Conflicts: Power and Negotiation*.” (2008) Edward Elgar Publ., Cheltenham, UK.

In his Foreword to the book, Justice Peter RA Gray, Federal Court of Australia concluded:

*“If this book is read, and its contents are heeded, as widely as is justified, then the days of the application of traditional dispute-resolution procedures to environmental disputes should be over in the 21<sup>st</sup> century...”*

*To describe this book as revolutionary is not to resort to hyperbole. It will bring about significant change. Ted Christie, renaissance man (or its 21<sup>st</sup> century equivalent), deserves acclamation for having written it”.*

#### AWARDS

- Ted was awarded a Commonwealth of Australia “**Centenary Medal**”: “*For long and distinguished voluntary service through education and the law*”. **The Centenary Medal was established to commemorate the centenary of Australia’s federation and to honour the contribution made to Australian society and Government by its citizens.**
- Ted was a **Fulbright Professional Scholar (as a Practising Lawyer)** during his practice as a Barrister and Mediator. Fulbright Professional Scholarships are granted to mid-career professionals to undertake research in the United States.  
**Research focus:** *The Precautionary Principle, Risk Assessment and Environmental Decision-Making.*