Submission Re: Vegetation Management Framework Amendment Bill 2013

If the LNP are to achieve their goals & election commitment to grow a Four Pillar Economy, double food production by year 2040 and minimise bureaucratic red tape they need to amend the VMA and make changes to the codes, particularly if they want to achieve Economic Sustainable Agricultural Development for the Far North's Leasehold, Freehold and Indigenous agricultural and pastoral lands (i.e. Bananas at Hopevale, Gilbert and Flinders irrigation). Many Northern Bioregions have over 96% remnant vegetation and there is untapped potential. The Commonwealth Coalition has mooted a plan to create an "economic zone" in the North and develop a food bowl in Northern Australia to double Australia's agricultural output.

The Act needs to change and reflect the ability for agricultural development in target areas of North Queensland. This change in the Act needs to be supported by community based land use planning that addresses fair and reasonable environmental and economic tradeoffs and biodiversity offsets. If the Act delegates authority to robust processes involving communities of the areas in question and science networks that provides back to government robust and supported advice, then government is demonstrating good governance and logic and strongly defensible decisions. These processes occurred prior to 2003 through the Regional Vegetation Management Planning (RVMP) process.

Legislation around vegetation management has impacted both development and maintenance options for remote area communities further creating social and economic disadvantage. The Act and Western Bioregions code require substantial rewording and amendment to achieve a level of ecologically sustainable development. Farmers must be allowed to manage their vegetation in a practical, environmentally sustainable way and communities in the North Queensland should have equal social and economic opportunity as exists in SEQ.

- To achieve balanced and sustainable Vegetation Management Outcomes that allow for a sustainable level of clearing, workable thinning and vegetation management outcomes the Government should consider adopting the former Regional Vegetation Management Plans (RVMPs) that were being developed prior to 2003.

- Current fenceline clearing widths are restricted to 10 metres wide or less and there are some impractical aspects of the Vegetation Management Act 1999, for example thinning and encroachment. Clearing widths along fencelines should be 1.5X the height of standing vegetation (so if a tree was 20m tall then clearing widths should be 30m either side of fenceline). This is particularly needed in Cape York and in Gulf Savannah where wildfires present risk to Livestock, infrastructure and Vegetation itself and Cyclone-prone areas. Additionally the environmental perversities of the existing codes in relation to fence clearing widths was demonstrated with the Cyclone Yasi event. Best practice grazing management encourages increased fencing to control stocking rates and 'spell' native pastures increasing environmental benefits. Cyclone Yasi destroyed hundreds of kilometers of fencing on each property because of tree fall over fence lines that has perversely discouraged fencing, best practice stock management and will reduce environmental benefits.

- There is a need for any legislation to have a better understanding of the immense diversity of ecosystems in Queensland so there can be an equitable balance between conservation and a sustainable future of food and fibre production. Considerable scientific evidence shows that woody plants are proliferating and/or standing carbon stock is increasing over much of the 'intact' woodland area. This change in tree/shrub stocks is generally associated with a decline in potential pasture production – implications for future management of retained woodland areas. Burrows et. al. (2002, 2000, 1998, 1990, 1988) and Bray et. al. (2002) report there is active thickening in our Eucalypt Woodlands. This research indicates we could have a sustainable level of clearing and still meet Kyoto protocols and reduce greenhouse emissions (see attached).
- Currently Landholders are unable to Broadscale clear or even achieve "Parkland-style" clearing. Scale of operation is a major contributor towards profitability in the Beef industry and effects are amplifying. Major issues facing the Beef Industry include inadequate scale in more closely settled areas, significant cost escalations, doubling of debt over last decade and return on assets have declined to very low levels (0.3% to 2.0% average). The northern beef industry is generally in a very unprofitable and unsustainable state. Legislation around vegetation management has impacted both development and maintenance options for producers in affected regions. Farmers must be allowed to manage their vegetation in a practical, environmentally sustainable way.
- High value regrowth should be allowed to be cleared on Leasehold lands to maintain current levels of productivity, particularly areas within the Brigalow belt in Central & Southern Queensland where land values are high.
- The Regional Vegetation management Planning process had taken place prior to 2003. The plans are in existence and require no reinvention or resourcing. Consensus between Environmental and Landholder groups occurred at the near finalisation of these plans. We would need to look at how we can implement as such through Policy changes with the view of repealing/modifying such legislation at next election.
- Implementation of changes to the Vegetation Management Act 1999 would be through the Department of Natural Resources and Mines (NRM). Applications to clear Vegetation should be assessed by VM officers with suitable knowledge and underpinning skills recruiting officers with Agricultural and Land Management degrees, rather than Environmental. This would also stimulate jobs for rural graduates. There would be no additional cost to Government in terms of additional staffing. Some cost may be involved in re-training or recruiting external to Department to obtain suitable assessment officers.

Peter Spies

[redacted]

Research into Woodland Thickening and Carbon sequestration

Introduction

Bill Burrows (Australia's eminent woodland ecologist at time who specialised on Tree-grass interactions) - has presented his research on vegetation thickening to the CRC for Greenhouse Accounting and a course which a certain NRM policy advisor attended in Canberra at the time. Bill Burrows was a Senior Principal Scientist with the Queensland Beef Industry Institute in Rockhampton. Bill's presentation shows photographic and Carbon 13 evidence for vegetation thickening and woody invasion of grasslands and savannahs.
In 2002 Bill OK'd it's distribution of this presentation to NR&M to assist in veg management planning and assessment. It must have fell on deaf ears.

Hopefully this will assist the debate about thinning practices for vegetation management (see attached on disc). The PowerPoint file (Bill's CRC Workshop.ppt) is huge (51M).

Australia has about 157 M ha of forest and woodland communities. Most of this is grazed woodland or savanna. The majority of the grazed woodland estate is found in Queensland. Burrows' attached presentation largely focus' on Queensland examples but the principles and implications are equally relevant to similar vegetation in NSW and the NT.

Tree-grass interaction

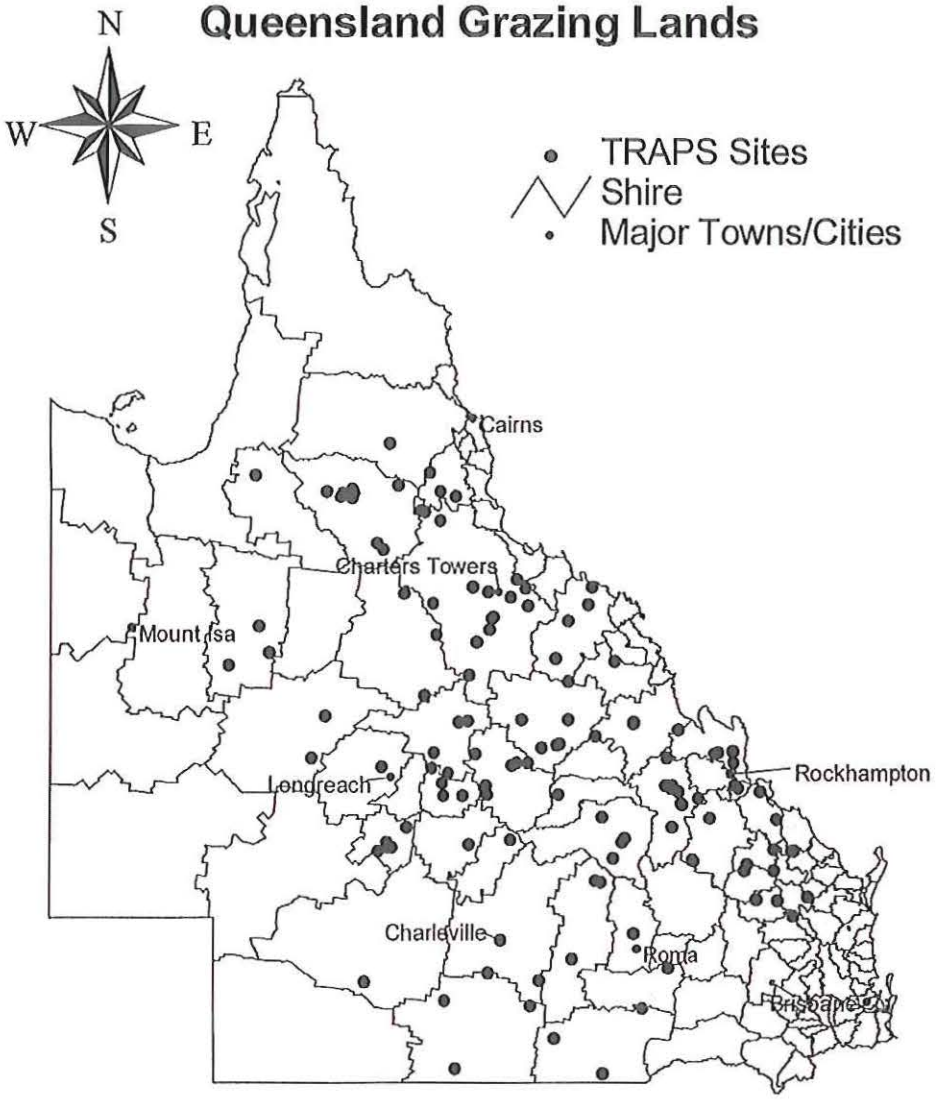
The initial interest in trees & shrubs in the grazed woodlands was in their competitive relationship with pasture. A large number of studies have shown that woody plants are generally very competitive with pasture and this competition could be quite pronounced even at low tree basal area. So if woody plant populations were increasing this would pose a threat to potential livestock carrying capacity.

Consequently any increases in woody plant cover could cause concern to pastoralists. In fact there have been very many historical & anecdotal reports of increases in tree/shrub cover in uncleared areas since livestock grazing commenced (as shown in attached presentation).

Since proliferation of woody plants in grazed woodlands has implications for management for both grazing & conservation QDPI has set up a statewide permanent monitoring site network. This involved the development of rigorous sampling, data storage & processing procedures – called TRAPS – **T**ransect **R**ecording **a**nd **P**rocessing **S**ystem. "TRAPS" is a standardised system of data collection, data storage and analysis enabling inter-site comparisions by the use of common methodologies, software and statistical procedures for the collection, storage and analysis of data. It reduces operator error and the amount of operator training needed. TRAPS is:

- Used Statewide in the grazed woodlands to monitor the woody plants (trees and shrubs)
- Provides insights into the factors causing population changes
- Helps develop sustainable management practices for grazed woodlands for the pastoral industry

Current distribution of Tree Populations study sites on Queensland Grazing Lands



Apart from Cape York the QDPI has now established (since 1982) a good coverage of TRAPS sites over the State's grazed woodland area.

Tree - Pasture Relationships

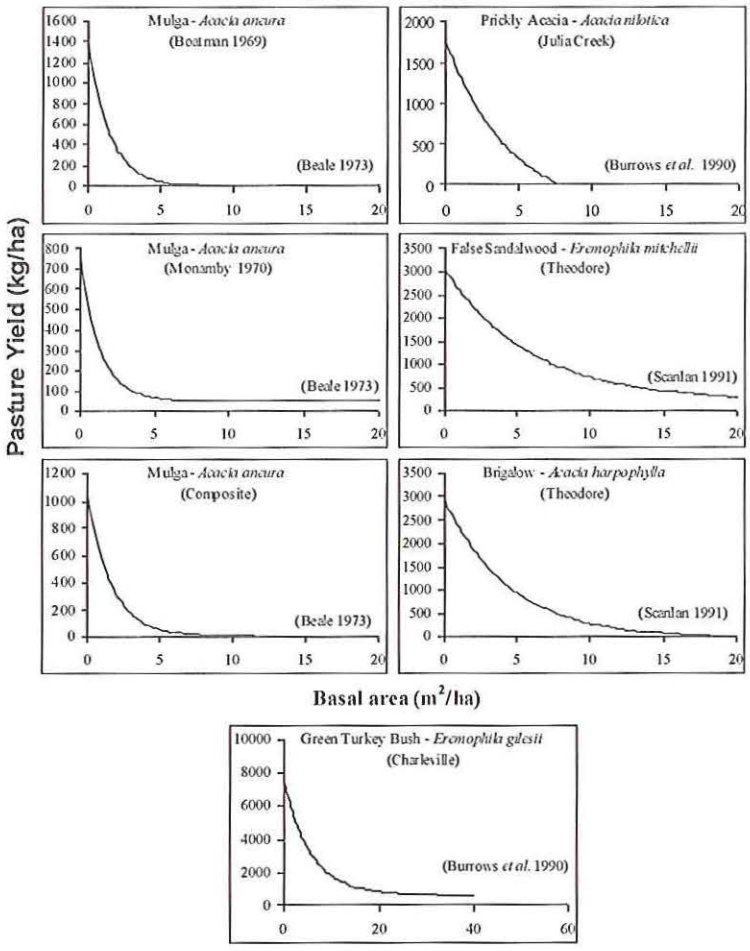
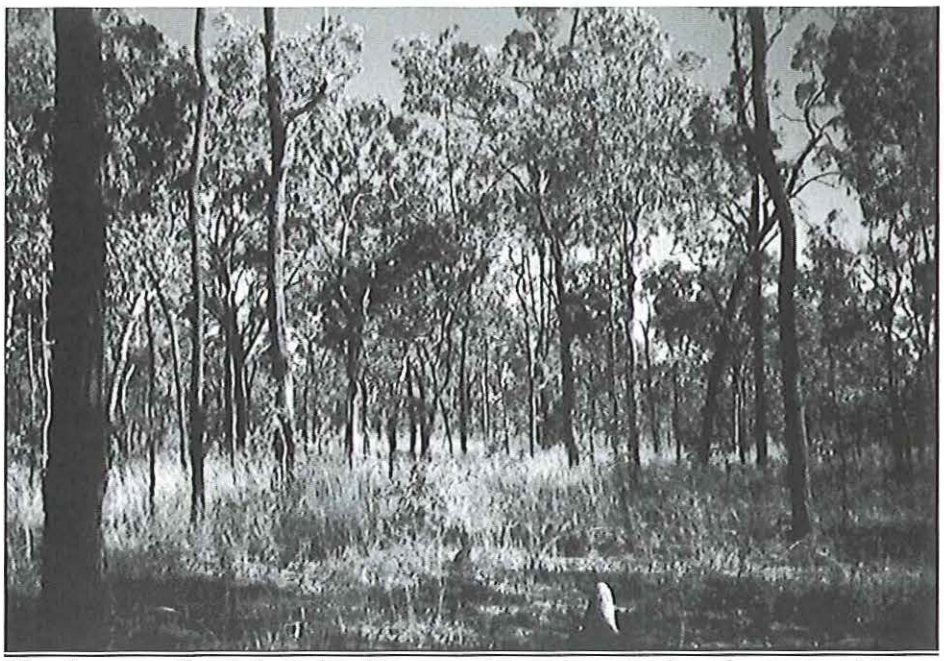


Figure 1. Relationship between tree/shrub basal area (% tree retention or % canopy cover) and potential pasture yield for various woodland communities in inland Queensland / NSW. Note the different scales on the y-axis.
[Basal area is the area of ground covered by the trunks of trees and shrubs. It is the best representation of tree competition because it takes into account both the size and number of plants per hectare].

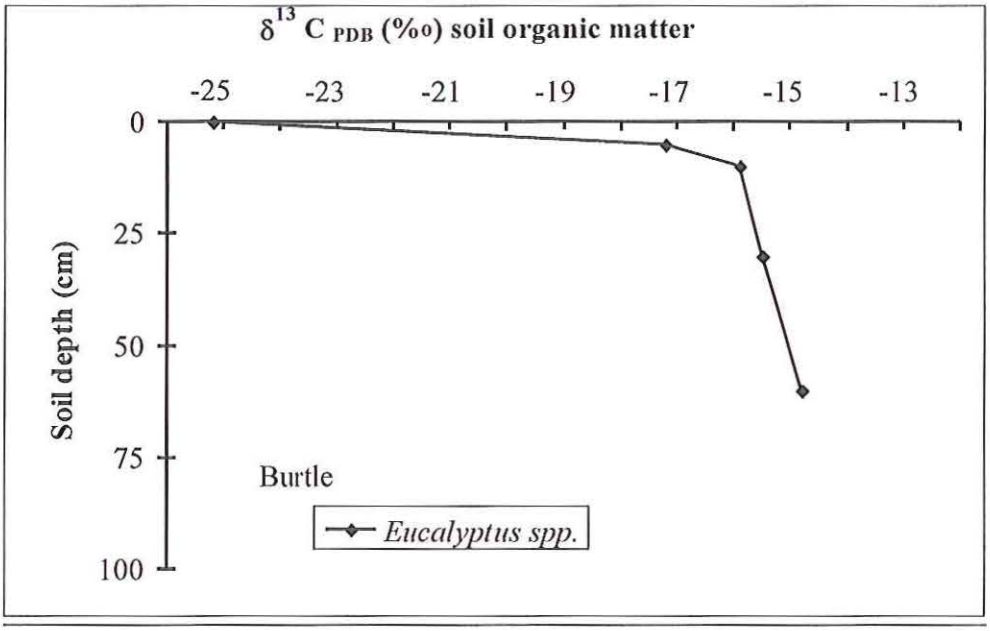
A large number of studies have shown that woody plants are generally very competitive with pasture and this competition could be quite pronounced even at low tree basal area. So if woody plant populations were increasing this would pose a threat to potential livestock carrying capacity.
Consequently any increases in woody plant cover could cause concern to pastoralists. In fact there have been very many historical & anecdotal reports of increases in tree/shrub cover in uncleared areas since livestock grazing commenced (as shown in attached presentation)

The photograph for this site clearly suggests an expanding population of young trees.



Clearly a woodland changing from an open to a more closed canopy state.

The site above is north of Alpha in CQ. It is typical of large areas in the region where silver leaved ironbark has apparently proliferated since the 1950's. δ13C signatures suggest this site supported very open woodland or grassland in the past (below).



What has caused this proliferation of woody plants in our grazing lands?

There is now a widespread consensus that it results from changed fire regimes brought about by the introduction and management of domestic livestock in areas of the world previously managed by hunter-gatherer societies. This expansion seems to parallel the reduced burning activity over the past century & especially since WWII which led to the increased availability of graders, 4WD fire trucks, portable petrol pumps etc. i.e. the ability to control & suppress fires on grazing land.

It has been opportune that QDPI's interest in monitoring tree/shrub populations in Qld's grazed woodlands since the 1980's (to help derive better vegetation management of these

communities) made us well placed to gauge the flux in biomass and carbon store in the same woodlands. This is a crucial need in determining the Land Use Change & Forestry inventory component of Australia's National Greenhouse Gas Inventory, recorded as part of our commitment to the UN Framework Convention on Climate Change.

Probably the most widely known aspect of the UN FCCC is the Kyoto Protocol. Article 3.7..... *"Those Parties included in Annex 1 for whom land use change and forestry constituted a net source of greenhouse gas emissions in 1990 shall include in their 1990 emissions base year of period the aggregate anthropogenic carbon dioxide equivalent emissions minus removals in 1990 from land use change for the puropses of calculating their assigned amount"* ("The Australia Clause"). This Protocol is of particular interest to Australia since it notionally gives us a big concession in greenhouse gas abatement cf. most other industrialised countries. The key phrase in this clause is 'land use change *and* forestry'. The key question is – Was the LUC&F sector a net *source* of emissions in 1990?
I believe there is compelling evidence that it was not a source, but a significant *sink!*

Sources of likely error:-

1. The loss of soil carbon on forest conversion to native pasture (the dominant tree clearing pathway in the NGGI) is grossly overstated

2. Loss of cleared biomass is much lower and slower than represented in the NGGI

3. Growth from managed forests is grossly underestimated

Burrows research suggests that there is a huge sink presently unaccounted for in Qld's grazed woodlands based on information presented here. [And extrapolating the sink in the eucalypt woodlands to all grazed woodland sites] But the important point is that the apparent errors in the NGGI LUC&F sector disclosed earlier in this talk will in themselves be sufficient , if corrected, to ensure Australia's 1990 LUC&F Baseline is a net sink and not a net source when subjected to international audit. There can be little doubt that if ALL sources & sinks are properly accounted for in the LUC&F sector Australia would be shown to have much smaller net per capita emissions than are currently quoted! Why must we continue to beat ourselves around the head by claiming we are in a far worse position than we actually are? Likewise this woodland sink could make a significant contribution to carbon offset pools – should such trading become formalised in Australia.

Conclusion from Burrows research:-

- Grazed woodlands are a very important agricultural and natural resource base in Australia and particularly in Queensland - > 1/3 of that State's land mass.
- Considerable scientific evidence that woody plants are proliferating and/or standing carbon stock is increasing over much of the 'intact' woodland area.
- This change in tree/shrub stocks is generally associated with a decline in potential pasture production – implications for future management of retained woodland areas.
- There are demonstrable huge errors in present NGGI calculations, while 90 + % of Australia's and Queensland's 'forest' estate is ignored in the inventory
- Correcting these errors should lead to Australia's LUC&F sector being identified as a net sink, not a net source of emissions when this country's 1990 Greenhouse Gas Inventory ("Baseline") is subject to international audit
- Australia would therefore:-
    - be ineligible to avail itself of Article 3.7 of the Kyoto Protocol
    - have much lower net per capita emissions than is currently portrayed
    - have a huge carbon sink (hitherto unheralded) available for carbon offset trading should such trading be endorsed

I would like to see the LNP adopt the policy that the former QDPI recommence investigations and recognised work into tree/grass interactions and carbon sequestration. This is essential to protect our grazing industries and for true carbon accounting as we move into a world of potential carbon trading.

We also need the State Government to allow the Beef Industry to be able to have workable thinning laws to maintain our wooy rangelands in a productive state.