CAPE YORK SUSTAINABLE FUTURES

ABN 25 307 084 879

Incorporating local government represented by the Shires of Cook, Aurukun, and Weipa Town Authority as well as the sectors of Land Stewardship, Tourism & Small Business, Agriculture, Mining, Community Development & Indigenous Business Development.

Mission: CYSF is the regional development & advocacy organisation for the people of Cape York. We do this by building capacity & self-sufficiency by supporting people's aspirations and empowering them to take control of their future.

22nd April 2016

To the Agriculture and Environment Committee
vminquiry@parliament.qld.gov.au

Re: Proposed *Vegetation Management (Reinstatement) and Other Legislation Amendment Bill 2016*

Background

CYSF MISSION STATEMENT

CYSF is the regional development and advocacy organisation for the people of Cape York. We build capacity and self-sufficiency by supporting people's aspirations and empowering them to take control of their future.

VISION

Our vision is that Cape York is a united and prosperous region. We deliver this by implementing programs that meet quadruple bottom line outcomes through communication, advocacy, administration & advice.

Cape York Sustainable Futures (CYSF) previously Cape York Peninsula Development Association Inc. (CYPDA Inc.) was formed 1987 to provide an independent forum to promote the development of Cape York Peninsula, an area covering 137,000 sq. kms. in one of Australia's most remote regions. Our group is apolitical, cross-sectional and considered a pioneer of community driven representation. It provides an open forum for debate and is the only organisation in the Peninsula to which everyone can belong and where everyone can have their say. CYSF has a representative based board incorporating the Shires of Aurukun, WTA and Cook as well as representatives from industry – tourism, small business and mining, land stewardship, infrastructure, community and Indigenous Business Development, having a particular interest and concern for developing a diverse economy that provides for social and community interest whilst considering the environment as well.

Building the economy of the Cape York is paramount, if the residents are to have a sustainable future and a healthy lifestyle, and CYSF focuses strongly on pursuing this objective. CYSF pursues the basic principles for regional development of Cape York, namely:

- tourism and enterprise development;
- the mentoring of business and micro business development;
- land management and sustainable agriculture;
- economic and community development; and,
- attracting new investment and sourcing new infrastructure.

There is a real need for genuine partnerships not just with governments, Federal, State and Local but also by engaging the people of the region and by using a community ownership approach. Cape York people have been consulted over and over, since the 1980's but their aspirations are not being heard. CYSF has long advocated for the people of the region to be truly engaged in the decision making process within the region.

Broad based economic development is essential for Cape York to achieve its rightful role as a strong regional force in Queensland. For too long, we have been regarded as the poor cousin in need of welfare and support, and we now sense

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bec Business Enterprise Centre

TOURISM CAPE YORK

that there is a wind of change blowing away the cobwebs, with increased optimism and incentive to further develop private enterprise, entrepreneurship and self-help. Unfortunately the green and extreme conservation movement, with their "blinkered" campaign to prevent any development on the Peninsula, has used political pressure to isolate Cape York and suppress the interests and wellbeing of our residents leading to poverty and division across the region. This is a loss, not only to Cape York people, but also to the nation.

Cape York has been the environmental conscience of Australia and the rest of the world whilst the right of the 16,500 residents to a positive and productive future on Cape York Peninsula and enhanced livability of their communities are issues of social justice which cannot be disregarded. People along with the environment and landscape are a necessary part of a healthy community.

City folk seem to have lost contact with rural Australians and have stopping considering the bush. There has been drought, severe financial hardship and a decline in population. Agriculture (farmers) provide food to put on the Nation's tables and the food security across the world should be paramount to the survival of mankind, as a race. The farmers are the best conservationists, they know and love their land and they which to preserve it for their future generations sustainability. City people don't realise the value of the nation's farmers to their living standards. It is the farmer who knows what is best for his land, not some external emotive group who have no knowledge of land management and sustainability. It should be noted that clearing done by farmers is done with the environment front of mind and is not done unless there the appropriate research, safeguards and conditions are attached and the extent of clearing is only ever a small % of the entire lease. Wild life corridors and environmentally important areas are never impacted.

The economic potential of the Cape is yet to be realised. For local people, unlocking the economic value of the land is central to the right to build an economy. The only way that people will overcome disadvantage and build their capacity and self-determination is by participating in sustainable economic development. The sustainable landscape approach, currently delivered by the Vegetation Management Act, provides protection to landscapes and allows opportunity for High-value Agriculture.

Proposed changes will result in a number of outcomes. These are:

- Further impede the opportunities for the people of Cape York to attain economic benefits
- Higher food prices
- Ruin the productivity of native rangelands through increased woody tree species
- Increased run-off to the reef through less groundcover

CYSF is opposed to these proposed changes and urges the Queensland Government and the Agricultural and Environment Committee to LISTEN to the people of Cape York and not the Green groups who have lobbied the current government to return to the draconian laws of the past which are hindering the economic development of Cape York.

We urge the Queensland Government and the Committee to please take note of the science on this issue and not the current mapping which has errors and is projecting incorrect information. (see attached appendix 1). The Queensland Government should be protecting the rights of famers to do what they need to do on their land and not impede their livelihoods and kill of the economy of our State.

Should you require any further information, please contact me.

Yours sincerely

[redacted]

Trish Butler
Chief Executive Officer

c.c. Member for Cook: Billy Gordon MP

Notes on Tree Clearing

When is clearing actually *clearing*?

The popular media portrayal of clearing is a razed landscape and heavy machinery pulling a chain.

Clearing actually refers to a range of vegetation *management* practices including:

- Regrowth – maintenance of previously cleared areas to maintain farm production
- Native forest practice – removal of high value timber
- Maintenance for farm operation – fences, firebreaks, tracks and infrastructure
- Thinning – selective removal of trees to promote native grass growth
- Encroachment – Controls the movement of trees and shrubs into naturally open grassland areas. Managing encroachment can improve biodiversity, reduce soil erosion risk and improve pasture productivity
- Removal of weeds – a positive environmental outcome for us all.

These six practices made up around 40 per cent of all permitted clearing in 2012-13 and in 2013-14 around 19 per cent.

2012-13	% of permitted clearing
Regrowth	16
Native forestry	14
Farm operations	4
Thinning	3
Encroachment	2
Weeds	1
TOTAL	40

2013-14	% of permitted clearing
Regrowth	2
Native forestry	7
Farm operations	4
Thinning	2
Encroachment	4
Weeds	<1
TOTAL	19

Note that these figures are unlikely to be underestimate since they do not include the clearing categorised as 'multiple permit purposes'.

Since this type of 'clearing is considered low risk, landholders are able to self-manage using self-assessable codes.

Why do farmers *manage* vegetation?

Farmers grow food. Cattle and sheep eat grass. Crops need soil. To grow food in a profitable way, farmers need to manage vegetation. If farmers aren't profitable then they are forced to leave and their land stewardship services go with them.

As tree basal area increases, potential pasture yield declines (Back *et. al* 2009). This means that removal of woody plant competition can increase pasture production and hence livestock carrying capacity by 2-4 times, depending on the pasture, land type and location. Only a small increase in woody plant basal area (regrowth) after clearing will quickly negate the pasture production benefits of that clearing (Burrows 2002).

The Queensland Government's *Queensland food and fibre policy* identifies the agricultural sector as the mainstay of the Queensland economy and commits the government to support the growth of the industry. Food and agriculture is one of the Australian Government's five industry pillars identified as having high potential for growth. The *White Paper on Developing Northern Australia* predicts a sharp increase in the scale and breadth of activity in the industry as part of sustainable development of the north.

Unquestionably, economic development and environmental protection must go together, however the Government must shift from approaches that place economic development and environment at loggerheads. We can't grow food on trees – but trees and growing food have comfortably coexisted in Australia for many generations.

Why have clearing rates increased?

Farmers are in the grip of Queensland's most widespread drought. Clearing of trees and shrubs for stock feed (fodder) made up 35 per cent (in 2012-13) and 57 per cent (in 2013-14) of the permitted clearing. Obviously keeping stock healthy – in food and water – is a farmer's priority during drought.

Even with increased clearing rates, the actual wooded vegetation cover across regions increased in all but 5 regions between 2011-12 and 2012-13, and all but 4 regions between 2012-13 and 2013-14.

		2011-12		2012-13			2013-14		
NRM Region	**Total area** (,000 ha)	**Rate of clearing** (,000 ha)	**% wooded vegetation cover**	**Rate of clearing** (,000 ha)	**% wooded vegetation cover**	**Δ^1**	**Rate of clearing** (,000 ha)	**% wooded vegetation cover**	**Δ^2**
Burnett Mary	5595	11.794	69.175	14.138	69.77	↑	15.240	73.12	↑
Cape York	13685	2.115	92.219	2.204	92.29	↑	2.811	94.43	↑
Condamine	2544	4.935	39.182	8.164	39.82	↑	5.959	40.44	↑
Desert Channels	51000	8.814	20.216	17.667	20.01	↓	19.896	19.04	↓
Fitzroy	15725	41.605	55.594	54.747	55.96	↑	58.617	57.77	↑
Northern Gulf	19410	1.675	88.107	1.385	87.94	↓	2.466	89.10	↑
Burdekin	14090	18.900	64.821	38.655	65.09	↑	29.818	65.49	↑
Border Rivers/ Maranoa Balonne	10176	57.570	42.550	57.521	42.76	↑	35.769	42.60	↓

		2011-12		2012-13			2013-14		
NRM Region	**Total area** (,000 ha)	**Rate of clearing** (,000 ha)	**% wooded vegetation cover**	**Rate of clearing** (,000 ha)	**% wooded vegetation cover**	**Δ^1**	**Rate of clearing** (,000 ha)	**% wooded vegetation cover**	**Δ^2**
Mackay Whitsunday	934	0.961	67.706	1.038	67.71	↑	0.775	69.67	↓
South East Queensland	2368	3.120	66.740	3.120	67.15	↑	4.577	70.21	↑
South West Queensland	18711	29.051	47.334	63.171	47.89	↑	116.997	44.49	↓
Southern Gulf	19460	1.801	49.179	3.337	49.08	↓	2.019	50.84	↑
Wet Tropics	2224	1.406	84.337	1.211	84.20	↓	1.466	85.46	↑
Torres Strait	85	0.000	70.113	0.000	69.98	↓	0.000	87.97	↑

Δ^1 = Increase (↑) or decrease (↓) in percentage cover between 2011-12 and 2012-13
Δ^2 = = Increase (↑) or decrease (↓) in percentage cover between 2012-13 and 2013-14

Given the Government's election promise to *reinstate* the former Labor Government's vegetation management laws and the recent commitment to task the Deputy Premier with returning the state to the former Labor governments *responsible* vegetation management laws, it can be assumed some of all of the old regimen will be reinstated, or some or all of the LNP Government initiatives will be abandoned. This is despite a 97% successful compliance rate in the use of Self Assessable Codes (SACs), which have been in place only 18 months. Whatever the final mix responsible landholders will face confusion; increased compliance costs; and increased operating costs to actually manage their vegetation under potentially less flexible laws.

To totally ban High Value agriculture (HVA) and Irrigated High Value Agriculture (IHVA) will negate, or at best, greatly impede Northern Australian agricultural development with the consequent reduced prospects for indigenous communities; reduced employment growth in the agricultural sector; reduced food and fibre production; reduced drought resilience and diversification; and consequently reduced wealth for the State. Many struggling small rural and Indigenous communities, within the State's Far North and Gulf, would stand to benefit greatly from the much needed social and economic opportunity. These are regions with over 95% remnant vegetation – intact landscapes that can have a sustainable level of development.

Scale of operation is a major contributor towards profitability in the Beef industry and effects are amplifying. Major issues facing the Beef Industry include 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). Allowing clearing for improved pastures on less than 10% of a 'typical family block' of 25,000 Ha gives 25% increase in total gross margin, which includes amortising the cost of that clearing over 10 years. Using ABS data across our northern grazed woodlands, allowing up to a maximum of 10% clearing for grazing purposes, this represents an economic opportunity of $300 million.

Farmers are acting responsibly. Their performance in passing Queensland Government audits demonstrates this.

Regrowth needs to be controlled to maintain productivity. A former Queensland Government Botanist, Dr Bob Johnson has monitored the regrowth of a mixed brigalow scrub at Theodore since its initial clearing in 1963. No further clearing treatments have been imposed on the plot in the ensuing 46 years. Today this regrowth community is dominated by tall 'whipstick' brigalow suckers, so the regrowth bears little resemblance to the diverse composition and structure of the original brigalow scrub which it replaced. Certainly this protection has led to the proliferation of brigalow plant stems on this site. Restricting the clearing of regrowth on agricultural land will not restore the original structure and composition of the vegetation, nor its original fauna population and species mix.

Reducing flexibility of the ways in which farmers can manage vegetation on property means increased costs in production – costs which will result in increased food prices for consumers.

Thickening and encroachment – managing in a dynamic system

Vegetation systems change with time. Vegetation communities respond to climatic cycles (wet and dry years) and natural disasters (cyclones, flood, fire). Tree canopies, shrubs and ground covers will change in terms of species composition and land area. Thickening, for example, is a natural process which can be induced or accelerated by land use, land management and fire regime. Thickening can degrade the ecosystem through shading out the natural ground cover, exposing bare ground to erosion and harbour feral animals (unpublished report, 2015).

Tree and shrub cover is known to have significantly increased in Queensland's grazed remnant ('intact') woodlands over the last 60 or so years (e.g. Crowley and Garnett 1988, Burrows et al. 1998, McCallum 1999, Burrows 2002, Burrows et al. 2002, Fensham et al. 2003, Krull et al. 2005, Bray et al. 2007, Back et al. 2009, Crowley et al. 2009); science now tells us that the ongoing trend towards greater tree cover commenced with the start of domestic livestock grazing in the mid 1800's (Sim 2004, Krull et al. 2007). There are also many photo sequences of woody vegetation thickening that are supportive of these conclusions. Many of our so called "remnant" woodlands (e.g. mulga lands) differ markedly in composition and structure to the vegetation present when Europeans first sighted the country.

Thickened tree cover can increase runoff, adversely affect regional ecosystem functioning and reduce biodiversity. Thinning and follow up management, can restore landscape to a functioning regional ecosystem[1].

Farmers know this. They manage the landscape accordingly.

[1] Queensland Department of Natural Resources, 2014. Managing thickened vegetation in South East Queensland and the New England Tableland bioregions – Self-assessable vegetation clearing code. https://publications.qld.gov.au/storage/f/2014-09-30T03%3A46%3A50.736Z/managing-thickened-vegetation-in-south-east-queensland-and-the-new-england-tableland-bioregions.pdf

Vegetation management and the Reef

The Reef is an outstanding natural asset – nobody can dispute that. Soil management plays a vital role in keeping soils on the paddock, out of waterways and out of the Reef lagoon. Ground cover, not tree cover, determines runoff and erosion risk. This is a well-known soil conservation principle[2] , outlined in the 2015 Soil Conservation Guidelines for Queensland[3] and many other soil conservation studies. Industry is concerned Queensland Government has recently considered woody vegetation management as an erosion issue in Great Barrier Reef catchments. There is generally less ground cover under trees than in cleared areas, due to competition for water and nutrient. Grazing management practices, pasture cover and fire regimes, rather than tree clearing, determine runoff and erosion risk. For example, the Queensland Government website for soil erosion management[4] states "*Trees are often considered to be the universal answer to control soil erosion. Tree roots help prevent landslides on steep slopes and stream bank erosion but they don't stop erosion on moderately sloping hillslopes*".

Published reef science on suspended sediment runoff to the Reef focus on main causes such as amount of ground cover and location / extent of bare areas in erodible soils such as gullies (Wilkinson *et al* 2012, Bartley et al 2012). There is NO mention of tree cover, tree basal area or trees contributing or reducing sediment runoff. Ground cover NOT tree cover determines sediment runoff.

A study of how ground cover and extent/location of gullies & scalds affects runoff and erosion was conducted over 10 years (Bartley 2014) within eucalypt savannah woodland within the Upper Burdekin at Virginia Park Station, Charters Towers. It measured suspended sediment runoff from flumes across an Indian couch dominant pasture on goldfield soils. The study looked at grazing strategies to improve grazing land condition. Native woody vegetation was Eucalypt savanna woodland (narrow leaved ironbark, bloodwood, currant bush, false sandalwood). Increased ground cover of Indian couch and pasture reduced runoff, however sediment yields were mostly affected by the position of scald, gully and bank erosion areas in the landscape. The amount, distribution and persistence of areas with < 10% ground cover affected the amount of soil erosion. Increased ground cover (> 70%) and rainfall intensity reduced early wet season runoff.

Increasing the abundance of deep-rooted perennial grasses will help reduce runoff from hillslopes which in turn helps to reduce gully and bank erosion in lower sections of the landscape. Riparian

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[2] Scanlan JS and Turner EJ, 1995. The production, economic and environmental impacts of tree clearing in Queensland. Report to the working group of the Ministerial Consultative Committee on tree clearing

[3] Queensland Government – Soil Conservation Guidelines for Queensland 2015 http://www.qld.gov.au/environment/land/soil/erosion/guidelines/

[4] Queensland Government – Preventing and managing erosion http://www.qld.gov.au/environment/land/soil/erosion/management/

vegetation including trees, shrubs and grasses is important in maintaining healthy waterways. Roots help stabilise the banks. Vegetation also helps improve water infiltration, slows down water velocity and provides the last barrier for filtering out sediment and nutrients. However, in cropping and pastoral systems, ground cover will determine the erosion and runoff risk.

The science now proves that it is ground cover, through grasses and crop stubble, which determines runoff and erosion risk and protects the soil - not tree cover. What we hear from the Environmental groups saying tree clearing affects water quality on the reef is not backed by science. There is generally less ground cover under trees than in cleared areas due to competition for water and nutrient.

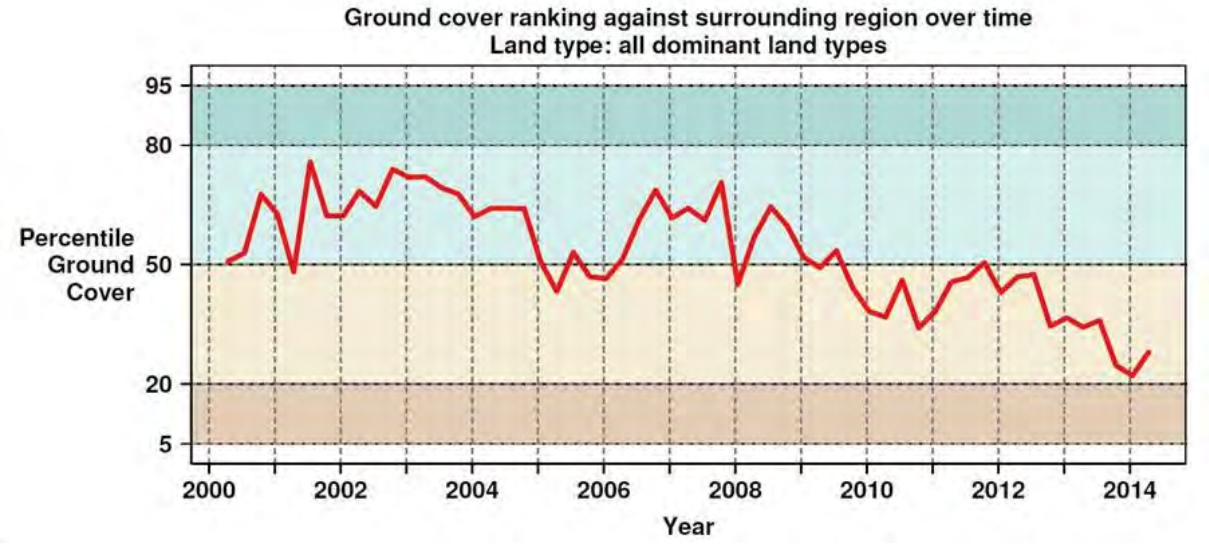
A report by Megan Star & Peter Donaghy (QDAF) on economic modelling of Burdekin & Fitzroy grazing systems clearly outlines how tree basal area can increase sediment runoff for same level of pasture utilisation (compared to cleared country) across a range of grazing land types. If you compare the graphs from page 24 onwards, you will see the tonnes of sediment exported are always greater where tree – studded landscapes compared to cleared landscapes (where tree basal area = 0). Grazing land types included here are:-

- Goldfield red soils (TBA 0 and 3.5 m^2/ha)
- Silver leaf ironbark (TBA 0 and 7.5m^2/ha)
- Silver leaf ironbark on duplex (TBA 0 and 5m^2/ha)
- Spotted gum ridges (TBA 0 and 11m^2 /ha)

In February 2015, the Queensland Government slipped in Water Quality Action number EHA20 to the Reef 2050 Long Term Sustainability Plan[5] to "*Strengthen the Queensland Government's vegetation management legislation to protect remnant and high value regrowth native vegetation, including in riparian zones*". **All previous reef science and soil conservation studies link ground cover impacts to runoff, not woody vegetation cover.** Streambank stabilisation is achieved through a combination of both woody vegetation and grass-ground cover. There was no opportunity for the Reef Partnership Committee to review these inserted actions before the draft Reef 2050 LTSP went to UNESCO – World Heritage Committee. In June 2015 the Queensland Audit Office report on '*Managing water quality in GBR catchments*' stated a 229% increase in land clearing in reef catchments from 2008/09 [31,000ha] to 2013/14 [102,000ha]. No Government information is available to demonstrate if these clearing rates increased the risk of sediment runoff. Long Paddock FORAGE reports show how ground cover on a property compares to regional grazing land types. Ground cover falling below the 50 per cent percentile indicates there is a risk of degrading

[5] The Reef 2050 Plan http://www.environment.gov.au/marine/gbr/long-term-sustainability-plan

land condition.



Landholders began to understand the relationship between tree/shrub cover and pasture production shortly after grazing commenced; and this provided them with a strong motivation to reduce woody plant cover on their properties, especially where the trees had no timber or fodder tree value. They also found that the increasing woody plant densities in both standing and regrowth communities led to mustering difficulties.

Regrowth management is an essential component of any previously countenanced woodland clearing program on Queensland's rural land. However regrowth should not be cleared from land showing signs of active erosion and landscape instability following the initial clearing. Clearing woodland is only effective, and the increased agricultural production and economic benefits from it only certain, when the regrowth, which inevitably follows clearing, is itself controlled. It is illogical in practice and intent for the State to permit tree clearing, and then retrospectively prohibit the control of regrowth from that clearing. Such action will not lead to the restoration of pre-clearing biodiversity, nor restore the structure and composition of the original woodland community. But it will penalise the land manager and the State by denying them the productive and financial benefits that the initially countenanced clearing was designed to deliver.

Most agricultural businesses are small to medium enterprises. They don't have the means to promote the industry for its sustainability initiatives. Unlike other sectors (think of the 'Coal is Amazing' campaign) we prefer to let our hard work do the talking.

At the end of the day, landholders want long term certainty to sustainably manage natural resources. Imagine if you tried to run a business without being able to shift the furniture in your office space?

References:

Back, P.V, Anderson, E.R., Burrows, W.H and Playford, C. (2009) *Woody plant responses to various clearing strategies imposed on a poplar box (Eucalyptus populnea) community at Dingo in central Queensland,* Tropical Grasslands Volume 43, 37–52 37

Bartley R, Bainbridge Z.T., Lewis S.E., Kroon F.J., Wilkinson S.N., Brodie J.E. and Silburn M. (2014) *Relating sediment impacts on coral reefs to watershed sources, processes and management: A review* Science of the Total Environment 468-469 1138–1153

Bartley R, Corfield JP, Hawdon AA, Kinsey-Henderson AE, Abbott BN, Wilkinson S and Keen RJ (2014). *Can changes to pasture management reduce runoff and sediment loss to the Great Barrier Reef?* The result of a 10-year study in the Burdekin catchment, Australia. The Rangeland Journal, 36, pp 67-84.

Bray, S.G., Liedloff, A.C., Sim, A.K., Back, P.V., Cook, G.D. and Hoffmann M.B. (2007) *Comparison of woody vegetation change datasets from the grazed woodlands of central Queensland.* Proceedings Northern Beef Research Update Conference, pp. 70-77.

Burrows, W.H. (2002) Seeing the wood(land) for the trees – An individual perspective of Queensland woodland studies (1965-2005). Tropical Grasslands 37: 202-217.

Crowley, G.M. and Garnett, S.T. (1988) *Vegetation change in the grasslands and grassy woodlands of east-central Cape York Peninsula, Australia*. Pacific Conservation Biology 4: 132-148.

Crowley, G., Garnett, S. and Shephard, S. (2009) *Impact of storm burning on Melaleuca viridiflora invasion of grasslands and grassy woodlands in Cape York Peninsula, Australia.* Austral Ecology 34: 196-209.

Fensham, R.J., Low Choy, S.J., Fairfax, R.J., Cavallaro, P.C. (2003). *Modelling trends in woody vegetation structure in semi-arid Australia as determined from aerial photography.* Journal of Environmental Management 68: 421-436.

Krull, E.S., Skjemstad, J.O., Burrows, W.H., Bray, S.G., Wynn, J.G., Bol, R., Spouncer, L., Harms, B. (2005) *Recent vegetation changes in central Queensland, Australia: evidence from 13C and 14C analyses of soil organic matter.* Geoderma 126: 241-259.

Krull, E., Bray, S., Harms, B., Baxter, N., Bol, R. and Farquhar, G. (2007) *Development of a stable isotope index to assess decadal-scale vegetation and application to woodlands of the Burdekin catchment, Australia.* Global Change Biology 13: 1455-1468.

Sim, A.K. (2004) *The investigation of vegetation thickening in central Queensland using palaeoecological techniques.* Hons Thesis. University of New South Wales.

Wilkinson S.N, Hancock G.J., Bartley R., Hawdon A.A., Keen R.J. (2012) *Using sediment tracing to assess processes and spatial patterns of erosion in grazed rangelands, Burdekin River basin, Australia* Agriculture, Ecosystems and Environment. journal homepage: www.elsevier.com/locate/agee