

Supporting innovative Indigenous land management, employment and enterprise development in north Australian savannas

A submission to:
Parliament of Australia: Joint Select Committee on Northern Australia

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Committee's Terms of Reference (TOR)

The Committee to consider policies for developing the parts of Australia which lie north of the Tropic of Capricorn, spanning Western Australia, Northern Territory and Queensland, and in doing so:

- examine the potential for development of the region's mineral, energy, agricultural, tourism, defence and other industries;
- provide recommendations to:
 - enhance trade and other investment links with the Asia-Pacific;
 - establish a conducive regulatory, taxation and economic environment;
 - address impediments to growth; and
 - set conditions for private investment and innovation;

identify the critical economic and social infrastructure needed to support the long term growth of the region, and ways to support planning and investment in that infrastructure.

Summary

This submission is concerned with developing sustainable land and resource management enterprises outside of major urban centres in the northern savannas. Most land in the savannas is ostensibly used for (beef cattle) pastoralism but most pastoral enterprises are either economically marginal or unsustainable if confined to pastoral production alone, given low fertility soils, distant and volatile markets. Opportunities for irrigated agriculture are realistically very limited. Most northern savanna residents are Indigenous and, although ‘land rich’, are impoverished—and these trends are projected to exacerbate over coming decades. While some Indigenous savanna residents, especially those with educational and training qualifications, take up mainstream employment opportunities (e.g. in mining, tourism, service, defence, and pastoral sectors), many others exercise other priorities including, in remote communities especially, cultural responsibilities to country. The reality is that for many Indigenous savanna residents the Gap will remain.

Our submission specifically addresses the Committee’s TOR concerning:

- impediments to growth
- enabling conditions for private investment and innovation

We argue that support from Commonwealth and State / Territory Governments can usefully help address sustainable economic and social development over the broader expanse of the northern savannas by promoting innovative land management solutions, including:

- (1) Facilitating economic diversification opportunities on pastoral leases;
- (2) Supporting ongoing development of Indigenous land and sea management environmental services enterprises (e.g. building on Indigenous ranger programs); and
- (3) Actively promoting the undertaking of novel landscape-scale carbon sequestration and savanna burning emissions abatement projects—especially on the vast majority of northern savanna lands with limited economic pastoral and agricultural potential

Although our focus here is principally directed at addressing chronic Indigenous disadvantage, a reimagined approach to sustainable development of the northern savannas has evident benefits for the whole community¹.

¹ This submission is based on a longer paper by the authors due to be published in 2014—refer references for details

I. Coming to grips with agricultural realities in the northern savannas

1. At the last (2013) federal election both the Liberal-National Party (LNP) coalition and the Australian Labor Party (ALP) made policy proposals addressing northern development². Both incorporated, amongst other matters, a strong emphasis on supporting agricultural development—in particular, developing north Australia as a food bowl. In the context of this submission, the LNP policy also indicated that, in government, they would address ‘streamlining land access legislation’ especially to facilitate diversified enterprise opportunities on pastoral leases.
2. The vision of irrigated agriculture in both positions contrasts starkly with the findings of the Northern Australia Land and Water Taskforce (NLAW 2009). Instead, the Taskforce found suitable groundwater resources coincided with favourable soils only in patches. This means that a mosaic of small-scale irrigation-based farming might be supportable across the north—perhaps doubling or tripling irrigated farmland from its current 20,000 ha. A recent assessment of the potential for irrigable and dryland agriculture in the Flinders (109,000 km²) and Gilbert (46,000 km²) catchments in the Queensland Gulf region, reports that, respectively, 10,000 – 20,000 ha, and 20,000 – 30,000 ha, could support agricultural development (focusing particularly on cotton and sugar cane) in most years (FGARA 2014a,b). The summary report also notes, amongst various environmental and social challenges, the high development capital costs involved, and “where third-party capital investment in water storage and delivery was examined commercial returns on irrigated agriculture were possible, but required consistent achievement of near potential yields, which can be challenging in the northern Australian environment.”³
3. The Taskforce report (NLAW 2009) also observed that the predominant landuse in their 1.2M km² study area is beef cattle pastoralism—in fact, stating that 90% of the north is under ‘pastoral production’. As anyone familiar with the north and the actual functioning of the beef cattle industry knows well, this is a highly misleading statement. In fact, there are some (relatively small) pastoral regions in the north which are economically viable; especially those on highly fertile soils (such as the QLD Gulf and NT Barkly Tablelands) which sell into domestic and export processed meat markets (McCosker *et al.* 2010; Gleeson *et al.* 2012). Some of Australia’s largest pastoral companies operate successfully in such settings.

However, over the vast remainder of the northern pastoral estate, on infertile soils, remote from domestic markets, and reliant on volatile live-cattle export trade, the prognosis is at best economically marginal to unsustainable (McCosker *et al.* 2010; Gleeson *et al.* 2012). A temporary, if saving grace has been the astonishing escalation in ‘real estate values’ in recent times, but since 2008 land prices have been in sharp decline (McCosker *et*

² LNP’s ‘2030 vision developing northern Australia’: <http://www.liberal.org.au/2030-vision-developing-northern-australia>; ALP’s ‘Growing the north’: http://d3n8a8pro7vhm.cloudfront.net/australianlaborparty/pages/995/attachments/original/1376694666/MR_-_Growing_the_North.pdf

³ see Flinders and Gilbert Agricultural Resource Assessment (FGARA) ‘Key findings’ (December 2013): <http://www.csiro.au/~media/CSIROau/Flagships/Water%20for%20a%20Healthy%20Country%20Flagship/FGARA-inpage/Publications/FGARA-KeyFindings.ashx>

al. 2010: 65; Walsh *et al.* 2014). Remarkable also is the observation that, to date, there is no reliable current assessment which addresses the economic geography, viability and potential of the northern pastoral industry for informing future development and investment (see Cribb *et al.* 2009 as an example).

In sum:

- *Pastoralism is projected to be the dominant extensive landuse in the northern savannas in coming decades*
- *But is economically marginal or unsustainable over most of the region*
- *Hence there is a clear need to develop diversified enterprise opportunities as identified in various key reports (e.g. NLAW 2009; Cribb *et al.* 2009), Western Australian Government (WAG 2009) and current Commonwealth policy⁴*

2. Coming to grips with Indigenous social, demographic and economic realities in the northern savannas

1. The northern savanna population including major towns is small (~750,000 in 2011), widely dispersed, and approaching 17% Indigenous⁵. Outside of major towns, the savanna population is around 500,000, with Indigenous people comprising a much greater proportion of the population. In the Kimberley and Top End savannas, about half of the population is Indigenous, and in very remote regions generally, more than 90%. Nationally, 45% of the population living in areas classified by the Australian Bureau of Statistics as very remote is Indigenous (Taylor 2006). In the Northern Territory, most indigenous people (70%) live on lands held under Aboriginal communal title (Taylor 2003). Projections to 2021 see higher rates of growth in the Indigenous savanna population (26%) than in the non-Indigenous population (15%) (Taylor *et al.* 2006). Preliminary analyses of the 2011 census indicate Indigenous population growth rates higher than projected (Biddle 2013).
2. As highlighted by Taylor (2006), this means that Indigenous people and their institutions predominate over most of the Australian land mass and the northern savannas in particular.
3. The predominance of Indigenous people living outside of the major towns and associated rapid population growth is reflected increasingly in changing patterns of legal ownership of and interests in land. Around 19% of the tropical savannas region is owned or managed by Indigenous people (Fig. 1a), ranging from 36% of savannas in the Northern Territory, to 6% in Queensland (Russell-Smith and Whitehead 2014)⁶. Additionally, Indigenous interests in land, as expressed through determinations of and applications made for Native Title under the Commonwealth of Australia's *Native Title Act 1993*, indicate that, as of May 2013: (1) determinations of Native Title have been granted for a further 22%, predominantly in Western Australia (Fig. 1b); and Registered or Scheduled Native Title applications (i.e. still

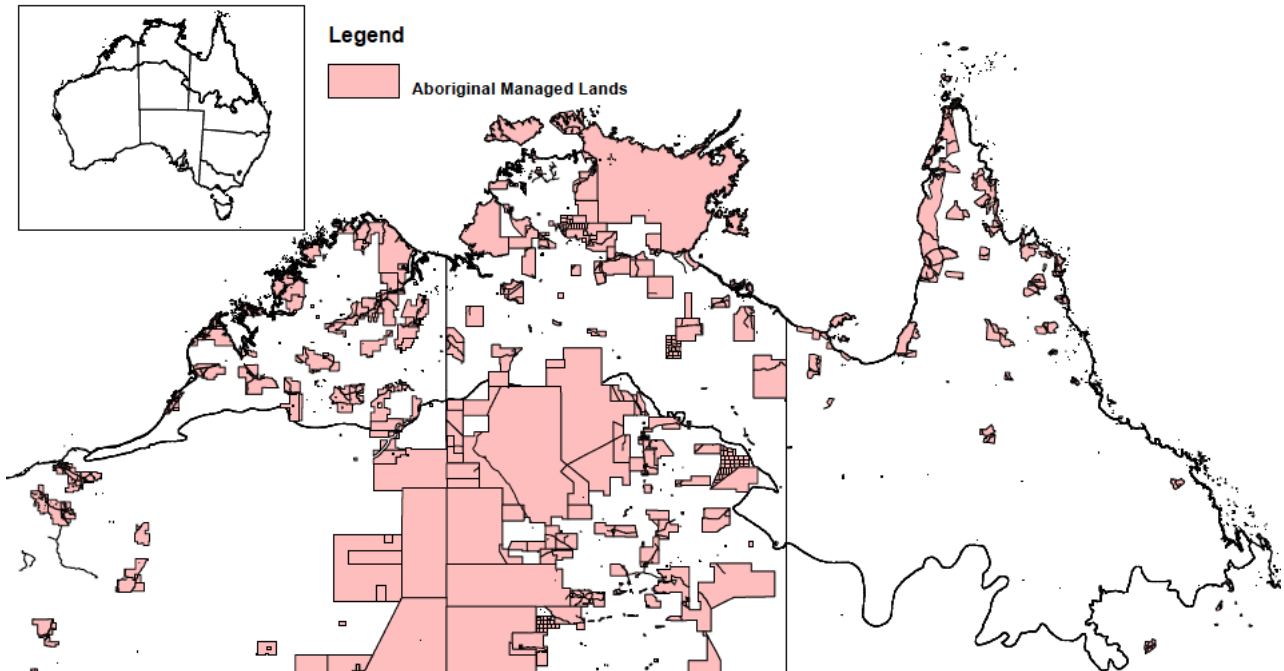
⁴ LNP's '2030 vision developing northern Australia': <http://www.liberal.org.au/2030-vision-developing-northern-australia>

⁵ Source: Australian Bureau of Statistics 2011 census figures, but including Local Government Area population data inclusive of major towns Cairns, Townsville, Mt Isa (Queensland), Darwin, Palmerston, Katherine (Northern Territory), and Broome (Western Australia).

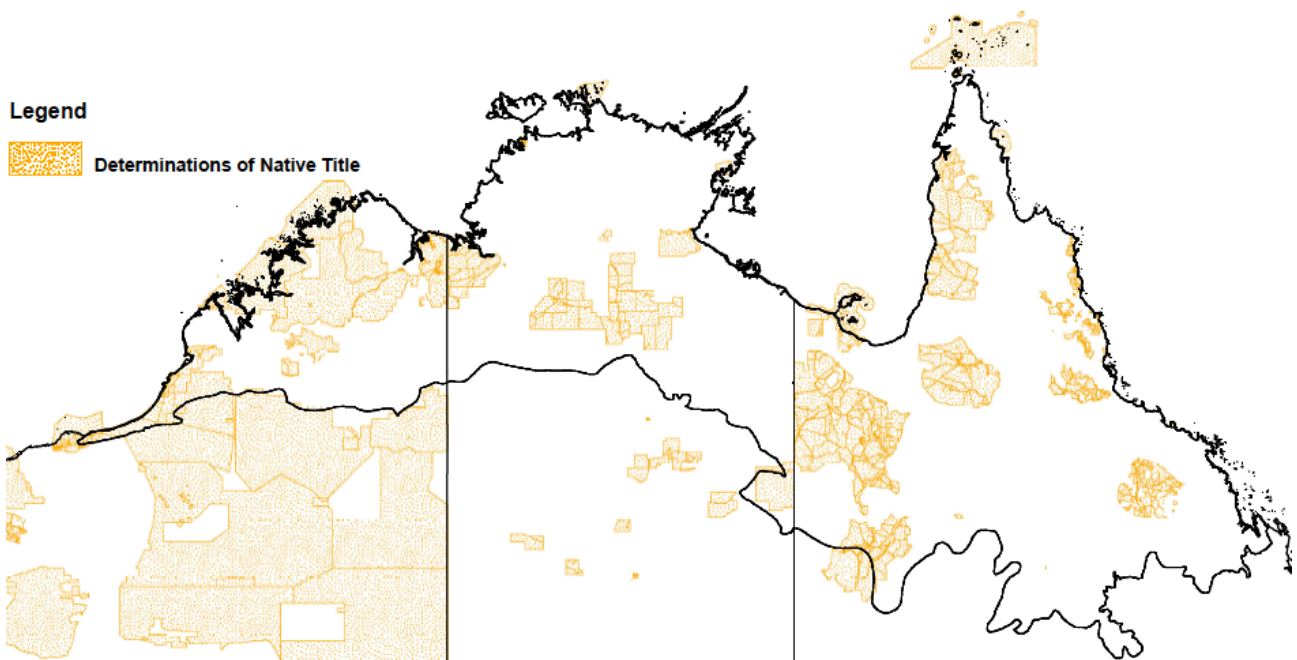
⁶ Source: Indigenous Land Corporation (May 2013)

Map I: Current status of Aboriginal interests in land (from Russell-Smith and Whitehead 2014)

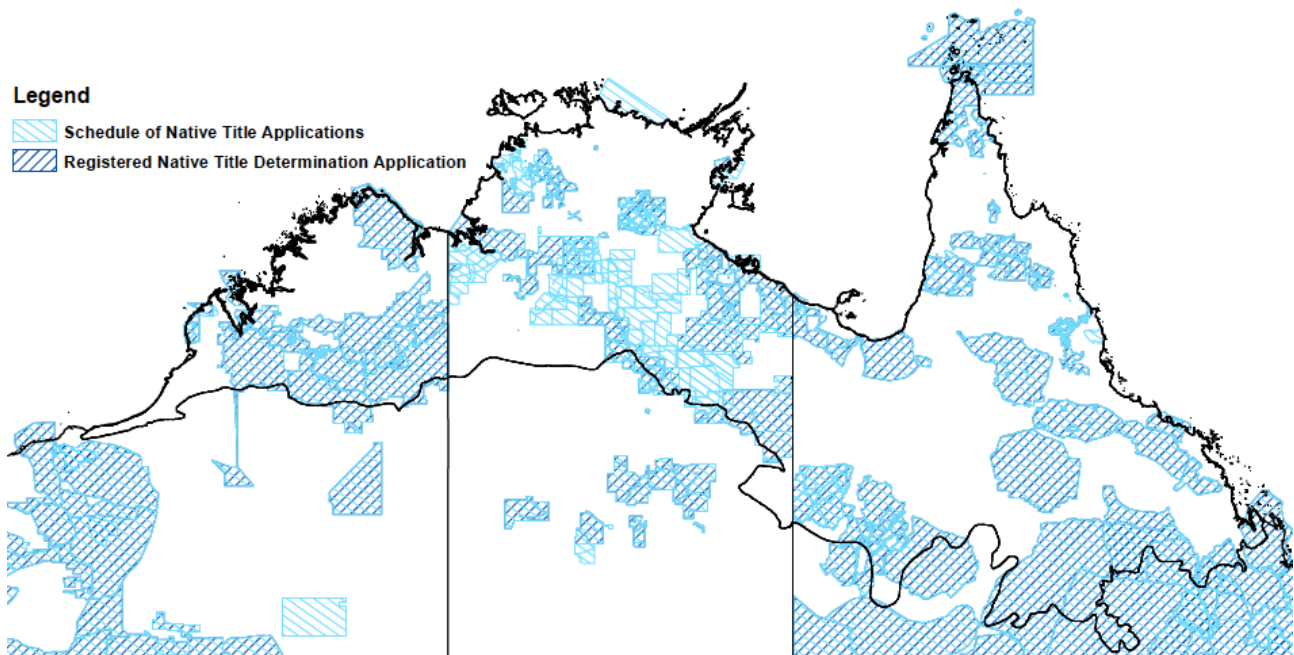
(a) Aboriginal-owned or managed lands (Source: Indigenous Land Corporation. 2013)



(b) Determinations of Native Title (Source: National Native Title Tribunal, June 2013)



(c) Native Title Applications (Source: National Native Title Tribunal, June 2013)



to be determined) cover more than 43% of the tropical savannas region, ranging from 52% of Western Australian savannas to 40% in Queensland (Fig. 1c) (Russell-Smith and Whitehead 2014)⁷.

4. Although Indigenous pastoral holdings and enterprises are extensive in the northern savannas, these occur especially in productively marginal situations in the Kimberley, Top End and Gulf, and Cape York⁸. In such settings most Indigenous people live on lands held under Aboriginal communal title and, in any case, the pastoral enterprise affords few employment opportunities—with the result that a mostly unemployed and growing regional Indigenous population is on chronically low to very low incomes (e.g. Taylor 2003).

In sum:

- *Indigenous people make up the majority of the savanna population outside of urban centres, particularly in remote areas*
- *Despite being 'land rich', most Indigenous savanna residents have very limited employment prospects—including in extensive but economically marginal pastoral enterprises*
- *These trends are set to deteriorate further in the absence of innovative solutions*

⁷ Source: National Native Title Tribunal (June 2013)

⁸ Source: Indigenous Land Corporation (May 2013)

3. Innovative land management enterprise opportunities for savanna residents

1. The paucity of sustainable enterprise opportunities derived from mainstream activities for many savanna residents requires that new enterprise propositions be developed and supported. For Indigenous residents, land and sea management activities afford a variety of environmental services including:
 - Biodiversity conservation survey and monitoring
 - Cultural site maintenance—including survey and monitoring activities
 - Feral animal and weed management—including survey and monitoring activities
 - Landscape-scale fire management, including ‘savanna burning’ for Greenhouse Gas (GHG) emissions abatement
 - Carbon sequestration projects associated with various activities above
 - Protected lands management and associated tourism opportunities
 - Arts and crafts celebrating connections with lands and seas
 - Sustainable commercial harvest of native plants and animals
 - Participation in research for NRM
 - Other contracting services—e.g. quarantine, customs, fencing, road maintenance

2. Such management activities have received particular impetus since 2007 with the public funding of Indigenous ranger programs⁹ by Commonwealth, Queensland and, to a much lesser extent, Northern Territory Governments. Currently, these programs fund over 700 ranger positions, mostly in northern Australia¹⁰. Despite limitations and implementation issues, these programs have proven to be remarkably well received and successful in delivering a variety of community, health and environmental outcomes (e.g. Gorman and Vemuri 2012; Altman and Kerins 2012). An evident challenge is to move beyond a ‘green welfare’ dependency model to build sustainable cultural and environmental services enterprises owned by and answerable to local communities.

3. ‘Savanna burning’ projects delivering industrial-scale greenhouse gas (GHG) emissions abatement¹¹ offer a highly prospective example of novel commercial opportunities available to savanna land managers (Heckbert *et al.* 2009, 2012; Whitehead *et al.* 2009). The West Arnhem Land Fire Abatement (WALFA) project has been implemented successfully by Indigenous ranger groups over 28,000 km² from 2006 under a long-term contractual arrangement with ConocoPhillips (Whitehead *et al.* 2008; Russell-Smith *et al.* 2013). Other savanna burning GHG offset projects are currently operating successfully in the Northern Territory under the Commonwealth’s Carbon Farming Initiative, and there is widespread activity in developing similar projects on Indigenous and pastoral lands across the savannas¹². Notably, such projects are particularly suited to highly fire-prone, pastorally

⁹ including Commonwealth Govt ‘Working on Country’, ‘Caring for our Country’, Indigenous Protected Area, and Queensland Govt ‘Land and Sea Ranger’, programs

¹⁰ 650 Working on Country ranger positions funded by the Commonwealth (<http://www.environment.gov.au/indigenous/workingoncountry/index.html>); 53 Land and Sea rangers funded by the Queensland Govt (<http://www.ehp.qld.gov.au/ecosystems/community-role/ranger/>)

¹¹ Current work aims to extend the savanna burning methodology to include: (1) lower rainfall savannas, effectively to the 600 mm isohyet; (2) a complementary savanna biosequestration component; and (3) a similar abatement and biosequestration fire management project for central Australian spinifex and mulga rangelands.

¹² In the NT, both Fish River Station (Indigenous Land Corporation) and the Tipperary group of pastoral properties have successfully implemented formal Carbon Farming Initiative projects. Other savanna burning projects are currently

marginal / unsustainable situations, typically in regions with relatively large Indigenous populations and land ownership.

4. There is strong support from both Indigenous and non-Indigenous pastoral sectors concerning the ongoing development of savanna burning and related activities (Walton et al. 2014).

In sum:

- *To help address chronic unemployment and related social issues in many remote north Australian Indigenous settings, ongoing ranger program support is required to further develop land and sea management commercial opportunities and associated governance arrangements*
- *Landscape-scale savanna burning carbon and GHG emissions management projects are particularly well suited in fire-prone regions, offering diversified economic opportunities for Indigenous communities as well as the broader pastoral sector*

4. Supporting the development of diversified economic land management opportunities

1. In pastoral contexts, savanna burning activities are best viewed as adding to the diversification mix, to be applied in situations which are not required for other agricultural pursuits (Walsh et al. 2014; Walton et al. 2014). However, whereas annual prescribed burning undertaken to deliver savanna burning emissions abatement is recognised as a management activity and doesn't invoke a carbon or property right, there is increased legal complexity (including addressing Native Title issues, and respective State / Territory regulatory frameworks) surrounding other savanna burning activities which result in carbon sequestration in living and dead biomass, or possibly in soils¹³ (Dore et al. 2014). Similarly, there are significant unresolved policy issues (e.g. achieving a sustainable carbon price; 'permanence'—the time period over which the carbon stock must be maintained). Nevertheless, biomass sequestration projects can deliver substantially greater annualised economic returns than for emissions abatement (Murphy et al. 2009).
2. The extensive pastorally marginal and unproductive savanna lands offer a wider national role in supporting sustainability in northern development. For example, whatever the scale of development in irrigated or rain-fed agriculture, associated land clearing will create a pulse in greenhouse gas emissions from clearing of woody vegetation, which will compromise attainment of national emissions reduction targets. If supported to build carbon farming projects, northern savanna landholders can provide timely carbon offsets as well as protecting the water and other ecosystem services on which development depends.
3. Many question whether a strictly lowest cost emphasis in the present design of the Emissions Reduction Fund (ERF) - intended to replace a national carbon market - will be

being developed in western Cape York, in the QLD and WA Gulf, central Arnhem Land, the Daly region, and the Kimberley.

¹³ It is unclear at the present time whether, or under what conditions, soil carbon sequestration can be achieved or even measured in savannas, especially in association with grazing (Pringle et al. 2011)

capable of effectively engaging the land sector^{14,15}, and even whether low cost soil carbon in projections of land sector sources for the ERF is achievable¹⁶. Climateworks, whose cost-curve is cited in the ERF Green Paper, puts the average cost of land sector projects well above energy efficiency and similar measures and, in discussions of particular opportunities in the land sector, makes no direct reference to soils¹⁷. Placing reliance on unproven methods where measurable effects from land use change on soil carbon stocks have proven elusive in savanna contexts (e.g. Russell-Smith et al. 2003; Beyer et al 2011; Pringle et al. 2011; Richards et al. 2011) appears at best a high risk strategy, if the ERF is to build and maintain credibility and, most importantly, meet national goals. In the ERF Green Paper, views have been sought on safeguards for emissions reductions, given the expectation that continued economic growth will drive up emissions relative to industry baselines. Industry support for Indigenous carbon farmers to produce large scale emissions offsets based on methods proven for over a decade, and using lands otherwise marginal for orthodox production, could be an important component of those safeguards. The value of such investments is greatly increased by important co-benefits in helping to "close the gap" and improve biodiversity conservation over large parts of the continent.

In sum:

- *Realising the potential of novel carbon-based enterprises across the savannas requires support and leadership from both Commonwealth and State/Territory governments in addressing a range of tenure and carbon trading policy issues.*
 - *Providing opportunities for Indigenous savanna land management enterprises to effectively engage with carbon markets requires supportive settings in the developing Emissions Reduction Fund¹⁸, as well as ongoing support for building sustainable ranger programs as described previously.*
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We are happy to elaborate further on these matters with the Joint Select Committee

¹⁴ Climateworks (2013) Achieving Australia's emissions reduction targets in the context of a direct action approach: submission to the Australian Government Emissions Reduction Fund terms of reference consultation. Climateworks Australia, Melbourne. 17 pp.

¹⁵ Carbon Market Institute (2013) Carbon Market Institute: Submission - Emissions Reduction Fund terms of reference. Carbon Market Institute, East Melbourne.

¹⁶ Edis, T. (2014). Hunt damned by his own numbers. Climate Spectator 23 August 2013: Rose, B. (2014) A soil carbon troppo dream. Business Spectator 10 January 2014

¹⁷ Climateworks (2013) Achieving Australia's emissions reduction targets in the context of a direct action approach: submission to the Australian Government Emissions Reduction Fund terms of reference consultation. Climateworks Australia, Melbourne. 17 pp.

¹⁸ NAILSMA submission to Emissions Reduction Fund Green Paper, February 2014.

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