

## Soil news – the soil carbon and climate policy journey in Australia and the role of different media

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**Abstract.** ‘Enough soil carbon to mitigate climate change is a big ask’ was a litmus piece in the October 2012 edition of *Agriculture Today*. The paper was the New South Wales Department of Primary Industries’ flagship research, advisory and farm management vehicle, published monthly in *The Land* for 20 years, on the web since 2005 until December 2012. The October 2012 story dovetailed with Australian Broadcasting Corporation (ABC) television *Lateline* reporting that the Federal Coalition’s (from now on Government’s) climate policy could not demonstrate that storing carbon in Australian soils would achieve the major proportion of a target to reduce Australia’s greenhouse emissions by five per cent on 2000 levels by 2020. It also provided background for the ABC’s *FactCheck* verdict that voters in 2013 federal election were not hearing “the full story on climate research”. The real story is how to inform urban Australia’s poor understanding and lack of connection to how land managers must maintain and where possible improve soil quality for food security and food production as we adapt to climate change. And if you are in the business of information delivery or providing content, how do you choose your distribution channels to target as wide an audience as possible? One fundamental yardstick to avoid disenfranchising and discriminating against some people who want, and rely on, your information is to continually critically assess how fast high speed internet is reaching marginalised rural areas. Print is still the preferred news medium for the majority of farmers.

### 1. The ‘Big Ask’

‘Enough soil carbon to mitigate climate change is a big ask’ was a definitive piece in the October 2012 edition of *Agriculture Today*, the New South Wales (NSW) Department of Primary Industries’ (DPI) flagship research, advisory and farm management newspaper [1]. “Expectations were unrealistic for delivering increases in sequestration of carbon in soil”, said one of Australia’s most respected soil scientists Dr Mark Conyers, delivering the 2012 Harald Jensen lecture, hosted by the NSW Branch of the Australian Society of Soil Science. Dr Conyers is a DPI principal research scientist based at Wagga Wagga Agricultural Institute and the Harald Jensen lecture is a key annual event on Australia’s soil science calendar. The content of Dr Conyers’ story in *Agriculture Today* has never been contradicted to me, nor to my knowledge, to anyone associated with it.

The October 2012 story dovetailed with reporting by ABC TV’s *Lateline* that the Federal Coalition’s (now Australian Government’s) ‘Direct Action’ climate policy, which included repealing Australia’s carbon tax, could not demonstrate that storing carbon in Australian soils would achieve the major proportion of a target, widely criticised as too low, to reduce Australia’s greenhouse emissions by five per cent of 2000 levels by 2020.



It also provided background for the ABC's *FactCheck* opinion that during the 2013 the federal election campaign, voters were not hearing "the full story on climate research" [2]. *Lateline* had twice reported the issue along similar lines in April 2011 [3]. Thereafter a concise and short timeline traced the disintegration of Direct Action's credibility: After a 2013 *Lateline* report [4] by Steve Cannane when host Tony Jones interviewed, now Environment Minister, Greg Hunt the Coalition went quiet about the potential for storing carbon in soils, then briefly flirted with re-forestation as the mainstay of its Direct Action policy. After that the government generally avoided discussing both methods and fell back on saying they were confident of easily reaching emissions reduction targets. So the key question to Mr Hunt and the government remained unanswered: "Tell us exactly what methodologies you know will work to meet your five per cent target, rather than what you keep claiming you are 'confident' about" [3].

RenewEconomy website reported (July 21, 2014) global investment bank HSBC saying repeal of the carbon price the previous week would leave Australia's resource-intensive economy "even more vulnerable" as the world moves in [the] opposite direction and "...this will impact not just its energy-based commodity exports, but also other commodities such as agriculture". HSBC said Australia risked "carbon isolation" because of its "backward move" [5].

At the National Press Club in March 2013, Chief Scientist Professor Ian Chubb agreed with Opposition Leader Bill Shorten's proposition that "degradation of the climate change debate is the cautionary tale for what happens if we abandon the field to the conspiracy theorists and keyboard warriors, the social media trolls and the angry shouts of talkback radio..." [6].

Two weeks later in a televised climate debate with economist and former Labor government climate advisor Ross Garnaut on *Lateline*, the leader of the Palmer United Party (PUP), Clive Palmer, rejected the Intergovernmental Panel on Climate Change's latest findings and offered an offhand conspiracy theory: "well, I can get a group of scientists together... and pay them whatever I want to, and come up with any solution. That's what's been happening all over the world on a whole range of things" [7].

On July 7, 2014 at a live televised National Press Club lunch, it was suggested to him that "real science doesn't work that way... and that Australia's top agricultural food and fibre scientists, including climate scientists considered your comments a slap in the face."

In a rambling, almost entertaining response he then said he believed in climate change and explained his take on the unexpected and bizarre occasion three days earlier when he enlisted Al Gore, former US Vice President and Nobel Peace Prize winner for his work in climate change activism [8].

PUP's media release said Mr Gore had convinced him "to further consider the impact of greenhouse emissions on the planet and the need for a global solution" [9].

With their balance of power in the new Senate, PUP and other newly aligned Senators voted on July 17 to repeal the carbon tax.

Since December 2013 Mr Palmer and his staff had received sufficient background on the key science about the overstated potential for storing carbon in soil but had made no public reference to it in his political horse trading with the new government over its Direct Action plan.

He had previously called Direct Action a "token gesture", a waste of money and hopeless [10].

In August, he quipped on ABC TV's Q and A program that PUP had copied Labor's emissions trading scheme but with variations: its blueprint included a floor price of \$0, to start when Australia's major trading partners formally initiated their own versions [11].

On October 30, 2014 PUP supported Direct Action into legislation.

Before all this and beyond the unfolding politics, in March 2014, there had been no disagreement among the international and Australian keynote speakers in an audience of soil science researchers at the Soil Change Matters workshop in Bendigo, that the government's Direct Action target could not be achieved mainly by sequestering carbon in soil.

For them the conundrum now was "don't throw the baby out with the bathwater".

While many thought Direct Action would fail if it was legislated, the Carbon Farming Initiative (CFI) was thought of as "something we need to make work", to enable carbon trading as part of any

emissions reduction plan, and to facilitate the main game of improving land productivity and management, after farmers assessed associated financial and practical risks, including proof of permanence.

There are many issues to be resolved for the CFI to prove effective. The Federal Department of Environment maintained that ‘approved sequestration methodologies’ would still be required for agriculture and forestry. In early September 2014 the likelihood of who would pay the bill for greenhouse gas reduction had shifted onto taxpayers instead of polluters.

A methodology on soil carbon was still being evaluated. Whether the land sector had to compete with other sectors, such as stationary energy, or whether permits would be reserved for the land sector was unresolved. If the land sector has to compete it was unlikely to get much of a look in - especially with the potential for soil carbon being overstated.

The opportunities for forests to contribute were still very constrained by philosophical issues embedded in the current policy - largely, the peripheral issues around water and biodiversity imposed by the Greens when they held the balance of power with the Labor Party. For example, only providing credits for native forests if they were locked up and not actively managed - even though research shows that actively managed forests have a greater greenhouse gas reduction benefit, because the carbon in the harvested products is then locked up in processed timber products for more than 100 years, while the forest re-grows, sequestering more carbon [12].

Then there is the issue of forcing forest plantation owners to purchase high security water entitlements to cover the total amount of evapotranspiration from the plantation. This is despite other land uses (e.g. tropical pasture) having a greater impact on the water cycle [13] and not having to purchase entitlement. For example, the move to tropical pasture in northern NSW. While tropical pasture consumes less water per hectare than forests, it covers a much larger area. With 400,000 ha of temperate pasture replaced by species to suit more tropical conditions over the last 10 years [14], and tropical pasture using 0.1ML/ha/y more water than temperate pasture, this represented an impact that nobody was thinking about. It would be interesting to see if these policy prescriptions changed with the new Senate make up.

In the context of the Soil Change Matters workshop at Bendigo, an equally important story is to repeat the question that farmers, researchers, public and private sector advisory personnel and agribusiness people have already wrestled with for years, that is: how to improve urban Australia’s poor understanding of and lack of connection to the ways land managers must maintain and where possible improve soil quality for food security and food production as we adapt to climate change?

With world populations exploding, what a substantial survival job that is, given some people’s rhetoric that Australia could become “the food bowl of Asia”. Federal Agriculture Minister Barnaby Joyce said it was not possible, and even doubling Australia’s current food production would make a only a minor contribution to feeding Asia’s growing middle class [15].

Leaving aside political rhetoric about climate policy, no-one in agricultural science, extension or production would debate the value of individual landowners doing whatever they could to cost-effectively store as much carbon as their soils permit, to enhance productivity.

## **2. How best to reach audiences with the latest news?**

If you are in the business of ‘information delivery’ or ‘providing content’ - newspeak these days for ‘news’ - how do you choose your distribution channels to target as wide an audience as possible when you need to?

One fundamental yardstick, so as to avoid disenfranchising and discriminating against some people who want and rely on your information, is to continually critically assess how fast high speed internet is reaching marginalised rural areas. Otherwise, you may continue to reach major sections of agribusiness but risk leaving behind the most important group – the farmers. The highly complex mix of traditional and new media technologies and pathways now totally cater to metropolitan audiences and readers, and to regional urban centres almost as well. But citing NSW as the example, it would be a major blind spot to assume farmers (geographically more isolated outside urban centres) are

migrating just as rapidly to predominantly consume web-based news and current affairs in preference to print [16].

The Audit Bureau of Circulations put sales of the print edition of *The Land* newspaper above 40,000 a week, which translated – weekly - to a readership of more than 100,000.

The most recent *Quantitative Agricultural Readership Survey* (QARS) by McNair Ingenuity for Fairfax Agricultural Media, demonstrated farmers were not yet migrating to the web or social media as their preferred sources of news [17]. Conducted every 2-3 years, QARS claims to be the most current and significant research on the habits and demographics of broadacre farmers in Australia. It investigates how technology is impacting on farmers, their consumption habits including how they consume media, and how they can be reached [17].

QARS' 2012 numbers suggest that anyone who really wants to keep contact with a mass farmer audience should maintain a presence in newspapers and other print formats if you have access, and if you don't, then initiate it, even for the short term. At least until there is clear market evidence that high speed internet access has convinced farmers to get their news online in preference to reading print; and currently that is a slower process than among metro and regional urban audiences. As it had in 2009, the 2012 QARS revealed the largest single farmer readership group of the print edition of *The Land* continued to be the 18-39 year olds – in 2013, 90 per cent of them read the paper and preferred print as the delivery medium. Of all farm management demographic groups, they would have been considered mostly like to mass-migrate online but at that stage, it had not happened [17]. In fact the print version of *The Land* is the preferred way farmers in all other older age groups surveyed also wanted their news presented [17].

Part of the argument supporting this niche market longevity of print to this point has been about farmers' lifestyles. They still regard print as the most convenient format to source their information - they can read before they go out to the paddocks early in the morning, again at lunchtime if they come in, or in the evening. Or take it with them in their vehicle. The other part of the argument is that access to high speed internet is limited in many rural areas.

So after 20 years of publication, why would the NSW Department of Primary Industries (NSW DPI) axe its widest reaching news vehicle, the flagship farm research, advisory and management newspaper, *Agriculture Today*? The paper had published monthly in the print edition of *The Land* as a highly credible masthead until December 2012 and on the web since 2005. It had approximately 105,000 readers a month. Asked specifically in February 2013 about its demise, Professor Robert Picard, Research Director, Reuters Institute for the Study of Journalism at Oxford University said:

You don't want to walk away from your audience. So, I mean, any specialised publication is going to have a much stronger psychological bond between that publication and your provider and the audience than a general one. And that's always the case. So at this point if it's working, you know, if it ain't broke don't fix it. While people are out in the field they might want to check and be able to call back home. But they're not going to take their tablet out on their tractor. It just doesn't work that way. And you know, we have to think of technology as serving purposes and what they serve in people's lives. [18].

When 2011-13 budget cuts and rationalisation created one new organisation (Local Land Services) and restructured another (NSW DPI), *Agriculture Today* was delivering approximately 350 targeted research and advisory stories a year at a cost to the former NSW DPI of a few cents per message per reader. This cost was less than the cost to NSW DPI of an employee logging onto the internet each day before salaries of any media staff users or online content creators were factored in, including daily use of NSW DPI's Twitter account. It may seem a luxury for a government department to run its own newspaper but this is one portfolio – food and fibre research and extension – where it had been the perfect tool to reach core clients cost effectively, directly, for two decades. Now, at a time of the largest-ever reforms to the state's agriculture and natural resource management practices being implemented by the NSW government's new organisation, Local Land Services (LLS), the *LLS*

*website* [19] was the go-to source – a massaged and visually manicured shopfront, heavy on enthusiastic public relations. LLS started operating in January 2014, a combination of three previous organisations – the extension (field advisory) staff of NSW Agriculture, the NSW Catchment Management Authorities and the NSW Livestock Health and Pest Authorities. Eight months in, its internet shop front talks a big game on the future of land and water management in NSW. Is it too early to predict the success and substance of the new enterprise?

On August 28 (2014) in his long-running Peppercorn column in *The Land*, Peter Austin wrote:

From all accounts [LLS] is turning out to be just the cultural and administrative mish-mash many of us predicted. But at least under the previous structure everyone – constituents and staff – knew where they stood, and what was expected of them. Now we have a blancmange of an agency whose messages will necessarily be blurred... Its officers will find it hard to win the landholder trust that was vested in their forbears, whose roles were more clearly defined and understood [20].

In my opinion, the choices of media platforms to use to inform stakeholders about services in the split-up of NSW DPI and formation of LLS is a case study in hastily dispensing with one highly cost-effective, saturation coverage medium on the incorrect assumption that audiences could or would automatically, quickly convert to “new” (including social) media as a replacement.

Abolishing *Agriculture Today* was a cost cutting measure to save a relatively modest amount, pitched as a case of government showing leadership to farmers in adopting new media methods and technology and dispensing with what was supposedly outdated, rather than using them effectively in tandem. In the case of NSW DPI’s remaining research, biosecurity and other programs’, their main news vehicle then became the department’s media release website [21].

Google Analytics in late February 2014 showed the entire DPI site had 331,000 hits in the previous month on all pages, without knowing how many hits there were on the media releases pages, which target journalists and news organisations rather than the department’s wider client base. Regional print journalists may choose to run media releases or not for rural readers as prominently, or less prominently than *Agriculture Today* did, or with their own interpretation of each story.

NSW DPI’s Twitter account at the end of May 2013 had 2000 followers, by March 23, 2014 it had 3040, by September 1, 2014: 3548 [22]. Not big numbers. There is something about government public relations messaging that stutters clumsily in Twitter’s abbreviated conversation format.

A very telling print anecdote is that in a media release on the NSW DPI website, according to Dr Cameron Archer AO, Principal at Tocal College, sales of agriculture-related books were booming, defying the shift to digital e-reading. “Sales of books from Tocal have never been higher and are up significantly on last year,” Dr Archer said. “In 2013 Tocal printed and distributed 13,000 publications Australia-wide and internationally on agriculture and related matters. The range of books includes more than 100 titles” [23].

Depending how long the National Broadband Network roll-out takes in the bush, farmers will still be likely to want news via print as a main source in the short term at least. Even though profits may decrease, *The Land* and corresponding interstate mastheads have the capacity to remain profitable, according to Fairfax, which anticipates the next QARS will update the picture in early 2015. In early September (2014), in a follow-up interview, Fairfax Agricultural Media national sales manager Ian Thomson repeated the organisation’s assertion that in this niche market, specialist agriculture-focused printed newspapers will continue be profitable for at least 4-5 years.

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