

Mr Carbon Farming

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Soils can save the world according to Michael Kiely, co-founder of Australia's *Carbon Coalition*. Kiely's vision is for farmers "to grow carbon". He advises farmers "to get off the tractor" and "stop doing things". That clearly has a certain appeal for some farmers, and even more so when he proposes to splice in some cash-for-carbon dollars.

Kiely has a message for climate true-believers, and it's the same message for climate skeptics: "There's nothing to do with climate change in any of this". The *this* for Kiely is 'carbon farming'. He does however foresee that the momentum of climate change can be harnessed to benefit farms, farmers and the planet.

"Is soil carbon the new cash crop?" asks Kiely. He speaks with the zeal of an evangelist and calls himself a 'carbon farmer'. Peering beyond the present haze of the carbon-trading and the carbon-sequestration babble, he can see green-bucks for farmers.

Michael and Louisa Kiely founded Australia's *Carbon Coalition Against Global Warming* in February 2006. It is now often abbreviated to the *Carbon Coalition*. The stated intention is 'to lobby for the right of Australian landholders to trade on the emissions offset market the credits they can earn by sequestering carbon in their soils'.

"There's more to soil than just something to hold up the trees" says Kiely. He explains: "Soil Carbon is one of the many resting places of carbon as it cycles through the biosphere ... carbon which is incorporated into the soil can remain stable for thousands of years". Although agriculture is not in the government's carbon trading scheme, Kiely's view is that it ought to be.

Kiely states that: "soil carbon improves the fertility and health of the soil, it increases the soil's ability to transfer nutrients to plants, it increases soil's water-holding capacity, it increases



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soil stability, it can reduce salination, and it can increase the biodiversity in the soil".

To get the carbon farming message across to politicians, Kiely advises that "no words will do as much as walking on carbon rich soil". He reports his own experience: "there's a magical moment a few years into taking on a pretty much buggered farm when you're renovating it".

Of his own property 'Uamby' in central NSW he says of the benefits of carbon farming: "It's as though we towed it into a new rainfall zone". He has the aerial shots with his farm and a neighboring farm in the frame, and he makes the point that his farm is lush and green, while the other offers a stark contrast.

The debate on climate change is one of "complexity and befuddlement" says Kiely, and he adds frankly "I don't understand the science of global warming, and I don't think most of the people who write about it do either".

According to Kiely "sexy solutions" like changing your light bulbs, or cutting back on air travel "won't do anything to stop the legacy load" of carbon dioxide in the atmosphere.

For Kiely only photosynthesis can tackle the legacy load of carbon in the atmosphere. And for Kiely carbon is not spelt t-r-e-e-s. He claims if we were relying on trees, we'd need seven planets covered with trees to sequester our carbon. He states bluntly that: "Forestry kills communities. Enforestation and depopulation march across the land, snatching the children out of the schools". Kiely presents his statistics that the global bank of carbon in soil far exceeds the carbon in vegetation (Figure 1).

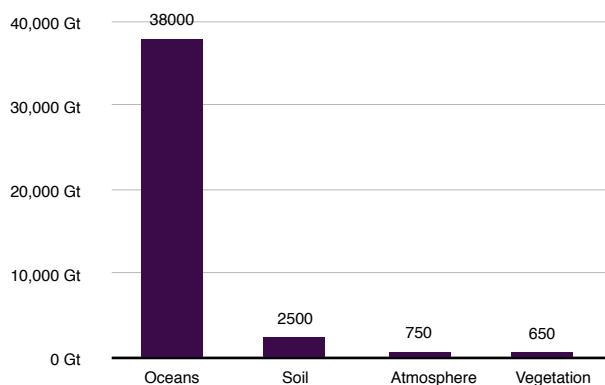


Figure 1: Where is the carbon? Estimates of the carbon stored in four "carbon sinks", cited by Kiely from Lal, R, 2006 (a Gigatonne, Gt, = a billion tonnes).

Kiely speaks of a Carbon Farming Movement, but step a little closer and you can see the dollar signs of Carbon Farming Inc. glistening in his eye-balls. One farmer at a Carbon Coalition workshop is so overtaken by a bout of newly acquired enthusiasm, or was it a spasm of *reductio ad absurdum*, asks if he could give up his other crops and 'just farm carbon'? Kiely brings him back to Earth with a definitive "No". Pity that.

Kiely says his booklet, *Carbon Farming Handbook: Land Management for Carbon Sequestration*, contains all we've learnt in the last three years. "Soil carbon," he says, "is a mystery to many and requires some effort to understand" - but it is worth it, he claims.

In his Carbon Farming Workshop, Kiely tells farmers: "The genius of soil carbon is its immense power to transform landscapes from deserts to flourishing gardens. Soil carbon is also a key indicator of human impact on nature". The farm that increases its soil carbon will be "greener" both literally and figuratively, the produce will be better, and the inputs will be less. The *coup de grâce* however is Kiely's account of how farmers might be paid for their carbon farming, their sequestration of carbon into their farm soil. A soil

carbon trading scheme would reward farmers for carbon sequestration and effectively make carbon a new cash crop.

Kiely practices what he preaches. "Carbon farming is not a new practice. It is a new way to describe a collection of techniques which can increase soil organic carbon in agricultural land ... It's about changing the way we farm ..." says Kiely. Farming techniques that he sees as carbon sequestering include organic farming, biodynamic farming and natural sequence farming.

"Billions of tonnes of organic carbon have been lost from agricultural soils ... through inappropriate land management practices" says Kiely. That loss is restorable by choosing to change practices, and at a carbon price of, say, \$25 per tonne, Kiely and his not-for-profit company Carbon Farmers of Australia are interested at 10 per cent commission.

Soil carbon trading has a number of impediments to overcome. These include how to measure soil carbon. Farms are both emitters and sequesters of carbon, and on-farm carbon is a moving target. Which farms are net emitters and which are net sequesters? There are auditing challenges, theoretical challenges, scientific and marketing challenges, and there is the issue of subscribing the government to the vision of soil carbon trading.

Alarm bells will ring for some. Is this just a new form of reductionism, some kind of commodification and/or privatisation of the commons? Is it a uni-dimensional fix for a multidimensional problem? What of perverse outcomes? Will the greatest carbon squanderers of the past, gain the greatest rewards for carbon restoration; the prodigal son revisited? Others will just hear the jingle of the cash register. A fully fledged Australian Soil Carbon Exchange, an ASCX, is still some way away, although Kiely reports that there is already a modest 'voluntary market'.

Rewarding agricultural soil carbon has the potential to nudge farmers towards ecologically favorable management strategies. Managing the land to increase the level of life, and hence carbon, in the soil has the potential to be a winning proposition for us all, and organic and biodynamic farmers are in the driver's seat to demonstrate how it can be done.