WHO WILL SPONSOR A NEW CROSS-DISCIPLINARY FIELD OF RESEARCH?

Grazier Alan Lauder, formerly of Cunnamulla, western Queensland, has developed a different way of explaining the role of carbon in pastoral landscapes. He has realised that carbon flows at different speeds through the eco system. This realisation changes our former ideas to carbon and land management. Applying this understanding, has considerable effect on the condition of the land for both environmental and agricultural land uses – and has policy implications for management of atmospheric carbon.

Warwick Jones, a research coordinator and public policy person, has summarised Alan's model thus:

KEY INSIGHT IS SPEED OF FLOWS

> We have been continually refining our understanding of the carbon cycle for more than a century but the way it has been used for both biosphere-atmosphere interactions and the resulting management practices has been faintly unhelpful to date. In particular, we have focused too much on carbon stocks to the detriment of flows. Your first insight was to realise that from a management point of view, it was the carbon flows that were important. *The key insight however, and one that I don't think anyone else has made, was that the speed of flows was the critical thing for the land manager.*
>
> In other words, it was not just the slow moving carbon we have been treating as stocks that was important but also the fast moving carbon initially introduced as part of plant growth. From a management point of view, this has meant that land managers can stop trying to drive using the rear view mirror to look at what has already happened (carbon stocks) but can now look through the windscreen and look at what the fast flowing carbon is doing before their eyes. Knowledgeable producers know how to increase the volume of carbon flowing through their paddocks as well as what increases the speed of the fast flowing carbon.
>
> This turns the current approach to land management on its head. Carbon flows move to the centre of land management not just because of greenhouse gas abatement potential but also for the profitability, sustainability and resilience of the land whether it is a vegetable farm, grazing operation or an arid lands national park. So rather than being nice to have just as a sustainability issue, carbon flow management should be the superstructure of land management thinking to which we can bolt on other modules.
>
> With the understanding of the speed of carbon concept, comes a better understanding of animal performance. Apart from flowing through the landscape after entering plants, carbon also flows through sheep and cattle. Increasing the speed of carbon through these ruminant animals increases profits and reduces the production of methane per kg of production.

Although Alan has tertiary studies, they are not in science and for his field observations to be mainstreamed into public policy, they need to be validated by scientifically corroborated measurements presented through accepted scientific procedures.

Alan has published a book in a semi-popular style that has been endorsed by top scientists in the field but he still has not gained official support for a research project to clinch his case. His story provides a good example of the type of research which might well be eligible for support under the new Research Fund.

Alan has observed pithily that "reductionist science leads to reductionist policy."

His mission does not easily conform to current traditional grant programs for environmental research, partly because it is not reductionist, partly because it bridges the environmental and agricultural disciplines and partly because any project with "carbon management" in the title is out of official favour at the present time.

Geoff Edwards
President, Royal Society of Queensland
12 June 2014