

Landcare

Who owns the revolution?

David Smith, author of *Continent in Crisis*, talks to the people of Hamilton in western Victoria about the past and future of Landcare.



IN THE EARLY 1980s, Lyn and Bruce Milne's broadacre sheep and cattle property at Hamilton in western Victoria was subject to increasing problems of soil degradation and salinity. Like many

properties in the region, Helm View had been cleared of most native vegetation. As a result, the Milnes faced serious difficulties that, despite their best efforts, were proving intractable.

In 1984, the Ian Potter Foundation, triggered by the impact of the ABC television series *Heartlands*, presented by CSIRO's Dr Dean Graetz, funded a program to tackle soil degradation. The essence of the Potter Plan was to take a series of rural properties in what the explorer Thomas Mitchell had described as *Victoria Felix*, a region on the Dundas Tablelands of western Victoria, and put them on the path to ecological sustainability. One such farm was Helm View.

Many elements of whole-farm management had earlier occurred to farmers involved in the Potter Plan, but had seemed too difficult or expensive to implement. The Potter Plan emerged as

A worm farm at Helm View. A single 40-metre-long windrow produced 150 tonnes of vermicast in the past 18 months. Originally intended as a multifunctional broadscale substitute fertiliser, the concept offers other possibilities. Five million worms were harvested as a cash-substitute, providing collateral in a business venture. Although scientists are sceptical of the strategy on the grounds that its NPK (nitrogen, phosphorus, potassium) index is too low, Bruce Milne is sceptical of their advice for more fundamental reasons. 'We're trying to run a highly productive enterprise - cattle and sheep - on soil that simply can't support that output. That's why we have to add superphosphate,' Bruce says. 'But why prop up an artificial system with fertiliser in the first place? We'd be better off farming what evolved here on these very soils: kangaroos, emus and yam daisies. That would be a better way to provide the food and fibre the community needs.'

a strategy with the potential to redefine the philosophy behind land use.

By 1986, the hard work and money invested by each family had begun to pay off and for the first time the farmers saw a way out of the depressing and previously inescapable spiral of progressive degradation and increasing costs. In short, the plan offered hope.

The approach taken was to survey the property from both an agricultural and ecological standpoint, eventually producing a plan for the farm that reflected something of the property's underlying ecological realities. Rather than fencing in traditional north-south, east-west plots, the new fences followed land contours that better reflected drainage patterns and the behaviour of grazing animals. The fences themselves were of new designs, stronger, cheaper

and with an ingenious variety of non-hinged lift-up sections instead of gates. If an area was badly eroded, the farmer was encouraged to fence it off, sow it with eucalypts and acacias and allow it time to re-establish itself. The message was: 'In its present state you can't use it, so why not admit it? Leave the area alone for a time and give it a chance to recover.'

Helm View is unquestionably more attractive with its flourishing stands of native trees and wetlands adjoining the house. But for the Milne family, the Potter Plan triggered a reassessment of their entire way of life. Lyn Milne went on to become a Landcare facilitator and oversaw the planting of more than a million trees during her five-year term with Landcare. Bruce Milne attended the 1993 Geneva conference on

biodiversity and in 1994 travelled widely in Africa, researching how Third World inhabitants are tackling their problems.

Bruce Milne says Landcare in Australia is still in its infancy, its development hampered by the fact that governments have taken political kudos from the movement, without contributing the necessary resources. The Milnes are not the only ones who feel that Landcare has lost its way.

A grass-roots revolution

Like most grass-roots revolutions, Landcare arose out of frustration. Landowners were aware of the severe problems they faced and the urgent need for repair.

Australia's national Landcare facilitator, Helen Alexander, believes the first 'small-l' landcare groups were born in the early 1980s out of landholders' frustration with government. 'Change just wasn't happening fast enough,' Alexander says.

In 1986 the Victorian government initiated a program, which it called Landcare, to assist a range of voluntary land conservation groups that had sprung up in that state. Two years later Landcare had become a federal initiative, the National Landcare Program. In July 1989, the Decade of Landcare was declared, with a pledge of \$340 million aimed at achieving sustainable land use by the year 2000.

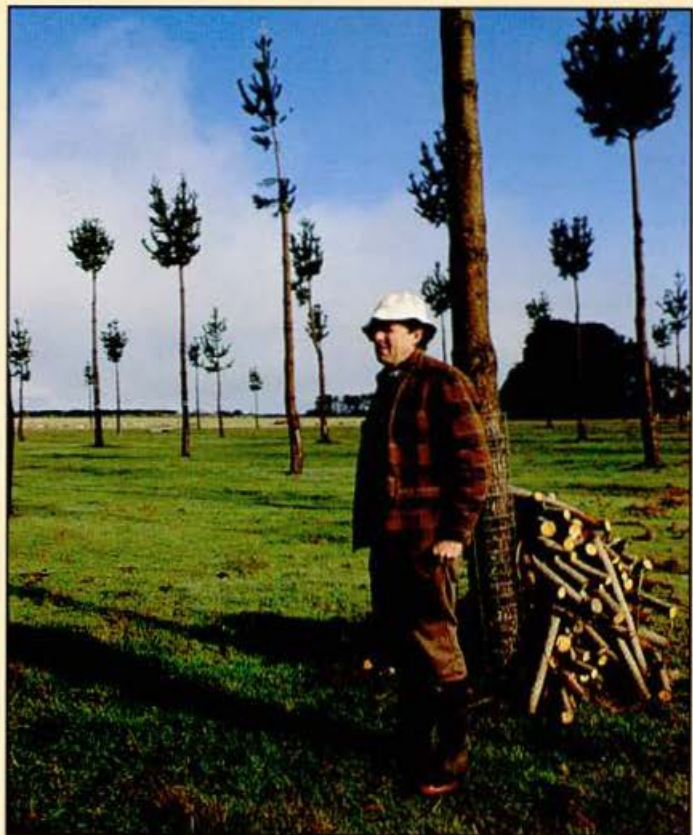
In 1994 Landcare is an umbrella term encompassing a variety of organisations and affiliates spanning the country. Far more than a mere organisation, Landcare embraces a diverse range of people with wide interests, backgrounds and motivations. Just five years after its formal beginning, Landcare involves a third of the Australian farming community in more than 2000 groups, making it a clear leader internationally.

Landcare's rapid growth is not surprising, for the impact of 'green' activism during the preceding 20 years in raising awareness of environmental issues had spawned a bric-a-brac network of conservation groups which had already begun to achieve successes in many arenas. All that was needed, it seems, was for these groups to be united by a common catch-cry. The term Landcare achieved just that.

The prime reason for Landcare's popularity is that the movement originated with people on the land and thus reflects their genuine concerns about how to achieve sustainable land management. It was not, in the first instance, imposed on them from above.

The economic background to the formalisation of Landcare in Australia could scarcely have been worse, but ironically that may have forced the issue. The Australian Bureau of Agricultural and Resource Economics estimated that farm business profit had declined by 350% between 1989/90 and 1990/91, resulting in an average loss of \$18 000 per farm across Australia. This was expected to increase to \$30 000 per farm in 1991/92 along with an alarming increase in the proportion of farm cash devoted to paying off interest, estimated in 1990/91 to be 32%.

Landcare consultant John Marriott from Branxholme in western Victoria says tough economic times are causing people to bite the bullet and say: 'Well, hell, if we're going to get out of this we'd better do something about it now'. If things were still good they'd be saying: 'What's the worry? I'm making a quid...'



David Smith

Has Landcare lost the plot?

Initiatives such as the Potter Plan played an important part in priming the community for Landcare, but other, essentially solo efforts also helped. John Fenton is an 'agro-forester' from Victoria's Western District. Fenton taught himself the principles of whole-farm planning when he began planting native trees on his property some 35 years ago.

The reason was simple, he says: 'I tried planting pines and cypresses but they wouldn't grow, so I switched to eucalypts and acacias and they took off.' Today the property is heavily wooded in many areas and Fenton boasts of his success in agro-forestry, running sheep and timber plantations on common ground.

Fenton's property is unusual in that he has kept meticulous records of all trees planted, together with detailed records of wildlife on the property since he took it over. Research student and town planner Elizabeth Jacka helped delve back into the property's history. The results are illuminating. Before European settlement the number of bird species is estimated at 158. By 1958, after a lengthy period of 'development', just 38 species remained. Each decade since has seen an increase, rising to 97 in 1966, 134 in 1976 and 145 in 1986.

Like the Milnes, Fenton is wary of over-bureaucratisation. 'I'm not against the bureaucracy,' he says, 'somebody's got to run the bloody thing.'

'But, I saw a school advertised not long ago for farmers to learn how to fill in forms. Absolutely bloody bizarre! We've done the education - we've got the whole country on side, and now if we don't look out we're gonna lose the plot!'

The importance of Landcare must be set against the environmental and economic problems faced by Australia at the end of the 20th century. The combined effect of the 'development' of Australia and the impact of species introduced since European colonisation has cost the country dearly. Some of the damage may be repairable, but extinct species cannot be replaced. The consequences of their loss from the system are difficult to predict, but by allowing biodiversity to be reduced we are moving into uncharted waters.

Director of the Pastoral and Veterinary Institute at Hamilton, Dr Andrew Kelly, says farming in the area goes back to 1850. 'There's reliable rainfall, and the early settlers could grow cattle without even trying,' he says.

'Their agricultural practices are well established, but I don't pretend there isn't the long slow degradation spanning many years that is showing up when we look for it and get the indicators in place,' Kelly says. 'Just because they've survived for 100 years doesn't mean its sustainable.'

It is surprisingly difficult to find anyone in the township of Hamilton who either doesn't know about Landcare or who disapproves. Cafe proprietor Mal Wilkinson asserts that Landcare means big business in the region. 'This town runs 98 percent on the sheep's back,' he says. 'If the wool goes, we go!'

What will bring Landcare down?

It is ironic that a movement that grew from frustration with government should become successful enough to be

embraced by government, then find itself at risk of being strangled by that same government machine. This is a fine example of how governments can, by seeing their own survival as an end in itself, miss the point that they are really there to help the community. If help requires them to take the lead from people, then so be it.

Sabina Douglas-Hill, publishing and educational resources manager at Greening Australia, feels strongly that there are too many dollars caught up between federal and state systems. 'The two-tiered bureaucracy is too costly,' she says. 'This is not to say there are not good people working at both levels, but the reality is that duplication is expensive when there are too few dollars to play with in the first place.' Former ACF Director Phillip Toyne estimates that of the \$105 million allocated to Landcare in 1993/94, only 13% actually reached the community.

Statistics reveal that one third of Australian farms are actively involved in Landcare operations. The reality is that there is a limited amount of government financial support available for Landcare and the competition is tough: it's a small pie and no Landcare group is likely to admit to smaller membership than they can justify. But what constitutes truly active participation? Is it the 10 members in a region who always attend meetings, who are known to be working diligently to bring about changes in the way their properties are managed? Or is it the declared membership of 50 which includes a spectrum of progressively less-involved people?

Obviously from a public relations

point of view it would seem prudent to cook the books in favour of greater participation. But no-one really stands to gain from a misrepresentation of the real situation with respect to Landcare. The potential dichotomy between what those on the land know is really going on and what is being fed to the bean counters ought to be avoided. The use of biologically meaningful performance indicators, subject to scientific-style scrutiny, will enhance community confidence in Landcare's achievements.

Who pays?

This highlights what is perhaps the most serious pitfall for Landcare. The Landcare movement sprang from the people out of a combination of a desire to do things better and out of frustration with government tardiness in doing so. Having now been adopted by government, it is crucial to keep the ownership of the movement with the people who started it and that is not helped by documents whose prime aim is to satisfy other bureaucrats and bean counters.

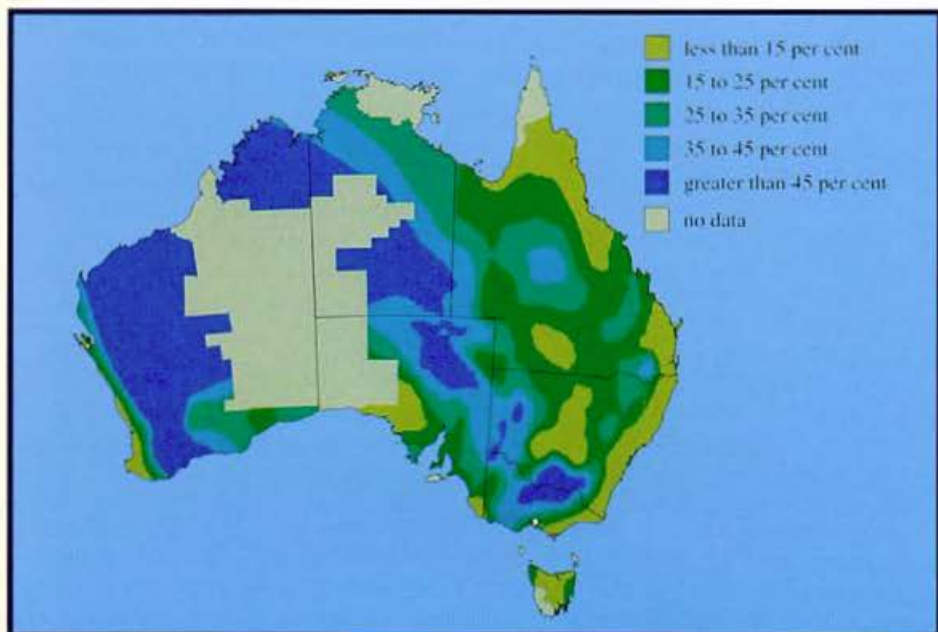
A major problem with a purely economic appraisal of success is that it fails to acknowledge the difficulty of what is being achieved by people on the land. This point focusses the question of who should pay for land rehabilitation. Some government officials believe farmers should pay for repairing damage: they caused it, they should fix it. The reality is that farmers were coerced by their financiers and advised by extension officers to adopt management strategies that led to degradation of their properties. Until recently farmers across the nation were still being paid a bounty for cutting down trees.

Andrew Kelly says: 'Many existing farmers - especially if they're 40-plus - spent their youth chopping down trees, partly for the subsidy and partly because the extension officers required it. Today those same farmers are putting trees back.'

John Marriot's wife, Sue, says that one of the critical points was that the banks in their cashflow budgets made no allowance for repairs and maintenance to the land.

'We costed in repairs and maintenance to the buildings and machinery, but not the land' she says. 'Apparently your base asset didn't require repairs and maintenance. I think that it was important to get that on the agenda.'

John Marriot says the whole thing should be seen not as an expense, but as an investment in land rehabilitation. 'It would have its spinoffs,' he says. 'If you



Proportion of broadacre and dairy farms with a Landcare member 1992-93. (Source: ABARE)

put farmers back into profitable mode they'll begin to pay taxes and employ people, the towns will flourish and so on.'

So the government should take its share of the blame and the farmers must undergo a mental switch from the idea of it being a right to get rich because of good prices to the reality that they must be good operators.'

The enthusiasm for the Landcare concept is real and crosses formerly impassable social boundaries. It also offers a way of blending scientific expertise with local experience, but it

will burn out if not properly supported.

Governments, both state and federal, are keen to reap the political rewards associated with the bandwagon and thus all want a piece of the action in the sense of having their logo brandished around and gaining kudos by association.

The overriding truth that emerges is that there is a very strong feeling among rural people that they do own Landcare. There is also a degree of frustration that this sense of ownership may be plundered by government agencies seeking political accolades by

association. As Sabina Douglas-Hill put it: 'The Federal Government has adopted a sense of ownership of Landcare which is an interpretation that is totally foreign to the basic tenets of the movement.'

More about Landcare

ABARE (1994) *Survey of Landcare and land management practices*. Canberra.

Campbell A (1994) *Landcare - communities shaping their land, their future*. Allen & Unwin, Melbourne.

Smith D (1994) *Saving a Continent: towards a sustainable future*. UNSW Press, Sydney.

Science ignored at Landcare's peril

At the ANZAAS conference in September 1994, assistant Chief of the Division of Soils, Dr John Williams, outlined the changes he considers necessary for Australia's rural industries to become sustainable by 2020. Heading his manifesto was the urgent need for farmers to come to grips with the scientific and technical magnitude of the task ahead.

Williams says that more sustainable land use practices, coupled with better management systems and technology, could increase grain and pasture production from the present estimate of 30% of real potential to 50%. Even if only 25% of farms achieve this, export earnings from the farm sector could increase by \$0.5 billion a year.

Effective total catchment management should also lead to dryland farming systems that are sustainable in the long term, Williams says. To achieve this, environmental impacts must be quantitatively established, and new methods and tools to support this evolution in management be designed, tested and delivered.

Despite Landcare's success in raising awareness of unsustainable land use practices, there remains a tendency in government and the Landcare movement to trivialise the scientific and technical difficulty of 'farming without harm', Williams says.

Recognising the scale and complexity of the problem is necessary before further moves toward sustainability can be made, he says. This recognition is central to understanding that future decisions about research priorities and land-use planning need to be made from an ecological perspective.

Williams says damage to the rural environment has in part been due to the pioneer ethos that Australians must conquer a harsh and unforgiving landscape, rather than work with a landscape they loved and understood. The pursuit of unsuitable agricultural practices necessitated the parallel evolution of a scientific network geared to solve 'one-off' production problems as they arose.

This fragmented focus led to Australia's rural research effort becoming compartmentalised into separate disciplines and institutions. Under this arrangement, the interaction of production systems with the water and nutrient balances of

the landscape, and the implications for ecological sustainability, were neglected, or studied in isolation.

'A consequence of this is the failure of agricultural communities to appreciate the place of farming in its regional ecology,' Williams says. 'We need to look at how systems function, not just what they produce, and develop agricultural systems suited to the ecosystem in which they are cast.'

Towards catchment care

The approach he advocates would place farmers' needs and priorities as the starting point for agricultural research and extension, involving them in the development and innovation process from beginning to end. Farmers would help to focus and prioritise rural research, and would be encouraged to experiment with radically different configurations of land use.

Setting priorities in association with farmers, however, is only part of the solution. To carry through the new ethic of considering the environment first, changes to the structure research institutions, extension agencies, and research and development corporations are needed, Williams says. These changes need to be addressed at a national level with the development of a rural research strategy for Australia.

Williams has considered these issues in plotting the course of CSIRO's Dryland Farming Systems for Catchment Care program, the intended outcomes of which are:

- tools to assess the sustainability of current and future farming systems;
- models for managing farming systems, applicable at both paddock and catchment scale;
- national guidelines for sustainable farming systems; and
- improved networking and collaboration among existing research centres, government agencies and catchment groups to help plan and coordinate activities.

The program's research covers three areas: learning how catchments respond to farming systems; designing computer models for predicting farm production and its impacts on land and water resources; and developing indicators of catchment health.

Bryony Bennett