Cooperative landcare venture revisited

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Four years ago, the Journal of Agriculture reported on a unique partnership forged in 1989 between the Department of Agriculture, Alcoa of Australia Limited and six catchment groups located in the Avon River catchment. Kate McInnes reports on progress with the Avon Catchment Landcare Project.

The Avon Catchment Landcare Program, with financial support from Alcoa of Australia Limited and technical assistance from the Department of Agriculture, hoped to demonstrate sustainable agricultural methods across a 2.5 million hectare catchment. The inner Avon catchment extends from the Perth metropolitan area east to Trayning, and from Wongan Hills in the north to Brookton in the south.

FROM LEFT: John Collett of Alcoa, Brian Walker, West Dale Catchment Group and Darrel Brewin, Department of Agriculture, discussing planning in the West Dale Catchment.

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The program is now entering its second phase. The six catchment groups are planning to maintain and improve on the landcare practices they have implemented over the past five years, and to promote their strategies to other landholders in the Avon River Basin.

This has presented the farmers with a unique opportunity to tap into an emerging eco-tourism industry, as they market their examples of sustainable agriculture to landcare groups and students across Western Australia.

Farmers in the catchment produce about 16 per cent of the State's total wheat crop, 15 per cent of its wool, 26 per cent of its oats, and 20 per cent of the total barley crop.

But the clearing of more than 90 per cent of the Avon catchment's farmland by their predecessors has manifested some serious problems for today's farmers. The problems include salinity, soil erosion, loss of soil structure and quality, a decline in native vegetation, and reduced water quality.

In the Avon catchment, most land degradation is associated with the inefficient use of rainfall, poor drainage and poor soil management. But the implications of the degradation are much wider than its effects on Avon catchment farmland.

Because the Avon feeds directly into the Swan River, excessive run-off continuing to erode nitrogen and phosphorus-rich sediments, combined with emerging salt, has the potential to seriously affect the quality of life in and around the Swan.

The six catchment groups selected to participate in the unique program, the Morbinning, Gabby Quoi Quoi, West Dale, South Tammin, South Yoting and Yeelanna groups, were chosen because they had already demonstrated a commitment to catchment management, were viable groups, and would be able to cope with the pressure of the rigorous five-year program.

The catchments also represented a range of soil types, topography and rainfall, from the high rainfall, gravelly soils and steep slopes of the Darling Range, to the broad valley/lower rainfall areas of the eastern wheatbelt. They included a broad cross-section of the farming systems in the catchment, and the different management issues that farmers faced.

The idea

The Avon Catchment Landcare Program was initiated by the Department of Agriculture, and soon attracted the support of the Alcoa Landcare Project, in the national Decade of Landcare.

The Alcoa Landcare Project and Avon Landcare Program provided the financial, technical and human support to assist farmers undertake catchment and farm planning, and to physically demonstrate sustainable technologies and rehabilitation techniques to tackle soil and water degradation.

The landcare groups wanted to prove that salinity and waterlogging could be prevented, managed and even reversed, with cooperative planning and the adoption of sustainable farming practices.

By bringing farmers together to combat soil and land degradation, these groups have been involved in a range of planning activities over the past five years, including
workshops, field studies and mapping exercises, as well as physical attempts to arrest degradation by tree planting and fencing.

Development officers with the Department of Agriculture in Northam helped with catchment planning and advice on the establishment of these land rehabilitation techniques, thanks to funding from the National Landcare Program.

**The outcomes**

One major result was the production of whole catchment strategies that gave farmers the opportunity to appreciate that effective land management did not stop at the boundary fence. The involvement of the Department of Agriculture has led to comprehensive documentation on the formation and development of catchment groups, and the process of developing catchment plans. This information will be available for combating land degradation issues in the future.
As part of a $6 million commitment in the first six years of the National Decade of Landcare, Alcoa provided the six catchment groups with $1.4 million for fencing, pasture improvement, drainage, bushland revegetation, saltland management and tree planting.

Other projects supported by Alcoa included the fight to save Lake Toolibin, the wheatbelt’s only surviving freshwater lake; better management of the Beelalar Wetlands in the Perth metropolitan area’s south-west; the creation of the Avon Ascent – a number of picnic areas which demonstrate examples of land reclamation for city people; the publication of educational material about landcare, and the establishment of the Tammin Alcoa Landcare Education Centre.

Eighty-eight farming families involved in the catchment groups also contributed dollar for dollar to the project, through time, labour and their financial resources.

Since 1990, more than 3770 ha of land affected by dryland salinity and waterlogging have been treated. This includes 723 specific sites, 1886 ha of saltland and 401 ha of gravel/deep sand areas.

Another 171 ha of bushland have also been protected, 387 km of creeks have been revegetated and 214 km of drains have been constructed. And there have also been more than 1.7 million trees planted, and 635 piezometers installed to monitor groundwater levels.

But according to Department of Agriculture Development Officer Peter McLeod at Northam, the success of the program is that 50 per cent of farmers in the Avon catchment are now involved with catchment groups, compared with 10 per cent before the program began.

Peter McLeod believes another of the project’s achievements has been the opportunity for farmers to experiment with new technology, minus the risk.

In the West Dale Catchment Group, farmers are testing perennial pasture and bluegum plantations; a project that, if successful, could provide farmers in the district with the commercial incentive to undertake tree planting. After three years, it is too early to tell whether the bluegums will prove a
viable proposition, but they have held out surprisingly well, considering 1994’s dry season.

Graham Blight, member of the West Dale Catchment Group, said the five-year Alcoa program had been pressure-charged and hard work; but working with other farmers to share experiences and solve problems had made the going easier. And although Graham Blight believes there may be a place for commercial marketing of the demonstration sites, he is well aware that there is a long way to go.

The program has been a learning curve for the farmers involved. All the farmers in the catchment area are now involved in the catchment group; five years ago a few of them were doing nothing about landcare. Today they realise that land conservation means entire catchment planning, and that what someone does at the top of the catchment will affect someone located down slope.

Harvey Morell, from the Morbining Catchment Group, was shocked to see how little farmers knew about other farms in their areas before the program; a point revealed to him at a series of field tours held when the Morbining Catchment Group formed.

"The field tours were probably one of the most important activities we could have done. So many farmers had lived in the district all their lives, and yet, in many cases, they had never had a good look at their neighbour’s property. The tours broke down an element of secrecy, and everyone soon started to open up and freely discuss their problems. Now we can all share our experiences, and we even discuss farm management decisions at our catchment group meeting," he said.

Since it first became involved with the Alcoa project in 1989, the Morbining Catchment Group has planted nearly 210,000 trees, erected 127 km of fencing, revegetated 165 km of creek and treated 965 ha of land.

"I could always see the benefits of being involved with a catchment group," Harvey Morrell said. "Our property is at the bottom of the catchment, and I knew I needed the help of farmers located at the top of the catchment to be successful with landcare practices."
John Collett, Landcare Manager of Alcoa’s operations in this State, believes the success of the landcare project has far exceeded expectations that Alcoa might have had five years ago. Those involved with project had no idea how significant it would be, how much difference it would make to the landscape, and how successful the partnership between the Department of Agriculture, a corporate sponsor and farmers could be.

It is also significant that when the project began in 1989, there were seven objectives:

- supporting Western Australia’s only major surviving freshwater lake in the wheatbelt, Lake Toolibin;
- establishing a rehabilitation project in the Beeliar Wetlands in the south-western part of the Perth metropolitan area;
- helping in the establishment of the Tammin Alcoa Landcare Education Centre;
- sponsoring school curriculum-based resource packages for primary and secondary schools;
- establishing landcare information picnic sites on the Avon River; and
- supporting Greening Western Australia’s community tree planting activities.

Those objectives have been achieved, and there has always been a constancy of purpose.

This has only been possible because of the partnership approach between the three groups who have all worked as a team.

The past five years have not been easy for any of the three partners, especially the farmers. When most of the catchment groups were formed, wool and wheat markets were good, and farmers had surplus cash and motivation to do something about landcare in their area.

As soon as the farmers were committed to the project, wool and wheat markets crashed, and they no longer had the surplus funds. To their credit, they kept going, under what must have been huge pressure, and some even doubled or tripled their labour requirements on their farms to honour their commitment.
The future

The catchment groups are adamant that landcare will always have a place in their catchment. Everyone feels they have been given the impetus to continue, and that they also have an obligation to become a demonstration group for other farmers.

Colin Brown from the South Yoting Catchment Group says that with continued assistance and support, his group is planning to investigate soil acidity in the South Yoting area. "With on-going support from the Department of Agriculture and Alcoa, we will expand, and are looking at developing a full-farm program as a catchment group.

"We all know now that it is better to do things as a group than by ourselves. Farmers have always been aware of land degradation, but before this project, we weren't really conscious of it, and we weren't doing much about it. Without the Department's Development Officers providing us with the information we needed and without the funding from Alcoa, it would have been very difficult for us to operate."

The partnership is also continuing. Alcoa has agreed to support the catchment groups and the Department of Agriculture will continue to provide technical support.

The first five years were very much focussed on the resources and the technical aspects of getting the demonstration sites going. The support will now be focussed on marketing the groups as whole catchment demonstrations.

Farmers have addressed about 50 to 80 per cent of their problems, the Department of Agriculture has the research and the data, and the State has six very good examples to back up that data.

The second phase will focus on raising the profile of the demonstration groups, to persuade other farmer groups to visit them and to replicate the practices in their own catchments. To some extent this has already happened in the Avon catchment, but hopefully farmers from catchments all over the State will visit these demonstration sites.

The program also provides an opportunity to target the metropolitan audience, so that they can appreciate the problem of landcare, and understand that it is not 'greedy farmers' who caused the problem. Land degradation is an institutional and a societal problem.

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