

Natural Resource Management Facilitators
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Facilitating Landscapes and Communities in Transition

Peter Cullen

Introduction

Australia is undertaking a grand experiment in land management. The Landcare movement provided the foundation and is still a key building block in regional NRM management that has been supported by State and Federal Governments. We have recently gone through evaluation of achievements to date, and the model received widespread community support and has been re-endorsed by Governments as the way forward in natural resource management (nrm)..

The model harnesses local energy and knowledge to make nrm decisions, and works because it brings many decisions closer to the community that must live with the outcomes. There are of course tensions from time to time, especially when the requirements of the wider community may not mesh with those of locals.

A core investment under this model has been in the network of facilitators – people whose role is “to promote, to render easier and to help move forward”. Facilitators have now largely replaced the Government provided extension service, and bring people and process skills rather than substantive technical skills to their communities.

There is less discussion as to just what facilitators are seeking to facilitate. At the most trivial level, they are there to help communities access the myriad of Government programs that provide support for nrm. More importantly, they are there to help communities and landscapes in transition. They can help communities manage the tensions inherent in change, can help communities access knowledge and support to aid the transition process and help communities face unpalatable realities they might rather ignore.

Landscapes in Transition

Rural landscapes have always been in transition, as world markets and agricultural technologies interact with changing demographics and community attitudes. Farmers and science are continually striving to increase production, and unless demand is growing at a similar rate, then prices will drop. This has been the experience over the last 50 years with a long-term trend down in food prices. This has led to fewer and bigger farms, especially in productive landscapes where soils and climate are conducive to agriculture

Neil Barr (2007) has identified four rural landscapes and described the trajectories they seem to be on in Victoria.

Agricultural Production Landscapes – the past trend towards fewer and larger farms will continue in response to terms of trade. Already the largest 10% of farms produce 50% of agricultural output. The rate of farm aggregation roughly equals the rate of retirement from farming as children choose alternative careers. These areas will have a declining, ageing population with reduced social connectedness as small towns contract. This is most evident in beef and now in sheep areas, less so in dairy and cropping areas.

Rural Amenity Landscapes – there is a growing demand for amenity landscapes, especially adjacent to centres of population and in these areas farms are becoming smaller as land prices escalate. Production on some farms intensifies (horticulture, gourmet foods, farm tourism), or farms are supported by off farm income sources.

Transitional Landscapes – as the production landscape shrinks and is replaced by amenity landscapes there is a slowly moving outwards transitional zone. Agricultural production tends to become more diversified away from sheep or dairy landscapes, sometimes causing tension (eg blue gum plantations, wind farms). Newcomers migrate into these landscapes and the social sustainability of these landscapes depends on how well established residents accept newcomers and manage the conflicts that emerge.

Irrigation Landscapes – there is a growing understanding that ongoing economic development is dependent on protection of the foundation environment, and that economic development is also dependent on availability of water. Governments are moving to establish markets for water that let water move to the best economic use, and as a vehicle for returning over allocated systems to sustainable levels of extraction (see National Water Initiative, 2004). This is leading to increasing competition for water that is now seen as a limiting factor, perhaps as much as land itself. The ability to sell water provides a mechanism for adjustment that redistributes water to its best economic use in a national sense, but in a regional sense may provide winners and losers and create social tension.

New Pressures on the Landscapes

As well as a continuation of the pressures leading to these four types of landscape, we see new additional pressures on the landscape that may accelerate some of these changes.

Climate Change

The rapid climate shift over the last decade has seen inflows to Sydney storages drop dramatically by 72% of that experienced during the comparatively wet period of 1950-1990. Inflows are now 28% of the past 40 years.

1900-1950	Inflows	951GL
1950-1990		2153
1990-2007		614 drop of 72% over wet 1950-90

The last decade has been the driest on record for the Melbourne catchments, which only received 40% of the expected rainfall, which has seen storages drop from 1700 GL to 535 GL. Inflows to the Southern MDB seem to have dropped by around 40% and we have largely emptied the major storages of the basin.

We appear to be in a period of rapid climate change, and it seems we will have to learn to live with less rainfall and probably with greater variability. Temperatures will be greater, leading to higher evaporation, and mega-bushfires more common. It is unclear as to whether we will continue to get periodic floods, or whether it is these wet years that have diminished.

Labour Shortages

The present mining boom is stripping cheap labour out of rural Australia as people find they can earn more elsewhere. This is putting further pressure on productive and transitional landscapes. It is unlikely this labour will return and this will accelerate the ageing of the rural population, and make labour intensive industries more challenging

Ageing of the Farm Population

The financial pressures on farmers and the more attractive career opportunities elsewhere mean many children do not want to stay on and take over running the family farm. These means farmers tend to hang on and stay working longer. As they age their health deteriorates and their preparedness to take new risks often diminishes, so innovation can be stifled.

Fuel Prices

It seems that fuel prices will continue to rise in response to growing demand and shrinking supply, and this may well be exacerbated by some form of carbon tax as communities decide to confront the cause of climate change. This will add to cost pressures in cropping areas and for those more remote enterprises where transport costs are significant.

Ongoing Pressures for Sustainable Production

Communities are becoming impatient with land managers ignoring externalities. Farmers do not have any rights to contaminate waterways with agricultural chemicals, fertilizers or sediment. The introduction and failure to manage exotic plants and animals will be an ongoing pressure. Duty of care arguments will require protection of remnant habitat to maintain some biodiversity and payments for particular ecosystem services may assist this

Pandemics

The equine flu outbreak has shown how vulnerable we are to pandemics, and the disruption to movement of animals that may result. This has implications for the need to be self sufficient in our food production, and puts at risk communities heavily dependent on export industries which may close off without notice should an outbreak occur.

Landscapes in Transition

We have seen amenity landscapes expanding outwards from centres of population, pushing the transitional landscapes outwards and a contraction of the production landscapes over the last 50 years. These trends are expected to continue.

Climate change is bringing further changes, especially to those areas where plants are near the edge of their climate tolerance or where farming is under economic stress. We can expect some marginal cropping lands will revert to pastoral activities, and property amalgamations will be necessary. The idea of drought relief under “exceptional circumstances” will become untenable as pressures emerge for it to become permanent.

Shortage of surface water will put increasing pressure on groundwater. Groundwater recharge will reduce with the rainfall, and our present inadequate understanding and control of groundwater will mean this resource is also degraded. There will be increasing tension between upstream and downstream landowners over sharing diminishing water supplies.

We may see changes in the distribution of weeds and feral species and can expect to see more extreme events with heavy localized rainfall causing flooding and soil erosion problems

Irrigation landscapes will also see significant changes, as the amount of water available for irrigation in the MDB appears to be halving and becoming less reliable. This means the existing security of supply will decrease, leading to a reduction in the area of permanent plantings and perhaps more emphasis on annual crops that can be planted once water availability for the season is known. Irrigation properties may become larger to cope with a mix of perennial and annual plants and more opportunistic irrigation. There will be an overall contraction in the area irrigated, leading to issues of stranded assets and increasing costs to those remaining.

Governments will purchase water on the market to restore over allocated systems and as an industry adjustment mechanism. Significant public investment in irrigation and water supply infrastructure will provide winners and losers by providing some communities with significant subsidies. Water theft will be an increasingly important issue. There will be ongoing pressures from urban communities to take water from surrounding catchments, putting further pressure on local communities.

Communities in Transition

Many rural communities are bewildered by these pressures and the changes they are experiencing. Some are still in denial about climate change; many still yearn for past days of high prices and hope these times will return, if only they can hang on.

Many in these communities are proud and self-reliant people who abhor the idea of “handouts”, yet they feel the relentless economic squeeze and expect Governments to act to do something to help. There is often a feeling of helplessness. What else can they do other than their traditional farming practices? The rejection of the farming life by their children is an affront to long held values. Retirement to towns and leaving the land seems not only a rejection of long held values but also a frightening prospect of not having anything worthwhile to do. Lack of cash yet increasing property values, and the associated rates and charges, exacerbates the squeeze. The ageing of the community and collapse of many social organizations contributes to these pressures as ageing and lack of cash reduce energy levels and hope.

How can a facilitator help these transitions?

Firstly, it is important for the facilitator to understand what sort of landscape they are in, and the likely trajectory for the landscape and the community. What is the mix of productive agriculture and life style farmers, and how is this changing?

Facilitators have the opportunity to help people become aware of alternatives. Often individuals are trapped because of lack of financial resources, by their training and experience or just from not being aware of alternatives. In many cases of landscapes in transition, the original landholders are not able to adjust and are replaced by newcomers who can exploit the emerging opportunities. In some ways this is inevitable and the influx brings new knowledge and ideas, but there may be opportunities to help existing landholders benefit. What alternative farming practices are innovative farmers trying. What are the opportunities from new sources of income like nature conservation payments, carbon markets or wind farms?

The facilitator may look for opportunities to help the community have discussions about alternative futures available to them. Alternatives need to be identified and then thoroughly explored so that individuals and communities can come to informed judgments. When this is done, then Governments may be asked to facilitate change or provide necessary new infrastructure.

It is my view that urban taxpayers are prepared to provide financial support to rural communities they see confronting the reality of their situation and seeking to adjust. I doubt they are prepared to provide ongoing support for non-viable farming operations that may make money in 1 or 2 good years each decade but for the remainder are expecting to be on “exceptional circumstances” relief payments. Governments must decide whether they are there to facilitate transitions or to try to slow down the

readjustment process, commonly maximizing both land degradation and human misery in the process.

Facilitators operate within an array of Government programs, and help communities navigate their way through the various programs and opportunities. This is a traditional role where facilitators act as brokers between the community and Governments.

Finally I see facilitators as needing substantive knowledge in the areas of concerns to the community. They may have expertise in salinity, soil erosion, biodiversity or some other facet of land management, as well as a general understanding of the farming systems of the area.

Challenges for Facilitators

Focus Energy and Resources to Achieve Desired Outcomes

With many competing agendas and scarce resources, an ongoing challenge is to focus resources so as to make a difference. The requirement for widespread community consultation, so necessary to get ownership and involvement, leads to a strong pressure to ensure all issues and areas get at least some attention, even if it is not enough to make any difference.

The first challenge is to be clear as to the outcomes that are possible and desirable in the particular landscape, and then to identify the actions needed to bring about the outcomes. This logic of actions linked to outcomes, plus an understanding of the extent and duration of actions before outcomes will be observed is necessary to provide a sensible basis for monitoring and evaluation.

With specified funding to address salinity, it is reasonable to ask how much of this funding was focused on achieving the key policy outcomes, and how much was the NAP just treated as a bucket of money to be used for whatever seemed useful at the time. Have particular crises of drought or fire diverted us from the longer-term agenda? Have fashions in NRM caused us to lose sight of the main game? Have CMA's and States really been disciplined in their investments?

With substantial funding for the regional nrm bodies comes a need to demonstrate commensurate outcomes to investors, and this has spawned a whole industry of monitoring and evaluation that seems to me to have lost its way. Consultants produce list after list of indicators, often with little clarity as to what they indicate. Specific targets are set for all sorts of things, but rarely measured, and this seems to satisfy honour all around, but is often rather pointless.

It seems to me a cop out to talk of aspirational goals and resource outcomes that will not be seen for 10-30 years. Certainly there will be long term outcomes, but some short term targets would help focus actions to achieve some actual and observable outcomes. Most

of the actions we undertake in the landscape should show up in 1-3 years, at least in river health terms.

Managing Organizational Interfaces

In most States there are multiple State and federal agencies with interests, programs and resources available for landscape issues. Local Governments have responded with varying enthusiasms and capacity to nrm issues, and often resent new regional bodies being funded to do what they believe they could do, even if they failed in the past.

All these interests seem to have their own peculiar demands and their own accountability trails and control requirements. There is little underlying trust, so attempts are made to specify detailed requirements and outcomes that often do not take into account seasonal factors. From time to time the competing objectives of agencies cause some confusion within regional bodies and the community.

Managing Community Conflicts

Transitional landscapes abound with conflicts as new land uses are introduced and bring change to communities. In some communities newcomers are welcomed and in others cases they are resented because they bring firm ideas about the community that may differ from those of established residents. When new enterprises, such as plantation forest or wind farms are involved there can be strong local feelings. Facilitators need to appreciate the different value sets at play in such conflicts, the differing interests of participants and the role of data and knowledge in resolving the conflict.

More Comprehensive Rural Planning

Catchment bodies have been developing regional plans as a basis for NHT and NAP investment. These plans have commonly identified natural assets and set restoration priorities, as well as develop the capacity of local communities. Commonly these plans address river health issues, with a focus on riparian protection and restoration, and they set targets for the export of contaminants like salt, nutrients and sediment from catchments.

With increasing water scarcity we are now developing regional water plans that identify what water is available, what are the sustainable levels of extraction for surface and groundwater and what are the high value conservation assets. These plans set the consumptive pool of water that can then be distributed using market mechanisms. They establish environmental water, which in some jurisdictions may be managed by regional bodies.

The next step is to get better alignment between these two planning processes, both of which partially address river health issues. As part of this it is necessary that water infrastructure projects come out of such regional water planning rather than as the results of community pressure or political focus groups. This requires identification of the high

capability agricultural land that should be supplied with water or protected from other threats in some way, and this should come from regional catchment plans.

Plans must be able to adapt to likely climate shifts and seek to provide resilience in a landscape that is changing in ways we do not as yet understand. Maintenance of wildlife corridors is probably now more important. Identification of systems that will collapse under the likely climate shifts is also important since this must be considered in setting funding priorities.

In Conclusion

The Australian landscape has been in transition since white settlement, and the pressures that drive change in our landscapes are now escalating, and we face many uncertainties with climate change and rising energy costs. Rural communities need help in confronting these transitions, and facilitators have the opportunity to build resilience in rural communities by helping them understand the pressures and the likely changes, and to explore the alternatives they may have for the future.

References

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