

CRITICAL LANDCARE

edited by Stewart Lockie and Frank Vanclay

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CONTENTS

Notes on Contributors	v
Preface	vii
Abbreviations	ix

Part 1: The sociological context for Landcare

1	Critical Landcare Stewart Lockie and Frank Vanclay	1
2	The sociological context of environmental management in agriculture Frank Vanclay	9
3	Beyond a 'good thing': political interests and the meaning of Landcare Stewart Lockie	29
4	The constitution of power in Landcare: a poststructuralist perspective with modernist undertones Peter Martin	45
5	The construction of 'woman' in Landcare: does it make a difference? Ruth Beilin	57
6	Rural gender relations and Landcare Stewart Lockie	71
7	Property and participation: an institutional analysis of rural resource management and Landcare in Australia Ian Reeve	83
8	Western Australia's agriculture and pastoralism in cultural and ecological perspective Henry Schapper	97
9	Landcare in the deregulated rural economy of New Zealand Helen Ritchie	115

Part 2: Evaluating and facilitating Landcare

10	Landcare: myth or reality? Margaret Bailey	129
11	Facilitating Landcare: conceptual and practical dilemmas Andrew Campbell	143
12	A view from the ground: farmers, sustainability and change David Davenport	153
13	Fine sentiments vs brute actions: the Landcare ethic and land clearing Robert Haworth	165
14	'Small is beautiful': the place of the case study in Landcare evaluation Sarah Ewing	175
15	Examining the assumptions underlying Landcare Allan Curtis and Terry De Lacy	185
16	Innovation of diffusion: Landcare and information exchange Anna Carr	201
17	A critical assessment of Landcare in a region of Central Queensland Patrick Morrisey and Geoff Lawrence	217

Part 3: W(h)ither Landcare?

18	What future Landcare? new directions under provisional funding Stewart Lockie	227
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(updated 2000)

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PREFACE

The elevation of rural environmental degradation from virtual invisibility in the 1970s, to the forefront of public and political debate in the 1980s and 90s was instrumental in garnering support for what many believe to be a radically new approach to environmental management based on self-help, cooperation and planning — Landcare! Since the National Landcare Program was launched in 1989, Landcare has attracted levels of public participation and political support few would have dared to predict. It has become one of the few ‘good-news’ stories emanating from a rural sector struggling with debt, tightening terms of trade, and micro-economic reform. Indeed, in an almost wholly urbanised nation that thrives on the consumption of images of a romanticised pioneering past, while ignoring all but the most severe of contemporary rural problems, the interest in and influence of Landcare beyond its agrarian roots is extraordinary.

In trying to assess the likely impact of Landcare on the social practice of rural environmental management, there is an unambiguous need to locate Landcare more broadly within the social dynamics of rural society. Conversely, the widely heralded success of Landcare has, in turn, made its own understanding fundamental to any sociological understanding of Australian rural society. While much has been written about Landcare, it is spread across a number of disciplines and media. Some is technical, some economic, some political, some procedural and some social. It is, therefore, appropriate and timely to bring together the work of a number of social scientists who have sought to come to terms with the social implications of Landcare. The analyses of Landcare included in this book range from reviews of the effectiveness of the government sponsored Landcare Program in meeting its objectives; through critiques of the assumptions or formulation of the program; to explorations of the social, political and environmental implications of Landcare.

The goal of sustainable land management inherent in Landcare, as ambiguous as it may be, is critical to the long term well-being of the Australian people. We are sure we speak for all the authors represented in this book in declaring our hope that the analyses of Landcare offered here will contribute to a more sustainable future. Failure, we believe, to come to terms with the sociological dimensions of land use and land care will lead only to the inappropriate application of technological ‘fixes’, the appropriation of Landcare support by a select range of interests and, ultimately, a deepening of the environmental and social malaise of rural Australia that has fostered the initial conditions for Landcare.

Most of the chapters in this book were published previously in a special issue of *Rural Society* 5(2/3), a fully refereed journal published by the Centre for Rural Social Research at Charles Sturt University. The widespread interest that was expressed in that issue encouraged us to make the papers more widely available through this expanded monograph in the Centre’s Key Papers Series. Previous monographs in this series include *Rural Women*; *Family Farming: Australia and New Zealand*; *Rural Education Issues: An Australian Perspective*; and *Communication and Culture in Rural Areas*.

We would like to thank a number of people for their contributions to the production of this book. Perry Share, regular editor of *Rural Society*, was particularly instrumental in providing the encouragement and cajoling necessary to get the job done, as well as contributing

invaluable organisational and editorial skills. Max Staples, as acting editor of *Rural Society* while Perry was on sabbatical in Ireland, also assisted. Tony Dunn provided photos which were heavily scrutinised for their suitability for the cover. Debbie Strachan and Helen Swan, administrative officers within the Centre for Rural Social Research, prepared the various manuscripts, checked the consistency of references, and endured all manner of reasonable, and at times unreasonable, requests. We would also like to thank Geoff Lawrence, Bob Doyle and Ian Gray, all of whom have been at some stage Director of the Centre for Rural Social Research, for their encouragement and advice. Other colleagues in the Centre have also been supportive.

Finally, it is worth noting that Andrew Campbell, the first National Landcare Facilitator, who was in some ways extremely instrumental in the success of the establishment of Landcare, has not only been supportive over the years and appreciative of the social science contribution that we have put to him, but agreed to contribute to the collection. To some extent he has become quite converted to the social science perspective himself. Helen Alexander, the second National Landcare Facilitator, has also been supportive and appreciative and has contributed much to the critical discussion about Landcare. She was invited to contribute to this collection, but unfortunately had to decline due to competing demands on her limited time.

Stewart Lockie and Frank Vanclay
April 1997

ABBREVIATIONS

ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
ACF	Australian Conservation Foundation
CaLM	NSW Department of Conservation and Land Management (now DLWC)
CMC	Catchment Management Committee
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEET	Department of Education, Employment and Training (Commonwealth)
DLWC	NSW Department of Land and Water Conservation
DPIE	Department of Primary Industries and Energy (Commonwealth)
ESD	ecologically sustainable development
GATT	General Agreement on Tariffs and Trade (now World Trade Organisation)
GDP	gross domestic product
ha	hectare(s)
HVCT	Hunter Valley Conservation Trust (1951–91) & Hunter Valley Catchment Management Trust (1991–)
LAL	Landcare Australia Limited
LCDC	Land Conservation District Committee
LEAP	Landcare and Environment Action Program
LGA	Local Government Area
LMU	land management unit
MAF	Ministry of Agriculture and Fisheries (New Zealand)
MDBC	Murray-Darling Basin Commission
NFF	National Farmers' Federation
NGO	non government organisation
NLAC	National Landcare Advisory Committee
NLP	National Landcare Program
NLMP	National Land Management Program
NRMS	Natural Resources Management Strategy for the Murray-Darling Basin
NSCP	National Soil Conservation Program
NSW	New South Wales
NSW Agriculture	New South Wales Department of Agriculture
NSW Farmers	New South Wales Farmers' Federation
NZFF	New Zealand Federated Farmers
PBR	Plant Breeders' Rights Act 1994
PVR	Plant Variety Rights Act 1987
RAA	Rural Assistance Authority
RLAP	Regional Landcare Action Plan
SCS	Soil Conservation Service of New South Wales (incorporated into CaLM in 1993, and then DLWC in 1996).
TCM	Total Catchment Management
TNC	transnational corporation
WA	Western Australia

1

Critical Landcare: Introduction

Stewart Lockie and Frank Vanclay

Rural land degradation has never enjoyed the status, attention and emotive appeal of other environmental issues. Next to rainforest destruction, reef development and koala disease, the problems of soil erosion, salinity and acidification simply haven't been 'sexy' enough to capture the public or political consciousness. In 1989, however, the Commonwealth Government responded to a joint submission by the National Farmers' Federation (NFF) and the Australian Conservation Foundation (ACF) by establishing the National Landcare Program (NLP) and declaring the 1990s the 'Decade of Landcare'. At the heart of the Landcare Program was the promotion and support of a nation-wide network of community Landcare groups, each oriented towards tackling local land degradation problems to help ensure the sustainability of agriculture and rural communities. Although the impact of the Landcare Program on the Australian landscape is very much open to debate, Landcare has been widely heralded as an extraordinary success. Importantly – and despite the biophysical and techno-scientific bias of most resource management programs and agencies in Australia – this perceived success rests very much on the social impact of Landcare.

Why has the social impact of Landcare received so much attention? Growth in participation in Landcare groups has been, and continues to be, spectacular. At the time of writing, some 2,500 Landcare groups (Farley, 1996) involved representatives of around 30 percent of commercial farming operations in Australia (Mues *et al.*, 1994). This alone is remarkable, and suggestive of potentially profound social and cultural change. Andrew Campbell (1994: 1), Australia's first National Landcare Facilitator, asks us to:

Imagine a country in which one person out of every four belongs to a conservation group, actively seeking ways of improving their local environment. Think about the possibilities of this scenario for issues such as waste management, water quality, transport, urban design, food and fibre production, and wilderness management. In rural Australia this is already happening.

There can be little doubt about the importance of social scientific investigation of Landcare, both in understanding its impacts on our society and our environment, and in looking towards ways of improving its effectiveness and support. This opening chapter will detail something of the history of Landcare – necessary to locate it both socially and temporally – before outlining the concerns and arguments put by the contributors to this book.

The genesis of Landcare

The land management and hunting practices of the indigenous inhabitants of Australia, over some 50,000 years, led to significant changes in flora and fauna, but also developed into relatively stable systems of land use based on detailed knowledge of the dynamics and carrying capacity of ecosystems (Bolton, 1992). Conversely, European settlers arriving in the late 18th century encountered a strange and seemingly hostile land that did not respond as expected to familiar farming methods, leading to early signs of land degradation. The primary concern of governments,

however, well into the 20th century, was on the expansion of agricultural production; initially to ensure food self-sufficiency, and thence to boost exports and generate foreign exchange. Warnings about the future consequences of land degradation by scientists employed to boost productivity fell on deaf ears (Bolton, 1992).

By the 1930s, international media publicity over the American dustbowl, combined with similar dust storms sweeping Australian cities, contributed to a widespread recognition of the need to do something about rural land degradation (Bradsen, 1988). Within the political and constitutional context of the fledgling Federation of Australian States, this responsibility was left with State and Territory governments, while the Commonwealth reserved for itself a purely coordinative role (Bradsen, 1988), which became the pattern for natural resource management more generally. Soil conservation legislation was first passed in New South Wales (NSW) in 1938, followed soon thereafter by the majority of other State governments (Bradsen, 1988). This legislation was essentially voluntaristic, relying on the provision of research and extension services rather than coercive measures. Where regulatory provisions did exist, such as clearing controls on steep land, they were rarely enforced due to the conflicting roles this engendered for field officers, and a belief in the primacy of individual property rights (Bradsen, 1988; Bradsen & Fowler, 1987).

Through the 1950s and 60s, land degradation slipped from political view as the mechanisation and scientification of agriculture obscured degradation behind spectacular productivity gains. By the early 1980s, though, it was apparent that environmental protection was of growing concern to the public at large; that the Commonwealth was increasingly prepared to take a lead on issues of resource management (even where this involved conflicts with State governments); and that rural land degradation was re-emerging as an issue of political and social importance (eg, Department of Environment, Housing and Community Development, 1978). In 1983, the Commonwealth established the National Soil Conservation Program (NSCP) with the aim of stimulating greater State activity, by funding State agencies to 'boost their activities and assist them to implement high priority projects' (Standing Committee on Environment, Recreation and the Arts, 1989: 67). However, the emergence of a number of community based initiatives at the State level, along with the development of an international discourse of sustainability, set the scene for a more fundamental shift in Commonwealth policy.

Following the influential Brundtland Report, *Our common future* (World Commission on Environment and Development, 1987), the notion of 'sustainability' largely replaced 'land degradation' as the target of natural resources management policy. The concepts of 'sustainability' and 'sustainable development' provided a framework that allowed governments to reconcile environmental protection with economic growth, integrating issues of nature conservation, agricultural production, industrial development and social equity. Within this framework, conservation and development were seen as interdependent rather than antagonistic concepts, despite the difficulties that have been encountered in operationalising them into meaningful policies. It is very important to note here, that where industries such as forestry have been largely incapable of satisfying the competing demands of conservationists and resource users, agriculture has largely avoided such conflict. No doubt this is more than a little due to the emphasis in environmental discourses on 'wilderness' values, to the neglect of agriculture. It is also due, though, to the ability of agriculture to find a way of meaningfully attempting to integrate environmental protection with economic growth through

an approach to sustainability that emphasised 'responsible land management incorporating economic and environmental principles; the formation of community-based self-help groups; and integrated farm planning' (Commonwealth of Australia, 1991: xx), or in other words, Landcare.

There is nothing particularly novel about the formation of self-help community groups, with isolated examples being evident around Australia for some time. In Western Australia and Victoria, however, through the early 1980s, interest was generated in formally supporting and promoting such groups. The West Australian State government responded to the emergence of a number of community groups by amending its *Soil and Water Conservation Act 1982* to provide legislative support for the formation of Land Conservation District Committees (LCDCs), which by 1985 were attracting funding through the NSCP (Martin *et al.*, 1992). By 1994, 137 LCDCs covered all the pastoral land and 80 percent of the cropping land in Western Australia, while another 200 smaller catchment groups operated under their umbrella (Campbell, 1994). The group approach began in Victoria with the sponsorship of Farm Tree Groups by the Garden State Committee and the then Victorian Farmers and Graziers Association (Campbell, 1994). The increasing severity of issues like dryland salinity – and the concern of the Minister for Conservation, Forests and Lands, Joan Kirner, to promote community involvement in the planning and implementation of land protection programs – led to the development of the Victorian 'LandCare' Program in 1986. According to Campbell (1994), LandCare groups were significantly different to any of the government initiated groups that had preceded them. They addressed a broader range of issues; were based on catchments or neighbourhoods rather than peer or interest groups; were initiated by the community with support from government; and maintained greater control over, and responsibility for, what they were doing than in other government-led programs.

As mentioned above, the major impetus for the development of a nationwide Landcare program came in the form of a submission to the Commonwealth Government in 1989 by the Directors of the NFF and ACF to develop a National Land Management Program (Toyne & Farley, 1989). Heavily influenced by the models of LCDCs in Western Australia and Victorian LandCare groups, this submission argued the need to establish a program that recognised what it saw as 'the importance of a self-help approach, which [would] rely heavily upon local community groups, within a framework which recognise[d] the responsibilities of Local, State and Federal Governments' (1989, 6). To achieve this, it sought a vastly increased Commonwealth commitment to funding land conservation activities, including direct funding for Landcare groups and property planning, at a total cost of some \$340 million over 10 years. Ultimately, this proposal was accepted with little alteration by the Commonwealth. In July 1989, the Prime Minister declared the 1990s the 'Decade of Landcare' and announced the National Landcare Program, incorporating the funding proposals of the NFF-ACF proposal via increased funding and changes to the National Soil Conservation Program (see also Campbell, 1994). Additionally, a private company, Landcare Australia Limited, was established for the purpose of promoting Landcare to the wider community, and attracting sponsorship from the private sector for Landcare activities.

What then is 'Landcare'?

There can be little doubt that Landcare has captured the 'public imagination' sufficiently to leave indelible marks on the social landscape of Australia. Not only does the extent of Landcare group membership suggest wide acceptance and commitment to the goals of Landcare, numerous commentators have argued that Landcare is, in fact, a much larger phenomenon than its institutional base. Landcare is not, they believe, so much a state initiated program as it is a social movement – the 'landcare movement'.¹ Further, according to Australia's Ambassador for the Environment:

Landcare has now assumed an importance beyond Australia. It has attracted considerable interest internationally as one of the world's most comprehensive, practical and advanced long-term programs of action to implement sustainable resource-use practices on a community-wide basis. As a program based on the principle of partnerships ... the Australian Landcare concept has been adopted by the international community (Wensley, 1994: 97).

It may seem rather odd, therefore, to find that figuring out just what Landcare is can be a little difficult. We do not wish to deal comprehensively in this chapter with the minefield of competing understandings of Landcare, except to give the reader a broad overview of what may fall within its purview. Landcare policy documents are almost universally devoid of specific definitions of Landcare. However, while they struggle to state unambiguously what Landcare is, they are rather more effusive with regard to what it is, and isn't, 'about'. The most recent National Landcare Facilitator Report, for example, states that:

Landcare is about enabling change ... Landcare is about people changing the way they use the natural resource base to better support the economic, ecological and social health of their area over the long term ... And landcare is about a partnership between governments, local communities and industry in this whole process (Alexander, 1995: 3).

Similarly, the NSW Draft Decade of Landcare Plan declares that:

'Landcare' is about sustainable land use through reducing land degradation and caring for natural resources ... by the combined action of the community and government (NSW Landcare Working Party, 1991: 1).

It goes on to say that Landcare in NSW is both 'a program and a philosophy concerned with sustainable land use' (NSW Landcare Working Party, 1991: 1). Alternatively, Campbell (1990: 1), points out that 'landcare' has also 'become a general term for land conservation, referring to the conservation of soil, water, flora and fauna'. Despite this uncertainty about what, exactly, Landcare is, most commentators do seem sure that at the essence of Landcare has something to do with the activities of community Landcare groups. According to Andrew Campbell (1990: 1), the first National Landcare Facilitator:

¹ The view that Landcare is more than its institutional embodiment in the National Landcare Program has led to the popularisation of the small 'l' spelling of 'landcare'. However, since most usages of the term 'Landcare' in this book refer to features related more or less directly to the National Landcare Program, the large 'L' spelling is preferred. The alternative spelling 'landcare' is used where this refers explicitly to non-institutional phenomena such as the 'landcare movement' or 'landcare (as land management) practices'.

Landcare groups ... are local groups of people, autonomous and self-reliant, mainly comprised of land users in rural areas, whose primary aims are to tackle land degradation and develop more sustainable land management practices.

Campbell's successor in the National Facilitator role, Helen Alexander, offers a broader definition. Her suggestion that 'Landcare groups are groups of people that come together to tackle a common problem or take advantage of a shared opportunity' (Alexander, 1995: 7), reflects a belief promoted by groups like Landcare Australia Limited that Landcare should not be restricted to rural areas. Although Alexander's report seems to accept the legitimacy of Urban Landcare, it has very little to say about it. Interestingly, neither do the contributors to this book. In simple terms, this reflects both comparatively less community group activity under the Landcare umbrella in urban areas, and something of a gap in the social scientific inquiry into Landcare. It also, however, reflects more complex sociological processes involving the rural beginnings of Landcare, its symbolic and political importance to rural people, the linkages between rurality and agriculture, and social struggles over the meaning of 'Landcare'.

Structure of the book

The chapters in Part 1 of this book provide a range of sociological analyses that attempt to 'locate' Landcare in the broader array of social relations permeating agriculture and rural society. Chapter 2, by Frank Vanclay, sets the scene with an analysis of environmental management in agriculture more generally – considering questions of farmer attitudes and behaviour, knowledge about land degradation, and situational constraints to the adoption of more 'environmentally friendly' farming practices – and the implications of this for the National Landcare Program. A similar theme is taken up again in Chapter 8 by Henry Schapper, who explores the ways in which farming cultures shape environmental outcomes. As the section above implied, though, one of the recurring themes through Part 1 is struggles over the meaning of 'Landcare'. While this is most explicitly taken up by Stewart Lockie in Chapter 3, the majority of contributors focus at least part of their analysis on the language associated with Landcare, and how it describes and explains social relations. This involves more than looking at 'the reality' behind 'the rhetoric'; contributors identify key Landcare concepts, such as 'empowerment', 'participation', 'partnership' and 'community', and how they may explain away power relationships amongst the myriad actors involved in Landcare. Relationships explored by contributors include those based on governance (Peter Martin, Chapter 4), gender (Ruth Beilin, Chapter 5 & Stewart Lockie, Chapter 6) and property rights (Ian Reeve, Chapter 7). The concept of 'Landcare' has also travelled, acquiring new meanings along the way. The final chapter in Part 1, by Helen Ritchie, explores the ways in which 'Landcare' has taken root in New Zealand, with particular consideration for the relationships between Landcare and state deregulation of the rural sector.

Part 2 turns to more explicit attempts to evaluate the National Landcare Program. In doing so, the authors here have concerned themselves less with the ambiguity around what Landcare means, or the social relations in which it is embedded, and more with the problem of finding suitable criteria against which to gauge its success. In Chapters 10 to 12, Margaret Bailey, Andrew Campbell and David Davenport reflect on their experiences as Landcare facilitators and participants to question what Landcare is achieving, and what it might be reasonable to expect it to achieve. Other contributors draw on more specific research programs to ask whether Landcare

is leading to a reduction in vegetation loss (Robert Haworth, Chapter 13); how community Landcare groups may be evaluated on their own terms (Sarah Ewing, Chapter 14); whether the evidence to date on the impact of Landcare supports the underlying assumptions behind the Landcare Program (Allan Curtis & Terry De Lacy, Chapter 15); how information flows between those involved in Landcare might be improved (Anna Carr, Chapter 16); and whether the Landcare model is robust enough to resist cooptation by elite groups into ulterior projects (Patrick Morrissey & Geoffrey Lawrence, Chapter 17).

Part 3 contains but one chapter, which attempts to look to the future for Landcare, given changes in policy and funding arrangements ushered in by the election of a new Federal Coalition Government roughly a year prior to the publication of this book. Drawing on sociological research, Stewart Lockie provides a critical analysis of changes in Landcare policy and their likely impacts on rural environments. The ever-developing nature of the Landcare project will, to some extent, render all policy analyses incomplete. We do believe, however, that by embedding such analyses in sociological research and understandings that the debates about the future of Landcare they inform will be eminently more productive.

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2

The Social Basis of Environmental Management in Agriculture: A Background for Understanding Landcare

Frank Vanclay

Agriculture is seen by some purely as a technical activity. Farmers' agricultural management practices are seen as the application of scientific knowledge which is generated in scientific research agencies (Depts of Agriculture, CSIRO, Universities), and extended/diffused/transferred to farmers through state agricultural extension agencies. The failure of traditional extension to satisfactorily transfer environmental management practices has led to a crisis in extension, which has been partly responsible for the development of Landcare (Vanclay, 1994a). In turn, Landcare has been paradoxical because there is an ideological clash between the professed ideology (rhetoric) of Landcare, the way it actually functions, and the way the agencies would like it to function. There is a severe contradiction between the bottom-up philosophy of Landcare and the top-down control exerted over the corporate identity of Landcare (Vanclay, 1994b; Lockie, 1997).

This chapter identifies the key social issues in understanding environmental management in agriculture. It argues that the failure to acknowledge that farming is a social and cultural activity is responsible for the limited success of extension, particularly in promoting sustainable agricultural practices. The full potential of Landcare will only be achieved through appreciating these social considerations. Thus, the purpose of this chapter is not to provide an analysis of Landcare such as provided by most other chapters in this volume, but to be a background chapter to reflect on the social basis of environmental management in agriculture. Such a background should help in understanding the social nature of Landcare, and will form a context in which the other chapters in this volume can be placed.

The social structure of agriculture:
It is not an individual problem.

The concept of 'the structure of agriculture' incorporates a number of elements. These include both micro-level features – such as the size of farms, the activities they undertake, and how much income farmers make – and macro-level features – such as the global integration of agricultural production, processing and retailing networks. It is also possible to locate farmers, and others involved in agriculture, within both localised and global class structures (Gray, 1991, 1992). It is necessary to appreciate that current structures did not develop by chance, but through, amongst other things, the interplay of history, government policy, and international patterns of trade. Changing world events and the global economy – and more particularly the Australian governments' responses to these changing world events – have had enormous impacts on the structure of agriculture, especially at the farm level. This structure has been socially, politically and culturally constructed through settlement patterns, subsidisation and regulation. The size of farms has been influenced by both government regulation and the amount of land required to make a living. This in turn has been affected by the cost of living in rural areas, which has itself

been affected by the extent of subsidisation of rural life through both public ownership of important utilities and services, and regulation of private services to ensure that rural residents got a fair deal. The transition to economic rationalist policy in the 1980s, and the ensuing privatisation and corporatisation of government and semi-government entities, as well as deregulation of airlines, banking, telecommunications, and the removal of the agricultural monopoly marketing boards, has had significant effects on rural life (Vanclay & Lawrence, 1993). Considerable structural adjustment has occurred, with increasing minimum viable farm size, a commensurate reduction in the number of farms, and a change in the nature of on-farm work, and the need for off-farm income.

Historically, one of the social (welfare) services provided by government to assist farmers has been an agricultural advisory service (Vanclay & Lawrence, 1995a, 1995b). In some ways, this was necessary to assist the many people who became farmers who had no previous farming experience – soldiers participating in soldier settlement schemes, as well as various migrant settlement schemes. The extension services also originated because of the need to protect farmland from land degradation. Despite some concern by farmers about the practical usefulness of the services, they have generally been appreciated. Economic rationalism has meant a considerable decline in the funding of extension activities, and the need for those services to seek alternative forms of funding and more efficient methods of ‘technology transfer’. A variety of forms of group extension, including the Landcare model, have been taken up in partial response to declining extension funding (Vanclay, 1994a).

The important point to appreciate is that agriculture is not ‘just another industry’, but rather – perhaps more-so than any other industry, although the point would also be valid of other industries – a way of life that has been socially (politically, historically, culturally) structured (see Vanclay & Lawrence, 1993 and 1995a for more detail).

The social basis of diversity in agriculture: Farming styles and farming subcultures.

The farming community is not homogeneous. There are many ways in which diversity can be observed within the farming community: rich and poor, big and small, old and young, high mortgage and small mortgage, propensity to adopt new ideas (innovator) and propensity to retain tried and true methods (‘laggard’ in extension discourse), pro-chemical and anti-chemical. Farmers can be categorised on every single variable that can be logically considered in conjunction with agriculture. This means there are no single problems, no single solutions, no single extension strategies, and no best medium that extension should solely utilise.

Instead of classifying farmers according to demographic or structural variables as has been undertaken by extension researchers in the past – adopter/non-adopter, innovator/laggard, big/small, old/young, valley floor/hillside etc – it may be more meaningful to group farmers according to subcultural groupings representing a conglomerate of social and structural variables. Vanclay (1995) maintains that the main reason why individual farmers do things is that those things are consistent with the farmer’s appreciation of what is locally considered ‘good farm management’, which is largely determined by the local farming subculture. A conceptually similar approach is

that of Dutch sociologist, Jan Douwe van der Ploeg¹, who has argued for recognition of different styles of farming. He argued that within a given commodity and location, there will be different ways of thinking about the appropriate way to farm. Thus Cees Leeuwis (1993), for example, identified six different types of Dutch intensive dairy farmers, and several ways of classifying the farming styles of hothouse (gas-heated glasshouse) cucumber growers. Glyde and Vanclay (1996) and Mesiti and Vanclay (1996) have considered the existence of farming styles in Australian viticulture. They concluded that the farming styles and subculture conceptualisations represent a more powerful understanding of diversity than other explanations.

Farming is a social activity, with farmers interacting in a range of social settings such as the chemical supply store, the winery while delivering grapes, local sporting activities, and Landcare and other farming field days, just to name a few. Farmers rate 'other farmers' as being important sources of information, usually ahead of all other information sources, a finding revealed in almost every study (Vanclay & Lawrence, 1995a; Vanclay & Hely, 1997; Rural Extension Centre, 1993). Awareness of the social nature of farming, especially in terms of the development of a local farming way of life, has been part of rural sociology discourse for decades in the form of the concepts of 'agrarianism' and 'country-mindedness'.

Thus, it is clear that farmers do not make individual decisions in a social vacuum. But it is also clear that they are not just the product of structural forces – they are not mere pawns manipulated by multinational agribusiness. While structural factors certainly have an effect on the nature of agriculture (Vanclay & Lawrence, 1995a), they are not deterministic – they do not limit farming to a single 'style', and do not construct the precise nature of farming as a social or even technical activity. Clearly, there is an area of negotiation, a repertoire of practices in which farmers can move. The set of farming styles in a particular region and a specific commodity can be defined as 'a composite of normative and strategic ideas about how farming should be done' (van der Ploeg, 1993: 241). A single style as manifested by individual farmers involves 'a specific way of organising the farm enterprise: farmer practice and development are shaped by cultural repertoire, which in turn are tested, affirmed and if necessary adjusted through practice' (van der Ploeg, 1993: 241).

A similar conceptualisation of diversity has been developed by Vanclay (1992a), who has considered the application of the concept of subculture taken from deviance studies (and policing studies) as a way of explaining variations in farming behaviour. Vanclay regards subcultures to be the mechanism or process by which farming styles develop or manifest themselves as entities. Vanclay's approach emphasises the social and collective basis of farmer management to the emergence of styles, while van der Ploeg tends to emphasise individual rationality. Within the subculture perspective, decisions are individually made, but the basis for making those decisions is sociocultural, embedded in the local farming subculture, and developed over a period of time. Subcultures, like culture generally, and like van der Ploeg's conception of farming styles, are dynamic, and very much modified by the actions of farmers, as well as other influences.

¹ The early work of van der Ploeg was in Dutch. Some references in English include van der Ploeg (1993) and van der Ploeg and Long (1994). He has been developing this concept since the early 1980s.

The social basis of farmer decision making: Farmers' attitudes are not a problem.

An early premise of the Landcare program was that all that was needed to improve environmental management in agriculture was an extension program to raise awareness about land degradation problems, and an education program to change farmers' attitudes to adopt or incorporate a 'land ethic' or similar (see Vanclay, 1992a). However, this is not the case. Farmers' attitudes are not antagonistic towards the environment (Rickson *et al.*, 1987; Vanclay, 1986, 1992; Vanclay & Lawrence, 1995a). Farmers do not believe that they are raping the earth while driving their tractors. Surveys have shown that farmers, in the main, have positive attitudes about the environment, and about environmental management generally. However, they may have different views about what environmental management means, about how to implement it, and they have concerns about whether the agricultural management practices being promoted as sustainable are, in fact, sustainable and/or profitable (Vanclay & Lockie, 1993; Vanclay & Glyde, 1994; Vanclay & Hely, 1997).

To some extent, this is intuitively obvious. It is not likely that farmers would have environmentally hostile views. The case of land clearing, for example, can be understood from the perspective of many farmers as being 'land improvement' – and may even have been required as a condition of the lease. Even if other groups in society (eg, conservationists) would regard some farming activities as degradation and/or destruction of the environment, the understanding of the farmer is different. Thus, the problem is not one of farmers having the wrong attitude, but one of a conflict of views about the right way to manage the farm best (for further discussion see Lockie, 1997; McEachern, 1992). This view is further reinforced by the observation, that the primary motivation given by farmers for undertaking much land management practices, is to pass the farm onto their children in a better condition (however socially defined) than they themselves had it given to them.

The view that farmers' attitudes are the problem, rather than there being a difference of opinion about appropriate (and profitable) farm management practices, represents: (1) an over-emphasis on the *individual* basis of decision making by farmers; and (2) a reliance on a *technocratic* and linear top-down diffusion process of technology transfer – instead of a sociologically-informed understanding which would see farm environmental management as an artefact of farming subculture and farming style. From the farming styles perspective and a subcultural understanding of farmer behaviour, decision making is not necessarily a consciously rational individual act, but a sociocultural process, with change occurring when new techniques are consistent with the knowledge base of the farming style.

The social basis of farming knowledge: Indigenous technical knowledge and local knowledge.

The most important feature of the idea of farming subcultures and styles of farming is that each style has an integrated knowledge base. Thus the behaviour or management practices of members of a group will be consistent with the premises (values, attitudes, knowledge, beliefs) held by this group. Extension will not work simply by exposing individuals to new ideas or new technology, since those innovations must be integrated with the existing belief system. Adoption will not

occur, and the innovation rejected, when this consistency does not occur. In order to be effective, therefore, extension needs to identify and target each of the subgroups that exist.

Targeting has been a technique of extension in the past, although most targeting was to top-end farmers and/or the so-called innovators, on the mistaken assumption that the ideas would diffuse or trickle down to all other farmers. Extension also went to considerable lengths to identify so-called 'opinion-leaders'. In practice, however, the opinion leaders identified by extension staff were seldom the opinion-leaders of farmers (if such a concept does exist). What was wrong with these targeting strategies is that they did not service the majority of farmers. Instead, the 'elite' farmers who were being targeted were greatly privileged or advantaged with research and extension methods to solve their particular problems and concerns, while the problems or concerns of all farmers – or more specifically, of each of the different styles of farmers – went unaddressed.

It is a mistake to believe that only 'Science' (as a social institution) creates knowledge that is then transferred to the public via extension. All individuals and groups are in the business of creating knowledge about their own experiences of the world. Thus, information that is transmitted via extension is evaluated against other information, knowledge and beliefs held by each individual. Nothing is accepted without evaluation. More and more, especially as the community is becoming more empowered and more sceptical, 'authoritative' information is being rejected. Science, therefore, does not automatically have credibility and legitimacy.

Farmers create their own knowledge through experimentation and trial, and through their own theorising. The knowledge of Science – that knowledge created by scientists – is used by farmers when it is consistent with their own understanding. Even then, however, it is adapted to fit their own worldview, and so 'adoption', itself, represents a form of scientific inquiry ('science' as a methodology) by farmers. The knowledge of Science is rejected when it is inconsistent with the worldview of farmers. Thus farmers are their own scientists, theorising, hypothesising and experimenting to determine what works.

Sometimes the knowledge farmers create through this process is especially adapted to peculiar local conditions. The harnessing of this local knowledge, or indigenous technical knowledge, has sometimes substantially improved the applicability of scientific knowledge. This local knowledge, often collected through Rapid Rural Appraisal and other techniques, has also assisted in improving the applicability and usefulness of technology designed in western countries, but destined for a different cultural context in developing countries.

Farmers develop considerable knowledge about their own farm. They know the local history and local conditions and they use that information in their decision making and management. Within the viticulture industry, for example, it was found that while many agronomic management systems required careful examination of crops for pests and diseases, and extension agencies promoted specific 'scouting' strategies, the precision expected in the course of such scouting was rarely undertaken by farmers. Instead of thorough examination of the whole crop, many farmers used their indigenous technical knowledge of local 'hot-spots' – locations on the farm where pest and disease outbreaks were likely to occur first – to minimise their scouting effort and thereby rationalise the management intensity of their farming system (Glyde & Vanclay, 1996). Such an example demonstrates the use of local knowledge by farmers, and its potential usefulness. There

is, after-all, a scientific explanation that would justify the existence of hot-spots – microclimate and micro-environmental conditions could explain why outbreaks would be most likely to occur in certain places first.

The advances of agriscience have not always been substantial, and it can be argued that greater attention to local and historical knowledge may have been beneficial. A literally (and literary) ‘classic’ example of the power of local and historical knowledge can be made in relation to the latest recommendation of NSW Agriculture regarding ‘sustainable crop rotations’. These recommendations limit the number of consecutive wheat crops, suggest that broadleaf crops be grown as a ‘break crop’ between a fallow pasture stage and the first wheat crop, and that legume species be grown to increase nitrogen presence. Concern has been expressed about the rate of adoption and a consultancy undertaken to provide advice to encourage adoption (see Vanclay & Lockie, 1993). It is interesting to compare the NSW Agriculture recommendations about sustainable cropping rotations with the advice provided 2,000 years earlier by Virgil in his manual of practical instruction for Roman farmers (the *Georgics*, especially Book 1):

Now to business:

As soon as the first months of the year begin, your strong bulls
Should turn the fertile loam and leave the clods lying
For the full suns of summer to bake into a fine dust:
But if the land’s not heavy, you’ll find enough at the North Star’s
Rising to ridge it out in shallow furrows: – the one
Lest weeds should check the corn’s exuberance, the other
Lest lack of moisture turn your soil to a sandy desert.
See, too, that your arable lies fallow in due rotation,
And leave the idle field alone to recoup its strength:
Or else, changing the seasons, put down to yellow spelt
A field where before you raised the bean with its rattling pods
Or the small seeded vetch
Or the brittle stalk and rustling haulm of the bitter lupin.
For a crop of flax burns up a field, and so does an oat crop,
And poppies drenched in oblivion burn up its energy.
Still, by rotation of crops you lighten your labour, only
Scruple not to enrich the dried up soil with dung
And scatter filthy ashes on fields that are exhausted.
So too are the fields rested by a rotation of crops,
And unploughed land in the meantime promises to repay you.
(Virgil, *Georgics* Book 1, lines 63-83).²

Virgil’s Book 1 goes on to discuss other issues, including: whether or not to burn stubble; irrigation strategies; weed control mentioning thistle, wild oats and others; and pest control, especially in grain storage. The whole Book 1, a total of 514 lines, explains the order of planting, and the precise timing of planting of many crops. While the information does not concur exactly with modern prescription, and was proscribed for the Roman environment, the similarities are striking. Perhaps the research program of NSW Agriculture could be advanced further if more agricultural scientists took more humanities and social science subjects in their courses!

² I must acknowledge the ecologist and literary enthusiast, Dr Jo Treweek, of the UK Institute of Terrestrial Ecology, in bringing this to my attention.

While it is desirable to accept that farmers have (local) knowledge, it is important not to romanticise or overstate the applicability of the knowledge that they do have. Local knowledge is unlikely to provide immediate answers to new problems. Of course, farmers do experiment, and they may develop their own solutions to new problems, and this may help science and other farmers to overcome these problems. But farmers could develop partial solutions that treat the symptom but not the cause, and which could exacerbate the problem over time. However, despite this recognition, it is important not to make value judgements about farmers and their environmental management practices, because many of the problems of today are the result of the practices that were promoted in the past. Furthermore, Lockie and Martin (Lockie, 1994; Lockie & Martin, 1993; Martin & Lockie, 1993) have argued that local knowledge may have some limitations in its application to problems that occur on a wider spatial or temporal scale. These papers argue that local knowledge is of great importance to catchment management, but must be used critically to take account of scale.

While Landcare potentially recognises the concept of local knowledge, at least appreciates the importance of farmers resolving for themselves the issues – in some form of AKIS conceptualisation (Röling, 1988) – Landcare must not homogenise farmers either. Landcare is generally based on the notion of constructing groups around subcatchments because they have a similar problem setting and therefore a shared understanding and a basis to work together. However, this is only partly true. From an physical point of view, farmers in a subcatchment may be faced with the same environmental problem, but the understanding and concern about this problem will depend on the style (or at least social characteristics) of each farmer. However, the farming styles approach doesn't automatically suggest that Landcare groups should be based around styles rather than subcatchments. Farmers develop their understanding of farm management (their farming style) through both learning the style itself, and also through evaluating and discrediting alternative possibilities. The appreciation of 'good farm management' is largely defined by the identification of what is not good. So mixed groups allow farmers to construct their own notion of good through comparison with those they define as bad. In sociology, it is regarded that deviance is an inevitable and necessary feature of every society and group, because the good or socially valued practices can only be defined in comparison to what is defined as bad or unacceptable.

The social basis of environmental perception: Appreciating the farmer's gaze on the land.

Vanclay (1992b) has argued that because of the influence of dramatic images in the general media and in extension literature, farmers' concern about degradation has become inflated (that is they have increased awareness), but they do not perceive themselves to be at risk because the land degradation they experience is nowhere near as severe as the images being depicted. In earlier research, Vanclay and Cary (1989) identified that one of the issues in relation to adoption of salinity control methods was the lack of knowledge by farmers of the early warning signs – the salt indicator species. However, the problem with many early warning signs is that they are not unique to a single issue, and can easily be attributed to other reasons. For example, a poor germination rate, reduced prolificness, or reduced species prevalence could be attributed to a lack of moisture, too much rain, hot weather, cold weather, poor seed, pests, diseases, etc. Sometimes, tell-tale signs become to be so common that they are simply disregarded – for example,

few farmers would believe that muddy dams, or cloudy creek water were evidence of soil erosion. It is desirable, then, that farmers develop an understanding of the land, and that they consider the environmental processes, especially land degradation processes, that may contribute to any feature of the landscape they observe. Terry White (1992) refers to this as 'land literacy' and argues that all people need to be able to read the land for what it is telling us about its health and about the health of our society and our production systems. It should be evident that while thrust in this chapter is to emphasize the social nature of farming, the physical basis of environmental issues is not challenged here.

One way of relating the concept of land literacy to farmers' notions of the appropriate ways to farm is the concept of the 'farmer's gaze'. This concept emphasises the notion that perception is socially conditioned, and thus the farmer's gaze on the environment is not about objective physical science notions about the state of the environment, but more to do with the way the environment is 'experienced, organised, produced and valued by farmers' (Tovey, 1994: 209). The concept is also present in the literature dealing with the role of 'place' amongst farmers.

Thus from several sources and theoretical bases, there is a strong conviction that perception or gaze is socially produced and reproduced. Thus each farming style would characterise a particular gaze, representing an outlook on the land. Degradation is only perceived as such when it is not filtered out by the farmer's gaze. A role of Landcare, therefore, is to appreciate not only the existence of farming styles, but to accept that each style potentially has its related gaze, and to attempt to enhance the understanding within each style and gaze of the environmental processes occurring on the farm and the indications of their activity – the early warning signs and other indicators. There is some evidence that this is occurring. Landcare members in one case study have indicated that their gaze on the environment is shifting and that they are now 'looking at the farm through a new pair of eyes' (Lockie, 1996). In another study, it was suggested that farmers were gaining a new environmental consciousness and an interest in the natural history (and social history) of their locality, but that this was in response to a political need to establish a connection with the land because of increasing tension over land tenure issues brought about by the Mabo and Wik decisions (Goodall & Lucas, 1997).

The social definition of 'land degradation':

What is degradation and what is a normal geological process?

There are many technical definitions of 'land degradation'. However, what extension officers and scientists regard as degradation is not necessarily perceived as degradation by all farmers. Generally, this discord is perceived by extension as the failure of farmers to develop sufficient 'awareness' of the issue. But strictly speaking, degradation is a value judgement made about what is an unacceptable rate. Land degradation occurs because of naturally occurring geomorphological processes. Our fertile farming lands are the result of the same processes that are now regarded as degradation, only having occurring at a slower rate and over a much longer period of time. Farm management practices accelerate the rates of these natural occurring processes, with some practices causing them to occur at a higher rate, and other practices causing the rate to be slower. Since these processes are naturally occurring, they occur irrespective of the farming practices used, and even if the decision is not to farm. Thus the understanding of these

processes as induced degradation, rather than as a natural process represents a social understanding about the acceptability of the rate of the process. What rate of these processes is acceptable?

Nutrient decline and acidification (at rates believed to be a problem) are virtually inevitable outcomes of all farming activities because of the harvesting of crops and consequent removal of plant material. Structural decline and erosion are possibly also inevitable because of machinery use. Nutrient decline and acidification potentially can be corrected artificially through the application of fertilisers and lime respectively. The socioeconomic issue here is that the cost of rectification may exceed either or both the increased yield to be gained from rectification, and the cost of replacing the land with new land (buying out the neighbour). Farmers are aware of this (Vanclay & Hely, 1997). Thus, awareness of land degradation occurring on the farm does not mean that it is economically rational for farmers to take ameliorative action.

Economists (eg Quiggin, 1987) have discovered that most ameliorative active to prevent land degradation is not economically rational, especially when future discounting is applied and the discount rate (interest rate) is high. Fortunately, neither farmers (nor anyone) are economically rational beings. While they can not be expected to do things that are manifestly not economical, the argument put repeatedly here is that economic decisions do not alone determine farming practice.

A final issue for reflection about the nature of degradation is that it could be considered that if degradation is the loss of productive farm land, then the greatest form of degradation is not salinity or acidity, but the conversion of farm land to non-farm use, usually for urban expansion or rural residential development. The impacts of this for Australian farmers are not only in terms of lost land (which affects Australia as a nation, but doesn't affect farmers directly), but also in terms of raising the price of land in those areas subject to expansion beyond the reach of farming so that smaller farmers can not expand to deal with cost-prices squeezes and economies of scale. From a sustainable agriculture point of view, we should be concerned about protecting (zoning) our productive farmlands, to protect them from conversion to non-farm use. Whatever attractions rural residential (urban fringe) blocks may have for those people who desire them, they are undesirable from a sustainability point of view. The issue of rural residential blocks causes many other disputes between rural residents and farmers, particularly over issues like pest and weed control, and chemical use. This is a complicated issue, and there is potential for creative solutions as well, although they do not appear to be applied in many cases. However, it does give a different perspective on the question of what is 'land degradation', and demonstrates the importance of a social analysis in answering that question.

The social basis of (non) adoption:

Barriers to adoption do not exist – non-adoption is rational.

Because extension has been predicated on the notion that knowledge transfer was uni-directional, science the only originator of new ideas, and that farmers were passive and non-evaluative receivers of new technology, it also held that all new ideas, if successfully extended, would be adopted. Non adoption could only mean that information transfer had not taken place (not enough media attention) or there was a barrier to adoption – some reason why farmers could not adopt

the new technology, such as a lack of money. This argument is somewhat absurd. Surely, if it really did make sense for a farmer to adopt a new technology, and a commitment to that innovation existed (ie. a thorough belief that the benefits outweighed the costs as broadly defined), then a way would be found to adopt. Where non-adoption occurs, obviously a real commitment to the innovation does not exist and non-adoption is a sensible strategy. There are lots of reasons why farmers may not have a real commitment to new technologies, and thus non-adoption is rational from the perspective of the farmer.

Amongst the possible reasons for non adoption are (adapted from Vanclay & Lawrence, 1995a; also see Vanclay & Lawrence, 1994):

1. **Complexity.** In general terms, the more complex the innovation, the greater the resistance to adoption. Complexity makes the innovation more difficult to understand, and generally requires greater management skills. This increases the risk associated with the innovation. Many environmental management practices are complex and require a detailed understanding of physical processes. In some cases, such as with salinity, farmers know what is being stated and what is being promoted to address the problem. They simply don't believe or agree with the scientific explanation for salinity (Barr & Cary, 1992; Cary & Barr, 1992; Vanclay, 1992b). Farmers are acting quite rationally by preferring to adopt less complex innovations over more complex ones and by not adopting complex practices at all.
2. **Divisibility.** Divisibility allows for partial adoption. Farmers can adopt that part of an innovation that they like or that is consistent with other farming objectives. Obviously, therefore, the more divisible into component parts an innovation is, the more likely it is to be adopted. Under the traditional model of adoption of commercial innovations, partial adoption is thought to inevitably lead to complete adoption. Partial adoption is viewed as a form of trial adoption. Where innovations are not divisible, they are not likely to be adopted, especially if they have other detracting attributes. In this case, farmers must be totally committed to the new innovation before adoption. Such a commitment is unlikely for a range of reasons, and consequently farmers are acting rationally when they do not adopt technologies that are not divisible. Environmental innovations tend not to be divisible and are, as a consequence, less likely to be adopted.
3. **Congruence – incompatibility with farm and personal objectives.** Farmers are more likely to adopt innovations that are compatible with other farm and personal objectives. Where innovations are complex and indivisible, they are also likely to represent major changes in the management of the farm and, therefore, not be compatible with other operations on the farm. Farmers' personal needs for the use of capital and income – such as the education of children, expenditure on household goods, as well as farm requirements such as the purchase of new machinery – may mean that capital expenditure is not consistent with farm and personal goals at that point in time. The desire to maintain flexibility because of uncertainty in the market place means that innovations that are not consistent with this goal are also likely to be resisted. Because of the fundamental changes to agricultural practices associated with most new environmental strategies, most environmental innovations are not compatible with current farm management practices. Non-adoption under these circumstances is rational from the farmer's point of view.

4. **Loss of Flexibility.** Many new environmental management practices reduce farmers' flexibility. Farmers like flexibility because it means that they can change commodities in response to market and climatic conditions. Perennial pastures lock farmers into grazing. Zero-tillage systems, with chemical control of weeds, restrict the range of crops that can be grown and the rotations of those crops. Farmers are quite likely to resist the adoption of new technology that restricts their flexibility. With fluctuating market prices, farmers are acting rationally by wanting to maintain flexibility. Many new management practices, some being promoted under the guise of sustainable agriculture, potentially reduce the autonomy of farmers by linking them via vertical integration to multinational agribusiness corporations. Farmers are aware of this, and while many perceive that they have little choice (Lockie *et al.*, 1995; Vanclay & Lockie, 1993), they are concerned about this issue.

5. **Economics.** There is a strong view in extension circles, and more generally, that farming ought to be regarded as a business and that the primary motivation of farmers is, and ought to be, profit maximisation. This is not the case. Farming means much more to a farmer than simply a way of making a living. There are numerous rewards from farming, and high income is often low in priority. From a cold empirical econometric position, it makes very little sense for anyone to be a farmer because the returns likely to be achieved in farming are much lower than those available elsewhere. The sociological position being expressed here is that economic considerations are not either the main motivation in being a farmer, nor a large factor in the decision about whether to adopt an innovation or not – doing what is right is a more important criterion. In any case, not all innovations are profitable, at least not in the perception of each farmer. Even where farmers accept that some innovation could be profitable for some (such as demonstrated on a departmental experiment station) they can find reasons why their conditions are different and why they would be unlikely to achieve the same results. Furthermore, all farmers know that it takes a few seasons to iron out all the bugs and achieve maximum benefit, so there may be a few years of lowered income. Because of the economic situation of many farmers, they simply cannot afford such down-time, and it makes more sense for them to continue with a system with which they are confident that they can get a return from, than to invite the uncertainty of change. Some innovations, such as sustainable cropping rotations, do not necessarily return profit in every year, but are alleged to increase profit in gross margin analysis over the whole rotation. Potentially, this requires farmers to forego profit (and absolute income) in some years of a rotation in the promise that profit will be increased in other years. But farmers, or more specially their banks, have requirements of a cash flow in every year. Finally, many environmental innovations rarely provide direct economic benefit to an individual farmer, especially when future discounting techniques are applied (Quiggin, 1987), but are of benefit to the wider community. If farmers did base their decision solely on economic criteria, there would be very little adoption of environmental innovations. Fortunately, farmers employ a range of criteria in their decision making processes, and do what they consider to be the right thing as much as it is practicable. Nevertheless, it is a truism that the more expensive environmental management practices are (in terms of immediate financial and intellectual capital outlay and the labour required, and in terms of the benefit/cost ratio over time), the less likely adoption will be. If farmers were being strictly rational, little adoption of environmental innovations would occur. They ought not be criticised for not adopting when the economic situation does not warrant it. There is a certain irony in that farmers are criticised for not adopting practices that extension believes to be profitable, but they are also criticised for not adopting environmental innovations which are not profitable.

6. **Implementation Cost – Capital Outlay.** In addition to the economics of the innovation – in terms of whether or not the innovation will increase profit – it is necessary also to consider the capital required to adopt the new technology. Much commercial innovation, and some environmental innovation, requires considerable capital outlay in the form of new machinery, seeds, agrichemicals and earthworks. Often, adoption of new techniques may require the farmer to forego income until the new system is established. In this situation, the farmer must have the resources not only to adopt the new technology, but also to survive the period until the new innovation produces income. In the current period of farm financial crisis, many farmers have negative incomes, and with declining farmland values and equity levels, many farmers have no borrowing power (this is so despite the fact that interest rates – in Australia at least – are now at their lowest levels in over a decade). In other words, farmers just do not have the capital resources available to them to adopt any new technology that requires a substantial capital outlay. It should be noted that most banks regard farm investment as high risk and charge high risk margins, meaning that farmers may be paying five to ten percent more for their farm loans than the average private owner-occupied housing loan. Despite the current low rate of interest, the interest rate for farm borrowings may still be higher than the return on capital invested on the farm. This means that it is economically irrational for farmers to borrow (or even to be a farmer at all). In addition to the lack of capital to outlay, the farm financial crisis means that most farmers are unwilling to take any risk because failure might have disastrous consequences. Risk taking behaviour is more likely when the farmer can afford the consequences of failure (cf. Cancian, 1979). Geertz (1963) calls this ‘agricultural involution’ – the process by which marginal farmers do not innovate because of the inability to deal with the consequences of failure, even where there may be clear economic reasons to adopt innovations.

7. **Implementation Cost – Intellectual Outlay.** In addition to the capital costs associated with the adoption of new technology, there are also intellectual costs. Farmers may have to learn new ways of doing things. Many of the new recommended farming strategies require much greater knowledge about cropping systems and about the chemicals that are used in modern agriculture. This classification is similar to ‘complexity’, but relates to the knowledge base of the individual farmer rather than to an objective measure of complexity. This is not a patronising view of farmers because farmers would not be unique in attempting to minimise the amount of knowledge needed in order to conduct their operations. The same explanation would account for why many older academics were slow to adopt computer word-processing, to use e-mail, or to access the Internet.

8. **Risk and Uncertainty.** Risk is usually associated with commercial innovations because it refers to farmers' concerns that the capital and other resources invested in adopting the technology will not result in any benefits. However, the concept also refers to environmental innovations, in that farmers need to be sure that the conservation technology will actually provide the anticipated environmental benefits and outcomes. Farmers could expend resources adopting a new technology, buying new machinery, and altering the management of the farm in order to farm more sustainably, only to find that the new technology fails to solve the environmental problems it was intended to solve. In this sense, the risk is always greater for environmental innovations than for commercial innovation. With commercial innovations the main risk is capital outlay and perhaps the yield of one season. With environmental innovations the risk includes the capital resources expended – often considerable when production strategies are required to be altered – and the production for that season. These are weighed against the production for future seasons if the environmental degradation is not stopped. While farmers do not necessarily make conscious and sophisticated analyses of the degrees of risk in adopting technology (the information required to do this is seldom available), they are aware of the implications of particular choices. As argued above, the economic situation faced by farmers tends to promote an aversion towards risk and uncertainty.
9. **Conflicting Information.** No new technology, especially that designed for conservation purposes, is free of debate about its applicability and effectiveness. Farmers receive information from numerous sources and those sources often contradict each other (Vanclay, 1992b). In a situation where there is already some uncertainty, conflicting information further suggests that non-adoption is an appropriate management strategy.
10. **Environmental Perception.** Considerable research has established that farmers are likely to adopt environmental management techniques when, among other things, they consider themselves to be personally at risk from environmental degradation (Vanclay, 1986; Rickson *et al.*, 1987). However, much of the extension literature, conservation literature, and general media reports depict land degradation in its most dramatic forms: deep erosion gullies, salt encrusted pans, or exposed tree roots resulting from wind erosion (such as the Dust-bowl images that are frequently presented). The presentation of land degradation in this dramatic form is counter-productive (Vanclay, 1992b). While farmers are made aware of the issue, they do not see the same degree of degradation occurring on their own farm and consequently believe they do not have a problem. They will claim this even when it is known that the problem may be serious in their own locality (Vanclay, 1992b). Where farmers *do* experience land degradation in such a severe form, they may feel powerless to address the problem, and adopt a fatalistic attitude rather than undertake any reclamation action or fundamentally change their management practices (Williams, 1979).
11. **Physical Infrastructure.** Agricultural commodity production requires certain physical infrastructure, such as handling facilities to enable the crop to be marketed. Historically, that infrastructure was provided by the state in the form of commodity marketing boards and other organisations, which together provided a network of silos and railways, as well as extension services to provide advice on issues related to the state endorsed crops. The existence of this infrastructure meant that it was largely impossible (and if not impossible, not sensible) for farmers to grow anything that was not compatible with that infrastructure. Current concern by government to increase production of higher-value crops, and a perception about the reluctance of farmers to grow new crops, should be tempered by regard to consideration of the history of agricultural production.

12. **Social Infrastructure.** In the same way that a physical infrastructure exists as a mechanism to encourage production of particular crops, and inhibit others, a social infrastructure also exists. The social infrastructure refers to the social networks of farmers, which provide a knowledge bank for farmers to utilise. The accumulated knowledge of other farmers is usually regarded as a more important source of information than extension services. Except for a few maverick farmers, no individual farmer wants to be the only one doing a particular activity because they would have no social support to discuss their problems.
13. **Farming Subculture and Farming Styles.** The concept of ‘social infrastructure’ is more theoretically developed in the twin notions of ‘farming subcultures’ and ‘styles of farming’. Social infrastructure maintains a physical science conceptualisation of how social factors might be important in the form of a ‘physical’ barrier to adoption. But the argument developed here, and through other work about farming styles and farming subculture, is that farming is a social process and farm management practices are a manifestation of that social activity. Thus, like other aspects of social life in all social spheres, farmers do not make conscious decisions about most issues – they do what is consistent with their social situation. This, then, is the basis of adoption when the innovation is compatible, and, notwithstanding the above 12 points, is the primary reason for non-adoption.

All these issues demonstrate that the profit motive is not the primary consideration in the evaluation of new technology, and that increasing the education of farmers is also not alone likely to be an effective method of enhancing sustainability. Farming is a way of life more so than it is a business. An ethnographic understanding of how different groups of farmers construct their way of life is a more informative explanation of farmer behaviour than any economic concern.

Many extension staff believe that non-adoption of the practices they promote is the main barrier to sustainable agriculture, consequently expressing concern about those farmers who do not adopt tree planting and altered management systems. However, it was adoption (not non-adoption) of the practices that were promoted in the past (tree-clearing, excessive use of sub and super) that was largely responsible for the environmental problems of today. Farmers have become sceptical of extension with their simple message that all that has to be done to solve all the problems is ‘such and such’. Farmers know that farming is more complex.

The social critique of agricultural extension:

What’s wrong with traditional top-down methods of technology transfer.

Vanclay and Lawrence (1995) identified five major criticisms of traditional top-down extension. While contemporary extension agencies are moving away from traditional extension practices, the ideology that supported top-down extension persists in subtle forms. It is worth reiterating those criticisms of traditional extension to help ensure that those problems are not manifested in modern extension.

First, extension has uncritically accepted the products of agro-industrial agriscience and agribusiness, and has seen as its task to simply promote those products. Second, this uncritical acceptance of these products, and their adoption by farmers, has led to considerable social and ecological impacts. Third, the adoption-diffusion model is premised on commercial innovation in

which it is perceived that farmers would benefit. Thus, it does not cater for environmental innovations, which may not be of benefit to individual farmers. Fourth, farmers' local knowledge or 'indigenous technical knowledge' has been marginalised, trivialised, subordinated and ignored by the 'techno-strategic discourse' that has dominated farming (Kloppenborg, 1991). Finally, extension utilised a psychological model of individual decision making and ignored the social, political, cultural and historical context of agriculture and adoption behaviour (Vanclay & Lawrence, 1995; Buttel *et al.*, 1990).

The social contribution to representation: Representation is not participation.

Some of what is provided in this chapter is understood by the extension agencies and the rural R&D Corporations. The traditional model of extension has been resoundingly discredited, and Landcare has presented a new model of social organisation and problem solving that could be used in other settings. In conjunction with the emergence of Landcare has been the growth in popularity and legitimisation of bottom-up approaches in extension. Part of this perspective is that the people affected by a potential decision should participate in the decision making process. This is manifested in agriculture, partly in group extension techniques and Landcare, and also in the use of farmer representatives on various decision making committees, and the Boards of the R&D Corporations.

As a general principle, participation is a good thing. Thus involvement of farmers in R&D corporations in the determination of funding priorities, and their involvement in research itself, is desirable. However, there is little real evidence that participation delivers tangible differences to outcomes, other than satisfying participation requirements established through political processes. There is a danger that representation is simply tokenistic. The major criticism of representation is that it doesn't necessarily mean participation, certainly not of all the range of the styles of farming. A major concern is that the farmer representatives are seldom representative of all farmers. Often they are chosen, not because they are farmers, but because they are farmers who have considerable experience appropriate to the business activities of the corporation. Because of their corporate experience, their worldview and life circumstances are very different from most other farmers. Thus only certain styles of farming are represented. Farmers are not necessarily aware of all the styles of farming, but in any case they justify their own style through discrediting other styles. Therefore, farmer representatives are unlikely to be able to speak on behalf of styles other than their own, except on matters that are common to all (or at least most) farmers.

Farmer representatives are seldom in the majority on any committee, and thus can easily be marginalised. This marginalisation is even greater for any farmer representatives who are not used to the corporate discourse. Farming, although requiring considerable decision making activity, is not an area calling for abstract conceptualisation and articulation in the same way as expected in the corporate discourse. The corporate discourse itself acts to subordinate farmers. The bind is that those farmers who become comfortable with the corporate discourse become 'bureaucratized', accepting the hegemonic corporate agenda and thus failing to represent farmers at all. Enabling participation is more difficult than getting a few representatives on a committee (Roberts, 1995).

Some would argue that a further problem is that participation might deliver the best human outcome through negotiation, but that this would not necessarily represent the ecological response that might be perceived to be needed for a particular environmental problem. Landcare groups may negotiate salinity plans etc, based on realistic achievable goals from the perspective of the farmers involved, but they may fail to satisfy the environmental scientists and extension agencies concerned about the increasing salinisation rate. The social determination here is that to expect more of farmers is unrealistic.

Conclusion: the future of extension and implications for Landcare.

This chapter has argued that farming is a social and cultural activity. Farm management practices are physical manifestations of cultural expression, they are not solely technical. Diversity in agriculture should be conceived of in social, rather than in physical or structural terms, and the way to conceptualise this social diversity is in the form of styles of farming. The objective of farming is to adhere as closely as possible to the conception of 'good farm management' that develops in each style. Farming styles also account for lifestyle preferences. While some farmers (at least one style) would see profit maximisation as an important objective, most farmers (other styles) value other priorities such as workload, lifestyle, risk, and the need to look after the environment (stewardship), more than economic return. Of course, declining terms of trade, and structural adjustment generally, are making economic issues more important, because farmers who are not economically viable fail to survive in farming.

From within the perspective of each farming style, current management practices generally make sense, even if they are discredited by extension and/or conservation agencies. Attitudes are not the cause of non-adoption of new management practices. Farmers' attitudes are generally positive about environmental issues. Non-adoption arises because of differing opinions about the right way to manage the land – about what constitutes 'good farm management'. Farmers do not uncritically accept the information that is being promoted, they evaluate that information against their own knowledge and experience and, furthermore, they experiment and hypothesise. Thus, even if they ultimately wind up doing what was being promoted, it is likely that such an outcome was the result, not of their adoption of what was being promoted, but of their adaptation of an idea and of their own knowledge production processes.

Appreciation of this social understanding of farming is daunting. It implies that extension can only influence farmer behaviour when the practices being promoted concur with the worldview/subculture/farming style of each farmer. Extension agencies must, therefore, see their role as social change agents rather than as pursuing the technical task of technology transfer. It must also be recognised that the probability for substantial change may be slim, especially if the innovation requires fundamental change.

This does not imply that extension agencies have no role. While farmers are critical of extension services – especially in terms of the practical application of the advice available, and more recently the availability of individual assistance – they would not want to be without the extension services they have (Vanclay & Glyde, 1994; Vanclay & Hely, 1997). Extension services are still required for individual assistance, especially for individual problems. However, individual extension is not efficient at attitude change, or of influencing group (farming style) understanding of 'good

farm management'. Here Landcare has the potential for a major role, and has been playing that role already. But on this issue, Landcare groups encounter a contradiction between their role as farmer-initiated groups and networks to assist farmers versus Landcare as a form of group extension – another tool of the extension agencies (see Lockie, 1996, 1997; Vanclay, 1994b).

The purpose of this chapter has not been to provide an analysis of Landcare such as provided by most other chapters in this volume, but to be a background chapter to reflect on the social basis of environmental management in agriculture that may be necessary in understanding why Landcare is or is not successful.

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3

Beyond a 'Good Thing': Political Interests and the Meaning of Landcare

Stewart Lockie

If any one question plagues those who seek to evaluate or comment on Landcare – not to mention those attempting to initiate Landcare groups or programs – it is the seemingly innocuous question of just what Landcare is. Even the most cursory perusal of documentation on Landcare will reveal at least two things; firstly, that the term 'Landcare' means many things to many people; and secondly, that the idea of Landcare is closely related to many other concepts and projects. If we look solely at this book, for instance, we find that Landcare is examined as a government program by Curtis and De Lacy; a form of extension and information system by Carr; a means of enacting governance by Martin; and as the network of community Landcare groups, and supporting institutions, by Campbell. Further, the chapter by Ritchie shows that the concept of Landcare has travelled across the Tasman, but has changed even further along the way. The question we might ask is whether the dilemmas this diversity poses for professional evaluators – who work best with clear goals and criteria – are of any consequence for anybody else.

Contemplating the meaning of Landcare no doubt seems as esoteric for many people as the meaning of life; an interesting question to puzzle over late at night with a good bottle of wine, but somehow remote from the day-to-day projects and issues which confront their lives. Indeed, six years into the Decade of Landcare we may well conclude that the time for pondering meanings is well and truly over if Landcare is to make an indelible mark on our landscape by the turn of the century. It could, on the other hand, be argued that we need some sort of common understanding about what Landcare is so that we might all 'pull in the same direction', aligning our individual and communal goals to satisfy an agreed upon notion of the common good. Listening to some, we may even conclude, somewhat paradoxically, that we need to suspend our discussion of what Landcare is in case the ensuing debate threatens any consensus we may already have, even if this extends little beyond the banal observation that Landcare is, without doubt, *'a good thing'*.

All of the above positions obscure real, and legitimate, differences in the interests of participants in Landcare, and consequently the importance of their position taking practices in associated discourses. Some of the 'battles' over meaning associated with Landcare are obvious and have been discussed by numerous authors. Others are less clear, and require us to think more about the relationships between Landcare, and social and cultural change more generally. This chapter will begin with a brief outline of the theoretical perspective which informs this analysis. The fieldwork on which most of the ensuing discussion is based was conducted through 1993 and 1994, and involved a range of methods aimed towards ethnographic understanding of the research problem, including unstructured and structured interviews, and participant observation. These methods were deployed in the context of a case study conducted in one Local Government Area in the mixed cropping/grazing zone of south west NSW, and through involvement with the wider 'Landcare community'. They were undertaken as part of PhD research which was recently completed.

Some theoretical context

This chapter argues that confusion and conflict over the meaning of Landcare is one of its most interesting sociological features. While it is both necessary and useful for many analysts, and participants, to adopt particular positions in the debate about what Landcare might be, in this chapter I take the debate itself as the focus for analysis. I will be looking at the deployment of Landcare as a 'signifier'; as the essentially arbitrary physical form of expression to which culturally produced concepts are attached, or 'signified' (see Hall 1993; Turner, 1993). This implies that we cannot take the meanings associated with the word 'Landcare' for granted, but must examine the ways that individuals and groups act to associate particular concepts and practices with this signifier.

Since meaning and power are fundamental constituents of all social relations (Giddens, 1984), all social practice – including what we do in Landcare groups, our homes, our jobs and on our farms – involves both symbolic and material dimensions. As fundamentally *social* actors, we construe the meaning of our own activities by drawing on the stock of available discourses, or webs of meaning, that form the cultural milieu in which we live our lives (Long, 1992). Effective social practice is, according to Long (1992), dependent on the co-optation of other actors into a project or strategy, something which is accomplished most successfully when actors accept the legitimacy of such projects and their associated social meanings. Power becomes dependent, therefore, on the ability of actors 'to win the struggles that take place over the attribution of specific social meanings to particular events, actions and ideas' (Long, 1992: 24), and is likely to accrue in hegemonic blocks (see Jessop, 1990) around those with most access to resources capable of influencing knowledge and meaning. It is useful, therefore, to examine the ways in which different actors try to influence the discourses surrounding, and constituting, Landcare. These are complex social processes which cannot perhaps be ever fully appreciated. It is, however, possible to identify those actors, whether individuals or groups, whom have more access to public discourses than do others (van Dijk, 1993), and to compare the meanings promoted by them through these discourses – which in this case means the concepts and ideas they try to associate with the signifier 'Landcare' – with those actualised in the social practice of other actors.

Meaning and the National Landcare Program

The National Landcare Program and the Decade of Landcare provide some of the more obvious examples of how the meaning of Landcare has been contested to pursue particular interests. In the short time that the National Landcare Program has been in operation the social effects have been spectacular. The number of community Landcare groups has grown to over 2,500, and almost 30 percent of all farm businesses in Australia are represented in one of these groups (Mues *et al.*, 1994). Further, it is increasingly common to hear land degradation referred to, in the words used by the Prime Minister around the launch of the Decade of Landcare, as one of Australia's '*most serious environmental problems*' (Hawke, 1989).

Andrew Campbell (1992), in his third annual report as National Landcare Facilitator, discussed some of the meanings which the term 'landcare' had by then come to embrace. He reported that 'LandCare' was first used 'in Victoria in 1986 as the registered name of a government program to assist voluntary community land conservation groups' (p.5). Farmers, he pointed out, tended to

understand the meaning of the term Landcare very literally, as 'caring for the land, controlling land degradation [and] working cooperatively'. Government agencies, on the other hand, had expanded the notion of Landcare, using it to embrace programs and activities which had previously gone under terms such as soil conservation, conservation farming, farm planning, revegetation and land protection, amongst others. The new aspect which Campbell believed Landcare brought to these programs was the underlying notion of cooperation, of a partnership between governments, communities and businesses. This was implicitly counterpoised against a mythical past, supposedly characterised by exploitation, ignorance and government regulation. Campbell refers to the 'broader and more nebulous notion of Landcare as *the landcare movement*, of which *landcare groups* are a critical element' (1992: 5, original emphasis).

Campbell's report followed closely the development, by the Commonwealth and each of the States and Territories, of a series of plans for the Decade of Landcare. These plans stressed either that Landcare was a program, community based action, or sustainable land use in general. All plans stressed the importance of cooperation, and all State plans the partnership between governments and communities. Not surprisingly, evaluations of Landcare (eg Curtis & De Lacy, 1997) have tended to focus on the programmatic understanding of Landcare implicit in this State planning process. Interestingly, the Commonwealth plan made it clear that, while due to the nature of environmental problems the participation of the Commonwealth was warranted, ultimately it was the responsibility of individual land users to do something about them. Examination of the specific strategies identified in these plans provided evidence of the way the signifier 'Landcare' was used as a new discursive tool to organise the practices of State agencies, which at the time appeared to have actually changed very little.

The shift in understanding from Landcare as a program supporting community groups to something more diffuse, the *landcare movement*, had obvious implications for the relationship between community Landcare groups and the state. The more nebulous notion of the 'landcare movement' allowed state agencies to legitimately press claims for membership, and funding (Lockie, 1992). The Landcare banner was not only flown over activities specifically oriented towards supporting the rapidly growing numbers of Landcare groups, but over many pre-existing activities as well. Often these activities, such as attracting funding for rural extension services and developing geographic information systems (see NSW Landcare Working Party, 1991), seemed far more in tune with the interests of these organisations than the activities of community groups (see also Campbell, 1991). Descriptions of Landcare as a social movement obscured those aspects of it that were highly institutionalised (Martin *et al.*, 1992); the concentration of resources devoted to it amongst state agencies for 'support' activities (Campbell, 1992); the indirect forms of control practised by state agencies (Lockie, 1994c); and the large numbers of people not actually involved (Mues *et al.*, 1994). The idea that this movement would somehow mobilise considerably more resources from within the community than were allocated by governments was questionable, given that on the whole farmers faced increasingly tight terms of trade (Wonder & Fisher, 1990), and already held positive values towards maintaining the environment (Barr & Cary, 1992; Vanclay, 1992).

The Commonwealth emphasis on individual responsibility is consistent with neo-liberal economic and social doctrines of small government and enlightened individualism (see Martin, 1997; Martin & Woodhill, 1994). Notions of community participation and empowerment have also become very

influential in community development and extension discourses (see Carr, 1997), which is reflected in the 'partnership' described between communities and governments. It is important to note, however, that the understandings of power relations articulated through these discourses are highly questionable. The historical domination of the farmer by the state which neo-liberal economic, and community empowerment, discourses purport to remedy, ignores the historical existence of powerful pastoral and agricultural lobbies (Hallam, 1983), the many state subsidies they have attracted (Industries Assistance Commission, 1987, 1988), and consistently voluntaristic approaches to land conservation (Bradsen, 1988). Martin (1997) argues that the transactional notion of power underlying empowerment discourses obscures more subtle forms of influence. However, empowerment discourses also, conversely, tend to remove responsibility for historical land degradation from individual land users.¹ This particular discursive strategy was probably seen as necessary by many in securing the cooperation of farmers in Landcare, many of whom were smarting under perceived accusations from urban environmentalists that they were 'raping' the land to secure short-term profits. Peterson (1991), however, argues that discourses removing responsibility from farmers for environmental damage provide them with powerful discursive tools to justify continuing damage, even where alternative practices have become available. We might ask then whether for all its emphasis on the responsibility of everybody to do something about land degradation, these aspects of Landcare discourse provide rationales for ultimately avoiding it, by shifting responsibility for causing problems to the mythicised others of past generations, international market forces and interventionist states.

The discourse of participation: 'Landcare is for everybody!'

One of the central tenets of Landcare discourse is inclusiveness and participation, that Landcare is for everybody, and that everybody must participate if Landcare is to be successful. While most participants in Landcare would readily accept the general validity of such a statement, it is apparent that the question of just who should be involved in Landcare is a highly contested, if not always explicit, matter. Further, it is clear that this participatory aspect of Landcare discourse is used as a discursive tool to pursue the interests of particular groups. There are several issues here which must be explored; including the question of who within a community should belong to Landcare groups; how participation in Landcare affects the meaning of farming in terms of who may be considered a farmer; whether Landcare should maintain a rural focus; and the place of the corporate sector in Landcare.

One obvious implication of the participatory metonym should be the greater acceptance of smallholders, women and non Anglo-Celtic ethnic groups, all of which are often excluded from farming and community organisations. My own results suggested that smallholders in the study area did find a greater acceptance in Landcare than in other organisations, but it was still amongst people whose major income was not derived from farming that I found the lowest level of membership of Landcare groups, at 12 percent, compared to 51 percent of people whose major source of income was derived from farming. More positively, in this study area Landcare groups

¹ Similarly, the ability of individual farmers to shoulder this responsibility given declining terms of trade and shifting balances of power in the global production, processing and distribution of food and fibres has been questioned (Lockie, 1994c).

were the only farm based organisations in which there was no statistically significant difference in the levels of participation between women and men (see Lockie, 1994b).² However, this participation was seldom conceptualised in terms of women having any particular right to participate, or the possibility that they may have had a unique contribution to make. Rather, it was believed to be imperative that as many people as possible were involved, and women's particular involvement was usually conceived of in terms of the need to get the 'whole family' involved. The greater participation of women in a 'public sphere' traditionally dominated by men is undoubtedly a very important development, which may yet have implications for gender relations on individual farms. This issue is discussed in more detail in Lockie (1997). The ethnic homogeneity of the study area meant that ethnic difference had no discernible impact on Landcare participation, but other authors do suggest that overall Aboriginal participation is particularly low (Turner, 1994), due in part to the unique cultural and social needs of Aboriginal communities which are not met through mainstream Landcare programs (Tilmouth, 1994).

Landcare is not though just about who is involved on the farm, or even in rural communities. The 'everybody' whom Landcare 'is for' has expanded to include all manner of community environmental groups, and the corporate sector. This is testament to the appeal, and power, of Landcare as a signifier which is increasingly attractive to many groups. Beginning with community environmental groups, there are now many examples of urban Landcare groups forming; pre-existing community groups identifying themselves with Landcare; and the Landcare name being adapted to other issues, such as Rivercare, Bearcare, Bushcare and Dunecare.³ The importance of addressing the issues on which these groups are focussed is certainly not in dispute here, but it is important to note concern about the effect of this broadening of the Landcare agenda on its initial focus on rural land degradation (eg Vanclay, 1994). Rural people did not, in this study, express strong opposition to ideas like 'urban Landcare', only concern about the resources available to support so many diverse groups, and cynicism that governments were, again, re-labelling activities they would have, or were, supporting anyway as 'Landcare' activities to enhance their own Landcare credentials.

The idea of community involvement in environmental care embodied in Landcare has certainly struck a chord with a wide constituency, including a great number of people and groups who did not previously, and perhaps still do not, identify themselves as environmentalists or conservationists. The signifier 'Landcare' has provided a powerful discursive tool to ride the groundswell of environmental concern that emerged in Australia over the last decade, and to help organise this concern into a concrete program of action. The notion, explicit in Landcare, that people 'can get involved', and 'can make a difference', without lots of 'government interference' has doubtless been of great importance in securing the participation of so many in community Landcare groups. With this participatory goal at the heart of Landcare discourse, Landcare has

² This does not necessarily mean that participation was equal, as a larger sample may still find a significant relationship between gender and Landcare membership. It does mean, however, that membership of Landcare groups was less gender based than other groups such as Agricultural Bureaus and NSW Farmers. It is also important to note that these results contradict the results presented by Curtis and De Lacy (1997) and should not be generalised beyond the specific study area.

³ Dunecare was piloted on the NSW north coast in 1988, about a year before Landcare was officially launched in that State (Campbell & Seipen, 1994).

secured almost universal political support. Consistent with the currently influential, if often contradictory, discourses of small government, public participation and environmental responsibility, Landcare appears economically, socially and environmentally sound. This has led Landcare to develop, despite debate over allocation of funds, a curiously apolitical air. Former Federal Environment Minister Graham Richardson, is often quoted (for example, Campbell & Siepen, 1994: 30) for explaining the absence of rural land degradation from the political agenda for many years with the words 'it's just not a sexy issue'. While this may have acted to suppress the issue of land degradation for some time, it is without doubt one of the major strengths of Landcare when it comes to maintaining wide political support.

The basic concept of Landcare attracts remarkably little controversy, and where it does, this is usually quickly suppressed, as Green Tasmanian Senator, Dr Bob Brown, discovered at the 1994 National Landcare Conference. While some media outlets aired his criticisms that Landcare was a 'triumph of publicity over outcomes' and 'advertising over action' (Brown, 1994: 31), these were edited out of a televised conference session, and Dr Brown was repeatedly castigated at the conference (see Lockie & Vanclay, 1994; Vanclay, 1994). At the same conference, Senator Bob Collins, Federal Minister for Primary Industries and Energy, described Landcare as 'the most successful community based program ever implemented by an Australian government'.⁴ Despite the huge difficulties associated with evaluating the impact of Landcare, few people openly questioned this assertion, even though it was apparent that other representatives of the environmental movement agreed with Dr Brown. While conservation organisations have protested vigorously when mechanisms supposedly in place to protect native forests have failed, they have persisted with support for the Landcare Program. Land degradation has become, at one and the same time, Australia's most important environmental issue, and its most de-politicised one.

It is little wonder, then, that Landcare has become a desirable signifier for the corporate sector to attach to their products. This occurs primarily through the private company Landcare Australia Limited (LAL), which organises the National Landcare Awards and raises corporate sponsorship for Landcare activities, licensing use of the Landcare 'caring hands' logo. LAL tries to make it very clear, as do government agencies involved with supporting or funding Landcare group activities, that they do not control the activities of community Landcare groups. This itself is a claim worthy of analysis. However, at issue here is the value of Landcare as a signifier to the corporate sector, and reciprocally, the effects of its employment of this signifier on the meaning and practice of Landcare. It must be accepted that if Landcare has indeed become such a powerful signifier as argued above, LAL is placed in a correspondingly powerful position with the ability to decide who may attach the Landcare signifier to their activities or products. Indeed, Landcare must be the only supposed 'social movement' in the world for which one corporate body has such a monopoly over access.

LAL stresses the benefits to all participants through sponsorship and marketing:

⁴ The statement was made by Senator Collins as reported here in his verbal presentation at the conference. The published proceedings did contain the Minister's address (Collins, 1994), but the wording was watered down somewhat, although his praise of Landcare remained high.

Landcare provides companies with the opportunity to develop their relationship marketing strategies throughout Australia. Landcare is seen as the 'middle of the road' environmental movement that enhances the company's image with the community. Landcare Australia tailors projects to meet corporate marketing objectives and ensures widespread promotion of the company both through authorised use of the Landcare Australia logo and the volume of media generated (Scarsbrick, 1994: 318).

The benefits to community groups are believed by LAL to be sponsorship for projects and ongoing political support for Landcare. Exclusive use of the Landcare logo is offered to only one company in each competitive category to ensure their loyalty. Inclusiveness is sacrificed here to ensure that Landcare represents a good investment for the marketing dollar, an investment which Scarsbrick (1994) argues does pay off. The principle of inclusiveness does remain in place, however, with respect to the types of company which identify themselves with Landcare through LAL. Sponsors have included members of the breakfast cereal, oil, chemical, telecommunications, fertiliser, automotive, airline, rural distributor, office equipment, fast food, cleaning products, hospitality, agricultural and steel industries. The most obvious concern here is that some of these industries are anything but environmentally benign. Through sponsorship of Landcare, however, they are identified with a signifier representative of environmental and social responsibility. When Dr Bob Brown questioned such associations through the process of awarding corporate Landcare awards (which in the case he referred to went to a Tasmanian logging company) he was openly ridiculed and criticised (see Lockie & Vanclay, 1994; Vanclay, 1994). The question needs to be asked about why the environmental and social accountability which Landcare requires between community Landcare group members does not apply equally to those who, through sponsorship, acquire the Landcare logo (Lockie, 1994b), particularly given the claim by LAL that they make money as a result of this marketing investment. No doubt many of these companies are well intentioned, and are happy to know that at least some of their marketing budget will go further than the bank account of an advertising agency. However, if Landcare really has become such a good marketing investment, we cannot afford to take its marketing at face value and disregard what corporatisation means for Landcare meaning and practice.

Landcare and farming as *social* practice

Campbell's (1992) finding that most rural people, when asked, provided a fairly literal interpretation of the meaning of Landcare was more than borne out by my own study in south west NSW. The sample survey (n=133) showed that the term 'Landcare' was associated primarily with concrete actions to look after the land, rather than with 'Landcare groups' or government programs. Landcare was seen by rural people to be primarily about caring for the land through one's everyday activities, which not surprisingly, was something they believed people tried to do before the Landcare Program came along:

Landcare ..., it's obviously care of the land and it's as simple as that. Now the farmer has been accused over the years of being a person who is absolutely stuffing up the land, he's been accused of all sorts of things. I know the farmer, and if he doesn't look after his land he doesn't have any cash.

This is quite a departure from programmatic understandings of Landcare, including those focussed specifically on forming community Landcare groups. This difference in understanding manifests

itself in the frustration community members express with the apparent bureaucratisation of Landcare, and the diversion of funds away from on-ground works, which emerges in virtually all forums on Landcare. Consistent with the Commonwealth focus on individual responsibility, rural people's discourse on Landcare focuses on what it means for the practices of individuals. Care for the land is explicitly linked with each individual's own practice. As one farmer said:

you've got to do your own individual thing, because everybody's different in their approach to things, and their expertise, and what they're willing to do, so you've just got to adapt to your situation what's presented before you.

This immediately raises two questions; firstly, if Landcare is primarily an individual responsibility, how then does the discourse of rural people treat the cooperative, or communal, aspects of Landcare; and secondly, if this individual responsibility is manifested primarily through farming practice, what sorts of effects does it have on these practices? In regard to the first question, Landcare was found to be illustrative of generally more cooperative approaches to farming practice in the study area (Lockie, 1994a). Many people believed their approach to farming had been too individualistic, and that there was much to be gained from coordinating more of their activities. The primary difference made by Landcare groups in relation to cooperation (and this was reflected by other groups such as Footrot and Farm Walk groups) had been in opening the activities of individual farm businesses to the scrutiny of neighbours. There appeared to be more social imperative in considering the effects of one's practices on others. Often this mutual accountability was formalised through farm and catchment planning activities. At the same time, there was more of a preparedness to share resources of knowledge, and to a lesser extent time, labour and equipment, to promote the well-being of other farm businesses. This, many farmers thought, encouraged them to undertake activities which they may have been likely to put off a while longer (in the perpetual anticipation of better markets and more favourable seasons). However, they did not, on the whole, think it led them to undertake activities they would not have otherwise considered, and there was little evidence of increased economic cooperation (eg machinery syndications, cooperatives). Although many thought economic pressures may at some stage force them to integrate their economic activities more closely with other farms, cooperative activity was, for most people, only considered to the extent that it did not impact on the autonomy of their own farm business. Considering the effects of, for example, water movement, or discussing crop productivity, was seen to be both urgent, and to present little threat to autonomy.

The tension between individual autonomy and the need for cooperation will no doubt be resolved in different ways at different times. At the time of this study, it seemed that Landcare groups were indicative of a greater accountability between rural land users, and that rural people acknowledged the success of their own 'Landcare activities' to be as dependent on the actions of others, as they were on their own. People frequently talked of the need for catchment planning in order to integrate individual property management plans. They also often questioned what might be done about people who did not cooperate and continued to adversely affect others. It was very uncommon, however, for them to challenge individual property rights or suggest greater regulation of farming activities.

Irrespective though of the relative emphasis farmers place on cooperation and independence, farming is always an intrinsically *social* practice. As van der Ploeg (1993) points out, the approaches

that individual farmers take to farming are characterised both by incredible diversity, and by the emergence of patterns within and between agricultural districts. Although the boundaries are fluid and difficult to identify, farmers tend to identify with, and farm according to the logic of, relatively distinct sociocultural styles of farming. These groupings define what it means to be a good farmer, and what are seen to be good farming practices. They also embody conceptions of what constitutes a healthy physical environment, appropriate relationships with it, and associated self-understandings. They are socially, not individually, constructed (Greider & Garkovich, 1994). Through Landcare we encounter both differing sociocultural conceptions of healthy environments and appropriate roles and relationships relative to them (amongst and between farmers, scientists, environmentalists, etc), and the discursive practices used by participating groups to influence the conceptions of others.

To expand, therefore, the argument of this chapter, we may look at Landcare not only as a discursive field in which its own meaning is contested – and consequently reflected in funding and other support activities – but as a discursive field in which the meaning of farming more generally is contested. It may even be that given the reluctance of farmers to sacrifice personal autonomy, the claim that they would have done many of the things they have done through Landcare groups anyway, and the positive environmental attitudes past research has shown them to already hold, that this is where we might expect Landcare to have its largest impact. It is fairly obvious that for farmers generally a *healthy* landscape is a *productive* landscape, leading to a close integration of production and conservation goals (see for example McEachern, 1992). These are, again, resolved in different ways at different times, but it is important to note that their particular resolution by farmers has become increasingly subject to challenge from within conservation discourses (McEachern, 1992; Mormont, 1987; Tovey, 1994). Landcare offers a forum where the resolution of conservation and production goals is reviewed, but it is also a forum which recognises farmers as legitimate environmental actors. One possible outcome of Landcare, therefore, could be a change in the way improvements are considered, manifested perhaps in a shift towards understanding the landscape in more ecological terms; towards recognising and manipulating the myriad interactions which lead to increases in overall productivity and stability, rather than pushing every square inch of the farm for its individual production potential.⁵ Certainly, some of the Landcare officers interviewed through this research believed a shift like this to be taking place. Unfortunately there are also many other influences on farming practice, and none of these will necessarily lead to more sustainable use of rural environments (Lawrence & Vanclay, 1992; Lockie, 1994c; Vanclay & Lawrence, 1995).

Good farming practice and Landcare

We still need to consider how struggles over the meaning of 'Landcare' affect farming practice. One does not have to look very hard in order to find examples of discursive strategies used to

⁵ I do not believe that I have ever met more than a handful of farmers who farmed for maximum productivity or profitability over their whole farm all the time. Nevertheless, the majority of farmers interviewed for this research did believe that they were increasingly forced to make 'every inch pay'. The question becomes, whether they believe they can achieve this better by cropping the whole farm or, for example, planting 10 percent of the farm to shelter belts.

influence the social conception of good farming practice, a particularly good example being the notion of 'conservation farming', which has been widely promoted by departments of agriculture and soil conservation in Australia now for over a decade. In the mid-eighties the slogan '*Conservation Farming – Good farmers manage it*', was prominently displayed on promotional literature and bumper stickers all over New South Wales. Conservation farming does not, however, refer to simply any environmentally sensitive approach to farming, as a fairly literal interpretation may imply, but more specifically to attempts to reduce mechanical disturbance of the soil through the use of herbicides (Collett, 1985). The current research, along with earlier projects (see for example Lockie *et al.*, 1995), indicates widespread knowledge about, acceptance of, and adoption of conservation farming and related practices amongst farmers. The environmental merits though of conservation farming practices are not entirely uncontroversial.⁶ The point to be made, however, is that Landcare, a new signifier, has been employed to reinforce this mix of farming practices and link them even more strongly to the conception of good farming practice promoted through earlier conservation farming campaigns. As Campbell pointed out, the meaning of 'Landcare' has come to embrace all sorts of concepts, including '*conservation farming*' (1992: 5, my emphasis).

One farmer I interviewed argued that Landcare had come to mean little to do with the environment, and seemed nothing more than a particular mix of practices promoted by government departments and rural suppliers. A content analysis of *Landcare News*, a 12 page newsletter distributed to Landcare group members between 1990 and 1994, bore this out. While distinctly environmental activities and issues like tree planting, erosion control and salt reclamation featured prominently in *Landcare News*, just as much space was devoted to farming practices directly associated with conservation farming and perennial pastures. A direct association was made between Landcare and the practices promoted through government agencies. Whatever the merits, or otherwise, of these practices, or the acceptance of this content by community Landcare group members, it is evident that *Landcare News* was used as a discursive tool to make this association.

Corporate identification with Landcare does, according to Scarsbrick (1994), affect people's purchasing decisions. More importantly though, insofar as Landcare is seen to be something that individuals pursue through their daily activities, particular farming practices associated with the companies and products concerned are associated through their sponsorship with Landcare, and thereafter with good farming practice. Chemical, fertiliser and oil companies reinforce the association of Landcare with highly input-dependent styles of farming, the sustainability of which is questioned not only by environmentalists and organic farmers, but by many quite ordinary farmers (see Lockie *et al.*, 1995). Nevertheless, conservation farming maintains its place, in the consciousness of most farmers, as the best option available under the present circumstances, and firms selling the required inputs reaffirm their commitment to support those who pursue this style of farming. Despite their unease about using agricultural chemicals, farmers can at the very least use them confident that it will not do any harm to their own status as 'Landcarers'.

⁶ Lockie *et al.* (1995) also discusses the high levels of concern amongst farmers about the long term effects of agricultural chemical use on both personal health and the environment. Baynes *et al.* (1994) looks more directly at farmer experiences with herbicide resistance.

Conclusion

Despite its widely heralded success, 'Landcare' is at best vaguely understood; it is about participation, responsibility and cooperation; it is about environmental care; and it is about doing *something*. Somehow, however, in the rush to make sure that everybody is included in Landcare, to reinforce the responsibility that every individual or corporate body has to address environmental issues, legitimate conflicts of interest have been glossed over and contradictions in the practice of Landcare ignored. At one and the same time land degradation has been promoted as Australia's most important environmental issue, but one for which no-one is to blame, and for which no-one seems to carry ultimate responsibility.

The understanding that Landcare is based on new levels of cooperation and participation – that 'Landcare is for everybody' – obscures the manner in which particular interests are pursued through Landcare. Early on in the development of the Landcare Program, it was evident that state agencies attempted to use the concept of Landcare as a discursive tool to secure ongoing support for existing activities, rather than to re-organise, or re-conceptualise, these activities. Nevertheless, that so many community Landcare groups have formed provides evidence that the discourse of Landcare appeals to the perceived needs of many people, particularly farm people. Unlike many environmental or conservation discourses, Landcare provides a place and a role for Australian farmers in environmental management practice. It recognises them as legitimate environmental actors, and gives them a voice in environmental discourses that other studies would indicate is denied to many farmers elsewhere. To this extent, Landcare may be seen to empower farmers and other rural people in counteracting trends in conservation discourses towards interpreting the emphasis placed by farmers on productive landscapes as inherently exploitative. It can also be seen that the notion of inclusiveness, which is so central to Landcare discourse, has facilitated the involvement of groups, particularly women and smallholders, who have traditionally been excluded from farming organisations. Landcare has not necessarily been the major factor behind shifts in gender relations, but the peculiar discourse which it has developed has made it an ideal arena in which shifts can be observed and played out.

While Landcare legitimises their participation in environmental discourses, it must be acknowledged that farmers are not the only social group seeking to define good farming practice. State agencies, along with agribusinesses, have enthusiastically promoted models of farming practice in Australia, such as 'conservation farming', which despite questionable claims to sustainability have been widely accepted and adopted. More recently, Landcare has been used as a discursive tool to strengthen associations between particular, high input, farming practices and *good* farming practice. Association of these practices with the Landcare signifier promotes their use by farmers as environmentally sound, economically responsible and professional. Equally, many of the companies providing inputs to agriculture have been able to associate themselves with the Landcare signifier through Landcare Australia Limited. Again, although some of these companies may have questionable environmental records, and the use of their products in agricultural production may have damaging long term consequences, the notion of inclusiveness de-politicises their use of Landcare in profit seeking and delegitimises questioning or criticism. The discourse of Landcare also, therefore, provides a legitimate place in environmental discourses for an agribusiness sector which is no less responsible for the approach to farming environmentalists have been critical of than farmers. Although the role of agribusiness in

agriculture and Landcare has been questioned the participatory metonym in Landcare discourse is used to silence such debate.

The expansion of Landcare into Urban Landcare, and ‘every other type of thing care’, further depoliticises Landcare and generalises the themes of environmental, economic and social responsibility to new contexts. Importantly, for the corporate sector, it maximises the marketing reach of Landcare as a signifier, and consequently maximises their return on the marketing investment they make in Landcare. I suspect that Landcare will retain its primarily rural focus, due to the sociocultural and spatial relevance of the community Landcare group model to rural areas, but the potential to politicise any one aspect of Landcare will be diminished. Many would argue, of course, that there is really no need to politicise any aspects of Landcare. However, the model that has developed of Landcare practice marginalises those who hold different conceptions of what constitutes healthy environments and appropriate practices, as is illustrated by the low levels of participation amongst Aboriginal landholders.

None of this is to claim, of course, that no tangible benefits have flowed from Landcare, either to rural people or to the environment. Rather, through this analysis I have sought to highlight the way in which particular conceptions of the meaning of Landcare have struggled for dominance over others, the result of which has been support for a particular mode of agricultural practice – based on high levels of external inputs of energy, nutrients and expertise – and the marginalisation of alternative viewpoints and groups.

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4

The Constitution of Power in Landcare: A Post-Structuralist Perspective with Modernist Undertones

Peter Martin

The Landcare program has stimulated considerable debate on the merits of participatory approaches to rural environmental management. However, there has been only brief comment on the relationship between Landcare and broader changes in political, social and economic life. Pre-eminent among these broader changes is the question of how power is constituted in ‘advanced’ liberal societies, and how this power is operationalised through government. Notwithstanding the dislike of ‘politics’ in the Landcare movement (see Lockie, 1997), discussions of power (such as empowerment) feature significantly in Landcare discourse. However, Landcare discourse constructs power as a resource to be given away, lost or shared. I argue that this construction of power draws attention away from more subtle forms of power that have come to constitute Landcare practices and the Landcare subject. In this article, I elaborate on these more subtle forms of power in Landcare, and show how they relate to a range of strategies, norms and techniques that constitute modern forms of governance.

To develop an understanding of this form of governance, I focus on the notion of modern power as constituted in two ways. Firstly, a more traditional notion of power that is conceived as ‘acting upon’ individuals and groups (ie sovereign power), and has its source at a more or less clearly defined power centre (such as the state). I argue that this is the predominant understanding of power in Landcare. Secondly, I discuss a more subtle understanding of power that ‘acts through’ everyday practices, social institutions, belief systems and knowledges (ie disciplinary power).¹ I show how these forms of power constitute Landcare and are operationalised through and upon Landcare practice in more subtle and complex ways than generally conceived.²

Giving, losing and sharing power in Landcare

Power has been of central interest to both Landcare practitioners and commentators. ‘Empowerment’ and ‘community ownership’ have been central motifs of the Landcare program and have inspired descriptions of Landcare as a ‘catalyst for a profound rethink of the future of Australian agriculture’ (Alexander, 1994) and a basis for ‘communicatively’ integrated forms of resource management (Martin, 1991). The positive receptions of Landcare emphasise the devolution of power to the local level. Landcare is about ‘*giving* communities ownership of their problems and control over their solutions’ (Alexander, 1992: 14), and government has been praised

¹ In a subject as wide as ‘power’ I have had to omit important aspects such as the power relations in local communities (see Gray, 1992) and questions of who participates in Landcare groups (Martin & Woodhill, 1995).

² I in no way suggest that these subtle forms of power are a result of a conspiracy of agents.

as 'brave to give so much power to untried ... farmers' (ibid). This 'giving of power' from the state to farmers, also requires an acceptance of power, for example, 'the devolvement of power to people requires the community to be empowered and be responsible for their actions' (Martin, 1991: 781). Through this 'giving away' (from the state) and 'acceptance' of power (by communities), participatory groups can become '*powerful* agents of rural development' (Alexander, 1992: 14).

State Landcare and Total Catchment Management (TCM) texts also focus on power as something that can be 'given away', 'shared' and 'redistributed'. For example, the NSW State Catchment Management Coordinating Committee (1991: 7) stated that 'equity, sustainability, efficiency and collaboration [for TCM and Landcare] will require a *redistribution* of power and resources'. More often, however, TCM and Landcare are conceived of as examples of power-sharing, and the relationship between the state and rural people through these participatory programs is depicted by a partnership. 'Community and Government working together' is a frequent phrase in NSW planning documents, and Victoria's Decade of Landcare is similarly based on 'A Community and Government Partnership' (Victorian Decade of Landcare Plan Steering Committee, 1991: 1). In NSW, the partnership is highlighted as a new development in natural resource management; for example, 'What is new is the involvement of people, the most critical factor that has been left out in the past' (NSW State Catchment Management Coordinating Committee, 1991: 1).

The state aims to support Landcare groups through providing financial resources for community initiatives, undertaking research and taking a coordinating and facilitating role, rather than a centralised planning, or coercive legislative role (NSW State Catchment Management Coordinating Committee, 1991: 1). The accent through these state texts is on more local involvement and co-ordination mechanisms that are *consensually* based and involve both community and government making *joint* decisions.

Positive commentaries on Landcare construct power as something that is 'given away' by the state and 'accepted' by rural people. Bottom-up development, through empowering the 'grass-roots', should guide and direct Landcare. This new 'equilibrium' of power focuses attention towards consensus, co-operation, and 'community and government working together'. Both government and community take on 'new' roles that reflect the 'empowerment' discourse; that is, community as 'empowered' decision-makers, and the state as facilitators and coordinators, rather than 'centralised and powerful planners'. The political promise of Landcare is essentially based around individual and group empowerment through a 'removal' of state power, and the facilitation of local groups and individuals to regain power. Through this, communities are able to take control of their own situations and 'own their own problems' (Campbell, 1989: 18).

This metaphor of power, as something that can be given away or shared, also informs those who have been more circumspect about the extent of power devolution in Landcare. These commentators cite examples of how government agencies are able to directly manipulate participatory activity and/or impede its progress (Martin *et al.*, 1992; Woodhill, 1991). These concerns have been echoed in numerous complaints from farmers about the bureaucratisation of Landcare and the heavy-handedness of collaborating state officials and extension workers. These fears of 'loss of power' are elaborated in rural media in headlines such as 'Farmers fear losing hold of Landcare' (*The Land*, Sept 15th 1994: 10), and 'The high-jacking of Landcare'. These texts focus on concerns that governments will 'gain too much control over land-use decision-making'

(*The Land*, Sept 2nd 1993: 13), and that a natural tendency for bureaucratisation and ‘all talk and no action’ is dissipating Landcare funds and energy. Critics of the government’s approach exclaim that even with the participatory rhetoric of Landcare, ‘top-down’ approaches prevail. However, similarly to the more positive ‘empowerment’ discourse, power is still considered as something that is ‘held’, ‘taken’ or ‘shared’. The more critical discourse of Landcare as ‘loss of power’ is simply the reverse of Landcare as empowerment.

‘Bottom-up’ approaches, such as Landcare, are part of the discourse on sustainable development, and have featured in development practice since the 1950’s (see Rahnema, 1992). They are contrasted with ‘top-down’ approaches which have constituted the core of development practice, aiming to regulate and manage development through the state apparatus. Typically, these top-down forms of development are seen to be anachronistic, unresponsive to local need and undemocratic. From a broader social-theoretical perspective, conventional (top-down) practice is interpreted as a form of ‘rationalisation’ that typifies the on-going centralisation of state power, and the modern tendency towards the regulation of every-day life.

The range of dualisms, such as ‘top-down vs. bottom-up’ and ‘participation vs. regulation’, serves to frame the problematic of development practice as one of the *distribution* of power, and embody a conception of power as *acting on* individuals and groups. At a more abstract level, both positive and critical perspectives of Landcare reflect a conception of power that draws on a sovereign-subject metaphor (see Foucault, 1977), where power is centred in the state and is ‘given away’ (devolved) or acts upon the (Landcare) subject. However, this predominant conception, marginalises the significance of more subtle forms of power which operate through modern governance (Miller & Rose, 1990; Rose & Miller, 1992).

Disciplining power in Landcare

Analyses of these more subtle forms of power have not been prominent, although various aspects have been addressed; such as Landcare as a legitimisation strategy (Martin *et al.*, 1992; Lockie, 1994), and as a form of hegemony (Vanclay, 1994). In these cases, power is operationalised through the alignment of particular strategies, techniques, and predominant social norms to not only *act on* Landcare but also to *act through* Landcare. For the remainder of this article, I want to focus on these more subtle forms of power and show how they are constituted within the Landcare program, practices and the Landcare subject.

Post-structuralist analyses of modern government provide a fruitful theoretical context to examine how governance and power are enabled in advanced liberal societies. Miller and Rose (1990: 2) draw on Foucault’s (1979) concept of ‘governmentality’ to suggest that ‘an analysis of modern ‘government’ needs to pay particular attention to the role accorded to ‘indirect’ mechanisms for aligning economic, social and personal conduct with socio-political objectives’. In considering governance in this way, an analysis of power must be concerned not only with how ‘powerful’ centres (eg the state) give, take or apply power (sovereign power), but also how power is constituted through social norms (bio-power), and how these norms provide for new technologies and discursive practices (disciplinary power). The significance of these latter two forms of power is that they provide for forms of self-regulation.

'Normalisations' that influence and constitute Landcare

Bio-power refers to the way that predominant vocabularies and discourses define what is to be considered 'normal', and hence 'makes sensible and accountable that which people should do, can do and thus do' (Clegg, 1989: 156). These predominant ways of describing the world are instituted and incorporated in every-day practice where they 'discipline' and shape action. Other descriptions and accounts, which would constitute other motives for action, are considered aberrant and are consequently marginalised.

Normalisation³ is apparent in the predominant power discourse of Landcare, and development practice more generally. Conceptualising power as having its origin in the state and being 'given' to the community; the various arguments regarding 'top-down', 'bottom-up' or the need for a 'middle-ground' (Carr, 1994) – and concern regarding state intervention – reflects predominant 'norms' of what power is, where it resides and how it can be obtained. The current demands on government emerging from Landcare (see Campbell, 1997) reflect a tension between the need for state resources (incentives, grants) for on-ground works, and the concern for the 'autonomy' of Landcare (ie no strings attached). This conception of 'autonomy' as 'not being told what to do', belies the fact that Australian farmers have been increasingly exposed to unstable international markets and powerful agribusiness interests (Lawrence *et al.*, 1990; Burch *et al.*, 1992; Vanclay & Lawrence, 1993; Lawrence & Vanclay, 1994; Lockie, 1994; Martin & Woodhill, 1995). This more subtle 'loss' of power and autonomy rarely enters the discourse of power that prevails in Landcare. The focus on direct state power and local empowerment marginalises an awareness of how power is constituted in the organisation of agricultural production in late capitalist societies and how this can 'discipline' personal and political conduct.

In contrast to the focus on state power within Landcare, it has been argued that more obvious forms of 'rational' state power have had little political scope in shaping farmers' actions (Martin & Woodhill, 1995). While there has been evidence of 'top-down' planning and bureaucratisation of the funding process, these forms of power hold little sway in Landcare and are often actively resisted. As Carr (1992: 27) has stated:

Holier than thou attitudes are prevalent in some conservation minded government departments who believe that theirs is the only legally sanctioned right to make decisions about the environment (and have community groups do the hard 'voluntary' labour of tree planting and litter collecting). These sorts of attitudes will not wash in the Murray Darling Basin, the Eraser River Basin or any other catchment.

It is notable that while 'holier than thou' attitudes have been apparent, they have rarely drawn on regulatory measures to back them up. More 'authoritative' forms of intervention such as regulation, prioritisation of action, monitoring and state planning are remarkably absent from rural environmental policy (Martin & Woodhill, 1995). As a local Landcare facilitator said in the course of a recent Landcare debate,⁴ there has been a progressive move towards responding to 'what the community wants':

³ Processes by which particular ideas are considered 'normal', and others 'aberrant'.

⁴ National Landcare Conference, Hobart, September, 1994.

Next year there will be no bulldozing. There is really going to be some pure consultation. Each state agency comes down and says, 'this is what we want to do in your catchment. Is this what you want to do as a community?' And if they're not our (community) priorities, they don't get a look in. We've got Regional Directors and CEO's of government departments saying 'What the community doesn't want, forget about it.'

'Forgetting about it' might be in line with the construction of Landcare as an autonomous, empowered movement, but it in no way guarantees that the Landcare program, practices and groups are not subject to and constitute other forms of power that are not derived from direct state intervention.

The calculating subject

Power can be deployed through particular economic conditions that frame farmers' decision-making. Economic policy and the rationalities on which it is based, specify and limit the range of choices available to farmers and consequently influence farmers' capacity to maintain and develop sustainable practices. The development of market discourse (eg economic rationalism) over the past 15 years in Australia, and elsewhere in the developed world, can be conceived as another 'normalising' discourse which provides the legitimacy for a range of mechanisms, strategies and technologies that have a disciplining effect in producing the 'calculating subject'.

The development of economic rationalism in Australia has been detailed in a number of critical analyses (Pusey, 1991; Muetzelfeldt, 1992). These commentators argue that this rationality arose from a number of sites, including new-right think tanks, economics departments in universities, and employer groups. This discourse came into prominence through perceptions of its comprehensive explanatory power and its capacity to supplant competing concepts of Keynesian economic management (Muetzelfeldt, 1992: 190).

Post-structural analyses of neo-liberalism provide insights into the normalisation of market discourse (Miller & Rose, 1990; Rose, 1993; Burchell, 1993). Neo-liberalism can be conceived as a discourse enabled by a new relationship between expertise and politics (Rose, 1993: 295). It has been able to articulate critiques of social government (ie welfare state government) that emerged from 'civil libertarians, feminists, radicals, sociologists and others' (Rose & Miller, 1992: 201), but more importantly, was able to 'turn these criticisms governmental – that is to say, render them technical' (Rose, 1993: 294). This new '*governmentality*' allowed the linking of a 'loose assemblage of agents, calculations, techniques, images and commodities, [so that] individuals can be governed through their *freedom to choose*' (Rose & Miller, 1992: 201).

'Freedom to choose', enabled by an apparent withdrawal of state power and the subsequent empowerment of farmers, is constrained within particular economic policy frameworks that shape the focus and limits of decision-making. This 'freedom to choose' has occurred through macro and micro-economic reforms which have endeavoured to bring price signals, based on the 'free' interactions of many individuals around the world, closer to the farmer. Economic rationalists argue that with clearer economic signals, more information, and 'rational self-interest', farmers 'have a strong incentive to treat their land in ways which maintain its future productivity' (Dumsday *et al.*, 1990: 177). However, economic rationalisation of agriculture poses great risks

for sustainable rural environments. While self-interest might work to internalise environmental problems, it cannot deal with off-site problems (Dryzek, 1992; Ritchie, 1997). Increased risks associated with the dismantling of buffering institutions, such as collective marketing boards and exchange rate regulation, are more likely to stimulate exploitation of rural environments (Martin & Woodhill, 1995: 180).

Risk has also been a major organising concept in market discourse, and is aimed towards enhancing the 'calculating' capacity of farmers. Agriculture now must be treated as a 'business', and a number of government programs, accounting procedures and risk management techniques have arisen to help farmers decide *through calculation*. One of these government programs, called the National Property Management Planning Campaign, is oriented towards 'integration of physical, financial and human resources ... within a changing climatic and marketing environment' (DPIE: The National Property Planning Campaign brochure, undated). The 'campaign' plays a role in privatising 'risk management' within the changing 'market environment'. Through a voluntary workshop format, farmers can be facilitated and helped to master, and be mastered by, the various calculative, accounting and risk management procedures needed for the new high risk economic environment. The program is said to be empowering because it is 'driven primarily by the needs and aspirations of Australian agricultural producers – who will take part on an entirely voluntary basis' (ibid). However, it is quite clear that these 'needs and aspirations' have rarely led to questioning of the new deregulated environment within which farmers find themselves.

Farmers that resist these new discursive practices, or do not have the capital to effectively deploy them, are said to require 'adjustment'. Of the latter group, those who are deemed to have the requisite calculative capacity to develop a sustainable, productive future for themselves and society, are assisted to adjust through borrowing capital to 'restructure' their enterprises. Those who are deemed to have little future within the new, high-risk environment are 'adjusted out'.

Landcare, in the broadest sense, is situated well within this disciplining discourse. It is often stated that farmers in Landcare need to see the link between profitability and sustainability (Sustainable Resource Management Working Group, 1994: 6). Sustainability considerations must be inserted into farmers' calculations of self-interest. Little attention is focused on how 'sustainability' itself might challenge the predominant discourse of the market and the various disciplining technologies, programs and mechanisms that create the new calculating and enterprising subject – the Australian farmer.

As the above discussion indicates, the development of the 'calculating' subject is not a function of the direct exercise of power by the state. Power constitutes this development through the *alignment* of social norms (economic rationalism), strategies of governance that aim to 'free' the individual from the state (deregulation), and a number of programs, techniques and knowledges that infuse every-day practice with the requisite calculative capacity for the development of entrepreneurial and competitive conduct. Through this complex of norms, strategies and techniques, neo-liberalism is able to produce a form of coherence between rationalities of governance and the self-regulating capacities of individuals.

The technologies and knowledges of Landcare

As the previous section suggests, 'educational' strategies play an important role in state intervention in agriculture. They aim to orientate the development of subjects to complement the external political and economic environment. It is important to emphasise that this is not simply a matter of convincing farmers of the worth of government policy, but rather of developing (govern)-*mentalities* in farmers that are aligned with the political objectives and prominent rationalities of late capitalist societies. A central feature of Landcare has been the reorientation of intervention technologies, and knowledges, towards a more educational/learning approach. The traditional extension officer who focused on extending technical (biophysical) knowledge from researchers to farmers has been partially replaced by the Landcare 'specialist' whose role is to facilitate and/or coordinate Landcare group activities.

These 'new' professionals, drawn primarily from the ranks of environmental management and agriculture graduates, act as 'catalysts as groups begin to form, help in problem definition, setting priorities and goals and providing contacts, information and assistance' (Jenny Rush & Associates, 1992: 3). Landcare is considered a community process based on a learning group. Intervention by Landcare specialists is understood within a context of certain knowledges of group and organisational behaviour. For example, groups are often conceived of as going through certain stages (eg warming, forming, storming, norming; Tuckman, 1965) that define their progress. In some cases, intervention techniques and exercises are deployed to help these processes and move groups towards an ownership of their own problems. Progress is also measured in terms of a broad understanding of what constitutes a 'successful' Landcare group – including clearly defined goals and problems, good leaders, an achievable plan, appropriate boundaries, etc (see Campbell, 1992: 22).

My point here is not to suggest that farmers are being duped by Landcare specialists. Rather, this change in the role of intervention brings with it the deployment of new knowledges and technologies that also act as forms of power. How this power specifically influences Landcare practice requires more empirical work and is beyond the scope of this article (see Lockie, 1997). However, in general, it could be argued that this power shapes sustainable rural development in particular ways through the presence of particular themes and the absence of others. Empowerment, for example, is defined as local ownership of problems, the development of understandings of the relationship between farming practices and land degradation, and the capacity to act locally to enable more sustainable relationships between farming and the environment. Through these conceptions, empowerment is an important part of developing the self-regulating capacities of Landcare subjects, while rarely addressing the 'multitude of social relations, political forces and economic 'imperatives' that constrain and shape landcare' (Woodhill & Martin, 1994: 129). There is an absence of techniques (such as structural analysis) that can be used to identify these issues. The Landcare specialists usually have formal degrees related to the biophysical sciences, and while often employed on the basis of having good communication skills and experience with groups, are not required to understand or have training in rural sociology or the more general social sciences.

Depoliticising rural environments

The Landcare program had its roots in social concern and political pressure to address the deteriorating quality of rural environments. It was perceived as a problem of common or generalisable interest, and this is reflected through numerous statements in government documents and inquiries (eg House of Representatives Standing Committee on Environment, Recreation and the Arts, 1989), and in the original formulation of the National Land Management Program (NLMP) (Toyne & Farley, 1989). The NLMP consisted of a range of proposals, from the establishment and support of Landcare groups to the monitoring and evaluation of the natural resource base. This provided for a mix of policy instruments that recognised the need for planning, evaluation and monitoring; the need for incentives; and the necessity of local community action. However, as discussed in previous work (Martin & Woodhill, 1995), this program has only been partially implemented, and those elements that might clarify the state of rural environments, support regional planning activities or provide incentive structures have been surprisingly absent. The absence of these more interventionist instruments means that Landcare and rural environmental practice are primarily dependent on the capacity of local Landcare groups and the incentives offered through the 'free' market. Further, and more importantly, the absence of base-line data and monitoring mechanisms means that the legitimacy of the program is highly dependent on the inherent worth of local participation and the logic of the market.

This configuration of rural environmental practice is related to the political and economic context of rural environmental degradation in Australia. During the 1980's, an increasingly broad social concern with, and subsequent politicisation of, the quality of rural environments presented a significant problem for the state. At the same time, the Australian state, through macro and micro-economic reforms, has attempted to increase the competitiveness of Australian agriculture. Within the boundary conditions for liberal rationality for governance (Burchell, 1993: 273), state intervention in rural environments must attempt to minimise political and fiscal costs, while ensuring the optimisation of the economy. Devolutionary and voluntary approaches to degrading rural environments provide the scope to minimise these political and economic problems. Within the rhetoric of devolution, or the *giving away* of power to the local level, the 'socio-political' problems are minimised. In the absence of capable regional and state coordinating institutions, the issue of rural environmental degradation becomes localised and fiscal costs are minimised. The deficit in coordinative capacity and the lack of clarity of the quality of rural environments, constitute a form of indirect power that depoliticises rural environments and defines them as issues for local 'stakeholders'. As the Commissioner of the NSW Soil Conservation Service concurred:

[the] community involvement element of TCM ... is clearly a big selling point of the [catchment management] legislation among urban lobbies ... but for the most part ... it will be the 'stakeholders' – in other words, landholders – who will be determining the course of events and receiving, directly or indirectly, most of the funding. (*The Land*, 22nd Feb. 1990: 9)

The Commissioner clearly addresses TCM as a legitimisation strategy; that is, as a 'big selling point ... among urban lobbies', but with the stakeholders as 'landholders – who will be determining

the course of events'. By defining these problems as local, and constructing effective action contexts as local communities proximate to problem sites, rural environmental issues are depoliticised.

Hence, in contrast to the predominant discourse of power in the Landcare movement, power can be constituted by the *absence* of (direct) state power in rural environments. Local participation has strong legitimising force in both rural and urban areas. However, in focusing (just) on the 'empowerment' of local rural people, Landcare can lose sight of its original intentions of improving the quality of rural environments.

Conclusion

Legitimacy and support for Landcare have relied heavily on notions of the state giving away power, and the subsequent 'empowering' of rural people. However, in this article I have endeavoured to show how power itself is constituted through this predominant construction of power. Governance in modern capitalist societies is not enabled simply through the exercise of power by the (sovereign) state. Political objectives are met through an alignment of apparently disparate social norms, strategies, knowledges and techniques that provide for congruence between the self-regulating capacities of subjects and the external political-economic environment.

Government based on the rationality of neo-liberalism reflects a change from previous concerns with 'social responsibility' and social government. It focuses on the development of the enterprising and calculating subject, where 'citizenship is to be active and individualistic rather than passive and dependent' (Miller & Rose, 1990: 24). This discourse emphasises the incapacity of state institutions to *deliberatively* mediate the substantive issues facing modern societies. Neo-liberalism represents a type of 'degovernmentalisation of the state' (Rose, 1993: 296), where state deliberation focuses more towards those mechanisms which enhance self-regulation (the market and local participation), rather than considering the substantive issues facing society.

It is these assumptions that underscore a significant alteration in the relationship between the state and civil society and, more importantly, how we conceptualise the relationship between individual and social interests.⁵ Social government (ie the welfare state), while plagued with difficulties (see Rose, 1993: 294), had at its core the concept of social responsibility, and axiomatic to this, the notion of government as mediating tensions between individual and social interests. Neo-liberalism is 'revolutionary' in that it seeks to argue that these tensions need not exist, and can be dissolved through re-inventing 'artificially arranged or contrived forms of the free, entrepreneurial and competitive conduct of economic rational individuals' (Burchell, 1993: 271). The 'common' interest is achieved through the energetic undertakings of 'self-interested' individuals and groups.

In Landcare, these tendencies are apparent in the relative absence of mid-level coordinating institutions, and of monitoring and evaluation mechanisms at broader spatial scales. Practice at these scales requires *deliberative* judgement on substantive issues, and hence risks the politicisation and 'socialisation' of rural environments. The assumption in current policy and

⁵ By social interests, I am referring to interests that are broadly held to be 'common' or 'generalisable'. Reference to these is somewhat unfashionable in post-structuralist discourse.

practice is that local participation within an increasingly deregulated market environment will produce adequate forms of 'incentivated' personal conduct for a sustainable and productive rural sector.

Power is then constituted through Landcare by an array of strategies, techniques and norms that reproduce a particular construction of the relationship between individual and social interests. Through the production of the calculative, economically rational farmer, environmental problems can be 'internalised', while those with wider spatial and temporal dimensions can be captured in the Landcare net. This depoliticisation of rural environments attempts to dissolve a productive tension between diverse interests that might provide for a more sustainable rural sector in the future.

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5

The Construction of 'Woman' in Landcare: Does it make a difference?

Ruth Beilin

Government attention to women's participation in Landcare may be based on a need to pursue issues of equity within government programs. An illusion of gender awareness is thereby created. Academics and government consider the participation of women in such programs as evidence of gender equity. However, the assumptions underlying this need to be challenged. Landcare, as a government policy and as a rural social movement, encompasses community, the environment and mainstream agrarian production activities. It thus provides a venue to explore the construction of women at these three levels.

This chapter considers similarities between the construction of women, and of the landscape, within Landcare, in order to assess the likely implications for both. Landscape is used as a metaphor to explore both Landcare and women in rural society. The invisibility of women within society is as much a construction of society as is our perceptions of the landscape itself. Once it is recognised that both 'women' and 'landscape' are constructed by masculine views, it is possible to view them from a different perspective. However, this potential is not developed in the landcare movement. Similarly, analysts expect that women will respond to both real and imagined Landcare opportunities simply because the landcare movement includes 'community' and 'environment' – areas conventionally associated with women's interests. This stereotyping of women tends to ignore recognition of their practical, largely unpaid labour in the commodity market (the very basis by which some women are claiming equality). It also continues to exploit women's unpaid and largely unrecognised community labour as a necessary component in the success of grass-roots community organisations. Therefore, it is argued that if women continue to accept this, the landcare movement will fail in its potential, and women will have lost an opportunity to act as change agents at the vanguard of Australian agriculture.

Background

Women's relationship to Landcare is an object of ongoing research (Curtis *et al.*, 1994; Lockie, 1995) and comment (Roberts, 1988; Campbell & Siepen, 1994) among academics and government. It is interesting to speculate as to why this may be so. In the construction of the relationship between women and Landcare, there are several players: the government and its agencies; researchers; women themselves; and the society in which the events occur. There are also several levels of engagement: the farm; the Landcare meeting; and the wider community in which the women and their families live. A further complication in a sociological analysis of this interaction is the enormous diversity among rural women, which limits any attempts to stereotype them as behaving in any one way within a relationship; and recognition that there might be a multiplicity of relationships between one woman and the 'others' at any one time.

It is essential in the sociological construction of a relationship, that there be an acknowledgment of power. This is a particularly difficult element to explore because, though central to the topic, power structures between women and 'others' are often deeply hidden subtexts in societal relations, and may manifest themselves in symbolic, rather than in overt ways. However, I argue that the relationship of women and Landcare is very much about power and how it is manifest in, and on, the rural landscape. I propose to use a metaphor of landscape and the relationship of women to the land, and more importantly, the perception that men have of women's relationship to the land, as a tool of exploration. The land is pivotal to the intention of Landcare. It is the site of main concern and activity. The ways in which we interpret the relationship of women and 'others' with the landscape offers a parallel that reflects what is happening in Landcare.

Lawrence (1987) and Symes (1991) provide analyses of global agricultural production systems in so-called developed nations, such as Australia, illustrating among other points, the outmodedness of current production demands relative to the physical condition of the land. There is a crisis in production support and in post-production agricultural strategies related to international trade, the impact of which is keenly felt by Australia as a primary producer nation. Victorians, at the State level, perceive that there is also a reduction in rural investment and services provided by State Government (Neales & Brady, 1994). The diminishing of Federal and State Government funding for agricultural support schemes and social services connected with rural life is consistent with the Federal Government expectation that 20 percent of Australian farmers will leave the land in the near future (Alexander, 1994, pers. comm.). Counterpoised against this decline is the wholehearted support, at all levels of government, for Landcare and the myriad of Landcare spawned environmental and land stewardship initiatives. Local, State and Federal Government agencies describe the landcare movement as being about a sustainable future, about changing practices on the land, and about community development. This makes for an uneasy partnership formulated on 'raising the long term productivity and ecological sustainability of our land resources and thereby ensure[ing] a future for our rural industries' (Commonwealth of Australia, 1991: iii). But, the difficult task, in practise, of balancing ecological sustainability with productivity, is left to local Landcare groups to work out. Still, despite the contradictions between the Landcare rhetoric and the fiscal and physical realities that farmers are experiencing, there is a warm glow in government circles at the mention of Landcare.

Gender and the agrarian landscape

Landscape is that construction of a highly personalised view of the land, played out on the background of our culture and traditions. Daniels and Cosgrove (1988) describe it as a 'cultural image', and emphasise how in interpreting the cultural codes that are inherent in our understanding of these landscape images, is also the possibility of decoding the social power structures through which they are constructed.

Perceptions of landscape are shaped by our cultural and historical associations. Early settlers, coming from European agrarian traditions, are portrayed in paintings and stories of the time

against the background of an overwhelming landscape.¹ Many of the early paintings of the Australian landscape are today being used to clarify previous management regimes. For example, Barr and Cary (1992) use old diaries, reports and paintings as evidence of how many trees were here at the time of white settlement; and what that landscape must have looked like as a consequence of being described variously as a 'parkland' or a 'forest'. Such paintings are works of cultural geography. Rose (1993) points out how cultural geographers, can both see and 'systematically erase'. What is seen is also shaped by who is looking.

Rose (1993), in analysing European landscape paintings, considers the depiction of women on these canvases as representing the sentiments of the painter and his nation state in the construction of a metaphor that equates the 'land as woman'. Male artists over many centuries display women as variously abundant and generous, fertile and redolent with the bounty of life; viewing the ripening fields and heavily laden trees, or framing neatly productive scenes. She associates men's response to this mother-land image as also varying from grateful excitement to a need, as with new settlers for example, to distance themselves from the overwhelming plenty and go forth to order and dominate new scenes. There is a power relationship inherent in possessing a new land. There is a cultural imperative that demands the new land be reshaped to a landscape of secure familiarity within the context of the newcomers' sensibilities (Bolton, 1981; Links, 1991).

This analysis is appropriate to the poetry and art of Australia. In our early Australian settler stories and paintings, there are images of battle and conquest; the wresting of a living from a landscape that did not resemble the European tradition, and little acknowledgment of a climate that was not consistent with the demands of international trade. In this way, the changes in the Australian landscape since European settlement are a curious mix of great productivity – the fulfilment of the vested male interest in stewardship as a productive force – and the reality surrounding what could be described as the destructive end products of battle, including the symbolic rape of the 'female' land, that ends, we know now, with a degraded landscape.

Poets² and artists³ depict both the horror – as in the cruelty of the place – and the despair of those who tried to settle, but who could not win against such difficult vastness. Sometimes there is a masking of the true landform with neat fence lines and newly productive fields.⁴ The land itself is lost and becomes invisible beneath its neat ordering of agrarian production. The cost of that production is invisible below the mantle of green. *Invisibility* is an important metaphor in women's relationship to the land (Beilin, 1994). The means of achieving visibility are critical to the analysis. For example, when women's presence is acknowledged in Landcare, this usually represents a public recognition of their regular work. Women interviewed in the western district of Victoria described how their involvement in Landcare would be curtailed if the group direction was to focus

¹ Conrad Martens *The Zig-zag, Lithgow* 1876; John Glover *Milles Plains* 1836; John Longstaff *Gippsland, Sunday Night, February 20th, 1898*, in Gleeson, J. (ed). 1978.

² C.J. Dennis: "They ravaged the verdant uplands and spoiled wealth ages old" (undated) Quoted in *The Environment Movement and Its Role in Changing Australian Society*, La Trobe University, Melbourne, p.4; and reprinted in Johnson & Rix (ed). 1993, p.99.

³ Albert Tucker *The Intruders*, 1964 is a particularly graphic example, in Gleeson, J. (ed). 1978.

⁴ Julian Ashton *The Milkmaid* 1888; Albert Fullwood *The Station Boundary* 1891, in Gleeson, J. (ed). 1978.

on pasture improvement, which was essentially understood as 'men's business'. Landcare's focus on trees and tree planting, ie 'women's work', had assured their visibility, as it was both assumed and accepted that they would participate (Ewing, 1995: 174).

Visibility is equated then with the public recognition that a woman is doing an appropriate job, equal to a man. The access to this visible recognition is very often as a consequence of a marital partnership. The women who have been described as the 'invisible farmers' (Williams, 1992) are demanding, as farm wives, to be equals in the farm partnership, and by substantiating all the ways in which they conform to either the role of the 'hired hand' or the 'equal manager', they will be accepted as such by the economic rationalists, if not always by their spouses. Their claim is supported, not because they are recognised as women, but because they are describing themselves as 'men'; by the visible economic work they do. However, recent history exposes some of the fallacies inherent in assuming that equal work or recognition of partnership in work, will benefit women. Hacker cites the experiences of women in societies, such as the then USSR and China, that were thought to offer egalitarian roles for women. Her research is similar to the anecdotal experience of Victorian women in that the egalitarian impetus is in changing women's roles so that they can do more recognised work; whereas men do not usually take on an equal amount of work within the domestic sphere (Hacker in Rowland, 1989; Whatmore, 1991; Alston, 1994).

In this context, 'equality' means doing 'the same (work) as men'. Men provide the normative standard. Once again, as with the construction of the landscape, women's agricultural work is conditioned by the male view. Women have been marginalised within the conditions of agricultural production and rural society. Their equal labour has previously gone publicly unacknowledged. I suggest that what women recognise as equity is part of society's need for their labour in the declining rural economy. Words like 'equal' and 'partner' are long-standing propaganda words that indicate a labour requirement. This is a traditional way for some women to attain so-called emancipation, at least in the short term.⁵

Landcare is also concerned with partnerships. The Commonwealth Decade of Landcare Plan can be interpreted as a commitment from the government to the community. It is meant to represent a partnership of farmers and government working to vanquish land degradation, while maintaining production. Partnership implies equity, and so this image is again struck. The parallel between the government use of 'partnership' and 'equity' in the supposedly 'grassroots' driven Landcare program, and the relationship between the use of 'equity' and 'partnership' in discussing women's farm labour could be described as subliminal, but not necessarily coincidental. The onus on farmers to take care of land degradation, transfers responsibility from government policies to individual farmholders. It is a transfer that comes without a real shift in power, and as such is familiar to women as similar to the use of 'equity' and 'partnership' when the need for their labour is acknowledged on the farm.

There is a second part to the use of 'equity' and 'partnership' within the Landcare manifesto. Government investment in the rhetoric of partnership in Landcare, coupled with other government social policies (associated with equal opportunity in liberal democracies such as Australia), means it is important to government for there to be equal access for men and women in Landcare

⁵ Consider here, the use of women's labour in wartime.

programs. The government assumption of equity within Landcare ignores the historical reality of rural society. Agriculture has been the 'fields of men'. Early settler women were abstracted by the 'colonial masculinity which valorised all-male company and pursuits ... and was essentially hostile towards women' (Grimshaw *et al.*, 1994: 114), though expecting them to be available for domestic duties such as caring for the home and garden. The life of independent yeomanry gave way to a dependency on science and technology, which as products of what Seger (1994: 110) describes as the 'masculinist culture', construct the rational and ordered landscape. Rural women are seen to internalise their subordinate position to men and to be ambivalent about feminism when it critiques this rural social ordering (Alston, 1995). I suggest that the recognition of their equal work as farm partners is interpreted by farm women as an acknowledgment of their solidarity with their menfolk. As such, it is relevant to pursue the feminist argument that this description of equity is really a part of invisibility, not different from it (Thiele, 1986).

In pursuing the following analysis of the types of invisibility, it is possible to again parallel the subordination of women and the subordination of the landscape in the pursuit of agrarian productivity. A typology of invisibility developed by Artemis March (cited in Thiele, 1986) suggests that there are three kinds of invisibility operating in women's lives: exclusion, pseudo-inclusion, and alienation. Exclusion operates as a part of a woman's work, and her existence is literally consumed by the needs of the male. In this, there is a similarity to the use of the land as a resource that can be made to serve the 'one' need; changed, commodified and discarded if 'need be', for the greater good (societal, familial, or male).

The second form of invisibility is that of 'pseudo-inclusion'. This process appears to include women but marginalises their roles. This is 'equality' in the sense of recognition as the hired hand or other labourer, but ignores non-economic contributions. Farm use of science and technology has been very much in this mode of operation. Human and technical resources are valued equally as inputs. The land, like labour, is just one more input. There is a greater scientific understanding of land capability and land use planning than ever before, but this is understood so that the land is compartmentalised as a resource that can be manipulated to a single need, that of production. There is the imposition of a 'normative', homogenised agricultural practice that is promulgated by the government agencies, as well as within research and marketing institutions. These mask, for example, diversity of landscape, differences in soil and cropping practices, and assume similarities in human resource capacity.

The third form is 'alienation', which is rather more difficult to address. This process acknowledges the value of women, but interprets their lives from within a framework that does not allow the true expression of their social reality. Classically this is found in Marxist analysis where all people are described simply as workers, rather than as being male workers or female workers. The fact that a farm woman takes the role of the 'hired hand' in a farm business, while also having childcare and domestic duties to manage, meaning therefore that in reality she is fulfilling a number of roles, is not addressed. Describing her as a 'worker' fails to consider these extra duties. Equality, in this sense, adds more work to women's lives and heaps oppression upon already complicated relationships.

The landscape parallel, here, is critical to the Landcare manifesto. In recognising the limitations of the landscape, and in assessing the effects of current and past agricultural practice, there is a

legitimation of the need for change. It is within this context, that concepts such as agricultural sustainability, catchment management, and whole farm planning, which are long term strategies, are born. But, as with women's lives, these words, and often the accompanying deeds, are translated into short term and superficial changes that do not really grapple with the underlying issues. These concepts can be very quickly undermined, and although participation in policy changes and participation of communities in decision making may occur, the reality may be continuing bad practice, or manipulation of only one element of a complex web.

Therefore, it is apparent that government needs to establish 'partnership' and 'equity' in order to engage popular support for land management changes. However, in evoking these images, there is little transfer of power with regard to agrarian policy changes or economic support. Hence, communities witness their own decline while the rhetoric of 'self-governance' and 'community ownership' is invoked. The dissonance of this situation is clearly seen in the parallel relationship between rural women and the landcare movement. Invisibility, and becoming visible, are analogies that emphasise the manipulation of women within the rural setting. There is a further parallel between dominant societal norms, that is, men's attitudes to women and to the landscape, as I have described in paintings and poetry. The two come together significantly within the Landcare program. The appropriation of women's farm labour is thus paralleled in requirements for land management changes that will supposedly lead to sustainability; when the immediate reality is a veneer of change without power for all concerned.

In order to establish the links between women's invisibility in farm labour, the perceived societal relationships of women to the landscape, and ways in which these are manifest within Landcare, it is relevant to discuss the involvement of government and academics in describing women's participation in Landcare. Government representatives and academics alike take pride in the perceived relationship between women and the landcare movement. In a recent article in *Rural Society*, Lockie and Vanclay (1994) critique Penny Wensley's comments regarding the number of women in the crowd at the National Landcare Conference in Tasmania as an indication of 'how little she (or her advisers) knew of the extent of women's involvement in Landcare' and that 'Landcare is more gender empowering than the corporate and government circles that she usually moves in' (Lockie & Vanclay, 1994: 43). It is likely that many, if not most, of the female faces there were government and allied agency workers, who might or might not have been farmers in their own right. The real message present in both in Wensley's comments and Lockie and Vanclay's critique is that it is part of the mythology of Landcare that women need to be involved – a mythology that perpetuates women's alienation and the appropriation of their work.

Quantitative data that reinforces the idea that women are there in the field, therefore, becomes important. Allan Curtis, for example, is prodigious in documenting the role of women quantitatively (Curtis *et al.*, 1994). Clearly this poses all kinds of problems in the interpretation of this data, given that women are only counted in this system when the work they do, or their physical presence, corresponds to an objectified category (Waring, 1988). However, women clearly have many uncounted ways of contributing to Landcare as information gatherers, educators, emotional backstops, babysitters, and so on. In his 1994 work, Curtis notes a decline in the number of women members relative to his 1993 publication. Roughly speaking, however, it would appear that women were present in Landcare in the same proportion as they were identified as farm managers and owners in the 1991 census (Curtis, 1994). In other words, it did not appear that

women were flocking to Landcare in numbers disproportionate to their identification as farm managers or operators. They are there presumably because of the inclusive nature of the process.

Interestingly, Curtis (1994) makes a correlation between the number of women members in the Landcare groups and the effectiveness of those groups.⁶ From personal observation among the small number of groups I have followed over the last three years, it is the *position* of women within the group that makes the difference. If the women are in positions on the executive of the group, then activities may indeed be shaped by them. In my experience, women members who are not on the executive do not have a consistent input or affect group programs. Further, Curtis (1994) comments on the significant number of women who were on the local Landcare executive. Not many of these were in the position of group president, but rather as secretary or treasurer. Once again, close observation of the groups in my research area confirms the female monopoly of these positions. However, I suggest that this is not because they actively seek this role. Groups go through significant contortions to achieve a female secretary. One group changed what had previously been an inflexible – 'it's the only night of the month we can meet' – regular meeting night, to a night that suited a new family in the group when the wife agreed to take on the secretarial role. Conversely, in another group, the male President resigned in order that the male Vice President could become the President, the female Secretary could become the Vice President, and the newly resigned President become the Secretary. This was because at a meeting, the two females present who were not on the executive were not willing to become Secretary, and neither subsequently were any of the other males in the room. The newly resigned male President, and hence newly elected Secretary, was commended by a female committee member for taking on the thankless task of Secretary, as all the women knew the workload it carried.

As participants in Landcare, women are fulfilling all the traditional female roles. As bookkeepers, secretaries, and business agents for the family farm; in giving their labour voluntarily; in 'caring' for the land; in endless, stereotypical ways – women continue to be 'invisible', while being described as 'visible', 'equal' and 'partners' in the agrarian landscape. It is not enough, therefore, to simply count the number of women involved as a sign of a progressive and 'different' organisation.

Women and community

The rural environment movement as manifest in Landcare, is described by its proponents as community based. Communities are comprised of farm houses and their service centres across the landscape. The fact that many of these communities are invisible, as tangible entities, is indicative of Landcare policy that potentially erases 200 years of settlement patterns, and establishes groups located on catchments rather than socially or politically defined groupings. Such innovation complicates a sociological understanding of 'community'. Nonetheless, at the core of the Landcare model of operation is the group, loosely based on a neighbourhood association that is referred to as 'community'. The 'business' of community is often women's work. Herein, from a feminist perspective, lies a possible alliance between women and Landcare. It is not that

⁶ Lockie (1993) argues that these scales measure absolute levels of activity and membership, rather than the actual effectiveness of that activity or membership.

women are to be cast – by male farmers, politicians or policy analysts – into the fields to plant trees and to save the land by carrying yet another load; but that Landcare, claiming to represent community and having flexibility, may be a vehicle women can actively shape for change.

Further, as women's work is intrinsically associated with community, and community is the core of Landcare, there is again reason to examine the structure of Landcare and its construction of women. However, the current range of socio-economic threats to the existence of rural communities cuts across any hopeful feelings that Landcare may generate about revitalising the landscape and offering a venue for women and change. In fact, the converse is true with the socio-economic assault on rural communities jeopardising women's potential influence, along with every other facet of rural society. This isolation of farm life, by which communities are diminished, is well documented in Victoria. As farms become bigger populations decline, and with their demise go rural service institutions (Henshall Hansen, 1990; Duff, 1995). Victorians are currently experiencing a marked withdrawal of rural services including school buses, regular train and bus networks, as well as the closing of banks, postal services, state schools and community health centres. Once again, it is arguable that women bear a disproportionate cost for the loss of these services being the principal caregivers for the old and young, the transporters of children and materials, and the organisers of the functioning farm business office. Nonetheless, there is a need by those still on the land to maintain something of the rural idyll, no matter if, as Poiner (1990) suggests, the ideal has more to do with a cultural vision than the reality of country life. Therefore, the involvement of women in community activity is important to the cultural vision that is provided by the various community groups, for example, the Country Fire Authority, the Country Women's Association, the local tennis and basketball clubs, the local Landcare group and many others. These contributions create a sense of rural well-being.

However, it is particularly difficult for a so-called community based organisation like Landcare to gain allegiance in the current rural landscape because of the declining populations, poor servicing and already well established existing community activities. There is perhaps a tragic flaw within Landcare policy – that it has put so much emphasis on the idea of community. Aside from the underlying difficulty of ascertaining what constitutes a community in Landcare – from the landscape-catchment perspective – is the recognition that the alliances among farmers are likely to be commodity based rather than community based. For women, the influence of commodity based allegiances is particularly depressing because, for reasons of patriarchy and capitalism, commodity structures are generally hostile to women. Therefore, the lack of traditional communities and the commodity nature of modern day agricultural organisations belie the implicit government message that Landcare can be imposed on a rural tradition of community and the family farm. Further, the lack of substance to this 'tradition' – that is, the lack of community in the cultural sense and the emptiness of support for rural living and the family farm – means that the 'Landcare community' is often operating in a void. Therefore, while it is not certain that an association with Landcare will benefit women, it is clear that government requires the involvement of women, as community activists to legitimise Landcare as a real community organisation.

It is not clear, however, that farmers are as concerned with 'community' as government is. Farm extension has emphasised individual relationships between government departments and farmers. Farmers are used to responding to programs emanating from these departments, rather than to

the initiation of social organisations. Even while Landcare projects are generating in the countryside, programs continue to be initiated from within government agencies. This on-going program development presents competition for Landcare. As such, it is obvious that women will not just be involved in Landcare, but that the competition for their services may disempower or fragment any influence they might have in any of these structures.

Although all of the groups in the study area in south west Gippsland had a prior history in ragwort control, tree planting and soil conservation, Landcare and any concept of 'community development' or 'grassroots community organisation' are relatively new. Furthermore, since 1992, when the Landcare/Farmcare groups formed, Agriculture Victoria has established other production-oriented extension programs, including Beef Managers and Target 10 for dairying. While Landcare claims to be community based and, therefore, includes husbands and wives, the new production improvement groups are commodity based, but also appear to have made a concerted effort to attract both men and women.

Lockie (1995: 75) considers that Landcare 'offers women an acceptance and legitimacy denied to them by other farm based organisations'. This was certainly true, although recently the Victorian Farmers' Federation has modified its membership rules to allow husbands and wives on the same membership to vote without requiring another fee. Anecdotal evidence suggests that Landcare may have other competition for this claim. There is the appeal of these production improvement groups, which are oriented to farm viability first. They legitimate women, as has been described, as equals and farm partners, in the conventional manner. These groups use similar extension practices to Landcare but are focused on their particular commodity. This may be a hybrid commodity-community association. It was foreshadowed by an extension officer at the dairy research farm in the area, that Target 10's mandate was shifting from pure production improvement to include 'landcare issues'. If this is the case, then it could lead to the demise of Landcare in this difficult farming area.

Several previously devoted, slightly burned-out Landcare members – including two very active women – have indicated informally that there were too many meetings to keep up with; and that their interests were turning to the 'real issues' of farming, as found within the commodity groups. The pressures that many farmers feel in economic terms are manifest as a need to focus more sharply on production, not conservation. Likewise, these women foresaw that they could not manage to do everything when the farms are in such need of their labour. Therefore, they have indicated that they will choose the production allied association, in support of the existing system. Commodity based groups are comfortable associations for women striving to maintain the rural idyll, as described, because they conform to the accepted understanding of women's work, offering confirmation of women's 'visible' (that is invisible) status.

The second difficulty relates to the growth of 'women only' organisations such as Women on Farms. The 1993 Women on Farms Gathering at Tallangatta, Victoria, began each day with several women from different farm backgrounds in Victoria, giving a biographical account of their lives as women farmers. As sociologists such as Inhetveen (1990) have described, biographical accounts are particularly rich in the realities of daily life, covering the kind of detail that is difficult to quantify, but elucidating the commitment to work and the social ethic that supports their lives as farm women. In fact, there was, through identification of issues and opportunities,

and through sharing their life experiences, the creation of a new women's community. This community of women on farms is one that is responding to the current pressures in rural farm life. Alston (1994) describes this support for women's networks as women moving away from their close association with the farm and family welfare to address concerns that are unique to women. Unburdened by male presence and unfettered by policies and government agents, when compared to Landcare it may be that the informal networks are more flexible and allow women to define a wider group of women as the 'community'. However, there is no evidence that this women's community is seeking to identify itself differently from the conventional, patriarchal construct that currently binds women and men on the family farm (Barlow, 1993: 3).

Hogan (1994: 31) comments on how a crisis can legitimise behaviour that is normally considered to be 'out of character' or 'unacceptable' for women. The agricultural crisis around which women are speaking out on issues of 'visibility' reflects such behavioural change. However, at the time when farm women are coming together, the basis of their potential empowerment – that is recognition of their work on the land in whatever category – is shifting because of, among other things, international pressures on the Australian farm economy. Nonetheless, women's work in Landcare still serves a useful purpose, what Poiner (1994: 58) describes as the 'community servant'. At a time when it is important for farmers to be visibly active in an environmental context, farm women participate in a task that attracts community esteem, and in a way that conforms to their other off-farm, unpaid work. In this way, they serve their own family's public duty quota, and the family receive the community approbation.

Further, it is logical to expect that conservation groups such as Landcare, which conform to the 'service to community work' criterion – that both men and women consider normative for women to do in a patriarchal society – would attract farm women. That is, it would be logical for men to have this expectation, and for both men and women to agree, because of all the conventions previously discussed. Accepting that women's participation in Landcare is an extension of the male construct of life on the farm, it is a logical expectation that the involvement of women in Landcare will parallel their involvement and support of mainstream agriculture.

Women, gender and 'greening'

There is a need to question populist views of women and the environment. These views can be seen as attempts to re-impose the traditional male view of women as more 'natural' and 'nature-oriented' than men. It is worth examining the potential that this position has to undermine women in Landcare. 'Nature' is often given as the reason that women take on the complex details of uncounted family roles. Brian Roberts (1988: 43) – who is sometimes called the 'father of Landcare' – epitomises this populist view, depicting women as 'mother earth' and considering that 'women are better placed' to nurture a landcare ethic. Similarly, the western cultural alliance between patriarchy and science (Rowland, 1989) has defined women as part of nature and alien to culture. Jackson (1993) describes what is 'natural' in western culture as that which has survived from our primate origins, while that which is 'cultural' embodies our escape from that nature. Woman as main parent or nurturer is mythologised as fulfilling a 'natural' role reflecting societal values of motherhood and femininity. Rowland (1989) describes the male rationale that encourages

women to seek themselves in their biological reproductive function, the naturalness of which imprisons women and limits their activities to those sanctioned by men. Roberts suggests that it is most appropriate for women to teach the children 'valuing the land' (Roberts, 1988: 43).

Many women may indeed feel that they have an affinity to the land and the landscape that is deeper than the shackles that bind them from within the culture. However, as I have indicated, there is often an implicit assumption that women must bear the responsibility for greening the environment as part of their service to community and a fulfilment of their 'natural' roles. Ecofeminist analysis often suggests that women offer an intuitively closer understanding and perception of nature. However, women may not have a predisposition to 'greening', as such, and the ability to be actively 'green' may more likely reflect a class culture. Jackson (1993), for example, clearly ties the impact of deforestation and low watertable areas to gender and class relations in an Indian case study,⁷ wherein women actively 'conserved' the forest because it was their only means of survival. Importantly, Jackson demands that the context of women as conservationists not be distorted. This is a crucial consideration. Women as farmers have frequently been the causes of environmental degradation because they have responded in the same way as men to land use practices dictated at an international scale; if the farm is to be viable it must be competitive, and that requires a formula of technology and other inputs. There is nothing in the Landcare agenda that guarantees to change this formula. If it is to change, then there must be a discussion with women and men on re-defining the terms of work and value, and a redefinition of an acceptable landscape.

Adhering to an ecofeminist perspective, by romanticising Landcare as being more sensitive to women's needs and by assuming that women are more 'caring, cooperative, honest and concerned for nature' (Mills, 1992: 71), is a way of continuing to construct Landcare and the landscape in isolation from the everyday realities of women. It is likely to add more work to the load that women already carry. It may also be that ecofeminism, in its essentialist form, actually dispossesses men of the need to change their relationship to the land.

Conclusion

The relationship between women and Landcare is a complex one because of the varied players and the many levels of commitment and interaction. Nonetheless, it is clear that Landcare provides a venue for women to be visible in their rural lives. However, the visibility associated with Landcare in its current form is limited. It is visibility at a local level defined by male oriented aims and associations of the program. The men are still the stewards of the landscape and it is for women to help them maintain their stewardship. Government and academia, in their construction of Landcare, conveniently portray women as benefiting because they are involved in Landcare. By extension, the argument goes, Landcare must be successful as an equitable, dynamic force for change because it has demonstrated a niche for women. Building on the mythology surrounding women and community, encompassing women and nature, and using the conventional understanding of women's work in rural society, they validate their own rhetoric. Contrary to this, I argue that the potential of women to be change agents in constructing sustainable benefits

⁷ Jackson (1993) presents an interesting discussion of the Chipko development in Uttar Pradesh in the late 1970's.

from Landcare lies in the recognition that Landcare is a tool – a means toward the end. The end is a sustainable landscape in which agricultural production is an element, but perhaps not a controlling force. Landcare as a forum, to be used by both women and men, requires some re-formatting. In responding to the diversity of skills and understanding that women can bring to the scene, it can encourage ‘the others’ to get involved in a more visionary way. It is a very big landscape, and a different perspective to how the landscape might be constructed and managed could be based within the local, community driven Landcare meeting. Rural society has to be intimately involved at all levels in sustaining that landscape or it will not sustain its people. Ignoring, or appropriating the interests of, or not acknowledging how half the population relates and is constructed within Landcare, cannot be legitimated.

However, Landcare is not operating in isolation. Rural communities are being decimated by government policies that have stripped the services and support from regional areas. Women are becoming more stressed compensating for the collapse in these services. Rather than building an atmosphere of concerted community partnership between rural women and men in their communities, with their government; many rural people manifest a feeling of rural doom, frustration and a sense of being abandoned.

Other groups, such as those based on commodity improvement, which have benefited from the inclusive community extension practice associated with Landcare, are more in keeping with the existing production oriented goals that declining rural conditions encourage in farm individuals. Women-only groups are the likely refuge of individual women seeking support in a wider community for the stresses of contemporary rural society. They are, for the reasons already discussed, unlikely to be the site of a re-assessment of women’s relationship to either the land, Landcare, or the family.

Women are constructed in Landcare to serve several masters. It is clear that government policy benefits from being able to count women’s participation as a legitimisation of the inclusive nature of the policy. However, it is just as obvious that women have equal access only while they are being described as equal in the sense of being ‘like a man’ – that is a labourer – or while fulfilling conventional female roles, such as secretary. Many rural women do not seek to identify themselves as feminists, conservationists or in ways other than the dominant rural culture provides for them. That is, they are content to be made visible, as ‘man’, and for their domestic and reproductive labour to be used. This level of ‘visibility’ continues to mask the use that is made of their labour. In a similar way, I suggest that this is also symptomatic of Landcare. The landscape is re-ordered into catchment based community groups without changing the problematic nature of current production activities, nor addressing the rural development issues that lie at the heart of a successful community movement. Landcare has the potential to shape a dramatic and radical change in the landscape, but in maintaining existing structures and their inherent limitations, Landcare fails to realise its potential. Instead, it sustains the existing images of landscape, and women are constructed to conform to those ends. The use that is made of women in Landcare, with the tacit acceptance of many women and men of this construction, negates opportunities for women to take on a significant change agent status within their communities. The benefits of providing support and a venue for women to redefine themselves within Landcare, and for Landcare to benefit from such activities in a redefinition and understanding of the relationship of men and women to the landscape, remains unexplored.

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6

Rural Gender Relations and Landcare

Stewart Lockie

Farming in Australia is constructed as a very male business. Farm men are ‘farmers’ while farm women are ‘farmer’s wives’. Cattle and sheep sales see rings filled to capacity with farm men watching the fate of *their* year’s work, while farm women go off to do the shopping. Examination of the membership of farm organisations reveal these to be male dominated. This masculine hegemony, which has implications well beyond the construction of gender roles, is under challenge from a number of directions. Rural women’s networks and conferences, for example, bring together large numbers of rural women, researchers and bureaucrats to put issues of concern to rural women on the public agenda, and to remind women of the important contributions they make to agriculture and rural life. Another area of particular interest – in that it brings women and men together in what may have been viewed as a traditionally male area – is Landcare.

At the heart of the Landcare program was the formation and support of self-help community Landcare groups concerned with addressing, primarily rural, land degradation. At the moment there are estimated to be something like 2,500 community Landcare groups involving at least one representative from about 30 percent of farm businesses in Australia, prompting onetime Federal Minister for Primary Industries and Energy, Senator Bob Collins, to call Landcare the most successful community based program governments in Australia have ever implemented (Collins, 1994). Typically Landcare groups engage in projects such as property planning, revegetation, pasture establishment and community education (Curtis *et al.*, 1993). Community Landcare groups are eligible to apply for funding from the National Landcare Program to establish trials and demonstration sites, and to employ coordinators and facilitators. However, if this funding is to have any significant impact on land degradation, it is imperative that it be used to mobilise considerably more resources from within the community. This imperative is based on two factors. Firstly, funding is limited and comparatively small compared to the magnitude of land degradation, therefore, the bulk of funding provided to Landcare goes into areas ‘supporting’ the activities of community Landcare groups, such as the employment of coordinators, and direct funding is targeted exclusively to trials and demonstrations. Secondly, although the number of Landcare groups has exploded, there are still more than twice as many farm businesses formally outside the Landcare network than there are within it. Therefore, although in some senses Landcare is highly institutionalised (Martin *et al.*, 1992), to have a significant impact on land degradation, it must develop an extra-institutional character. This feature is partly responsible for the ever increasing popularity of the term, the ‘landcare movement’ (Lockie, 1992, 1994a). Landcare groups which actively involve women are, according to Campbell and Siepen (1994) and Curtis *et al.* (1993), more effective and achieve more practical results than groups which do not.

One of the major themes that has emerged from studies of rural women has been the invisibility of their contributions to agriculture and rural life. The contribution of women to agriculture has been rendered invisible in at least two ways. The first has been through definitions of work, whereby despite the emphasis placed in farm labour studies on the concepts of family labour and

household production units, non-commoditised domestic work has been seen as somehow distinct from farm work and, therefore, unproductive. This view, of course, ignores the vital contribution of domestic and other supposedly non-productive activities to the reproduction of the family labour unit (Whatmore, 1991). The second has been by obscuring the amount of work which women do actually perform outside the 'household' and out on the 'farm'. Again, this is often achieved through definitions of women's contributions, this time in terms of 'helping'. While many women do, in fact, spend many hours engaged in physical farm work they have been seen as off-siders and help-mates, the tasks they are most likely to undertake seen as peripheral, and power to make important production decisions left with farm men (Alston, 1990, 1993).

These two processes legitimise and reproduce what Alston (1993: 6) has termed the 'doctrine of separate spheres', which permeates not only rural life but a great deal of theorising about it as well (Whatmore, 1988), naturalising differences in gender roles within the division of labour rather than treating them as constitutive of 'contested power relations' (Whatmore, 1991: 71). The impact of this division between domestic and productive labour goes beyond the farm itself, linked as it is to the overarching social dichotomy between private and public spheres, whereby women are relegated the unpaid domestic labour of the private sphere while men engage in the public world of paid labour and politics. Paradoxically, the separation of home and work is usually linked to industrialisation and urbanisation. Although there are many problems with these assumptions, it is particularly evident given the close relationship between home, family and work on family farms that such a split between the domestic on the one hand, and the economic and political on the other, is based more on ideological than on clear spatial or temporal boundaries (Jary & Jary, 1991). Nevertheless, it has had a distinct empirical correlate in the membership, leadership and policies of most farm and rural organisations. Those organisations concerned with farming and agri-politics have been dominated by men, while women's organisations have tended to support relegation to the domestic sphere or emphasised service to the community, frequently in support of men's activities (Dempsey, 1992; Alston, 1993).

There is nothing natural or inexorable about the position of women within the power relations of agriculture and rural life, nor are they merely duped into accepting their subordinate position (Whatmore, 1991). Although, as Alston (1993) found, many women espouse values which support their relegation to the private sphere, this relegation is not achieved without a degree of resistance and coercion, with not surprisingly, the most resistance to a traditional division of labour coming from younger women. Where women do seem to genuinely accept the division of labour and power, Alston suggests this is partly because they feel compensated for their lack of power in the public sphere by their increased power in the domestic sphere. Economic power is also highly significant. Patrilineal inheritance (Voyce, 1994), and extended family partnerships (Alston, 1993), designed to maintain the intergenerational continuity of the family farm, ensure that women remain economically marginalised in regard to their control over land. It also seems evident that while women may take on many responsibilities above their domestic ones, either with physical farm work or off-farm work – a particularly important area given the ongoing rural crisis and drought – these are taken on in addition to their domestic responsibilities, not instead of them. Other issues which cannot be ignored include isolation, domestic violence, and access to education and off-farm employment opportunities.

Whatmore (1991) argues against treating family labour as a unified category, and suggests instead that patriarchal gender relations must be placed at the centre of any analysis of family farming. That such forms of production are based on systematic gender inequalities, which are not necessarily accepted by farm women, opens possibilities for change from within, quite apart from the relationship between family farms and corporate capital which is seen in structural Marxist analyses of agriculture as the primary force behind rural restructuring (Lockie, 1994b). The manner in which farm people organise themselves is an area which also deserves more consideration, not simply because of the role of local organisations in reinforcing the ideology of separation between public and private spheres, but because of their place in the reproduction and transformation of the whole web of social and cultural relations affecting family farming. The family labour unit is not only an anything but unitary one, it is also an anything but solitary one.

Methodology

This chapter is based on research conducted into the effects of social relations and associated cultural meanings on the development of Landcare in one Local Government Area in south-west NSW. Although it was a mixed cropping and grazing area, and the study excluded those living in the larger urban centres, every attempt was made not to exclude smaller landholders and rural residents who did not own or operate commercial farms.

Ethnographic methods, including semi-structured interviews and participant observation, formed the primary focus for data collection. Over 50 people, primarily Landcare participants, were formally interviewed during the first phase of the research which focussed on their understanding of, participation in, and experience of, Landcare. Whenever possible, I also attended the activities of Landcare groups and other relevant community events, but probably gained as much from living on a farm in the area for three years and interacting with the people on an informal basis. In addition, a sample-based household survey (n=77) concerned with individual attitudes, group membership and farm data, was also conducted. Although highly structured to allow statistical analysis of results, one of the primary benefits of this survey was the opportunity to meet more people who were not involved formally with Landcare and who often lived in areas where no group had formed. Through the ethnographic interviews and sample survey 18 and 63 women were surveyed respectively, along with 33 and 70 men.

This is not the only study to examine women's involvement in Landcare. An important comparative perspective to the results presented below is provided by Curtis *et al's* (1994) study of women's participation in Landcare in north-east Victoria, and by Carr's (1993) study of community involvement in the Downside Landcare Group in south-west NSW. It should be noted, however, that the two major national surveys focussing on Landcare issues – one by the Australian Bureau of Agricultural and Resource Economics (Nelson & Mues, 1993; Mues *et al.*, 1994), and the other by The Rural Development Centre at the University of New England (Reeve & Black, 1993) – do not give any consideration to gender issues. Nor did they make any attempt to specifically survey farm women as well as men, preferring instead to use the undifferentiated categories of 'producer' and 'persons' respectively. The sampling methods described in these reports indicate that respondents would have been almost exclusively male.

Results and discussion

The patriarchal structure of social relations in farming areas, supported by the rigid ideological distinction between private and public, domestic and productive spheres, described above, is consistent with the evidence collected through this study. Rather than go back over these areas in detail, the rest of this chapter will concentrate on the relationship between this particular configuration of social relations and meanings and the emergence of new patterns associated with the development of Landcare. This is not to say that Landcare is the centre of, or solely responsible for, the emergence of a fundamentally new set of social relations. Rather, that insofar as these relations are subject to challenge and support, transformation and reproduction, through all manner of social practices, Landcare serves as a useful focal point of social practice from which to observe such processes.

Gendered spheres

The ongoing rural crisis, changes within the wider society, and Landcare have all had an impact on the division of labour both on-farm and in the community organisations related to farming. Many of the women interviewed, for example, reported that economic necessity had forced them to take on on-farm roles from which they had traditionally been excluded, as farms could no longer afford to employ non-family labour and sons were more likely to either spend more time in education before returning to the farm, or to not return at all, thereby diminishing the pool of male labour. Some women also believed that their increased involvement in the physical running of the farm had led them to a greater level of involvement in farm decision making:

when I was first married, well I used to help my husband until the boys came along ... but ... we're finding that because we can't afford to bring our boys home ... that's why the wives are working more and more outdoors, and so it has changed, and I myself, because I'm helping outside, I like to be involved in making the decisions financially, and I'm not a women's libber ... but I do think the women should be involved in the running of the farm because that's their livelihood with their husbands, so that's why I do speak out more.

However, despite these signs, preliminary exploration of household survey farm data suggests that power to make farm management decisions still lies largely with men.

Another area not so directly linked to outdoor farm work in which women seemed to be taking on a greater role was in information gathering and management. This was in many ways an extension of the 'goffering' role that women have generally been expected to perform (driving to town to pick up spare parts and supplies) in support of farm men, in order to save them time and enable them to continue their engagement in more 'important' and 'productive' tasks. Nevertheless, it also led women into situations where their presence was actively resented, and even resisted, by farm men. One woman told me of her experience attending a field day on soil management with another farm woman. Whilst inspecting a soil pit, a group of men came along and simply stood in front of them. Often it seems that women are only expected to attend such days if accompanying their husbands.

Table 1 shows the levels of participation of women and men in a range of local organisations concerned with supporting some aspect or other of agriculture or rural life. Examination of

this table shows that the only local organisations which do not have a significantly gendered membership are Churches, Hall Committees, Tennis Clubs and, importantly, Landcare groups. All the other organisations are male dominated farmers' organisations, with the single exception of the Country Women's Association (CWA), which has no male members and a declining female membership.

TABLE 1: *Participation in Local Organisations by Gender^a*

Organisation	Women ^b	Men ^b	t-value	sig	
Landcare	1.78	2.12	-1.75	.083	ns
Church	2.41	2.22	1.08	.284	ns
Ag Bureau	1.15	1.72	-4.50 ^c	.000	***
CWA	1.35	1.00	3.23 ^c	.002	**
NSW Farmers	1.29	1.72	-3.20 ^c	.002	**
Footrot Group	1.53	2.19	-3.95 ^c	.000	***
Farm Walk	1.00	1.26	-2.99 ^c	.004	**
Hall Committee	1.67	1.59	0.45	.651	ns
Bushfire Brigade	1.72	2.87	-7.54 ^c	.000	***
Tennis Club	1.88	1.60	1.61 ^c	.111	ns

- a The sample for this table is based on all rural residents, not only those that live on commercial size farms.
- b Mean scores, based on a scale of participation where 1 = not at all involved, 2 = non-active member, 3 = active member, and 4 = office holder.
- c t-value calculated on unequal variance where Levine's Test for Equality of Variances <.05. Otherwise equal variance assumed.

When it came to actively participating in the sort of farm organisations, such as Agricultural Bureaus, that organised field days and meetings promoting agricultural development, women were very unlikely to be involved, leaving the agenda firmly with farm men. Moreover, despite great variation in the preferences, skills and resources of farm managers throughout the area the style of agriculture promoted through these organisations was an arguably narrow one, based on a basic package of enterprise options, associated practices and high rates of external inputs. This in itself is too complex an issue to deal with in this chapter. It is worth mentioning, though, that a great number of people, both male and female, were rather uncomfortable with this style of farming, and continued adherence to it was linked by a couple of respondents to, among other factors, the maleness of farming culture, and its associated emphasis on dominance and control. Other organisations, like bushfire brigades, which exist to organise what is seen to be men's work, do not involve women in anything other than a token capacity, unless it is to organise things on behalf of their male partners.

Landcare participation

When I first began visiting Landcare groups through the study area, I could not help being struck by the high levels of participation of women in some groups – significantly, the seemingly more active groups. Reference to Table 1, based on the later sample survey, shows no significant difference between the levels of participation by gender in Landcare groups, and further, that there was no significant difference in the variance, or pattern, of participation. The participation of women in Landcare could not be explained away by the argument that Landcare groups were addressing fundamentally different issues to other farm organisations, issues which could be identified as distinctively ‘women’s issues’. In fact, at least one of the groups which regularly attracted more women than men, spent most of its time discussing issues of agricultural productivity, leading some of the men to complain that it was too much like Ag Bureau meetings. This high level of female participation in Landcare groups is consistent with the results of Curtis *et al.* (1993) who found that women constituted about 34 percent of the total membership of Landcare groups in Victoria. Likewise, Carr (1993) found that the Downside group not only attracted a high proportion of women, but that they were prepared to participate independently of their spouses, or as single women.

There is no doubt that some of the participation of women in Landcare could be accounted for by the previously mentioned ‘goffering’ role which in many instances was extended to information gathering and group activities. To attach too much significance to it, however, would do scant justice to the many other reasons women gave for being involved in Landcare. However, even in those cases where the ‘goffering’ argument does have some validity, I believe that there are some more fundamental changes taking place.

All Landcare participants were asked about their main reasons for joining a Landcare group. Table 2 shows that apart from women appearing less likely than men to nominate access to information or education, there was very little difference between their stated reasons for joining Landcare groups.¹ The ethnographic interviews raised another issue, though, which the structured questionnaire tended to gloss over, namely, the role of peer encouragement and pressure in encouraging people to join, even when they were initially sceptical of the ability of Landcare to help them achieve the goals implicit in their more overtly stated reasons for joining. This seemed to be particularly important when it came to ensuring high participation amongst women, not only though in terms of convincing them that Landcare was a worthwhile activity in which they should participate, but also in establishing an environment which encouraged their continued participation.

¹ Although it is not standard statistical practice to conduct statistical tests on multiple response questions, separate Chi-Square tables were constructed to analyse each of the reasons listed in Table 2 by gender. In essence then, each table indicated the numbers of women and men who had, and the number who had not, nominated that particular reason. None of the reasons nominated showed a statistically significant difference at the .05 level when analysed by gender. However, with a significance level of .058, and a small sample of 62 Landcare group members, it is still reasonable to say that women did appear less likely to nominate access to information and education as a major reason for joining a Landcare group

TABLE 2: Main Reasons for Joining a Landcare Group by Gender (multiple responses)

	Women % (n=24)	Men % (n=38)
concern with environmental problems and the need to do something about them	42	39
gain more access to information and education	17	39
need to address environmental problems on a catchment basis	21	18
responsibility to get involved in community activities and maintain local communities	13	16
gain access to funding and other resources	8	13
interest or curiosity	8	8
other	17	13

There were two groups in the study area in which only a few, at most, women participated. One of these groups had been so inactive that several of the people I contacted who I had been told were members of the group were unsure whether they were or not. Although the other group was also relatively quiet the reasons for low levels of participation amongst women seemed clearer, and revolved around meeting times and family responsibilities. This was illustrated by a conversation with one of the group's executives and his wife:

- Interviewer: ... how much involvement do you have from women in the Landcare group?
 Male: Not a real lot at this stage.
 Female: Not from lack of interest.
 Male: Well, see, again it comes back to the age, most of them have got young children, so night times ...
 Female: ... and some work.
 Male: We had a ... seed collecting day, and I suppose 50 percent of them were women that day, but most of the meetings at night have been male dominated ... I suppose with the family commitments.

In this case, women's responsibility for domestic labour was clearly seen as more pressing than involvement in Landcare. Curtis *et al.* (1994), however, did find that some women preferred to

retain childcare responsibility themselves in order to allow their husbands to attend in the hope that their husbands would undergo some sort of attitudinal change. It would be dangerous to assume from this small sample that timing and childcare were the only, or primary, issues preventing women from attending Landcare meetings, however, experience with the wider community of Landcare participants and researchers suggests these are extremely important factors. The sample survey asked women their reasons for not being involved in a Landcare group and found that the most common answers were time, which could relate to off-farm work as well as childcare and farm work, and the involvement of another family member in the Landcare group. It would be reasonable to assume that, in at least some of these cases, women were again taking responsibility for childcare so that their partners could attend.

Some of the Landcare groups in the study area, however, did take active steps to encourage the involvement of women. Mostly this involved simple strategies like ensuring that both partners, and women in their own right when they were single or when their male partners were not interested, were invited to attend activities. Simply accepting the presence of women and treating them as if they had every right to be at Landcare meetings also seemed to be significant to several of the women I spoke to, who thought it important to feel that they were treated as equals. One group addressed the childcare issue by holding daytime meetings and encouraging people to bring their children along, rostering one or two women to look after them while the meeting took place. This, of course, would not have been of much help to women working off-farm, but that problem did not – to my knowledge at least – cause any conflict in the group. The reasoning for many in encouraging women to participate lay in the belief that Landcare was a huge job and that, generally speaking, it would take as many people as possible to make a difference, and that women specifically had time or flexibility, that men didn't have, which enabled them to get on and keep things happening. In contrast, the secretary of the group which provided childcare, mentioned her own belief that it was important to involve women because women, on the whole, were more open to change than their male partners.

Roles of women within Landcare

It was noted by quite a few men during the study that it was often the women who put the hard work into Landcare groups, that 'the women tend to plug on a bit harder than some of the men'. Women throughout the study area were generally well represented on group executives, however, the roles which they generally took on followed a fairly stereotypical pattern, concerned more with organising things for the group, doing the jobs that were considered important but 'fiddly', than taking on *public* leadership roles. At the time of the fieldwork, there were no women chairpersons, but women took on five out of six group secretary positions. Women were also more likely to take on roles such as group publicity officer. Again this was consistent with Curtis *et al*'s (1993) findings for Victoria.

Opinions regarding the reasons and implications of this highly gendered division of responsibilities differed widely. Some women thought that the men in their area were simply not ready to listen to a woman in a position of leadership: 'the men around here are, and I'm not being facetious, are chauvinist, they are not going to take any notice of any woman'. One thought that it was natural and right that men took the leadership positions in public matters, offering full support for the separation of spheres: 'the man is dominant in these sort of positions and the woman is there to drive him and motivate him'.

It is probably not totally surprising, then, that this particular woman's husband blamed women's lack of involvement on their own attitudes, believing there was nothing to stop them taking on more leadership positions if they decided they wanted them. Probably more prevalent than the above viewpoints, however, was the opinion that men were more suitable for positions of leadership within Landcare groups because they simply knew more about it:

I also feel that I don't know enough about certain aspects as far as Landcare is concerned, so I don't feel comfortable, I suppose, coming up with certain ideas ... if I did, I would have more of a prominent role, for instance, if I was in my husband's position, I would, but since I don't have the knowledge, I don't.

This was, I suspect, a far more powerful division, according men influence not because it was thought natural that they should hold it, but because through their position in the division of labour they spent more time on the farm, and were believed to know more about farming and its associated environmental problems. This belief may also have been reflected in the tendency, discussed earlier, for fewer women than men to nominate improved access to information and education as one of their reasons for joining a Landcare group. In other words, the male domination of leadership positions may not only have been accepted as natural, to a large degree, in its own right, but the perceived knowledgeability of men that better equipped them for these roles may also have had such acceptance. Men were also, no doubt, more experienced with public roles within local organisations, again enhancing their opportunities to take on influential positions.

Regardless of the cause of this division of responsibilities, there was very little concern about its effects on either Landcare or on women. Most women seemed to accept the situation as it was. Many men saw it as fairly natural because they thought women had more time available to do all the purportedly fiddly little organising tasks, or at least had more flexibility to fit them in with their other responsibilities, than men did. A small group of women, however, thought that although men were seen publicly to be the leaders of the Landcare groups, through secretarial and other organising roles, women actually wielded a significant amount of power: 'the men might be the captain of the ship, but the women are the rudders and the drive – where the rudder goes, it goes'. There seems to be a strong link here with Alston's (1993) observation that women, although relegated to the domestic sphere, may feel compensated for this by the influence they have within that sphere. The women who made comments like that above were convinced that women could not be seen publicly to be driving or directing the efforts of Landcare groups, but were unconcerned due to their belief that they were doing so in a more private manner anyway.

Participation discourse

Given the acceptance of both women and men in Landcare despite the highly gendered nature of other farm organisations, it is worth looking at the ideological support which this participation has. Within the general discourse of Landcare, there is a lot of emphasis placed on *participation*. Policy documents proclaim Landcare to be a 'grass-roots' movement, a partnership between government and the community. Constantly, we are told that Landcare is inclusive, it is about cooperation, it is for everybody. While this is the sort of discourse that can be associated with empowerment and change, it can also be used to deny the importance, or existence, of differences and to obscure the causes of disadvantage. At the local level, during this research I found that

most people believed Landcare could only be successful if it did achieve high levels of participation. Due to the off-site effects of many land management practices, this meant that all landholders within a watershed had to be involved, which in addition meant that, for what was often the first time in farm or community organisations, smallholders had to be involved. The ownership or control of land seems to be important here as there was no obvious push anywhere to involve rural workers, unless they managed properties, or other tenants.

For reasons which are more complex, though, Landcare was also seen by many as a whole family responsibility. In the consideration of gender relations in Landcare, this is extremely important – ‘family’ being the ideological notion used to legitimate the participation of women in Landcare, rather than any notion that women as a distinct gender group had a particularly important contribution to make, or simply had the right to be involved. Again, this stressed the insignificance of difference, in this case gender, and was consistent with the assertion made by many women while discussing gender relations, that gender was unimportant, and maintained the antagonism of most to anything identifiable as feminism: ‘this stupid women’s libber there really annoyed me, saying how wonderful wasn’t it that there were so many women involved in Landcare. I said it doesn’t matter whether you’re a man or a woman, if you’re good at your job that’s all that counts.’

Similarly, whilst attending a workshop for women in Landcare to discuss the results of Curtis *et al*’s (1994) study, it was evident many women considered the very issue of women’s participation to be divisive and inappropriate. A similar debate took place in September at the Australian Landcare Conference (see Lockie, 1994a). When some women challenged the use of gender specific language during a session at which a kind of superhero, ‘Landcare-Man’, was used in a presentation, others (one prominent woman amongst them) attacked this as unnecessary and peripheral. The issue of gender was also entirely absent from the considerations of keynote speakers. This occurred despite the attempts of many, including National Landcare Facilitators, to encourage women’s participation as much as possible, and the high number of women at this conference. It is clear, that at all levels, issues related to gender are regarded with a degree of discomfort, if not antagonism, due to the perception that recognition of gender based power relations threatens the unity believed necessary to address land degradation. While this can, in one sense, be seen as an admirable goal, it should be remembered that this is the same sort of reasoning that has served to reproduce women’s marginal position within agriculture in the name of maintaining the family farm.

Conclusion

That Landcare groups have achieved a level of participation amongst women unseen in other farm related organisations, is something about which there can be little doubt. The full significance of this participation, based as it is on uncertain causes, is rather more difficult to assess. It would be easy, for example, to overstate the importance of Landcare group leaders taking proactive steps to encourage women’s participation, and in doing so failing to recognise the importance of women’s own enthusiasm for the Landcare project. It would be reasonable to conclude at this stage, though, that despite the increasing involvement of women in a range of traditionally male roles and organisations, male hegemony is still, nevertheless, a major force in the structuring of social relations. Men clearly hold public power within rural communities. The high level of

participation amongst women is, therefore, still largely dependent on situations where, at the very least, men do not oppose their involvement, whether overtly or, as is more likely, through the structuring of group activities so as to make women's participation more difficult. Women will then, in favourable circumstances, bring their own enthusiasm and drive to Landcare groups.

It is, of course, possible that where women continue to be excluded from the public sphere, Landcare will become a site of social conflict and struggle. There was no particular evidence of this occurring, however, in any of the groups in this study area. On the whole, farm women espoused values which would not be conducive to such conflict, and the few that did tended to keep such views to themselves and the occasional researcher. It does seem likely, however, that where opportunities are available, whether they be because of the rural crisis, Landcare, or whatever, women will continue to step in and take on traditionally male roles. To date, this has meant little relief from domestic responsibilities, but this is not to say that it will not eventually lead to lasting change in the division of labour and distribution of power.

The question must also be asked whether greater involvement of women in Landcare will lead to a different approach to agriculture – to the development of fundamentally new styles of farming. The argument can be made that the male hegemony structuring the division of labour into public and private spheres has far reaching consequences, which are realised in the way people manage the land. Further, the concerns with domination, control and independence which underpin high input/high output agriculture are distinctively masculine traits associated with a hegemony based just as firmly in culture and meaning as it is in social power relations. To be a 'farmer' is not only to be of the right sex within a gendered division of labour, it is also to act like a farmer, to do the sorts of things that farmers do and participate in the arenas of social practice to which farmers belong. The maleness of this image is subject to challenge and is undergoing some transformation, in no small way through the challenge that Landcare represents to women's exclusion from the public sphere. It must also be remembered, however, that political-economic forces within agriculture play a large part in constructing the environment within which culturally distinct projects are carried out. Farm men express concern about many of the issues that are of concern to farm women, for example chemical use (Lockie *et al.*, 1995; Alston, 1993), but most men also believe these to be things over which they have little control. Whether transformations in the gendered division of labour in agriculture will consequently transform the cultural project of farming, or improve farm people's capacity to challenge what they perceive as undesirable structural imperatives, remains to be seen. The feminisation of agriculture may yet represent the most significant harbinger of change that is likely to emerge in rural Australia.

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7

Property and Participation: An Institutional Analysis of Rural Resource Management and Landcare in Australia.

Ian Reeve

As the Decade of Landcare has progressed, there has been increasing interest in what might be termed the social science of Landcare. These endeavours have been led by, but are not confined to, research programs at Charles Sturt University, the University of Western Sydney and Central Queensland University. While the public and political awareness of Landcare now makes it a rewarding topic of study where the researchers can expect appreciation of their efforts from audiences beyond academia, this is not to say there is little of interest to the social scientist in the interactions of agriculture and the environment prior to the emergence of Landcare. Although there has been some work on the sociology, geography and economics of the pre-Landcare interactions between agriculture and the Australian environment (see for example, Lawrence, 1987; Powell, 1976, 1993; and Young, 1992), there remain many areas for fruitful inquiry, the insights from which are still relevant to the expanding body of work on Landcare.

In this chapter, I outline a conceptual framework from institutional economics that may provide useful insights into certain aspects of land resource management in Australia that appear to have received little attention to date. These aspects include the relationship between ecosystem function and the need for resource governance, the role of the state in resource governance, and the difficulties in Landcare discourse of considering institutional innovation while avoiding confrontation with the ideals of private property ownership.

Private and common property rights regimes

In a program of work spanning nearly two decades, Daniel Bromley has made an important contribution to clarifying the nature of the relationships between societal institutions and environmental degradation (Bromley, 1978, 1982a, 1982b, 1989, 1991, 1992a, 1992b; Bromley & Cernea, 1989; Bromley & Hodge, 1990). The focus of Bromley's work has been on private property and common property as institutions that affect how nation states or smaller groups of resource users control the access of their members to natural resources.

There are two areas in Bromley's work that may be relevant to an understanding of land resource management in Australia. First, Bromley (1978; Bromley & Hodge, 1990) observes that the private ownership of land as an institution can be regarded as a collection of entitlements that define what actions the land owner may or may not undertake on their land, and what liability and compensation rules apply where others are affected by these actions. This is consistent with the view in the philosophy of law that defines property as a relationship between a person or persons, and object, and other persons (Becker, 1977, 1980). An example of an entitlement of land ownership recently upheld in the Supreme Court in the case *Gunnedah Shire v. Hansen*, 1993, is the right

of landowners in areas not declared as floodplains under Part 8 of the 1912 Water Act to construct diversion structures to protect their property, regardless of the effect on other landowners in the vicinity (Burton *et al.*, 1994: 4). Bromley also notes that for agricultural landownership, many entitlements are presumptive entitlements, ie. landowners presume the right to undertake particular actions until such time as changing social norms, or common or statute law require otherwise. For example, the entitlement of a landowner in an area affected by dryland salinity to increase accessions to local water tables has been presumed to be implicit in freehold ownership by most landowners and, as far as this author is aware, has yet to be challenged in a court.

Bromley and Hodge (1990: 199) extend the concept of presumptive entitlements to include expectations of favoured treatment by the state:

The modern industrial state has been willing to support incomes for farmers who, for a variety of reasons, have succeeded in resisting virtually all conditions on their producing behaviour – whether that behaviour results in redundant commodities, in chemical contamination of food and rural water supplies, in accelerated soil erosion, or in rural landscapes cleared to make way for larger machinery. Any change in the status quo production domain of the farmer must inevitably be purchased by the state with bribes, subsidies, or concessions at other places in the policy arena. In short, farmers in the industrialised nations deal with their governments from a position of strength – such strength arising from unquestioned property rights in land, with those property rights then successfully transmitted through the political process into a presumptive entitlement for favoured treatment at the hands of policy makers.

In the second area of work, Bromley has devoted much effort to clarifying the confusion over common property resource management regimes as expounded in the concept of the ‘tragedy of the commons’ (Hardin, 1968). Bromley has pointed out that institutional arrangements and resources are completely distinct and it is unhelpful to conflate resources and institutions with terms like pastoral commons or common property resources. Further, what was termed ‘common property resources’ by Hardin are more correctly defined as resources managed under ‘open access regimes’, where anyone can utilise the resource and no one can prevent others from doing so, regardless of the detrimental impact that resource use by others might have. Bromley and others argue that resource degradation is not caused by common property rights regimes *per se* (Bromley, 1992b; Berkes & Farvar, 1989; Barrow, 1990). Rather, the cause lies with open access regimes, or with social breakdown in common property regimes, so that the social norms that provided guidelines for resource use and sanctions against transgressions of these guidelines are no longer effective.

Changes in the environment and the role of the state in rural Australia

Before applying these insights from Bromley’s work to the Australian situation, it is helpful to consider a fundamental change in resources and their governance that I suggest is occurring in rural Australia. As resource use by agriculture has become more intense and more dependent on technology, ecosystems are changing from being buffers between landowners and their use of land to transmitters of harmful effects.

To see this, consider the hypothetical example of two farms – ‘Hillsandales’ and ‘Riverview’ – both adjoining a river, with the former farm being 20 kilometres upstream of the latter. Both

farms draw their water supplies from the river. Hillsandales is lightly stocked and what little sediment and nutrients enter the river settle out, or are taken up in vegetation, in the first few kilometres. The riverine ecosystem thus performs a buffering function between the two farms, ensuring that the activities of Hillsandales have no harmful effects on Riverview. However, suppose that in response to declining terms of trade, Hillsandales increases its stocking rates, and that this in turn increases the amounts of sediment and nutrients entering the river. Over time, the zone of adversely affected water quality gradually extends downstream, until it reaches Riverview. At this point, the role of the riverine ecosystem has been transformed from a buffer between the two farms to a transmitter of harm or, in an economic sense, externalities. While the riverine ecosystem acted as a buffer, there was no need for the state to intervene. However, once the ecosystem is acting as a transmitter of externalities, there is an incentive for the state to intervene to encourage some form of collective and coordinated action so that the resource can be used by individuals without causing harm to others, ie. to establish a system of resource governance.

I suggest that the trend over time in rural Australia has been for the buffering role of ecosystems to decrease and the externality-transmitting role to increase as long-term adjustments of ecosystems take place, as new technologies are introduced, and as land is used more intensively. Consequently, the state finds itself having to change from its traditional role in rural Australia as a provider of infrastructure and a resource developer, to a new role in allocating increasingly scarce resources and mediating in increasingly common resource conflicts arising from the externalities of agriculture.

Property and rural resource governance in Australia

From Bromley's perspective, the apparent inability of the state to prevent ongoing land degradation in Australia can be at least partly explained in the following way. Existing institutional arrangements result in the exploitation under open access property regimes of a number of land resources on which agriculture is dependent. Probably the best example of this is dryland and irrigation salinity. The 'resource' in this case is the freeboard between the top of the watertable and the ground surface. This freeboard is a renewable resource that is 'consumed' by accessions that raise the watertable and is 'produced' or 'replaced' by measures to reduce accessions or lower watertables. This resource is exploited under what is essentially an open access regime, insofar as the rights of land ownership confer a presumptive entitlement to consume the resource, and any one landowner under present institutional arrangements has no means to prevent other landowners from raising the watertable under their land.

Other resources that could be considered to be exploited under open access regimes include regional biodiversity and the assimilative capacity of rivers for nutrient inputs from agricultural land uses. Soil resources on private land are also a type of open access regime, but across time rather than space. Future owners are unable to prevent the present owner from exhausting the resource to their detriment.

The problem facing the state is that the transition to a resource governance role that might change these open access regimes to either private resource right or common property regimes cannot ignore existing institutional arrangements for providing individuals with access to land

resources, viz. private property rights in land. This problem has its origins in the dual nature of agricultural land as both a commodity that is traded in markets, and as a part of a set of interlocking ecosystem functions that extend without regard to the boundaries of ownership. Ideally, as each new source of externalities emerges, the state needs to decide whether the presumptive entitlement responsible for these externalities will be best constrained under a private resource right or a common property regime. One example of the transfer of one of the entitlements of land ownership to a separate form of private resource right is the recent trend in many irrigation areas to separate irrigation licences from land ownership and allow them to be traded as commodities. While this example shows that some institutional change is possible, the collection of presumptive entitlements inherent in agricultural landownership have generally been resistant to modification by the state when it attempts to move to a resource governance role. This is a consequence of the ease with which these entitlements can be defended in policy arenas. The adept agri-politician can move between the moral logic available in representing farming as a way of life, and the economic rationalist logic available in representing farming as a business. With the former framing, calls for restrictions on the rights of landownership can be countered with appeals to:

- values held in universal esteem, like independence and the moral rectitude of an agrarian yeomanry; and,
- historical precedent and grounds of inter-temporal equity.

With the latter framing, restrictions on land use can be countered as reducing competitiveness by imposing additional costs or reducing the freedom to make production decisions to meet the requirements of markets.

Whereas Bromley and Hodge (1990) argued that this political strength led to presumptive entitlements in the USA farm policy arena such as subsidies on production, I suggest that in Australia the corresponding presumptive entitlement has been exemption from either regulation of land use, or enforcement of regulations where statute law has been introduced. The reluctance to enforce those regulations that were available to State agencies with a responsibility for land resources has been well documented in Bradsen's (1988) review of the soil conservation legislation in Australia, and was also noted more recently by Burton *et al.* (1994). The reluctance to regulate was clear in the parliamentary debates that led to the establishment of soil conservation legislation in the 1940s and 1950s. The example below is from the debate on the Soil Conservation Bill in Queensland in 1951:

The problem of soil erosion must be handled very carefully, and we must not get the farmers' back up by talk of compulsion. We can achieve much more by educating the farmers. I feel sure the Minister will get the wholehearted co-operation of the people in country areas, and that co-operation will be gained more easily by educating the farmers along the lines desired, than by compulsion (Queensland Legislative Assembly, 5 September 1951: 244).

The source of the presumptive entitlement of landowners to freedom from regulation of land use, or enforcement of existing legislation, may lie with the combination of several phenomena. Firstly, the social values exemplified in the farming way of life are held in considerable esteem by the population as a whole, as was well demonstrated by the success of the Farmhand Appeal and the fodder drops that took place during the recent droughts. Secondly, media framing (Hannigan,

1995: 65) enables instances of regulatory action to be reported in such a way as to make appeals to these values carry considerable rhetorical force. For example, it would be a brave (or politically reckless) government minister who did not instruct their departmental staff to seek ways of pulling back from enforcement in the face of news headlines such as: 'Fifth generation grazing family forced off the land by heavy-handed clearing regulations'.

From the institutional perspective, then, chronic land degradation on agricultural land is a symptom of the difficulties that the state as resource governor faces in eliminating open access regimes by modifying the presumptive entitlements inherent in the existing system of private land ownership. The institutional situation that now prevails is one of inadequacy. The institutions we have at our disposal – private property rights in land and state agencies administering legislation premised on persuasion and education – is inadequate to the task of resource governance required as resources become scarcer and externalities proliferate.

Natural resource management: Professional practice and state agencies

This institutional inadequacy is not, of course, limited to Australia. Bromley's work has mainly drawn on the situation in the USA and it is possible that similar circumstances pertain in Canada. In the UK, the state seems to have been more prepared to restrict the rights of rural landownership, having appropriated the right to undertake urban or commercial development in the period following World War II (Bell, 1990), and more recently, having purchased with compensatory payments the right of landowners in nitrate sensitive areas to increase accessions of nitrates to groundwater through intensive cropping (Hanley, 1990).

There is some evidence that institutional inadequacy in resource governance is being reflected in changes that have occurred in the professional discipline of natural resource management and in the practice of this profession in the resource management agencies in Australia. The profession had its origins in an aggregation of disciplines such as soil conservation, forest management, wildlife management, fisheries management and watershed management that arose in the 1950s and 1960s. Kenneth Watt, writing in 1968 in one of the early texts on natural resource management, saw all resource management as being linked by a common scientific discipline (ecology), a common problem (optimisation), and a common set of tools (scientific sampling, statistical and mathematical analysis, operations research and systems research). Environmental problems would be readily solved by multi-disciplinary teams armed with the new techniques from operations research and systems analysis. These teams would maximise the 'goods' and minimise the 'bads'. This view of resource management also held sway in Australia, and was exemplified by the book on resource management by Jack Beale (1980), a Minister for Conservation in New South Wales.

By the mid-1980s, the technological and biophysical emphases of resource management was being questioned. Carl Walters, writing in 1986 in a major text on resource management, identified a flaw in the development of resource management that he regarded as fundamental. This was the concentration primarily on biophysical and technical harvesting issues, with little consideration given to the socioeconomic aspects that were beyond the control of resource managers acting on

behalf of the state. In a similar vein, but different resource domain, Easter *et al.* (1986) pointed out that the practices required to reduce soil erosion on agricultural catchments in industrialised nations had met with limited success, partly because of the focus of state agency resource managers on biophysical aspects such as slope, soil texture, and vegetative cover, with little regard for socioeconomic aspects.

This growing dissatisfaction with progress in reducing resource degradation and the realisation of the importance of social and institutional aspects appears also to have been echoed in the land resource management agencies, which are major employers of natural resource management professionals in Australia. In the 1950s and 1960s, the activities of the state agencies had a strong biophysical focus, with an emphasis on monitoring, research, planning and education (see for example Thompson, 1981). Enforcement of what regulative measures were available from the legislation was rarely resorted to (Bradsen, 1988). A fundamental underpinning of the state agency approach has been to devise and demonstrate technical innovations in farming that achieved environmental objectives without reducing profitability. Innovations that achieved environmental objectives with similar levels of profitability could be promoted by appeals to the morality of land owners not imposing environmental externalities on others. Innovations that were more profitable would have the advantage of enabling appeals to economic rationality as well. It is only through these approaches that the state can increase adoption of agricultural practices that meet environmental objectives without confronting the power of private property rights in land. At various times, a degree of confrontation has been attempted, as in the case of SEPP46 in New South Wales, a planning instrument that requires landholders to seek State agency approval before clearing remnant native vegetation. In such cases, however, the ensuing moral outrage from land owners has usually brought about a hasty watering down of the extent of regulation.

In the 1970s and 1980s, the findings of the Collaborative Study (Department of Environment, Housing and Community Development, 1978) of worsening land degradation and the emergence of visually newsworthy problems – such as dryland salinity – placed considerable pressure on the State agencies to achieve their legislated functions. A number of new State agency approaches emerged in the 1980s, including Landcare and integrated catchment management. These new approaches could be seen as changes of direction – forced by the inability of traditional extension to prevail over the rights of land owners to use their land as they saw fit. The new approaches could also be seen as a response to the increasing prevalence of externality problems as the intensiveness of resource use increased, and to the concomitant need for coordinated action by groups of landowners.

The symptoms of institutional inadequacy may, however, extend beyond the professional re-evaluations and State agency approaches and changes described above. From an institutional perspective, the activities of the State agencies amount to bargaining away from land owners their presumptive entitlements to use their land in ways that may impose externalities on current or future generations. As mentioned above, an approach that has been used extensively is to research and promote sustainable agricultural practices that are as equally profitable as, or more profitable than, the practices they replace. Another approach is to offer financial incentives in the form of concessionary plant hire, subsidised information services or tax breaks. Such approaches have been more recently supplemented with the Landcare approach that emphasises collective action for the common good of landowner groups defined by catchments or shared degradation problems. In this case, land owners receive the approbation of their peers and

assurances from the state as to the ultimate profitability of adopting Landcare practices, in return for their bearing the additional costs of these practices and foregoing the presumptive entitlements that were causing the degradation problem.

This suggests that the professional practice of land resource management in the State agencies will require negotiation and communication skills in addition to the appropriate technical skills. This is supported by the findings of studies by Reeve *et al.* (1988), Martin (1991) and Wilkinson and Barr (1993), all of whom point to the importance of these skills for competent professional practice in land resource management. Unfortunately, the first of the three studies listed above, and a study by DEET and DPIE (1991), found that many graduates of land resource management courses felt that these skills had been under-emphasised in teaching, an educational shortcoming that could be due to either the lack of recognition in universities of the negotiating aspects of land resource management or, as discussed by Reeve *et al.* (1988), the difficulties that universities have in teaching these skills.

Property and discourse in Landcare

If it is accepted that the resistance of private property rights in land to modification by the state is an obstacle to the state assuming a resource governance role, then it is worth examining whether the new participative and integrative approaches being pursued by the State agencies are likely to overcome or exacerbate this obstacle. At first sight, it might seem that participation and integration are essential aspects of changing the open access regimes under which many rural resources are degraded to common property regimes where those affected by exploitation of the resource are able to participate in integrated management of the resource. However, Ostrom's (1990) study of common property regimes where resources have been managed sustainably for decades or centuries would suggest that the current situation in Australia with Landcare and integrative catchment-based planning activities falls far short of the ideal. Ostrom found that sustainable common property regimes had the following characteristics:

- individuals who have rights to access the resource have clearly defined rights, and the boundaries of the resource are clearly defined;
- there is congruence between the rules for access to the resource and the dynamics of the local economy;
- most individuals affected by the rules for access to the resource are able to participate in collective decisions about setting the rules;
- those who monitor compliance to the rules are those who use the resource or are accountable to those who use the resource;
- there is a set of sanctions applied to those who transgress the rules, graduated according to the seriousness of the offence;
- resource users and officials have rapid access to low cost conflict resolution mechanisms;

- the rights of resource users to devise their own institutions are not challenged by external government authorities; and,
- where resources are part of large systems, appropriation, monitoring, enforcement, conflict resolution and governance activities are organised in a nested hierarchy where the scale of governance is matched to the scale of the resource and associated externalities.

Comparison of these requirements for sustainable resource governance with the current governance arrangements for Australian rural resources – such as regional biodiversity, riverine nutrient assimilation capacity, or the freeboard between the watertable and ground surface – would suggest that very few of the requirements are met, Landcare and integrated catchment management notwithstanding. This assessment is consistent with the view of Martin and Woodhill (1995) that the rate of progress in integrative catchment planning is insufficient to bring about any significant broad scale reduction in land degradation.

While Landcare and integrated catchment management approaches may involve the participation and integration implicit in the requirements listed by Ostrom (1990), these approaches also tend to be rendered ineffective by the power of private property rights in land. This is well illustrated by events that have hindered the emergence of integrated flood plain management on the Liverpool Plains. As described above, in the case of the Gunnedah Shire Council vs. Hansen, common law supported the rights of the land owner to re-direct flood flows regardless of the effects on other landowners. Burton *et al.* (1994) also noted that catchment planning in one area failed because of the refusal of one land owner, whose land had a critical role in flood flows, to be involved in the process. This land owner was exercising an individual right to determine land use independent of collective decisions being made in the region. In addition, the organisational culture in the relevant State agencies of avoiding enforcement prevented the application of sanctions that might have gained cooperation (see also Ayres & Braithwaite, 1992).

However, it is not only the power of private property rights in land that reduces the potential of participative and integrative approaches to achieve a transition to more effective resource governance. It could also be argued that the framings and language of Landcare discourses distract attention from the fundamental tensions between the values of property and individualism that are reproduced by rural culture, and the need for collective action and constraint on unbridled individualist property ownership that is essential for resource governance under common property regimes.

The way in which the term ‘stakeholder’ appears to be applied indiscriminately – including both those who may stand to gain or lose by supporting or impeding collective action on catchments – glosses over the possibility, as was the case on the Liverpool Plains, that some land owners may have an interest in avoiding movement away from the status quo. When conflicts are acknowledged, it is often insisted that ‘win-win solutions’ (such as the environmentally desirable and equally profitable practices referred to above) will be found and that no alteration to the institutional status quo will be needed. This distracts attention from the institutional innovation that may be necessary to enable winners to compensate losers when it is ultimately found that only win-lose solutions exist. The view that communities ‘need to own the problem’ sometimes overlooks the fact that the interests of individual communities may be in direct conflict with the

broader public interests pursued by the state. For example, the Auditor General of Victoria (1993) found that community salinity planning in the Kerang region avoided the difficult issue of land retirement, a course of action that was clearly in the State's interest, but not in the interests of those individuals whose land is retired, or the local community which may suffer as a result of a declining population base, and from the stigma associated with the publicity from the exercise.

In addition, the zeal of State agencies to generate 'ownership by the whole community' of land degradation problems, avoids the important question of the extent to which our understandings of land degradation 'problems' and the 'public interest' have been influenced by the rise of modern environmentalism. In other words, rural landholders – whose right to use their land as they saw fit was once considered to be in the public interest of populating Australia with an agrarian yeomanry – may not recognise the externalities of production as a 'problem'. Others, however, may view things rather differently. Environmental impacts of agriculture that were once seen as trifling nuisances are now seen as environmental disasters that warrant intervention by the state (a rural equivalent of the industrial chimney stacks that once were seen as symbolic of progress and are now seen as sources of pollution). Similarly, asking urban water users to 'own' water quality problems caused by the intensification of agriculture, and become involved in Landcare efforts in riparian zones on agricultural land, glosses over the question of why the urban water users' right to clean water has not been protected by the state in the face of land owners' presumptive entitlements to increase nutrient inputs to streams.

Furthermore, some aspects of this glossing over of fundamental tensions between participatory and individualist ideals, between public and private interest, and between rights of land use and rights to environmental quality, may be of questionable morality. In the state agency promotion of the Landcare ethic and associated practices that increase costs to landholders – people who are known to be notorious belt-tighteners and who often have little hope of alternative employment (Rolley & Humphreys, 1993) – there seems to be little fairness in attempts to achieve public interest environmental objectives at the expense of reducing the incomes and quality of life of farmers and their families.

A consideration that arises from the arguments presented here is whether the language of Landcare, even though it glosses over fundamental tensions, may actually be necessary to the continued functioning of state land management agencies and to further achievements in reducing land degradation. Just as it has been generally regarded that regulation of land use would be counterproductive, perhaps also explicit recognition that the state wished landholders to forgo some their presumed rights of land ownership – presumed at least when they acquired their land – would also be counterproductive. Certainly, this recognition could open the compensation flood gates, and given the chaotic state of the law in Australia with respect to compensation for restrictions on land use (Bonyhady, 1992), the time delays and legal costs could be prohibitive. It may be the case, then, that the way Landcare is framed in current Landcare discourses is the only way to enable land owners to participate in a spirit of good will and cooperation (see also Lockie, 1997). Unfortunately, this framing may also gloss over, or exclude entirely, the very issues that have to be resolved in the development by the state of enduring systems of resource governance. This inherent self-limiting characteristic may yet be another unintended consequence of Landcare to add to those that have already been described by Martin and Woodhill (1995).

Conclusion

There is a duality in the nature of agricultural land that needs careful consideration if Australia is to reverse the chronic land degradation that has accompanied two centuries of European resource utilisation. On the one hand, agricultural land is treated as a commodity to which private property rights pertain. This is the institutional arrangement under which the agricultural development of Australia has proceeded. But, on the other hand, agricultural land also comprises an interlocking set of ecosystem functions that extend beyond the boundaries of any one owner. As agricultural development has proceeded, and land use has intensified, the ability of these functions to provide a buffer that prevents the actions of one land owner impacting on another has been reduced. Instead, ecosystem functions are taking on the role of transmitters of harmful externalities between land owners. While ecosystems were performing as effective buffers, private property rights in land were arguably an adequate institutional arrangement for giving some individuals in our society access to land. As ecosystem functions become transmitters of externalities, hitherto unanticipated resource issues emerge that span the agricultural land of many owners. Such resources include regional biodiversity, the nutrient assimilative capacity of streams, and the space between saline water tables and the ground surface. Under the system of private property rights in agricultural land, these resources are exploited as open access regimes and frequently degraded.

Because resource degradation problems span the land of many owners, the need for coordinated collective action emerges – a role often fulfilled or facilitated by the state. To fulfil this role requires that the state change from its traditional role in rural Australia as a provider of infrastructure, and a promoter of resource development, to a role as resource governor, allocating scarce resources where markets fail to do so satisfactorily, and mediating in resource conflicts caused by the externalities of agriculture. An inference that could be drawn from the re-assessments in the 1970s and 1980s of the resource management approach in general, and of the effectiveness of the State agencies in reducing the incidence of land degradation, is that the state is unlikely to achieve effective resource governance with its traditional approach of research and extension of agricultural practices that meet environmental objectives while not reducing profitability. Where resource degradation is caused by open access regimes, moral suasion and voluntary compliance are unlikely to achieve a system of resource governance with the characteristics that Ostrom has shown to be necessary for sustainability. The constraints, self imposed or otherwise, on individual resource users that are essential to sustainable resource governance can only be achieved by restrictions on the presumptive entitlements of land ownership. As Bromley has argued, these restrictions are difficult for the state to obtain, given the political strength and ideology of private property rights in land. The situation that now pertains is one of institutional inadequacy with rural resources exploited under open access regimes, and little progress towards either private resource right regimes or common property regimes. Continuing land degradation problems, the disenchantment in the resource management profession with biophysical approaches, the change in the approach of State agencies from research and extension to participation and integration, and the need for negotiating skills in the State agencies are, at least in part, manifestations of this institutional inadequacy.

While the participative and integrative emphasis of Landcare would appear to be a step in the right direction towards the coordinated collective action necessary for common property regimes, there is some evidence that progress is again being hindered by the power of private property

rights in land. In addition, the present nature of Landcare discourse, while perhaps being necessary to obtain the participation of land owners in a spirit of good will and cooperation, may well be submerging the very issues that need to be worked through if any progress is to be made in eliminating open access regimes and arriving at sustainable systems of resource governance. The current institutional inadequacy in rural resource management and on-going land degradation are tributes to the power of the ideology of private property rights in land which delays or prevents the institutional innovation needed for appropriate sustainable resource governance. But regardless of the appeal of this ideal, sustainable systems of resource governance require some restrictions on the unfettered rights of land ownership, be they self or otherwise imposed. Whatever institutional reforms might bring about these restrictions, it is likely that the language and framings of Landcare discourse will continue to play an important role the nature and pace of reform.

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8

Western Australia's Agriculture and Pastoralism in Cultural and Ecological Perspective.

Henry Schapper

Western Australia's agriculture and pastoralism may be viewed as results of interaction between systems of culture and ecology. One feature of this is summarised in two empirical observations that are the basis of this essay:

1. 'At least 1.63 million hectares (9%) of once productive land in the agricultural regions has become salt affected ... and is likely to rise to about 2.9 million ha. (16%) of the cleared area by 2010' (*Salinity*, 1995: 4).
2. '[Only] 40 percent of the rangelands [are] in good condition ... 34 percent in fair condition [and] 26 percent in poor condition' (Wilcox & Cunningham, 1994: 100). These conditions refer directly to natural plant species diversity, not necessarily to grazing productivity.

These observations are of fundamental importance to the people of WA, especially to the managers of agricultural soils and native pastoral vegetation. Consequently, they are the source of political and bureaucratic concerns for the ecological sustainability and future economic viability of the State's agricultural and pastoral industries. These concerns have been expressed in recent reports of WA parliamentary and other official committees of enquiry and task forces named below under References. Their perspective, analysis and recommendations seem largely to emerge from a conceptual framework that assumes farmers and graziers can be educated in the style of traditional agricultural extension of Australian State Departments of Agriculture, and induced by government subsidies to shift from exploitative to sustainable management.

The major inspirational background of this essay comes from a conjuncture of ideas: coevolutionary development (Norgaard, 1984), Australasian ecological history (Flannery, 1994), the influence of institutional arrangements (farm property ownership, for example) on public policy (Bromley, 1989), and safe minimal standards (Ciriacy-Wantrup, 1952). From this background the notions arise that farms and stations essentially are micro-ecological units of business; that use and care of soil and vegetative productivity is a function of farm and station ownership; and that responsibility for the continued sustainability of this productivity should be a legislated duty of farm and station ownership. Thus, the thrust of this essay is to propose change of the rules of farm property ownership, not to focus on new techniques of production.

A cultural and ecological perspective

Less than 200 years ago, the western third of Australia – its land, inhabitants, minerals, forests and other vegetation and coastal fish – was annexed. Ownership of this part of the planet came, in effect, to be vested by alien invaders in the British Crown, which soon was to become the symbol for colonial and State government ownership. These governments disposed of their newly found resources to private citizens and companies in the form of legal title to own and farm some of the land, and licence to graze, mine, fish, and log.

Initially, all natural resources and wildlife were managed by the new settlers as stock-resources. Of course, minerals, including coal, oil and natural gas, still are, and will continue to be managed thus, until they are exhausted or there is no reason for their further extraction. The other resources increasingly are being recognised as potentially capable of sustainable management as naturally renewable (flow) resources.

However, conflicts, particularly over flow-resource use, and conservation of wildlife, became common (for example, see Calver *et al.*, 1996). They exist between various government departments over wildlife conservation and rates of flow-resource use. Society and government often disagree over the same issues. And conflict exists between those members of society not wanting its flow resources to be managed as stock resources and the many personal and corporate legal entities who seem to act as if their legal ownership of naturally renewable resources is a right to plunder them for as long as is financially profitable.

That society's technological potential will be able to rectify the consequences of ecological disruption whenever necessity demands seems to be a widely held hypothesis concerning flow-resources management. This hypothesis may rationally justify desertification, salinity and erosion, though rectification can become financially impracticable and ecologically impossible. Species extinction, of course, is a case in point.

Prominent in WA's inventory of ecological events since white settlement must be the plundering of natural resources by the alien culture. (The previous Aboriginal culture, too, modified the ecological system, largely with the firestick. 'Through its judicious use, they [Aborigines] wrested their daily meat and bread from an otherwise unforgiving land, they fought their enemies and expelled their pests' [Flannery, 1994: 217]. But this could hardly be called plundering.) The alien culture imported domesticated livestock, capital, technology and labour. The integrating principle of this culture motivated society and dominated much of its environment, as it still does. Economic profits from domestic and international markets are a major personal motive and social canon of success. Moreover, the benefits and costs of domination by this motivation continue to be distributed unequally and inequitably throughout the WA population.

Ecological systems of coastal seas, soils, spinifex, mallee, mulga, saltbush and shrub-lands, forests and geological formations have been modified, and the natural sustainability of some of them threatened and eroded, and others destroyed by processes that we imposed. We have used these systems to generate GDP, build social and economic infrastructures, increase population, develop high mass-consumption, waste and pollution, and create endemic unemployment, and increase leisure activities. Almost all this occurred during the last century of Australia's 50,000 to 60,000 years of human occupation.

WA's tussock, mulga, saltbush and shrub ecological systems are basic to the State's pastoral grazing activities. Settled pastoralism with foreign domestic livestock converted the annual growth of edible plants that evolved during thousands of years into meat and wool for cash. It required techniques, capital, resources and markets of which the indigenous inhabitants knew nothing. For 50,000 to 60,000 years, human culture in what was to become the pastoral country or rangelands was Aboriginal. This meant low population density, tribal organisation, personal and communal subsistence based on hunting and gathering, minimal labour specialisation, and slow interaction between culture and natural environment.

Aboriginal semi-nomadic culture and the natural environment coevolved with minimal disturbance of one on the other. Despite having been influenced, and even dominated on occasion by perverse climatic influences of El Niño oscillations (Flannery, 1994: 81-84), and Aboriginal and naturally lit bushfires, the results of this coevolution, though profound, were gradual in comparison with those of the last 150 years, which have been rapid and resource-destructive. Adaptive interaction between Aboriginal culture and ecological systems was at possibly the lowest level of personal consumption consistent with local self-sufficient subsistence at perhaps the highest possible human population compatible with ecological sustainability.

Our recent alien culture, by contrast, has dominated various ecological systems so that sometimes interaction between culture and ecology has virtually ceased. Abandonment (often from intensive use, if not always from possession) enforced by accelerated desertification in pastoral country and salinity in agricultural regions is prime evidence. White pastoral settlement, in little more than a century, has set new ecological forces in motion. The alien culture bred and multiplied sheep and cattle to gather and process the naturally growing plant material. These livestock competed with the indigenous animal wildlife. They fossicked for edible native plant growth, ingested, processed and transformed it into wool and flesh. Much of this new cultural impact between the white settlers' livestock-based economy and the ecological system, though highly productive in the short term, was unsustainable. In one century many millions of sheep and cattle grazed. Each animal, driven by hunger, with its natural mower to cut and mechanism to grind the natural vegetation, and a series of fermentation vats mounted on a four-footed hard cloven-hooved transport system, transformed native plants into marketable raw materials. The natural ecology was massively disturbed. Gathering the edible plant material, often to the extinction of individual species, simultaneously with new hard-hoof cultivation, inevitably opened the soils to the wind and water agents of erosion that are ever-present in most land systems. Additional to this new interaction was destruction caused by imported animals, particularly goats, donkeys, horses and rabbits which became feral. That they may be out of control exacerbates their cultural impact.

The natural ecological system that presently is exploited as 'rangeland' amounts to about 38 per cent of WA, yielding almost four per cent of gross value of WA agricultural production. 'In 1993, the Pastoral Wool Industry Task Force observed that virtually no wool pastoral properties in WA are able to generate a positive cash income at current wool prices (1993 prices) and 30% to 60% of wool pastoral businesses will have to leave the industry' (*Sustainable Development*, 1996: 4). As may be expected, one result is that government now spends more money on services to the pastoral industry than it collects as rent (Jennings, 1979).

The rangeland system is characterised by regular climatic wets and dries interrupted, particularly in the drier regions, by unpredictably-occurring droughts and floods of unpredictable duration that interact with low natural soil and plant productivity. Climate and soils are the basis of WA's rangeland environment and its incompatibility with western-style settlement and living. Apart from the widely scattered stations (ranches), settlements are confined to small, distance-dominated centres of natural resource exploitation linked to foreign commodity markets for minerals and a little production from irrigated soils, and to small centres of government service agencies and

ports. Despite what settlement there is, spatial vastness devoid of human life dominates the pastoral landscape and its sparse animal population.

Despite these features of the rangelands system, it has been financially profitable to lessees. But ecologically, many lessees have managed its natural productivity unsustainably. Government, as their landlord and administrator of the pastoral leases by which grazing rights are allocated, has, in effect, presided over productivity degradation of much of the publicly-owned pastoral country. Historically, the lessees, in effect, determined the management of the pastoral ecosystems. The government urged settlement and development. Even now, the government tends to legitimise the lessees' management for increased economic production rather than supervise it for sustainable productivity.

Encouragement of private investment in economic development has always been a high government priority. When parliaments in WA were dominated by pastoralists, the ethos of economic development favoured what, with hindsight, may be realistically perceived as plundering the rangelands. Even so, the grazing business of some lessees is financially operational for the moment only because they do not provide adequately for business asset depreciation, superannuation and children's education, for example.

Government statistics suggest that a century of ecological disturbance of the rangelands through domesticated livestock has maintained only '40 percent of the rangelands in good condition', '34 percent in fair condition' and '26 percent in poor condition', including some completely destroyed (Wilcox & Cunningham, 1994: 100). 'About 20 per cent is rated as poor condition, ie., lacking vegetative cover' by the Environmental Protection Authority in its Annual Report (1994-1995: 11).

Can this kind of development continue? Ultimately, of course, degradation of rangeland vegetation and soils could proceed to a point of unrecoverability, namely, desertification. But before then, financial unprofitability probably will encourage, as it has in the past, amalgamations of pastoral businesses. Through amalgamations, the effects of falling productivity and profitability of individual pastoral businesses can be offset by an increased volume of sales from bigger (but fewer) businesses. This is a common business strategy in agriculture, commerce and industry. In pastoralism and agriculture, amalgamation is made initially in response to threats of financial loss, not to ecological unsustainability. Often, too, temporary ecological exploitation (involving soil erosion and vegetative depletion) is the managerial strategy to recover from an adverse run of seasons or spell of adverse terms of trade. (Adjustments through business amalgamation in commerce and industry, in contrast, typically involve increased unemployment and increased labour effort of the employed.)

WA's wood, mallee and heath lands characterise the ecological systems from which agricultural settlements based on broadacre cropping developed. The first requirement of arable farmers was to clear land of its natural vegetation. They soon found that financial viability required an annual cost and revenue regime that motivated them to increase farm size by clearing more land, and to make and adopt technological innovations whose financial outcome would result in net income roughly equal to those of people in comparable non-farm occupations.

The enterprise of farmers with their technical innovations has certainly been spectacular in its ecological and economic impacts. The alien agricultural culture raised the productivity of many

soils, particularly through phosphate, trace elements, legumes and weed control. It also resulted in high volumes of grains, wools and meats produced and exported. Its high economic efficiency by the standards of world markets has put it in the forefront of international economic competitiveness where it still is. These developments involved on-farm adoption of specialised mechanisation and techniques of clearing, cultivating, seeding and harvesting activities; fertiliser technology; plants imported and locally bred; legume-based rotations; weed and pest control technology; and integration of livestock husbandry with cropping.

Interaction between the natural ecosystems and modern arable farming was, and still is, ecologically disruptive. Nevertheless, it pays off extremely handsomely to many individual farm owners. However, this agricultural culture has degraded some soils by erosion, mechanical compaction, acidification, biological exhaustion and water repellence. But next to erosion, the most profound negative outcome of interaction between this agricultural culture and relevant ecological system is salinity of soils and streams.

Clearing the natural vegetation and substituting it with bare fallow and annual crops and pastures has disrupted the ecological system's groundwater levels. The roots of the original mallee and shrub vegetation deeply penetrate the soil and subsoil to keep groundwater and dissolved salts below the reach of roots of annual crop and pasture plants. Most larger plants of the natural vegetation transpire groundwater into the atmosphere. When clearing ends this transpiration, the groundwater, renewed by annual rainfall, gradually rises, bringing salts to the soil surface with which few alien annual plants can cope. This salinisation of agricultural soils now has government, farmers and many other citizens calling for urgent preventive and remedial action. Most recent estimates of WA's salinity problem are that:

at least 1.63 million ha. (9%) of once productive land in the agricultural region ... has become salt-affected. The prognosis is that [it] is likely to rise to about 2.9 million ha. (16.4% of the cleared area) by 2010; 80% (by length) of the region's rivers and streams are seriously degraded. Salinity levels of the affected large rivers continue to increase; less than half (48%) of the potential divertible surface water resources of the region are still fresh; more than a third (36%) are ... no longer potable. Many rural towns ... are threatened with or are experiencing damage ... from rising saline watertables ... many [dams, soaks and bores] have been abandoned ... The agricultural region of WA has lost more species of plants and animals than any other comparable region in the world. It is projected that up to 50% of remnant vegetation on private land ... will be lost to salinity, and hence species loss will continue (*Salinity*, 1995: 4).

The question is again asked, can this kind of development continue? Ultimately, of course, productivity depletion and degradation of arable agricultural soils could proceed to virtual unrecoverability, as with salinity for example. But before then, as with the rangelands, prospects of lower soil productivity and higher financial losses will encourage further amalgamations of agricultural farm businesses. This adjustment, which has proceeded for many decades, though mainly in response to economic pressures (summarised as the cost-price squeeze, for example), has not prevented all agricultural soil degradation. Nor are further amalgamations a guarantee of ecological adjustment in the future.

The cultural and ecological perspectives of WA's arable agriculture and pastoralism can be visualised figuratively as probable trends in productivity per hectare before and during white settlement of agricultural soils and pastoral vegetation.

(FIGURE 1 ABOUT HERE)

The future prosperity of pastoralism and agriculture clearly requires new relationships between our cultural and ecological systems: specifically, between economic viability and sustainable physical productivity. Almost certainly, such relationships require future policy action to be different from reviving land conservation district committees (LCDCs), and from implementing the remedies that so often are urged, particularly by farmers, to become government policy. The latest batch of farmers' recommendations include regional assessments, educational processes, models of best-practice for local governments, coordinated and consistent government delivery of Landcare services, technical surveys in agricultural areas of hydrology and salinity, increased government support for innovative research into sustainable farming systems, increased government funds for water management in the landscape, more and better trained Landcare development officers, increased government funds to each LCDC, increased government funds for remnant vegetation protection, increased funding through federal government taxation deductions, increased government funds for farm water, and increased government funds for Landcare education in schools (Landcare Review Committee, 1995: 1-7). A new proposal to protect broadacre agriculture from salinity, independent of the foregoing recommendations, is to channel the surface salt water from the agricultural landscape to mining activities in the WA goldfields (desert) region.

These recommendations are plausible. But they would probably result in increased administration and services rather than ending native vegetation degradation and soil salinity, for example. Inadvertently, too, the recommendations trivialise the situation they are intended to remedy. This may be inferred by comparing them with the following analysis of the micro-ecological system that every farmer and grazier manages.

Farm and station as a micro-ecological unit of business management

Conceptually, each profit-maximising farm and station manager is confronted with having to choose a level of production somewhere between its estimated highest possible per hectare yield and an estimated safe maximum level of depletion of soil productivity and natural grazing vegetation respectively.

In the rangelands, inputs to raise the actual level of productivity of natural vegetation to some higher level are few and limited: more fencing and water points, reduced stocking rates, better livestock husbandry and feral animal control, and more frequent burning-off. But if stocking rates are such that domestic and feral livestock consume more than the annual growth of the natural edible plants, the vegetation will deteriorate and the rangelands ultimately become desert or inedible woody shrub lands as already has occurred, particularly in arid pastoral regions.

On arable agricultural soils after clearing, the profit-maximising farm manager is confronted with the same initial basic choice. But he or she has a relatively wide range of inputs by which to maintain and raise per hectare productivity above its natural level and to restore productivity after a cropping sequence. Even so, financial costs of producing will ultimately constrain affordable yields to less than their technical maximum, though often not before the soil has become vulnerable to wind and water erosion and salinity.

For both pastoralism and arable agriculture, conceptually, there exists a level of depletion of per hectare productivity from stocking, clearing and cropping beyond which productivity may be recovered only at great expense or not at all. Thus, sustainability and profitability together require every manager to produce within the recoverability zone of productivity of his or her natural resources. Even then, 30 to 40 years after extensive clearing of arable soils, soil and stream salinity may emerge without subsequent stocking and cropping, and may require many more years to respond to remediation.

Where, it may be asked, is the margin between the recoverability and unrecoverability zones of productivity? It can be known with certainty only when it has been reached. Although not precisely predictable, it is real enough. Therefore, prudent management suggests that farm and station managers conceptualise (as many probably do) an uncertainty zone of productivity for each distinctly different part of their property. This zone would have as its lower boundary the margin between recoverability and unrecoverability. Its upper boundary would be an estimated safe maximum level of depletion of productivity below which depletion is likely to be physically unrecoverable, financially disastrous, ecologically destructive, and socially reprehensible. This conceptualisation of land-use productivity zones is shown in Figure 2.

(Figure 2 about here)

In Figure 2, per hectare productivity of Manager #1 is shown to have fluctuated from year to year, as is normal, but always above the safe maximum level of depletion. Per hectare production under Manager #2 also fluctuated annually. But sometimes it fell into the uncertainty zone, and some of the property has been eaten-out or over-burned and desertified and its productivity is in the unrecoverability zone. Parts of other properties are cropped-out and eroded. And many others, having been over-cleared, are partly salinised and perhaps beyond recovery

Rights of ownership and management

The initial and fundamental requirement for government's agricultural and pastoral policy is to balance maximum individual private good and maximum common public good for and from the State's farms and stations. This means that production processes that degrade presently occupied WA rangeland vegetation and arable agricultural soils should cease and henceforth should be managed to be productively sustainable in perpetuity. The implied reform of production processes is practical, and to ensure it is assumed to be one of government's fundamental responsibilities.

Absolute sovereignty over all land and its natural resources in WA resides in its citizens collectively and their government, not in the freehold rights of private ownership, nor, probably, in native

title (Butt & Eagleson, 1993). This may not be in everyone's understanding of ownership. Natural as it may seem, ownership of land, for example, legally is, 'not to own but have right' (Fitzgerald, 1966: 251). In English jurisprudence, ownership 'consists in a complex of rights' (p. 246). They include the right to possess, to manage and control, to profit from, and to transfer. But 'ownership is a right of general use, not that of absolute or unlimited use' (p. 413). Thus, freehold tenure of land property derives from society as the state. And although this tenure implies exclusive use by the owner, his or her managerial autonomy is conditional on constraints, if any, placed on it by the law.

Land and natural resources are basic to everyone's existence as sources of food and water, clothing, building materials, minerals, place and environment. Access of society to these requirements takes precedence over any personal or corporate rights of natural resource ownership. Common law rights of freehold tenure (and possibly of native title) to exclude, to manage, to produce, to profit from, and to transfer to another person, ultimately are conditional on societal approval.

Society has a fundamental duty to ensure that freeholders manage soils and lessees manage the rangelands vegetation in an ecologically sustainable way. This is because sustainability is the ultimate physical basis of continuing survival and economic viability. For society to be content with ecologically unsustainable management of these resources is for it to condone a threat to its own survival. Society's responsibility and duty to require its own and private management of agricultural land and natural renewable resources to be ecologically and sustainably productive has precedence over every individual person's and corporation's agricultural and pastoral land ownership rights. WA's current and potential soil salinity crisis warrants government seriously to consider new land ownership rights.

Although government has not caused the ecological damage that private owners and lessees tolerate or have done to the property they manage, society shares responsibility for it because it tolerated such damage. This is not to imply that government should manage society's farms and stations. Rather, it suggests government should set and enforce standards and conditions of use of rangeland vegetation and arable agricultural soils to ensure their ecologically sustainable productivity. This is government's fundamental involvement concerning society's natural renewable resources. Sustainability requires their management always to be within their relevant recoverability zone (Figure 2).

WA has not enforced ecologically sustainable productivity on the management of its publicly-owned rangelands. Whereas the land-use managers – whether of pastoral leases or agricultural freehold – are culpable for the resource degradation they tolerate or have caused, society is culpable for allowing those who have over-cropped, over-grazed, over-cleared and are continuing to do so. The common public good seems to have been neglected by government in favour of private landed property ownership. The plea of government ignorance could once have been sustained, but certainly not at any time during this last quarter century at least.

What is to be done

The approach here to this question is first to specify the conditions that would maximise the individual private manager's good together with the common public good at least cost. Then appropriate measures to be implemented can be specified. The two conditions are:

- 1 Society requires, for its good and the good of the individual private farm and station manager, that every one of them always produces within the recoverability zone of productivity (Figure 2) that is relevant for every part of his or her property, and without managerial trespass (negative impact on others).*
- 2 Society determine, as part of its legal infrastructure of standards, safe maximum levels of depletion of productivity (Figure 2) for typical natural grazing vegetation and arable agricultural soils in various locations, below which the manager is in breach of a tenurial right of ownership or lease.*

Briefly, for a private property society such as WA to accept overall responsibility for the ecologically sustainable productivity of its renewable natural resources, it must confer on itself and every private owner and lessee enforceable responsibility for ecologically sustainable management of his or her micro-ecological unit of production. Formal standards, and monitoring of trends toward the recoverability zone of safe maximum levels of depletion of productivity of pastoral vegetation and arable agricultural soils are required. Without such standards farm and station managers can be subjected only to opinion, and perhaps for this reason executive government is reluctant to enforce sustainable management. The absence of such standards and system of monitoring trends toward them is a gap in WA's administrative infrastructure. They, in effect, define managerial accountability, and facilitate managerial responsibility and, if necessary, its assessment in courts of law.

Formal maximum and minimum standards set by society already exist as legal guidelines for an extremely wide range of activities. They concern air and sea transport, road safety, health, building codes, vehicle loads, food, air and water quality, for example. The proposal here requires society, through its relevant scientists, to establish appropriate standards for safe maximum levels of depletion of productivity for various types of rangeland vegetation and arable agricultural soils. To deny these standards is for society unnecessarily to risk damage to its essential resources. Whereas the Land Act 1933 and Soil and Land Conservation Act 1945 do not specify such standards, they are implied. Suffice it to say, these Acts confer 'very substantial powers to protect and conserve the rangeland resources. Inadequate supervision and intervention by successive State Governments has been a major factor in rangeland degradation' (*Sustainable Development*, 1995: 8). The same is true of the State's agricultural lands. For government not to specify adequate standards and not to enforce managerial trends towards them is to allow legal precedence of farm and station ownership to their responsible management.

Conditions 1 and 2 require the duty of ecologically sustainable management and avoidance of managerial trespass to become legal conditions of freehold and leasehold tenures of farming and grazing properties. The rights of ownership of natural renewable resources would thus be legally extended to responsibility for their management always to ensure ecologically sustainable

productivity. This implies new cultural-ecological relationships, and, possibly for the long run, a new path of coevolutionary development.

Why, it may be asked, have the requisite standards and monitoring of trends not already been established? Is it because political power of farm and station property ownership overwhelms bureaucratic rationality?

3 Because ownership and leasehold of every farm and station is transferred some time (by sale, testamentary disposition, gift or forfeiture), and because transfer is legalised only by state registration, transfer could be conditional on formal inspection showing that every part of the property is at or above the appropriate standard of safe maximum level of depletion of productivity (Figure 2).

4 In the event that inspection shows the appropriate standard of safe maximum depletion has been breached, registration of transfer would be withheld until the vendor takes societally approved remedial action.

Neither 3 nor 4 above can be fairly implemented without elapse of a sunset period (say, 5 to 10 years) of notice before inspection first becomes a legal prerequisite for registration of new ownership; and prior establishment by government of standards of safe maximum levels of depletion of productivity for each major different type of natural grazing vegetation and arable agricultural soil. The costs of these standards, like others, should be met as part of society's normal infrastructure.

The total costs of inspection of an individual property and its approval for transfer would be borne equally by the vendor, purchaser and society. Because knowledge of the results of inspection would benefit all three parties, they reasonably could be expected to share its costs. In the event of non-approval, all three still would share the initial inspection costs. The vendor, also, would either take approved action to reverse exploitative trends, or pay, as society requires, for it to be done, and for costs of its supervision and of final inspection. The vendor thus would be unable to escape his or her micro-ecological productivity responsibility. The total costs of inspection and approval most probably could be covered by a charge of 0.5 to 1.0 percent of the property's sale price. One third of this charge would be affordable by each party.

5 All or a proportion of approved out-of-pocket expenses intended to be incurred by every farm and station manager for new remediation measures of deterioration would be recoverable in full from the state. This fifth part of the proposal is conditional upon and coextensive with the previous four parts. (All five are necessary to assure ending existing managerial deterioration and preventing its recurrence.)

Such approval, of its own accord, would induce virtually all farmers and graziers, who are inhibited by prospective out-of-pocket expenses, to think in specific and practical ways how they may produce entirely from within the recoverability zone (Figure 2) of their property and cease all managerial activities that impact negatively on neighbouring properties. Condition 5 also recognises the need for direct 'on-farm' expenditures, not for LCDCs and more political and bureaucratic paraphernalia.

The proposal is independent of income tax deductions and Landcare rebates. These, with their inevitable delay of payments and irrelevance to non-taxpayers, seem to be a plausible substitute for action by some farmers, graziers and politicians. Another substitute is government's benefit-cost approach to long-term benefits of addressing salinity, for example. Such benefit-cost analyses often are a rationalisation to yield a desired answer, not estimates of real outcomes. The real objection to such analyses in this context is that justification of management for ecologically sustainable productivity of rangelands and arable agricultural soils, like workplace safety, clean air and clean public drinking water, for example, is not realistically assessable in benefit-cost terms. Its justification is its relevance to human survival and well-being as well as owners' profitability. Profitability is a necessary but insufficient justification for ecologically sustainable productivity.

An immediate start could be made by government to end deterioration. All government expenditure of this proposal (except for inspection, determination and monitoring of standards and assessment of each manager's intended out-of-pocket claims) would be spent directly on farm and station remediation, not on education officers and coordinators to generate awareness and conscience-raising among farmers and graziers. The state would accept financial responsibility only for initial out-of-pocket expenses. Subsequent recurrent expenses would be the responsibility of management as a normal recurrent cost of production. Managerial breach of relevant standards of safe maximum level of depletion of productivity, would attract societal retribution. Where pastoral holdings are too small to enable lessees to finance the necessary reduction of rate of stocking, society, as landlord, must amalgamate leases or withdraw them to extend conservation or unalienated categories of 'use'. Similarly, society must facilitate amalgamation of farms which become financially unviable and unmarketable as a result of necessary clearing bans and reduced stocking or cropping. Such adjustments, though necessary for ecological sustainability appropriately could be executed by the government's Rural Adjustment and Finance Corporation.

An advantage of full or partial recovery from the state of approved out-of-pocket expenses over tax deductions and rebates is that the state would be involved directly through the approval process. Thus, government would be able effectively to inject necessary catchment and regional perspectives into intended specific individual farm and station management programs. This contrasts with the government's mooted legislative approach to impose a plan on private management, whereas the proposal imposes inspection at the time of intended transfer.

A minor difficulty with the proposal is that standards and trends may not be achieved on every property before the time of intended transfer. This may be dealt with by the intending vendor being granted formal release from failure to reach the requisite standards by the intending transferee obtaining formal acceptance of an approved managerial program and by its registration as a memorial on the title deeds of the property to be transferred.

Finally, money. Society must share (because of its partial culpability) the out-of-pocket expenses required by 5 above. How society does this is but another political issue of many that the State and Federal governments are constantly squabbling about and resolving. Recently, the WA Government financed several extra-budget multi-million dollar programs: a High Court challenge of the federal government on Mabo; the Marks Commission of Inquiry about Carmen Lawrence; supplementary roads construction by a new petrol tax; and WA Inc losses by a levy on vehicle

registration and a major road tunnel in Perth. Lack of money cannot be an honest government answer to it not making an immediate and substantial start with a sustainability subsidy.

6 The WA Soil and Land Conservation Act would continue to apply. Its major role would be to stimulate recalcitrant managers and those who otherwise would be tempted, before intending to transfer their property, to try their luck in breaching the standard of safe maximum level of depletion of productivity

This Act would be operational (as currently) between inspections prior to registration of transfer of ownership. The Act is necessarily punitive, but irrelevant where micro-ecological productivity is sustainable. It also is irrelevant when the state fails to prosecute.

The Act does not prevent the state from giving formal public recognition to all farm and station managers whose management has been at or above the relevant societal standard for at least, say, ten consecutive years. This is something the LCDCs could do well without bothering themselves about other people's ecologically unsustainable management

Discussion

The foregoing six-part proposal is markedly different from the intended imposition of catchment and regional planning. Alternatively, the proposal, in effect, requires that society vest in all of its farmers and graziers responsibility for ecologically sustainable management at standards and trends it sets and monitors, and without managerial trespass. It proposes this new managerial responsibility be institutionalised by legislation and reinforced by government determining safe maximum levels of depletion of productivity of pastoral vegetation and arable agricultural soils. It proposes government funding directly of approved newly intended on-farm out-of-pocket expenses to achieve society's standards of safe maximum level of depletion of productivity. And it proposes government approval of property transfers to ensure managerial compliance with society's relevant standards.

In this proposal, the government is relieved from any pretension that it could execute plans (even with the help of local farmers) for the management of 12,000 to 15,000 farmers and graziers on a catchment or other basis. The State government, as landlord of the rangelands, with fewer than 500 lessees, already has a sorry, century-long economic and ecological record. The Soil and Land Conservation Act (soon to be amended) and the LCDCs between them are unlikely to be able to administer government catchment and regional plans as an effective strategy for ensuring ecologically sustainable land productivity. Whereas the government's Department of Agriculture (now Agriculture WA) has a very good record in agricultural extension, this was for technical education about specific innovations for practising farmers. This competence has not spilled over to farm business management advice, for which, farmers have turned to private consultants.

With the incentive of recovery of all or some out-of-pocket expenditures from the state for approved productivity activities, farmers and graziers incidentally will create a major new demand for conservation consultants, as, for different reasons 20 to 25 years ago, they initiated and still maintain a strong demand for private management consultants. Moreover, the managerial unit in WA pastoralism and arable agriculture is the station and farm respectively, not the catchment,

region or local government jurisdiction. Managers and their consultants, once motivated as this proposal promises, will have incentive to avoid managerial trespass, and incentive voluntarily to integrate their management as necessary. Also, possible court action and the sanctions of the Soil and Land Conservation Act exist as fall-backs against any irresponsible management including managerial trespass.

The mooted government catchment planning (Task Force, 1996) cannot but help be a government administrative intervention into the management of individual farmers and graziers. To legislate for catchment planning most probably will create widespread resentment from managers and a shrine to bureaucratic and political failure, rather than stimulate farm and station managers into micro-ecologically sustainable productivity and cooperation to avoid managerial trespass.

Adoption of the proposal quite inadvertently would generate strong interest from credit institutions in ecologically sustainable management by their farmer and grazier clients. Transfer rights of freehold and leasehold are a major feature of collateral security for business credit-worthiness. Thus, the proposal gives the creditor of every rural property business a vested interest in assessing the borrower's management in relation to society's standards of safe maximum level of depletion of productivity. Credit institutions would have a vested interest in the proposal and motivation to urge government to establish these standards, and their clients to observe them – all without government incentive or coercion.

The basic function of government in a 'free' society is to put in place a legal framework (set of rules) that aims to ensure societally acceptable citizen behaviour. But, vis a vis its natural renewable resources, society doesn't have a legal framework that imposes micro-ecological responsibility on its own departments and agencies and on farmers and graziers for their management of productivity of agricultural soils and native grazing vegetation. Nor has the government established standards of safe maximum levels of depletion of productivity against which its bureaucracy and private managers can objectively assess management practices.

Another feature of the proposal is that it is ongoing without an army of government specialist educationists, conservation officers and coordinators to activate apparently recalcitrant managers and apathetic LCDCs. Also, for many people, the LCDCs are a government intrusion by ministerial appointment of farmer and grazier office-bearers throughout the rural areas of the State. Such appointments may suit politically ambitious farmers, but they also discourage some otherwise prospective members. For them, LCDCs smack of bureaucratic socialism. Besides, LCDCs are not really necessary. This proposal, in contrast, changes the rules of farm and station ownership to create a different institutional and legal framework that amounts to a new cultural paradigm concerning the management of WA's natural renewable resources. Individuals would respond to it without peer coercion from LCDCs.

Perhaps the outstandingly important consequence of the proposal is that, unlike the conventional political-farmer and political-bureaucratic recommendations, it conceivably will prevent new farm and station resource deterioration, besides terminating present exploitative practices. The failure of conventional proposals is not surprising. The question asked in the orthodox government reports and reviews of the subject is, in effect, how may the farmers and graziers be educated to rehabilitate existing deterioration. Their answer, by education, is explicit in the question.

Education is quickly forgotten in the event of drought, fire, flood or adverse shift in rural terms of trade. These events often motivate managers to breach the safe maximum level of depletion of productivity, and even to impact negatively on neighbouring properties in the hope of financial survival.

The bureaucracies (chiefly Agriculture WA) seem unable to ask other questions and therefore have no mechanism to generate solutions that don't focus on traditional extension. Government reports appear to have done little more than promote government administration (see, for example, Task Force, 1996) and further bureaucratic paper-work: more surveys, assessments, audits and reports; more committees and task forces; and political travel junkets. For this proposal, the implicit question is, what are the conditions under which farmers and station managers would immediately begin to manage their property in accordance with government standards thereby to assure society of sustainable productivity? This question has yet to be asked by the government's legislators, executive and relevant bureaucracies. From the perspective of this essay, the briefest possible answer appears to be:

- Management to ensure government determined standards of ecologically sustainable productivity must be a legally formal responsibility of farm and station ownership.
- A government sustainability subsidy to farmers and graziers must be paid to induce their compliance to relevant government determined productivity standards.
- Government inspection always must be made at time of intended property transfer (at least) to confirm compliance.
- Delay of transfer by government must be effected to enforce compliance, if necessary.

Conclusion

This proposal seems able to divert WA's pastoralism and arable agricultural activities from its current largely negative interaction with its ecological systems. The operational conditions for this diversion require it to be motivational, institutional and innovative. These describe the 6-part proposal. This is far more than a marginal modification within the existing culture, like peppering-up the LCDs, administrative catchment planning, increasing tax allowances, surveys and so on, as have been proposed almost *ad nauseam*.

The proposal requires new rules and institutional responsibilities without eroding basic private property rights and without government imposing on farmers and graziers administrative plans that it almost certainly will be unable to enforce. But a new managerial responsibility exercised by farmers and graziers is necessary. It imposes a new condition on farm and station ownership and requires society to meet approved out-of-pocket expenses for sustainable productivity practices. The proposal would set in motion new positive interactions between ecology and agricultural and pastoral cultures which may be the start of a new coevolutionary path along which society, farmers and graziers harmonise their ecological and economic activities.

The proposal here is a practical way through which the State could bring all managers and itself to accept full responsibility for the agricultural and pastoral property they manage. The proposal

would effectively assure society and managers that natural renewable resources are no longer plundered, but managed simultaneously with the profit calculus and ecological productivity in perpetuity. A truly responsible government in this context would ensure as a matter of urgency that productivity management of natural agricultural and pastoral resources is micro-ecologically sustainable. This essay has outlined how this may be achieved in accordance with WA's political ethos, operational capacity and probably at least cost.

Nothing said here implies failure to recognise or reluctance to acknowledge that the productivity of many farming and some grazing properties has long been entirely in the recoverability zone of productivity (Figure 2) and without managerial trespass. Many, if not all of the managers of these farm and station properties, in effect, have accepted, from their own conceptual framework, economic viability within the constraints of responsibility for ecologically sustainable productivity of the property they own, and without managerial trespass on their neighbours

Note

The essence of the proposal first appeared as Schapper, H. P. 1990. 'Challenge to National Land Conservation Policy', *Aust J Soil and Water Cons*, 3(2): 4-8. I gratefully acknowledge thoughtful responses to an earlier draft of this essay from Mary and Jim Frith, Elizabeth Kington, Graeme Robertson, Beth Schultz, and David Wilcox.

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9

Landcare in the Deregulated Rural Economy of New Zealand

Helen Ritchie

Since 1984, a series of measures have been instituted by New Zealand governments to remove subsidies to the rural sector. Parallel reforms of financial and labour markets, and cut-backs in public sector spending, have been part of the neo-liberal economic agenda in New Zealand, emphasising individual responsibility and minimal government interference. Questions arise as to how sound environmental management may be achieved under such policy regimes. Planning and regulation have the capacity to adequately address a limited number of environmental issues, specifically, those which are amenable to monitoring and enforcement. Diffuse and insidious impacts such as erosion and non-point source discharges into waterways are problematic. Nutrient discharges are likely to increase in many parts of New Zealand as a result of two current trends – the intensification of farming, and the conversion from meat and wool to dairy production.

Interest has grown in participatory models such as Landcare¹ to address the failure of market and regulatory mechanisms in land and water management. The environmental imperative in New Zealand is not as obvious as it is in those parts of Australia which are severely affected by salinity. Consequently, New Zealand producers may perceive that little private economic benefit is likely to accrue to them from Landcare activities, at least in the short term. Nor is there an incentive in New Zealand for the formation of Landcare groups in the form of central government funding, either for Landcare activities or for extension/advisory services. Nevertheless, groups are emerging in several regions of New Zealand under various titles including Landcare, Streamcare, Beachcare and Self-help Possum Control.

This chapter reports on a study of attitudes towards Care groups in rural Waikato and discusses this with reference to relevant literature on Landcare. The chapter explores two themes. The first is the hegemony of neo-liberal philosophy within the discourse surrounding participatory environmental management in New Zealand. The discussion will identify the extent to which neo-liberal principles were articulated by both regional government staff and by rural producers in the study. Secondly, the chapter explores the empirical evidence of farmer activity regarding Landcare, and its seeming contradiction to rational self-interest in the economic sense. This sheds light on ‘farmer rationality’ (Vanclay, 1992) amongst Waikato farmers. The discussion contrasts this concept (which necessarily views farmer decision-making as embedded in a complex fabric of social and cultural factors) with that of the shallow definitions of ‘economic rationalism’. The chapter presents evidence that the latter, uni-dimensional concept of profit-maximising rationality still persists, and indeed dominates, economic discourse in New Zealand, in spite of a poor match with empirical evidence of farmer activity.

¹ Note that the term Landcare is used in this article in the sense of voluntary rural groups formed to address land and water degradation issues. It should not be confused with Landcare Research (Manaaki Whenua), a Crown Research Institute in New Zealand.

Background

Landcare is the name given to voluntary, predominantly rural groups in Australia which work with government support to address land degradation issues. The rise of Landcare in Australia has been heralded as a new partnership between landholders and government, and there has been widespread acclaim for the bottom-up approach which Landcare is seen to exemplify (Campbell, 1992). Although doubt has been expressed as to whether Landcare can legitimately be named a social movement (Lockie, 1992), Landcare as a form of sponsored environmental management is widely and popularly regarded as unprecedented in terms of the high degree of farmer initiative and control (Campbell, 1989).

In spite of such popular acclaim, Landcare in Australia has not been without its critics. In particular, the notion that a state agenda has been absent during the development of Landcare is contested by, for example, Ledger (1992), Martin *et al.* (1992) and Martin and Woodhill (1994). Such critiques also point out the limitations of communicative approaches in providing comprehensive, coordinated and democratic environmental management. It has been argued that Landcare is politically expedient in that the ethic of 'self-help' fits neatly with rural cultural values of autonomy and self-reliance, equally as it does with the philosophy of reduction of state involvement in 'private' affairs (Martin, 1995; Martin *et al.*, 1992). It is also publicly popular, and therefore politically attractive, because it emphasises a participatory approach to rural environmental management.

The very visible nature of environmental degradation in rural Australia, and the concern it has engendered amongst both conservation and farming representatives has created political pressure for government action (Lockie, 1994; Martin *et al.*, 1992). This has propelled the provision of a measure of state funding for the Landcare initiative, and there has been a rapid rise in numbers of groups in Australia. Recently in New Zealand it has been suggested that the lack of a similar level of central government funding is limiting the development of Landcare (Blaschke, cited in Donald, 1994). To date Landcare groups have been established in several regions (an estimated 60 groups currently exist) but widespread uptake in rural areas such as is evident in Australia has not materialised. Arguably the most active groups are in the South Island high country, where government has funded a program along the Landcare model to seek management options to deal with rabbits. Funding for this program is due to end, and as yet no further financial support is forthcoming from central government for Landcare initiatives.

Since 1984, New Zealand governments have progressively removed protection and subsidies to local producers, and have deregulated both the financial and labour markets. Government cutbacks have occurred in many areas affecting rural people. These include the removal of all price support for commodities, input subsidies and free agricultural advisory services as well as cutbacks in health and education services to rural areas. Ten years of such restructuring in the rural sector have created a competitive agricultural industry in a climate heralded by the Ministry of Agriculture and Fisheries (MAF) as 'the least regulated economy in the Western world' (Walker & Bell 1994: 17). The transformation of NZ agriculture, claim these authors, proves that 'it is possible to go from a heavily supported and controlled agriculture to an agriculture which is fully market-driven and has no government protection, and be better off than we were.' Inflation is low and cutbacks to the public sector have resulted in budget surpluses in recent years. Thus the process of neo-liberal reform in the rural sector of NZ is viewed by its proponents as exemplary,

and highly satisfactory. Any suggestion of a return to government-funded programs for rural areas (which is how Landcare is perceived by many) would thus be seen as contrary to the general trend of neo-liberal regimes to remove all assistance to the farming sector.

In the current climate of deregulation and fiscal restraint, central government funding throughout the public sector has been reduced, and environmental management has been devolved under resource management legislative reforms to regional government. Regional Councils are autonomous bodies which draw their funding from regional rates; regional councillors are publicly elected. The statutory roles of the Regional Council are principally to ensure that the region's natural and physical resources are sustainably managed, in consultation with the public. These reforms are seen to have rationalised environmental management by bringing all planning and consent procedures for resource use under a single authority, the boundaries of which are delineated by large catchments.

The extent of free market reforms in New Zealand makes it something of a test-case for the management of public goods such as environmental quality in a market-led economy. Thus study of Landcare development in NZ, informed by reference to Australian literature, should shed light on the effects of the more extensive deregulation in agriculture which has been embraced by NZ administrations.

The context: Rural Waikato

The present study took place in rural Waikato, a river basin region with fertile soils, plentiful and often intense rainfall, and moderate relief over much of the farmland (although steep hill country predominates in some districts). Issues of water quality and sediment erosion are environmental concerns identified in regional policies (Environment Waikato, 1994). Dairying is an important land use and intensive farming in the region has contributed to increased nutrient concentrations in surface waterways, and the leaching of nitrates into groundwater (Selvarajah *et al.*, 1994). Hill country watersheds have been cleared of the original forest vegetation with consequent erosion causing considerable problems, most obviously that of sedimentation downstream, but also the insidious decline of pasture productivity on-site. Flooding and sedimentation of riverbeds on floodplains have historically been addressed by large, capital-intensive engineering works and the enforced retirement of streambank riparian strips in upper catchments. Central government provided considerable funding for these schemes. Such funding is no longer available, prompting interest in both alternative solutions and other funding options. Landcare is viewed as one such alternative. Point source discharges into water have largely been controlled by regulation followed up by monitoring and enforcement, and currently the major contribution to degraded water quality is judged to come from non-point source discharges (Environment Waikato, 1994: 41). A further environmental problem for the region is the possum, which, in addition to its effects on native flora acts as a bovine tuberculosis vector. This can seriously threaten farmers' economic livelihoods where stock are infected. It is also a problem which is most effectively dealt with across farm boundaries.

Methodology

This study was conducted to explore how farmers saw the role of the government (central and regional) in relation to Care groups in Waikato region, and to compare and contrast this with the views of those working within the regional government. The study was carried out under the auspices of Environment Waikato (the trade-name for the Waikato Regional Council), the regional government body which has chosen to assume a support role for Landcare activities in this region. The objective of Environment Waikato in carrying out the present study was to clarify what type of services and support group members felt would increase their effectiveness in addressing environmental issues in the region. Following the study, a report was published to fulfil this information need (Ritchie, 1995). The present chapter analyses the wider policy implications of the study.

Semi-structured interviews were carried out with 40 farming men and women, most of whom were members of Care groups (Landcare, Streamcare, Beachcare, Self-help Possum Control). Interviews were also conducted with 35 Environment Waikato staff members, including field staff, scientists, planners and policy managers and executives. Interviewees from Environment Waikato staff were selected according to their level of activity and interest regarding Care groups. The farmer sample included up to three members each from a range of groups (Beachcare, Streamcare, Landcare, Self-help Possum Control), and interviews with as many members as possible from two active groups, using a 'snowball' sampling technique. In one case, a non-member farming couple were also interviewed. While most members of the farmer groups in question were Pakeha (white New Zealanders), in two groups, Maori members were interviewed (total of four interviews). In addition, interviews were conducted with farmers in a catchment who had been approached by Environment Waikato field staff with a view to forming a group, but had not done so.

A review of Environment Waikato policy documents was conducted to identify the strategic directions espoused. This was complemented by data collected from current news sources about the subject, including the rural press.

Results and discussion

Funding for Landcare

There was little desire expressed by farming participants in this study for central government funding of Landcare. It was perceived that this would come with 'strings' attached (loss of autonomy) and create excessive bureaucracy. Many also felt government funding could be seen as a subsidy which would flaw the unprotected and deregulated status of New Zealand's agricultural sector. It was feared this would weaken NZ's bargaining position when calling for the removal of protection of farmers worldwide, thus undermining the case for free trade negotiations through initiatives such as the GATT (now the World Trade Organisation). Furthermore, it was expressed by many respondents, both Environment Waikato staff and farmers themselves, that farmers must 'take up the responsibility' for their environmental impacts and that directly funding Landcare-type activities would inhibit this.

New Zealand Federated Farmers (NZFF), the national political organisation for farmers, has also criticised the calls for central government funding of Landcare for similar reasons (*Straight Furrow*, 19th Dec 1994: 6). Campbell and Wards (1992: 15) have argued that the NZFF leadership represents more affluent farmers and those aligned closely with agribusiness interests. They could thus be expected to reject any move seen as contrary to deregulatory policy in the rural sector. Nevertheless, the results of the present study indicated that this view was commonly articulated even by farmers who did not support the NZFF, or who did not feel their interests were represented by the NZFF. This suggests that there has been a high degree of internalisation of 'rationalist' justification of reduced support for the agricultural sector. This has been noted previously by Barr (1994: 2) in NZ farmer reactions to Landcare in Australia. Barr reports that a group of NZ farmers attending a Landcare conference in Australia considered that 'the access of [Australian] Landcare groups to technical support and facilitation was enviable – but an unfair competitive advantage'. This acceptance of the logic of the so-called 'level playing field' was not, however, expressed by all participants. Several stated that they 'could not be expected to do it on their own' and that there were 'benefits for others in the community' of reduced environmental degradation which would justify greater support. Further study of the occurrence of these attitudes broken down by gender, race and socio-economic groups could provide an interesting analysis.

It could be argued that farmer appeals for community support for Landcare activities are contradictory to the central thesis of this chapter: namely that an individualistic *laissez faire* philosophy now dominates environmental discourse in New Zealand. However, calls for wider community support for farmers' Landcare activities are not necessarily inconsistent with the rationalism which is fundamental to such discourse. For example, environmental accounting, or cost-benefit analyses which include environmental goods, are often proposed as a highly rational means of compensating individuals for beneficial off-site impacts of their activities. In the case of catchment protection plantings, one rational response could be for downstream residents to subsidise upstream land managers for such works. Conversely, those whose activities produce negative environmental impacts could be required to compensate those upon whom they are inflicted. Accounting which reflects the full costs of production (social and environmental) and seeks to internalise them is thus another version of rationalist response to the questions of how public good matters can be attended to in a market-led economy.

Such environmental accounting, and the use of economic instruments to control downstream environmental effects, are of considerable interest to the Ministry for the Environment in New Zealand (Ministry for the Environment, 1994: 50). However, the bureaucracy required to implement 'polluter-pays' economic instruments provides a significant barrier to their introduction. Such initiatives are, therefore, contrary to the considerable reduction in government activity that has characterised deregulation and fiscal restraint policies for the last decade. In addition, any legislation requiring industry to pay the costs of environmental degradation attracts the threat of capital flight to a less regulated business environment. This serves to highlight the fundamental constraint on environmental policy in this and other export-dependent nations; their dependence on trans-national capital (Lawrence & Campbell, 1991.) Any moves by the New Zealand government to financially support a program as amorphous as Landcare would certainly be contradictory to current trends towards reducing state expenditure for public activities. After a decade of rigorous attention to 'accountability' for public funds, such funding could be portrayed

as a return to the bad old days of unwieldy bureaucracies, and could thus prove politically unacceptable. Government support would seem particularly unlikely when farmer groups themselves are not calling for central government funding. The results of this study indicate that subsidies and their associated 'market distortions' appear to be equally unpopular in regional government – such policy instruments were vigorously opposed by those policy-makers interviewed.

In summary, then, this study shows that while farmers have internalised the idea that their activities should not attract 'subsidies', nevertheless, they feel there is a rational argument to be made for 'community support' for their actions. Thus while not fundamentally challenging that any such program must be 'rational', their definition of what is rational may be at variance with the interpretation of free-market, deregulatory philosophy which has thus far been applied in New Zealand. This merely serves to highlight that 'rationality' is indeed a highly variable construction, a point which Vanclay (1992) has argued with respect to farmer decision-making. However, as an ideal to be striven for, rationality has been promoted under neo-liberal governments in a highly standardised way, without allowance for other non-economic or cultural values. The requirement to act 'rationally' in this narrow sense has had widespread acceptance despite the seemingly obvious irrationality of allowing the degradation of the productive resource base in response to short-term market signals. Activities which are deemed not to conform to a particular version of rationalism (economic) are ignored or derided, and seem unlikely to attract funding from greatly reduced government budgets.

Market failure and the environment

While the Ministry of Agriculture and Fisheries claim that New Zealand's farming sector is now more 'sustainable' than it was before restructuring (Walker & Bell, 1994), the ecological sustainability of NZ farming is increasingly questioned by others, particularly with regard to pastoralism in the hill country areas (Foran, 1991; Fryson, 1991). Farmer respondents in this study frequently stated that their capacity to act to ameliorate land degradation was limited by the tight budgets and time constraints imposed by efficiency drives in the face of diminishing profit margins. The economic and social aspects of sustainability were emphasised by farmers. In contrast, many Environment Waikato staff focused primarily on maintaining the natural and physical resource base (particularly those staff who were office, rather than field-based). This no doubt reflects the wording of the Resource Management Act (sustaining the 'natural and physical resource') and the policy derived from it, as well as the prevailing organisational culture.

The weaknesses of *laissez-faire* economic systems in addressing social and environmental issues are well documented. In particular, a substantial body of literature exists arguing the inevitable failure of free-market policy regarding the environment (see for example, Stretton, 1976; Wallis, 1992; Levins, 1993; Dryzek, 1992). Essentially, such authors point out that public good in the form of environmental quality cannot be addressed by the 'invisible hand' of Adam Smith's idealised model. This concern has been countered by those who continue to argue that economic rationalism can be reconciled with environmentalism. This is witnessed by the recent emergence of a new political party in New Zealand, which although identifying itself as a green party, remains committed to an essentially neo-liberal economic agenda. Martin (1995) has pointed out that Government, in order to be seen as responsible (and therefore legitimate), must make gestures

in the direction of ameliorating the environmental impacts of unfettered capitalist activity. Facilitating what is basically a self-help approach to this issue may perhaps create a slight bulge in the lean, mean free marketeer aesthetic, but it need not provide a fundamental challenge to questions of income distribution or to individual rights to pursue profit maximisation.

While ‘self-help’ may be consistent with a neo-liberal agenda, significant state funding for ‘self-help’ (which is how Australian Landcare is perceived by many New Zealanders), presumably is not. This is because such state funding fundamentally challenges principles of minimum government and fiscal restraint. Adherence to these principles differentiates the New Zealand government’s approach to Landcare from that of Australia and highlights the extent of the ideological hegemony of ‘hands-off’ government in New Zealand. New Zealanders, both in government and in farming, cast incredulous eyes across the Tasman and wonder how Australians can live with the extravagance of their Landcare program, seen as an unprioritised and unaccountable lavishing of funds on farming. Furthermore, for those in regional government charged with facilitating Landcare, the preoccupation with accountability and adherence to rational cost-benefit accounting creates an inevitable tension between what government declares to be priorities and what groups want to deal with. As one Environment Waikato planner expressed the problem, ‘we can’t just respond to enthusiasm!’ And, he stated, ‘neither can we be seen to be using ratepayers’ money to subsidise farmers who overgraze and degrade the natural resource base.’

A further ‘rational’ compensation by government for the failure of the market to protect the environment is seen in the promotion of planning which has occurred in NZ, in parallel with free-market reforms. This is most clearly evidenced by the Resource Management Act of 1991, which requires the preparation of a hierarchy of policy statements and plans regarding the environment, from central to regional and local government. However, as is apparent in the case of Waikato region, when point-source pollution has been controlled, plans will not of themselves guarantee changes in land-use to reduce the impacts of diffuse discharges of pollutants. However rational a plan, it cannot command compliance. Regional planners interviewed in this study recognised this problem. Participatory models were seen by them as a means to achieve community buy-in, or ownership of issues identified as priorities in the plans. Participation along the Landcare model was felt to be necessary to encourage citizen responsibility in a climate of reduced central government funding, by emphasising that individuals must help themselves. In this sense, self-help programs embodied the individualist private sector ethic as applied to environmental management (ironically, this is obscured with an Orwellian twist when couched in terms of ‘community responsibility’).

The government rationale for interest in Landcare can, therefore, be seen as seeking to harness public enthusiasm for environmental goods and address glaring market failure regarding the environment, without challenging the fiscal restraint which is the fundamental ideology of neo-liberal policy. A purely economically rational hypothesis could not, however, explain farmer incentive to be involved in Landcare (just as it cannot explain why the ‘Tragedy of the Commons’ does not universally occur). While Landcare development has been slow, nevertheless there are active groups of motivated farming people involved. A discussion follows as to the ‘farmer rationality’ (as opposed to economic rationalism) which forms the basis of such motivation.

Farmer rationality regarding Landcare

It was evident in analysing the results of this study, that government and farmer viewpoints regarding the attraction of Landcare were distinct. An exploration of the farmer rationale for involvement in Landcare revealed both material and non-material benefits. Vanclay (1992) has argued that farmers have a well-developed stewardship ethic, but that other quite rational considerations may impede the practical expression of such an ethic. The need to recognise that land managers are embedded in a social context is also recognised in the literature on community-based resource management (see for example Fisher, 1993; Uphoff, 1992). In this study, farmers – both members and non-members of Landcare – consistently professed stewardship values such as wishing to leave the land and water in as good a condition as they themselves had found it. An exploration of other factors, then, which might impinge on the decision making process, would appear to be fruitful in elucidating how Waikato farmers conceptualise their involvement (or non-involvement) in self-help and participatory resource management groups.

Economic incentives

Economic incentives to join Landcare are less enticing in New Zealand than in Australia. In the Waikato region, land degradation problems were not perceived by farmers to be affecting the sustainability of their operations (or at least such a view was not expressed during these interviews). With no government grants available, there was little obvious direct economic advantage to be gained from group participation. Where an issue was felt to threaten economic livelihood, interest was strong amongst farmers. This was the case in control of possums.

Non-material benefits

Current problems of water quality, identified by planners as a priority in the region, do not cause farmers direct economic loss, and the principal causes are diffuse and not easily remedied. Blaikie and Brookfield (1987) discuss the notion of spatial displacement of environmental impacts and the disincentive this creates for individual land managers to invest time or money in remedial action. It could, therefore, be expected that farmer groups would show little interest in such issues. However, several groups did have water quality improvement as their principal focus. It was found that these groups were initiated by farmers with other interests, such as fishing, and supported by those with an enthusiasm for gardening and tree planting for aesthetic reasons, often female farming partners.

Interestingly, social expectations and a strong desire to know what was going on began to expand the local membership of these groups once they were established. This lends credence to Vanclay's (1992) proposition regarding the pressure of farming sub-culture (that individual behaviour may be in response to sub-cultural expectations rather than due to an individual's own attitudinal preference). Nevertheless, it was found in this study that in the absence of an interested party to form the core of the group, rural cultural values of individualism and independence appeared to predominate – 'We'd rather just keep to ourselves – we are not really group people'. This supposition is further supported by the observation that where group activities were centred on 'common' or 'neutral' land (beaches, riparian margins previously bought by government and retired for conservation purposes) considerably greater levels of activity were evident. Group participation in management of these lands did not challenge the 'sacred cow' of private property rights – the

'I'll do what I like on my farm' stance. Suspicion also existed that Landcare was a form of government intervention in farm practices, a 'Greenwatch', or 'dobbing in your neighbours'. In general, groups had drawn sharp boundaries for their focus areas, stopping short of 'telling people how to run their farm'.

The values underlying farming sub-culture are not, of course, universally held, although it would be true to say that in New Zealand, as in Australia, the dominant culture stresses independence and individualism. In contrast, Maori interviewees who were Care group members identified the cultural value of communal caring and the spiritual values attached to water in their stated reasons for supporting Landcare. Their motivation also included a hope that training provided by Environment Waikato, for example in possum control techniques, would provide Maori youth with greater economic and employment opportunities. Furthermore, traditional Maori consultative and consensus-seeking processes were seen by these participants to be closely akin to Landcare models.

Information access

Judging from Australian studies of farmer motivation to join Landcare, learning and access to information could be expected to form part of the incentive for farmer involvement (Curtis *et al.*, 1994). These authors suggest that this may be particularly important for women, because they are less likely to access more conventional sources of information (extension agents, input suppliers, stock and station agents and financiers). As previously mentioned, in New Zealand no government extension services currently exist for farmers, and to date Environment Waikato has not focused on this service provision, although some advice is available. Field staff who currently support Care groups are mainly Land Management Officers, whose duties also include processing consents and inspecting field sites to ensure compliance with regulations on land clearance, soil disturbance, etc.

The demand produced by Care group activity for information and advice was identified by field staff as being a major limiting factor in their ability to adequately service groups. Environment Waikato has expressed concern that servicing this demand could easily outstrip resources in the Council if Landcare takes off. There has, therefore, been little publicity or promotion of Landcare. With no central government funding, Regional Councillors are keenly aware of the political risk of raising rates in their constituencies in order to expand any area of services. In spite of the limitation of resourcing of extension, information and advice was still identified by participants, both male and female, as being a benefit of Care group activity. This may indicate a degree of information sharing between members, a factor which is viewed as an important advantage of the Landcare approach over one-on-one extension in Australia (Woodhill, 1990).

Participation and decision-making

Increased recognition of the validity of their point of view was emphasised by many participants as their major motivation for Landcare involvement. Care groups were seen to offer a measure of consultation, or community participation, in decisions which impacted on the management of their local environment. This was seen to occur informally via contact with the Environment Waikato field officers who serviced the groups; a mechanism which was preferred by farmers over formal submission procedures. This consideration was not universally recognised by Council

staff, particularly those with little on-the-ground involvement with groups. Indeed, some planners who were interviewed had such faith in the current planning process (with its combination of 'rational' technical advice and the 'consultative' procedure of inviting submissions) that they were of the opinion that it was merely an educative process that was required such that the community would duly (and dutifully) carry out such plans. Farmers, however, stressed that for them the trade-off for their increasingly taking responsibility for environmental impacts was a greater 'channelling' of their points of view into decisions made in Environment Waikato.

Similarly, those Maori interviewed in this study expressed satisfaction in working with the regional government in a way that was more personalised. They wished to have their concerns heard and to receive support and community facilitation from the Council in addressing environmental issues which were of spiritual importance to them. The RMA calls on regional governments to consult with Maori and to have concern for their spiritual and cultural values. To date, however, some Maori have expressed frustration that the Waikato Regional Council has made slow progress in formulating a consultative mechanism with tribal groups in the area. This sense of frustration is supported empirically by a recent study of local and regional policy statements (Nuttal & Ritchie, in press). These authors found that Environment Waikato's Proposed Regional Policy Statement had not adequately specified issues of significance to Maori, nor had it established a clear process for identifying such issues and for monitoring the effectiveness of policy objectives concerning Maori. Clearly, consultation with Maori is required at all levels of regional government. Without obscuring the need for high-level consultation, at a local level support for Landcare groups based around *hapu* (extended family) networks could be an appropriate illustration of a 'partnership' model of environmental management.

Environmentally-friendly image

A further incentive for farmers to participate in Landcare was enhancing the industry's 'clean, green' image. Ironically, many groups in this region did not call themselves Landcare groups, resisting any association with the severe land degradation problems that this term connoted for them. Farmers participating in this study did feel that it was only a matter of time before the sustainability of their farming practices was called into question by the public represented by Environment Waikato. New Zealand farmers are also conscious of their vulnerability internationally, and aware that externally-defined standards of 'sustainable farming' could be used to reduce their market access in the form of non-tariff barriers. Being seen as proactive in seeking more environmentally-friendly farming was, therefore, an incentive above and beyond that produced by the farmers' own perceptions of environmental imperatives. The need to prepare a defence in the face of environmentalist criticism, both local and international, was thus viewed by some as a justification for Landcare. This attitude mirrors that expressed by Queensland farmers in the recent Australian Senate Enquiry into Landcare practices, who stated that for many, Landcare was seen as a means to maintain control in the face of increased 'greenie' influence over rural environments (Senate Enquiry, 1994; Morrisey & Lawrence, 1997).

Some Environment Waikato staff interviewees questioned whether this motivation would produce anything more than posturing and superficial change. Others were of the opinion that pressure from conservation lobbies and endangered market access may be a significant enough threat to

encourage farmers to seek changes which, while bound by other practical and economic constraints, will provide significant environmental outcomes.

Conclusion

The political appeal of the self-help and participatory aspects of Landcare have been mentioned. However, in New Zealand, the current dominance of economic rationalist ideology creates problems in accounting for environmental and community goods. The 'hands-off' approach to governance has trimmed the apparatus of the state to a point where it is hard to picture how central government could deliver funding to Landcare groups even if it decided to do so. Having devolved its environmental interests largely to the level of Regional Councils, how can central government now reclaim a legitimate role as a facilitator of environmental initiatives? The New Zealand government finds itself in the somewhat paradoxical position of wanting to promote participatory, 'do-it-yourself' environmental management, yet being unwilling to provide funding for this and risk distorting its hard won creation; the perfectly unprotected rural sector.

Landcare may be seen as the assertion by farmers of a measure of agency which, ironically, is consistent with a government emphasis on entrepreneurialism, manifested as farmers 'helping themselves'. In doing so, however, they would inevitably be limited by the political and economic climate of risk created by the deregulation of the rural sector. The structural pressures applied by 10 years of deregulation require farmers to be efficient and cut costs. This leaves little leeway for any conservation innovations which reduce, even temporarily, the profit margin.

Regional Council staff, now charged with maintaining acceptable standards of environmental quality, labour under their politicians' concern with fiscal restraint and accountability. There is considerable support amongst field staff to work more collaboratively with rural resource users. Landcare, they feel, might just work – but of course, it has to be employed in a technically and fiscally rational manner – yet Landcare does not conform easily to cost-benefit analysis. Neither does prescriptive accountability to economic cost-benefit models fit comfortably with an analysis of farmer attitudes and behaviour regarding Landcare. The diversity of motivational factors found in this survey indicates that the actions of rural land users are affected by a great many social and cultural factors, which are notably absent from models of economically rational decision-making behaviour. Farmer incentives to participate in Landcare in New Zealand were not governed necessarily by environmental impacts, which directly reduced their income, nor by the 'carrot' of government grants. Other benefits existed in maintaining an image of environmentally-responsible farming; in enhancing recreational fishing and aesthetic appeal of waterways; in increased access to a limited regional government information service; and in greater recognition of their viewpoint within the regional bureaucracy. Landcare is consistent with farmers' stated stewardship values. Nonetheless, in the absence of financial incentives from government to promote Landcare, perceived benefits are not always sufficient to overcome strong elements within farmer sub-culture which uphold private property rights and are suspicious of outside control.

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10

Landcare: Myth or Reality?

Margaret Bailey

On reflecting whether Landcare was transforming Australia, my first thought was to consider ‘is Landcare transforming Australia?’ I am fairly certain that this is what Landcare set out to do and that considerable changes have occurred, but in reflecting on what I have seen and heard, I concluded that it is often so captivated by its own myths that it is failing to be the real force for transformation it could be. Because I believe that Landcare has the potential to be a transformational movement of considerable significance, I think it is important to examine and understand anything that may be hindering its development and causing frustration and anger amongst those involved with it.

As the State Landcare Coordinator for New South Wales (NSW) from 1993 to 1995, I travelled throughout NSW meeting with Landcare groups and their members and listening to what they had to say about what they were doing, and about what they were feeling, about the progress of Landcare. I also worked closely with officers of government agencies, both at the State and Federal levels, and was able to meet with counterparts from other states. As a result, I had an unparalleled opportunity to gain an overview and to see how the various components of what is loosely called ‘Landcare’ were fitting together, or not, as the case might be, chiefly in NSW but also across Australia.

It appeared to me that there were, and are, many forces acting upon Landcare. I became concerned about the extent to which there seemed to be much that was obscuring the reality of what was happening, and that these were often what I began to perceive as ‘Landcare Myths’ – things people truly believed but which were not quite true.

Most of the great myths have their roots in reality, but so far in the distant past that the embroidering of the tale effectively hides the basis of the reality on which they were founded. Archaeologists and pre-historians have unravelled some of these for us. As a child I had a book called *Classic Myth and Legend: Stories of Ancient Greece*, which were the classic tales of amazing events transformed by feats of human achievement all assisted or hindered by a range of interventions from powerful outside forces – the gods. We now know that Troy really did exist, but the stories associated with Troy provide us with important signposts for our own undertakings. Myths and legends which embody a set of beliefs and values can provide an all-pervasive ideology, in a culture, in a religion, or under some other banner such as nationalism, to become a powerful driving force through generating an emotional involvement which leads to action. Landcare is rapidly entering the realm of mythology – the amazing struggle of people with the land, assisted or hindered by powers beyond their control – droughts, the world economy and the mandarins in Canberra! Or lesser gods in head office in Sydney!

Uncritical acceptance of the myths can blind people to reality and lead them down futile paths. Where the myths glorify reality, the need for critical evaluation is obscured. Where the myths do less than justice to reality, genuine achievement is belittled. If this is beginning to occur with Landcare, as I believe it is, Landcare will be ill-served and weakened and it will become impossible

to determine its very real achievements or to chart its future. Landcare has become a powerful driving force involving many thousands of people across Australia to undertake a range of actions and achieving remarkable results. So it is important to try and sort out fact from fiction, identify underlying beliefs and values and examine and assess the resultant actions. I have therefore, attempted to examine some aspects of the burgeoning Landcare mythology, which are obscuring the extent to which Landcare is, or is not, succeeding in transforming Australia and preventing the fulfilment of its vision, so that Landcare may indeed succeed in transforming Australia.

There are many sets of myths, including those I have called the scoping myths, the operational myths, and the funding myths. However, in this chapter, I shall focus on what I have called:

- the myth of generic Landcare;
- the bureaucratic myths;
- the evaluation myths;
- the myth that Landcare is a community movement; and,
- the ownership myths.

The myth of generic Landcare

The term 'landcare' is so often used in a generic sense that it is no wonder that people complain about poor communication. When 'landcare' is used like this, it can mean any or all of the following strands of Landcare (see also Lockie, 1997):

- Landcare groups – also known as 'the community';
- the funding program – the National Landcare Program, and specifically the community component of that program;
- an ethic – using Landcare to mean sustainable natural resource management or ecologically sustainable development (ESD);
- the National Decade of Landcare Plan – comprised of the National Overview and Commonwealth and State/Territory components; and,
- Landcare Australia Limited (LAL) – the promotional body established by the Commonwealth.

As a myth, 'generic Landcare' obscures the reality of the different roles of each specific strand. The roles of the various strands of Landcare in the developments and changes taking place in Australia today must be clarified to be able to relate the big picture and the local detail to each other, but not confuse one for the other. It is even more important to ensure that there is clarity and understanding of the different strands of Landcare when trying to establish what changes have taken place already and what real changes are needed; and to determine whether the steps being taken now will achieve the changes that are needed over the long term to ensure that Australia's most fundamental assets will not be irreparably damaged.

The bureaucratic myths

I have called the documents which together form the National Decade of Landcare Plan, the National Overview and the Commonwealth and State/Territory Decade Plans, the 'bureaucratic myths'. Produced essentially by the bureaucracy for the bureaucracy, they are defining documents and certainly establish a set of values and beliefs, but, despite appearances, they are not practical process documents.

Let me take the National Overview, written, I understand, to encapsulate the specific plans of the States/Territories and the Commonwealth. The goals for the decade, possibly the most crucial part of the document were defined as:

- *the whole community* aware of the problem of land degradation and the benefits of sustainable land use;
- continuing development and implementation of sustainable land use principles and practices;
- *all public and private land users and managers* understanding the principles of sustainable land use and *applying them* in their use and management decisions;
- *all Australians working together* in partnership for sustainable land use;
- effective and appropriate economic, legislative and policy mechanisms in place to facilitate the achievement of sustainable land use (Commonwealth of Australia, 1992, emphasis mine).

I would argue that goals 1, 3 and 4 should be merged into one. That aside, is it serious to suggest that, even over ten years, all seventeen plus million Australians are going to achieve this state of grace through Landcare, whichever way it is defined? This is as ambitious as Bob Hawke's statement that 'no child shall live in poverty by the year 2000'. If the national plan for the Decade of Landcare is meant to be about what Landcare alone is going to achieve, then the goals need to be more realistic.

On the other hand, if these are goals for the nation as a whole, Landcare will need to operate jointly with other programs to achieve them. A whole of government approach and mutual commitment – both within each level of government and between each level of government – is essential, as well as community involvement, and not just in community groups. This was one of the major principles outlined in the original submission for a National Land Management Program, jointly put to the Federal Government in 1989 by the National Farmers' Federation and the Australian Conservation Foundation. It is a reflection of the degree of failure to achieve this that the need to develop such an approach had to be emphasised six years later in the 1995 National Landcare Facilitator's Report (Alexander, 1995).

The confusion in the Decade Plans between what are the visionary goals and what are reachable and practical steps to achieve these goals is inevitably reflected elsewhere in Landcare.

In the early days of Landcare, Andrew Campbell (1991), in the National Landcare Facilitator Report, made a number of criticisms of both the content of the Decade of Landcare Plans and the

processes by which they were developed. He suggested that it would be better if they were 'vision directed rather than problem-centred'. With hindsight, it is possible to see that there was often plenty of vision – and indeed details of a myriad of problems – but the problem was that they failed to be firmly grounded in reality.

Take for example one of the individual component plans, the NSW Decade of Landcare Plan. This document looks impressive with a detailed action plan outlining goals, objectives and the specific actions that will be undertaken by numerous organisations and agencies. It certainly suggests a whole of government approach. Closer inspection reveals that it does not have any detail of the resources – financial or personnel – needed or committed for those actions. In fact, the NSW plan has had only limited circulation, as became clear to me when responsible for oversighting Landcare evaluation in 1994. Although Local Government, for example, was listed as responsible for many actions, the plan itself had never been circulated to councils and no attempt had been made to either consult with councils or work closely with them to develop appropriate action programs. The same was true for other bodies listed as undertaking actions. There is no place in the plan for this to happen, nor were any mechanisms or structures developed for ensuring the plan's implementation. Whose were the vision and goals? Not the community's as a whole, nor even other agencies or levels of government named in the document. There is, however, a strangely revealing section early in the document, headed 'Planning for the decade', which says that this document describes:

Our vision for the decade, goals that expand and explain the vision, *our* objectives that address the goals, proposed actions to achieve these objectives, the way different parties *can* be involved in meeting the goals (NSW Landcare Working Group, 1992, emphasis mine).

So the plan was, and is, a bureaucratic myth.

The Commonwealth component seems to be more realistic because it does provide for some commitment of resources, financial and personnel. However, I suspect that the proposed Landcare Liaison Group has not in fact operated in the way that was laid out in the plan to oversight the Commonwealth's contribution to Landcare. If it hasn't, then the intra-government coordination of agencies will not be very different from that in NSW.

With regard to resources, there is the issue of how these plans relate to the National Landcare Program. If we are looking at the National Landcare Program (including all the different parts of that program so ingeniously brought together, and not confusing this with the component of that funding also called the National Landcare Program which includes the community funding component), as the specifically attached resource base to implement the Decade of Landcare Plans, then these documents are certainly not detailed or specific enough. The links between the Decade of Landcare Plans – as operating process documents – and the National Landcare Program – as the operating funding mechanism – are somewhat tenuous.

Although these plans place quite an emphasis on the development of Landcare groups and on the significance of Landcare groups in achieving the goals for the decade, there is no ownership of these documents by Landcare group members. It is highly unlikely that Landcare groups ever use these documents as a basis for their formation or for making decisions when considering

group activities. Indeed, the knowledge that such documents exist is extremely limited amongst Landcare group members. This is why they really are bureaucratic myths.

Evaluation myths

If there are problems about defining what is meant by 'Landcare', and about the documents which purport to provide the plans for the Decade, then it is no wonder that what I have called 'evaluation myths' go from one extreme to another. In the course of my time as the NSW State Landcare Coordinator, I have heard many people assert that '*Landcare is obviously a success because of the number of groups there are*'. I have also heard people who have an opposite view, saying that '*Landcare hasn't achieved anything and should be abolished now*'. People were giving their opinions, which reflected a judgement or an evaluation they had made of Landcare. When repeated often enough – as these statements are in one form or another – they contribute to the myths.

The number of people in Landcare groups **is** an achievement, but I am always a bit dubious about bean counting as a measure of success. Every farmer in Australia could be a member of a Landcare group and every stream and river bank fenced off, or whatever other measure is considered appropriate, but ecologically sustainable development or sustainable natural resource management could still be a long way off. A major difficulty is that there are no easy measures of what is, or is not, ecologically sustainable development or sustainable natural resource management. Currently much is being done to develop such measures and provide useable models. Deville and Harding, who are working on developing a useful model, warn that: 'Sustainability is an elusive concept. We have embraced the broad notion ... but we have been grappling with moving from the rhetoric to on-the-ground application' (Deville & Harding, 1995).

Hamblin, who has taken a leading role in the development of indicators, uses the term 'Land Quality Indicators' for application to agricultural land (Hamblin, 1995). The more precise and thus limited nature of such a term by implication indicates the difficulties outlined by Deville and Harding in being able to define sustainability. Applications of this sort of modelling or indicators have yet to be developed and applied at the Landcare group level.

As for the claims that Landcare is a total failure, I have always wondered what has been the basis of such a judgement, as it has never seemed to be based on authentic research. I have only been able to conclude, somewhat sadly, when I have heard this view expressed, that those with such a view must feel threatened by what Landcare is achieving. The extremism of either overly optimistic or pessimistic views is not useful.

Leaving aside those with these extreme views, I have also heard people who are trying to examine Landcare seriously say that it is too complex, or it is too long-term, or that Landcare cannot be sorted out from other forces at work. The inference is often that this is unique to Landcare, and so another set of evaluation myths arise. Certainly Landcare is complex, it is long-term, and it is one among a number of forces, but these characteristics are found in other areas of human endeavour – such as education, medicine and sociology, as well as in many areas of science, such as botany and climatology – and methods of analysis and evaluation have been developed in

these fields which can be equally well used by those involved with evaluating Landcare. Of course, if the different strands of Landcare and the relationships between them are not identified, there will be considerable problems, but it is possible to look at the different strands. We can ask how the funds of the National Landcare Program have been spent; whether the goals set in the National Decade of Landcare Plan and its component parts have been achieved through the strategies and actions proposed; we could attempt to determine the strength of the Landcare ethic; and we could make a critical analysis of the development of the community groups. Some of these issues were addressed in the 1994 national evaluation of Landcare, but not all. Hopefully, with State Landcare Coordinators now in place, a more focussed approach will be developed.

As with any evaluation, it is important to know who wants the answer and for what purpose. At one level, there are the Federal Ministers who want the information to be able to defend allocating funds to the National Landcare Program to cabinet colleagues. At another level, the plan itself calls for evaluation, and 1997 is the next year in which this should take place. At another level, those involved in Landcare groups would like to know whether they are doing the right sort of things and whether this is bringing about the changes they are seeking. There are other stakeholders, too. The choice of evaluation processes will depend in part on what exactly is being evaluated and who wants the answer.

Even so, there are problems with evaluating Landcare, and resulting from my experiences – particularly during 1994 and 1995 – I am conscious of the way in which the evaluation myths are obscuring some more fundamental issues.

Funds distributed by the National Landcare Program may be audited using conventional accounting procedures, but that still leaves some major questions. Who is providing recommendations to the Minister about how those funds are distributed, and on what criteria do they base those recommendations? Is there any strategic overview to provide a structure for the decision making, and what sort of data provides a basis for informed decision-making? Surely the National Decade of Landcare Plan and its components should provide the basic strategic structure, but I have already outlined some of the problems I see there.

With regard to the information base, while I have no doubt that people are using the information they have available to the best of their ability, often the information available is not good enough. Let me give some examples. In NSW, regionally based Catchment Management Committees (CMCs) have a direct role in the decision making process that leads to recommendations for funding to Landcare groups. However, until 1995, few CMCs would have had a complete and up to date list of all the Landcare groups in their catchment, and, as far as I am aware, there is still no mechanism to ensure that CMCs can access an up to date list. During 1995, the Chair of the State Catchment Management Coordinating Committee and I discussed ways in which CMCs could be provided with the biophysical information on their catchments, to which the location of Landcare groups could also be related. Technically, this is entirely possible (both in a low-tech way at some cost and in a high-tech way at astronomical cost). The problems catchment managers have in accessing basic data was highlighted in the 1994 Junor Report on the North West Catchments of NSW. A Key Finding, headed 'Coordination of the Natural Resource Data Bank for the Region', was that: 'data being collected on the natural resources of the region does not

appear to be coordinated between agencies, and is not readily accessible to Local Government and community groups' (Junor, 1994).

Elsewhere the report recommends that the North West Catchment Management Committee should:

coordinate the preparation and ensure the availability of reliable data on the natural resources for resource managers and those preparing catchment management plans. The need for better coordination of the information being collected by government agencies and its ready access by community groups needs to be pursued at the highest level of government by the Committee (Junor, 1994).

At the same time, it is clear that the problem is compounded by simple lack of data. At the Liverpool Plains Land Management Committee hosted conference 'Making Catchment Management Happen', at Gunnedah in 1995, the Soil Surveyor with the Gunnedah Research Station of the Department of Land and Water Conservation reported on the production of the first Soil Landscape map and report, which covered one part of the region, and which had been issued in 1994 and 1995 (Banks, 1995). There are still many parts of the State which have no such map.

Regional Assessment Panels – which in NSW are the CMCs – are therefore concerned about the lack of data to use as a basis for making their decisions. It is clear that at this level of operation, fully informed strategic decision making is difficult, if not impossible.

For these reasons, and a number of others, it is difficult for the people directly involved in Landcare groups, or even in the bureaucracy, to know whether they are doing the 'right' things and whether they are bringing about the changes they are seeking. The big picture visions can be overwhelming when attempting to evaluate localised actions. An example of this is provided by the evaluation we undertook of the Landcare Specialists Program in NSW during 1995. At the beginning of the process, the consultant who was assisting us with the evaluation asked the specialists what the purpose of the program was. The general answer was that they there to achieve sustainable natural resource management. Well yes, but after a bit of prodding they allowed that they themselves were not actually in the position of managing any natural resources. Rather, their role was to assist with the development of, and provide support to, Landcare groups – who it was hoped would work towards that end. For Landcare groups there are similar problems. If people are unable to gain a true sense of how their localised action contributes to the bigger picture, there will be increasing levels of frustration, particularly among Landcare group members. They know they can provide clear evidence of how exactly they have spent outside funding, but that is often only part of the story. I remember the experience of one group, which had received funding to plant trees. Their report, put together to satisfy any audit of the application of money received from public funds, detailed every planting undertaken. The tree planting itself, however, was an immediate and relatively short-term project that was only a small part of their overall achievements. The question still remained, was that planting achieving a larger purpose? And, assuming that it was, how was that fitting into a strategic view of what was important and needed for the district, region or bioregion as a whole to achieve sustainable natural resource management, in the medium and long-term as well? These are some of the more fundamental issues which need to be addressed.

Dismissing it as all too hard, or substituting simplistic assumptions, will not forward matters at all. Yes, there are many complexities, but it is essential to search out appropriate and relevant ways of addressing them.

The community movement myth

There is no doubt that Landcare groups have been a significant factor in achieving on-ground change, and that the development of Landcare groups and what they have achieved is one of the more outstanding successes of the Decade of Landcare. One of the more pervasive Landcare myths is that the large number of Landcare groups somehow equates Landcare with being a community movement. Many people make this assumption which I have heard reinforced by comments such as: *'there wouldn't be any Landcare without the community groups'*; or *'Landcare is far more than just another government program'*; and *'Landcare is a partnership between community and government'*.

The idea that 'landcare' is a community movement is obviously important both to members of Landcare groups, and also to members of the bureaucracy. At the grass-roots level, knowing that their individual groups are part of something bigger certainly helps to sustain the dynamic of Landcare groups, and encourages the formation of new groups. The important thing here, I would argue, is the networking that occurs between Landcare groups, an issue I have dealt elsewhere (Bailey, 1996b). Networking as a force in community development has been recognised, discussed and examined for the last 20 to 30 years amongst sociologists and others, who have applied networking principles and techniques in their work in community development. Networking has been, and is, important in Landcare, particularly when it is examined in terms of community development. However, few of the support personnel have any professional training or experience in networking. There would be many benefits, I believe, from applying the accumulated wisdom of networking experience to Landcare.

Despite the myth, a large number of community based groups does not in itself constitute a community movement. There are community movements in Australia, such as the environment, peace and women's movements. All of these movements originated within the community, and have established goals and agendas for change around an issue, or set of issues. These movements developed either where government was perceived as failing to take action – so that the movement took its own action, such as the establishment of women's refuges – or when there was direct opposition to government policy – such as the peace movement's opposition to nuclear weapons. Such movements start in an ad hoc way, but rapidly develop a number of representative organisations that promote their members' concerns. Such organisations may, in time, come to be given some support from government, but essentially they represent their members' views and remain independent of government. The network of Landcare groups around Australia does not meet these criteria (see also Lockie, 1992). Although there are Landcare groups which have formed without any assistance from government, from 1989 onwards the impetus has come largely in the first instance from government, which has provided funding and support personnel to assist in the formation and development of the groups and to encourage them to undertake programs of work. How can a community movement be started by government? Further, there is very little independent organisation among Landcare groups. It is true that there are now some developments towards the development of regional networks between groups in NSW, but as yet

there is no sense that there is any degree of organisation amongst the groups Australia-wide, or even State-wide. There are no networks or organisations on this scale that can claim to be operating independently of government, representing their members' views and speaking to government on their behalf. Some further discussion of this issue is provided by Martin and Halpin (1997).

With no independent voice, it is difficult to see how there can be a full partnership between government and the community (see also Martin *et al.*, 1992). At its best, the term 'partnership' implies a relationship between equals. There are, of course, partnerships where there are junior and senior partners, but this is still between independent parties. Undoubtedly, there have to be connections between government and, in a broad sense, the community as a whole, or between specific government departments and their client base within the community. It is also clear that the downsizing of government – which has been going on for some time and is currently proceeding apace – has meant that there is a strong incentive for the devolution of service provision to the community. The development of Landcare groups has been an effective way of achieving this, by targeting the client base within the community and ensuring more efficient provision of services. In this sense therefore, there is a type of partnership which may have been previously lacking, but there is no particular uniqueness about this as it reflects trends that are occurring throughout government both in Australia and overseas (Lockie, 1994; Martin & Woodhill, 1995).

To claim that Landcare is somehow more than just another government program obscures the reality that this has been, in some aspects, a very successful government program – even though its greatest successes have perhaps lain in its unanticipated outcomes, as discussed in Bailey (1996a). One area in which it has been highly successful is in terms of community development. It has helped to initiate a re-vitalisation of many small communities, providing support and strength for people during hard times, as well as changing values and attitudes and bringing about action. Apart from personal comments to this effect made to myself, many similar comments were made during the community consultations held as part of the evaluation of Landcare in NSW in 1994, and have been made to others (see Alexander, 1995; Bailey, 1994, 1996a, 1996b; Carr, 1993). The claim that there wouldn't be any Landcare without the community groups reflects the problems in defining Landcare. Pursuing this myth obscures the need to identify the real significance of the role that Landcare groups do have. To ensure better integration of Landcare groups with other aspects of the National Landcare Program, it is necessary for Landcare groups and governments at all three levels to conduct a realistic assessment of what they can achieve together. The 'community movement' myth also obscures the fact that there are more people outside Landcare groups than there are within them (Mues *et al.*, 1994), and the issues that need addressing there.

The Ownership myth

The last myth that I will deal with is the one I have called the ownership myth. I have identified this by statements I have heard people making such as: '*Landcare is a wonderful example of what can happen when the environment movement and the farmers get together*'; and '*Landcare is just for farmers – and if urban/coastal people are in there they're stealing our money*' (there are various variations on this one depending on whether it's a bureaucrat or a community group member speaking); or '*Landcare is not appropriate in the rangelands*' and '*Dunecare has nothing*

to do with Landcare'. In all of these instances, it is clear that it is the community strand of Landcare which is being referred to – the Landcare groups.

It is certainly true that Rick Farley and Phillip Toyne, at that time the Chief Executive Officers of their respective organisations, the National Farmers' Federation and the Australian Conservation Foundation, made a major contribution to the establishment of the Decade of Landcare and the commitment of funding through the National Landcare Program (Toyne & Farley, 1989). So the myth arose that somehow farmers and environmentalists came together in Landcare, particularly in Landcare groups, to save our country. Although I have no doubt that both types of organisations would feel that they generally support Landcare, I have seen little to suggest any real ongoing cooperation in joint initiatives from those two organisations in support of, or to further develop, Landcare groups as such.

There certainly are people involved in Landcare groups who are also members of both an environmental organisation and a farming association, but in public it is the antagonism of one group for the other which is more often apparent. I have heard farmers say that they formed their Landcare group because they did not want those city greenies telling them what to do (see also Morrissey & Lawrence, 1997); and I have heard environmentalists carrying on about farmers raping the land of Australia for the last 200 years. This antagonism was evident during plenary sessions of the 1994 National Landcare Conference, in the tensions that surfaced between members of groups who work mainly on public land – such as Dunecare or Urban Bushland groups – and those who work in groups with a membership of private landholders (see Defenderfer, 1994; Vanclay, 1994). These tensions are reinforced by the myths that Landcare really only belongs to, or is only suitable for, certain groups of people within the community, or only belongs to one government agency.

While each Landcare group is unique, there is a greater degree of commonality in the issues they deal with than some members of the groups recognise. I carried out an analysis in 1995 of the issues on which NSW Landcare groups had said they were working. The issues fell into twelve categories:

1. Erosion and degradation
2. Water /river related issues
3. Weeds
4. Nature conservation and biodiversity
5. Education
6. Wetlands
7. Waste minimisation
8. Extractive industries rehabilitation
9. Tourist impact management
10. Salinity
11. Feral animals
12. Conservation farming, sustainable farming (Bailey, 1996a)

Issues 1–9 are generic issues which could be found in any group, rural or urban, coastal or inland. Issues 6–9 were the least frequently cited issues. Most groups cited at least three or four issues, and about half included education issues in one form or another. Only issue 12 was specific to one type of area.

The ownership myths obscure the reality that people from both urban and rural areas, from the coast to the rangelands, were involved in Landcare groups, and that the issues groups dealt with were generally distributed across the State rather than specific to certain groups. The myths hinder better integration and participation, particularly integrated support for Landcare groups from environmental and farmers' organisations on matters of mutual concern. At the present time, Landcare groups are providing a safe place for farmers to talk about, and take action on, environmental issues. One dairy farmer I know made the point to me that, when at meeting of the Dairy Farmers' Association, they talked about one sort of thing, while at Landcare group meetings they talked about the other sorts of things – even though it was more or less exactly the same people at both meetings. For environmentalists, in the cities or on the coast, Landcare groups provide opportunities to undertake positive actions in their own immediate neighbourhoods, rather than simply reacting negatively against something.

Conclusion and recommendations

Landcare is providing a powerful driving force for many thousands of people to take action on addressing one of the most fundamental issues for Australia – its land and what is happening to it. This driving force must not be weakened, as it will be if we let the myths cloud reality, because, if people feel betrayed when the reality is not what they thought it was, they will lose heart in what they are doing.

How can these myths be demolished and a more realistic understanding and operational base be developed?

With only four years or so to go until the end of the Decade of Landcare, the bureaucratic myths should be recognised for what they do and do not promise or achieve. A special initiative should identify some few specific strategic goals achievable by the year 2000, to which governments would make genuine and realistic commitments, including provision of adequate financial and personnel resources. It would probably mean making some hard choices. It would require genuine integration between all three levels of government and across all agencies of government. Landcare groups should be invited to help determine these goals and to consider what contribution they too could make. The preliminary groundwork should be started now and the 1997 National Landcare Conference could provide an opportunity for this process to be initiated seriously. There would need to be a clear distinction between the different strands of Landcare as such, and the context of the broad aims of ecologically sustainable development (ESD) in which it sits. It is probably too much to hope for a real whole of government approach which would require appropriate structures, including Cabinet Committees.

A framework for the evaluation of Landcare in 1997 should be developed now which attempts to distinguish between the different strands of Landcare and how they are integrated, or not. The initiative should come from the Commonwealth, but States, Territories, Local Government and

Landcare groups should be involved in developing that framework, thus owning the processes. The results of the evaluation would form part of the basis for the development of the specific strategic goals for the end of the Decade, and commitments to those goals, which I have just proposed. The evaluation would also form a blueprint for assessing the success in reaching those goals, or otherwise, by the year 2000, and provide a basis for decisions on future action.

Landcare is a long-term process, as Landcare group members are continually reminding us. The Government is only committed to the Decade of Landcare. If long-term goals are to be achieved, there will need to be a strong community movement acting as a driving force into the next century. Landcare groups will have to develop an independent voice, but will need to recognise the problems with this. Will government want to give up the control it now has? Could such a movement be truly inclusive, and thus reflect the holistic nature of the Landcare ethic, and what will it need to do to achieve that and safeguard itself from factional takeovers?

Farmers' organisations and environment organisations could assist these processes by developing joint initiatives to support Landcare groups on issues of mutual concern – such as chemical use or nature conservation – that are relevant to Landcare. They could also develop ways in which the expertise of their respective memberships could be made available in appropriate ways to provide support for Landcare groups.

As with all countries, Australia has two sets of fundamental assets – its land and its people. Ideally the people and the land should coexist in a state of balance and harmony with each other. But this is rarely so, and many countries have to rely more on one than the other for their country's development. In extreme cases, there are countries such as Singapore, which has to rely almost solely on the productivity of its people because its land is so limited, while a country such as Nauru has exploited the land's assets to the exclusion of all else. Australia has not had to make such extreme choices – yet! We have neither mined our country to desolation as in Nauru, nor do we have a large population to support in relation to our land mass as in Singapore. Nevertheless, in Australia choices have been made in the past – in relation both to the way we use the land and the size and make up of our population – which are having an impact now, and we are making choices now which will have an impact in the future. Will those choices allow the people of Australia to live in balance and harmony with the land now and in the future?

If I have been critical of a number of aspects of the operations of the National Decade of Landcare, it is because I fear that, if Landcare fails, its grand vision of transforming Australia and ensuring that there is a balance and harmony between the land and the people will not be achieved. If we can realistically plan to achieve that vision; if we can test what we are doing so that we can be sure that we are doing the right things for the land and for the people; if we can truly achieve a partnership to do this between government and a strong and effective community movement, which is supported by those organisations with the greatest interest in achieving all this; then we can achieve this balance and harmony. If we care for the land, then the land will care for us – all Australians, now and in the future.

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11

Facilitating Landcare: Conceptual and Practical Dilemmas

Andrew Campbell

The current questioning of Landcare, its achievements and its directions is necessary and potentially useful. However it is also becoming quite murky, as it ranges across the whole gamut of rural sustainability issues: local/regional/State/Federal roles and responsibilities; social/private and market/non-market benefits and costs; profound and seemingly intractable rural decline; reconciliation of social, ecological and economic goals; competing views of the roles of the state and the market; and much rhetoric about the value of community participation amidst confusion over what Landcare is about and what it can achieve. This contribution to the debate is an attempt to think through some of these issues from the perspective of one who believes that voluntary local land conservation groups still have much to offer.

Elements of the Landcare dilemma

If Landcare is to make a lasting contribution to improving rural sustainability it must come to grips with some thorny issues, including:

Unrealistic expectations – ‘land is still degrading and farmers are still going broke, therefore Landcare has failed!’

Confusion over who should pay for what – the size of the total funding cake and its allocation, both at local/regional/State/Federal levels, and for what purposes; on-ground works, planning, land resource inventory and monitoring, skills enhancement, research and development, awareness raising, etc. In philosophical and political terms, it has been suggested that the language of ‘community participation’ and ‘bottom-up’ has provided a convenient cover under which an economic rationalist state has transferred responsibility for land degradation, without commensurate resources, from government to the community level (Lockie, 1992, 1994a; Martin *et al.*, 1992; Martin & Woodhill, 1994; Vanclay, 1994).

Preoccupation with funding – as tough economic conditions and drought have severely constrained land users’ capacity to fund capital works, and state agencies have cut back ‘traditional extension’, National Landcare Program (NLP) funding has become ever more important for Landcare groups and the staff working with them. It could be argued that the energy and paper expended in seeking, obtaining and accounting for funds and complying with the funding timetable has detracted from more imaginative, catalytic activities using local resources; leading to a formularisation of Landcare and a perception that if you don’t have an NLP grant you can’t do anything.

Implementation – what’s that? – much is spoken of the need to move beyond awareness raising and planning, and into implementation, but few districts seem to be clear on just what are practical, profitable and more sustainable farming systems for their area. Where they do exist,

we need better ways of identifying and evaluating the public good to justify investment of public funds on individual properties, and to work out equitable cost sharing arrangements.

Groups versus catchments/regions – natural resource management at the catchment scale has become the flavour of the month (soon to be superseded by integrated regional development). There is a natural progression in thinking from voluntary local groups concerned with fixing land degradation, to scaling up to look at sustainable land management at the catchment level, to realising that environmental issues are intricately entwined with regional economic and social development. For a Landcare group leader with energy and talent, it is stimulating to consider these wider issues, and a natural move to become involved at a catchment or regional level, which can potentially provide an improved framework for local group action. Yet paradoxically, this process can also accelerate burnout and disillusionment among the limited number of committed leaders in a given district, and can rob the local Landcare group (seen by many to be the implementation level, the natural engine of the movement) of much of its direction and momentum.

It is beyond the scope of this chapter to outline a comprehensive, integrated response to all of these issues, but it is perhaps worth working through some key questions: What is Landcare about? What can governments realistically expect of Landcare groups and vice versa? Where are we headed with Landcare leadership, facilitation and coordination roles? How could we streamline the resourcing of Landcare? and; What are some of the key choices and possible directions for the rest of the nineties? Feedback on these issues is welcome.

What is Landcare about and what can we expect of it?

There are many ways of looking at Landcare, many perspectives from many angles. It can be seen as: local community action to repair land degradation; a grassroots voluntary movement at the brown end of the green spectrum; a group extension program; a framework for delivery of government funds and technical advice; a way for the state to shift responsibility for land degradation to the community level; a strategic approach to land conservation issues demanding cooperation at scales greater than the individual property; an awareness-raising organisation; a means of enhancing farmer to farmer communication; a forum for local people to discuss, learn about and act upon issues of common concern; an outlet for land users keen to improve land management; a social focus for sharing the stresses of rural decline; and a way of changing (sub)cultural norms.

Of course many of these views of Landcare overlap, and they are far from mutually exclusive. However, any discussion about what Landcare has achieved and where it is headed should be based on a clear position on the role and objectives of Landcare. Much of the current debate about Landcare is characterised by confusion over these key issues.

Landcare in this chapter refers to the network of 2,500 or so voluntary local Landcare groups and the institutions which have evolved to support them. This is a more narrow definition than most. 'Landcare' has come to refer to almost anything done about land degradation or towards sustainability, whether by individual land users, corporations or governments. The attractiveness of the word has led to its wide appropriation, which has become a problem (Lockie, 1994b; Vanclay,

1994). For example, the name change from the National Soil Conservation Program to the National Landcare Program fuelled expectations that NLP funds should go mainly to Landcare groups, underpinning cries that ‘only 14 percent of the money hits the ground, the rest is tied up in bureaucracy!’. The fact that the NSCP/NLP has always been about fostering national (ie State and Commonwealth) approaches to land conservation, and was never intended to be a bank for Landcare groups, has become obscured, which is understandable given the name of the program. With hindsight, it would have been better to call it the National Land Conservation Program, or even the Sustainable Natural Resource Management Program, with a substantial Community Landcare sub-program.

This chapter is based on the view that the principal role of Landcare groups is to generate commitment to sustainability at a rural community level, to change social norms in favour of developing more sustainable systems of land use and management. The ultimate objective of Landcare is rural sustainability, but the role of the voluntary local Landcare groups and their support system is to create a demand for this, to change local notions about what is ‘good land management’ and to establish a supportive context for land users attempting to develop more sustainable systems. In many areas it also means developing cooperative approaches to tackle particular issues such as biodiversity, catchment hydrology or pest and weed management, which demand coordinated collective action. Of course groups also do many other things, but I believe these are their core functions, certainly in terms of the rationale for public support for Landcare, the focus of this chapter.

Note that none of this says ‘works on the ground’. The extent to which land degradation problems are fixed and land management changes implemented depends on the everyday decisions of individual land users, decisions which are only influenced at the margins by Landcare groups. It is unrealistic to judge the success or otherwise of Landcare by the extent to which changes occur on the ground. Other more important factors include the availability of profitable, practical, technically sound land management options and the financial and life-cycle situation of the land user. People frustrated at the slowness of change in Australian farming systems might focus more fruitfully on research and development (funding levels and mechanisms, priorities, and delivery processes); on Australian trade policy; on structural issues in Australian and global agriculture (see Vanclay & Lawrence, 1995); on land management regulations and their enforcement; on market imperfections; and on Australian rural development policy, or lack of it (see Sher & Sher, 1994).

Criticism of the NLP because it ‘does not fund works’ or because ‘none of the money reaches the ground’ risks throwing the baby out with the bath water. It is unlikely that land management would be substantially improved even if governments gave all the NLP funds in grants to Landcare groups. Our tools for evaluating public versus private benefits and costs are crude indeed, but some ‘back of the envelope’ calculations suggest that public investment on a scale several orders of magnitude greater than the current NLP is required to tackle effectively issues such as water quality in the Murray Darling Basin; protection and management of farm bushland and riparian zones; establishment and resourcing of a national reserves system and regional forest industries; management of feral animals and exotic plants; upgrading infrastructure and financing structural adjustment in irrigation country; and so on.

The key points here are that Landcare groups are about generating local commitment to sustainability and developing cooperative approaches where appropriate. This is a valid and appropriate thing for governments to support, but it should not be the only thing they support, nor even necessarily the main focus of funding. Community will and conducive social norms are a necessary, but insufficient, condition for on-ground changes of the scale required, and much criticism of Landcare would be better directed at bringing about complementary policy changes. Nevertheless it is appropriate to think about how Landcare is supported and how this can be improved.

Supporting Landcare

The NLP provides funding (at least partially) for about one thousand staff positions, of which about ninety are in (mainly full-time) facilitation roles and 142 are involved in (often part-time) Landcare group coordination (Alexander, 1995). The way in which these positions are managed over the next few years will be a key factor determining the ultimate influence of Landcare. It is beyond the scope of this chapter to elaborate on Landcare facilitation and coordination roles, which are discussed in more depth in Campbell (1994, 1995, in press) and Carr (1994).

Nevertheless, several points stand out. Landcare facilitation is not some warm, fuzzy, value free, 'I'm just here to respond to the community' neutral, independent exercise. Governments, or any other sponsors, will fund staff to the extent that they contribute to sponsors' goals. The rationale for public funding of Landcare group facilitation has not been well articulated, but it would probably be something like the following:

- Traditional one-to-one extension has not delivered;
- We need the community to own both land degradation problems and their solutions;
- Voluntary local land conservation groups have emerged and should be encouraged;
- These groups need assistance from people with skills in group dynamics and group process to understand their natural resource management issues, to develop integrated cooperative approaches to dealing with them, to set directions and define priorities, to handle apathy and conflict, in short to make the most of human resources at a community level.

From a Landcare group perspective, the job of a facilitator is unlikely to be as narrowly defined, and could be summarised as 'someone to help us work out where we are going and to help us get there'. Of course these two perspectives may substantially overlap.

We need to be clear on the difference between facilitation and leadership, and between processes and outcomes. As discussed in Campbell (1994, in press), Landcare group facilitation is about fomenting group synergy, about helping groups to make best use of the human resources available, about helping to develop a shared sense of direction among the relevant actors (within and beyond the Landcare group), about skilled listening, asking the right questions of the right people at the right time, providing occasions, organising encounters and stimulating interaction among target stakeholders.

The word ‘target’ may jar in a discussion about something as apparently non-threatening as facilitation, but facilitation should be seen for what it is – a strategic intervention for a more or less well-defined purpose. However around Australia at present, Landcare facilitation often looks anything but strategic, and its purpose often seems lost. The growth in the number of Landcare groups and cutbacks in state agency extension resources has meant that many regional ‘Facilitators’ rarely do any group facilitation at all, they have become paper shufflers, photocopiers, interpreters of funding guidelines. They are submerged under demands from many groups over large areas, are on short-term contracts with minimal perceived security, are expected to provide technical advice in areas in which they are barely qualified and/or experienced, and rarely find the time to think and act strategically. Sadly, many of these people finish their contracts burnt out and move on, taking their contacts, insight and experience with them.

Revealing agendas

In any situation where natural resource management is seen to be problematic there are likely to be a range of stakeholders with multiple, partial perspectives. Clashes of values and interests between stakeholders with a vested interest in the status quo and those agitating for change are inevitable. Furthermore, in situations where would-be facilitators are employed and/or funded by institutions, there are potential conflicts between that institution and other stakeholders. One of the first challenges for facilitators is to be clear, firstly to themselves and then to other stakeholders, about for whom they are working, and why. It should then be possible to carry out an initial stakeholder analysis, to identify those social actors who need to be involved (whether in Landcare groups, catchment management committees or planning processes) if they are to be successful in improving natural resource management. This process is never finished, but in its initial phase it should start to scratch the surface of conflicting values and interests, which leads to the next thorny question.

What do you do when you realise that one of the powerful vested interests in a resource use conflict is the agency which is employing/funding you? The reason it is funding you is to work towards its own ends under the rubric of ‘bottom-up’, ‘community-based’, or ‘grass-roots driven’ approaches – more sophisticated, less heavy-handed intervention than traditional methods which have proven to be ineffective, but intervention nevertheless. The interests of other stakeholders, part-time farmers or non-agricultural land users for example, may be inimical to those perceived by the ministry or NGO hosting the facilitator, yet the rhetoric of the contract/project may glibly refer to ‘community empowerment’ as a goal. When push comes to shove, whose views prevail? Whose interests does the facilitator take up? Who gets to sit around the table?

There is no such thing as a neutral, detached, value-free facilitator. It is ridiculous to pretend otherwise. One must make one’s values explicit. Anything less undermines the chances of facilitating meaningful interaction. Most stakeholders accept and expect that everyone has an agenda of some sort. If an actor is willing to be a facilitator, or to sponsor a facilitator, it is always for a reason. Some Landcare facilitators describe themselves as ‘the voice of the catchment’, speaking and acting explicitly in the public good interests of sustainable use of land, water and biodiversity, while accepting that the farmers in the catchment will be acting in the interests firstly of their individual farms and their families, before considering other people, other species or future generations. Where these interests clash, or where knowledge is clearly inadequate,

facilitators are likely to be more credible if everyone is clear where they stand. For facilitators who are 'insiders', rather than people imposed from an external institution, it is even less feasible to try to act in a neutral, value-free way.

Technical competence and/or people skills

By 'facilitators', I mean people acting (even if only temporarily) in a facilitation role, whether at the Landcare group level, the catchment level or more widely. We need to ask though whether people whose main role is facilitation can afford to concentrate solely on group process, on resource use negotiation and conflict resolution processes, without any technical background in natural resource management? In other words, can one survive on facilitation process skills alone, or is some content expertise necessary? With a shortage of people with appropriate technical knowledge and experience, wouldn't we be better off just ensuring that technical specialists are trained to improve their 'people skills'? It is very difficult for facilitators to conceive or create occasions or encounters during which interaction, learning or synergy among stakeholders might occur, if the facilitator's technical appreciation of context is not sufficiently fine to recognise or contrive opportunities. Similarly, a stagnant or stalemated situation can often be overcome with the introduction of information, expertise or assistance from outside, and it helps if the facilitator has sufficient technical nous to know what to ask for, where to look for it, and how to distinguish between useful information/people and clever packaging. It is feasible to develop facilitation competencies among people trained in natural resource management, just as it is possible for people trained in the social sciences and community development to become ecologically literate in a particular context, as long as facilitators are humble about their expertise, aware of gaps in their knowledge and keen to learn. Within the one job description however, it can be difficult to maintain a balance. Anna Carr notes from her case studies that where facilitators were expected to provide technical support, as well as facilitating community groups, the former role tended to take over. The facilitator was drawn by their technical role into giving one-to-one advice to individual group members, thus losing sight of the quality of relationships among group members. When the facilitator moved on, so did group cohesion (Carr, 1994).

There is a place for specialist full-time facilitators in Landcare; providing training for practitioners who work in more varied roles, facilitating interaction among key stakeholders from time to time, troubleshooting in problematic situations and providing higher level process expertise. There are undoubtedly many situations which could be improved just with the injection of some facilitation skills. However, facilitation alone, in the absence of appropriate technical expertise, is rarely sufficient to further rural sustainability.

Facilitation in context

There are many roles emerging within the broader landcare movement which involve facilitation, and thus facilitation skills to a greater or lesser degree, from traditional on-farm advisory work at one end of the spectrum to resource use conflict mediation at a regional scale at the other. Figure 1 below attempts to portray such a spectrum, including people working in land literacy and labour market programs and the various roles emerging in sustainable natural resource management at the regional level – including planning, management, economic development

and conflict mediation. This spectrum is presented in two dimensions according to the relative weighting given to facilitation process skills as opposed to technical subject matter content expertise, and according to the relative ratio of public to private benefits. These are broad categories of course, and other roles and subcategories could have been included. The main point to emerge from this is the need to look broadly at roles in sustainable natural resource management at all levels, moving beyond the generic terms 'facilitator' and 'coordinator', taking a whole of government approach and working out cost sharing arrangements accordingly. Much of the energy currently directed to attacking the Commonwealth about money not reaching the ground might be more properly focused on changing political priorities at the State level, exposing instances where States have propped up weakened technical infrastructure with NLP projects, in competition for resources with community groups. Facilitating Landcare group activity assumes different dimensions in regions where there are no clear technical solutions to resource management issues, and/or where State cutbacks have drained the pool of available technical expertise.

Figure 1. A spectrum of roles in sustainable natural resource management

The skills required of a land literacy person are different from those needed for catchment planning or regional economic development, even though each role requires 'people skills' and occasional use of facilitation processes. It is important then to be clearer about what we want people to do, why (and which) governments are investing in these positions, and where these positions fit in the overall picture. It is also important that people working in Landcare, at whatever level, are clear about what their core business is. When this is clear, it is then more straightforward to resolve issues such as whether the person should be a local or otherwise, what sort of background

and training is appropriate, how long contracts should run for with what sort of security, and who should pay for what.

'Beyond the project'

Project funding is a critical issue which is a key to many of the dilemmas for Landcare listed in the introduction. Most of the money which goes directly to Landcare groups is for discrete projects, funded according to submissions which must clearly state project objectives, the methods to be used, the resources required, the sources of funds and a clearly defined timeline, usually three years. The guidelines distributed to Landcare groups are all project guidelines. These guidelines have, by default, tended to become a steering mechanism outlining 'what Landcare groups do'. For example, the fact that NLP funds are generally not to be used for works, whereas groups can access One Billion Trees and Save the Bush funds for on-ground works, means that the only activities for which groups can easily get funds are tree planting, which reinforces the image that Landcare means tree planting. An unintended consequence of NLP project funding has thus been the tendency to circumscribe Landcare group activity. While Landcare group projects are intended to be catalytic, in fact they often become an end in themselves, conversely leading to an impression among Landcare groups that if you do not have 'a project' or any NLP funds you are not a 'good group' and cannot do anything.

The vast majority of administrative effort and paperwork associated with the Landcare Program is absorbed in processing project applications. I have spoken to Landcare 'facilitators' recently who say they spend most of their time dealing with funding applications, helping groups with submissions, photocopying and mailing – essentially administrative tasks – and who feel that the sheer numbers of groups they are expected to 'service' preclude any strategic facilitation. This situation often reflects resource allocation priorities of state institutions at the regional level, leaving the 'facilitator' as the meat in the sandwich between actors with only partly overlapping agendas – Landcare groups and state agencies.

Landcare interventions are dominated by projects. The main way groups are seen to progress is through obtaining funding and implementing projects, and there is an element of competition between Landcare groups to come up with the best project, to attract the most funds, to be the most active. Groups sometimes even list the amount of money they have received as a performance indicator. Applying for and using project funding has become the key interface between Landcare groups and 'the system'. While there have been some evaluations of individual Landcare group projects, the whole concept of 'the project' has yet to be evaluated, yet it remains almost the only form of state funding for Landcare groups, especially as state extension resources have been withdrawn and remaining state extension staff have tended to be employed on short term, project funded, contracts.

While examining the factors which influenced the effectiveness of Landcare groups from 1989-92, it became very clear to me that it is undesirable for Landcare groups to get project funding too early in their development. When a Landcare group receives government funds before it has achieved anything with its own resources, and before it has a clear idea of its direction and priorities, it is easy for a cargo cult mentality to develop, which means that when the funds dry up, so does the initiative and activity of the group. Unless groups are well led, or have access to

skilled facilitation supported by sound technical advice, projects (especially for the trifling amounts for which Landcare groups are eligible) can be more trouble than they are worth, and can actually preclude the possibility of real empowerment.

Landcare facilitation is no substitute for fundamental reform

Without complementary changes in the wider political and economic environment, the good will and commitment fostered by Landcare groups is likely to wither. More fundamental constraints to rural sustainability are discussed in more detail in Vanclay and Lawrence (1995) and Campbell (1994). None of these constraints can be effectively resolved simply by giving lots of small grants to voluntary groups of farmers to implement demonstration projects or to prepare catchment plans. That is not to say that the notion of the 'Landcare group project' is inherently flawed – projects can be extremely important in providing groups with tangible resources and experiences which potentially enhance their self-reliance and effectiveness – however, projects can divert energy away from considering the more fundamental changes necessary to make Australian land use more sustainable.

A sentiment that was very evident in interviews with Landcare people throughout Australia in the early 1990's (Campbell, 1992), and which unfortunately seems to be even stronger now, is that rural people no longer feel valued or needed by the rest of the Australian population. Outpourings of sympathy and support during droughts and floods may even exacerbate this sense of marginalisation as rural people find themselves the recipients of welfare and the subjects of charitable appeals. Across the broader landcare movement, one sees a range of policy initiatives, from rural adjustment and financial counselling through labour market programs, education and training, rural economic development, property management planning, regional forestry agreements, the various elements of the NLP and strategies for Ecologically Sustainable Development, Biodiversity and Greenhouse among others, and a general clamour to focus on implementation at the regional level. Yet there is little sense that these disparate elements form a coherent, integrated package with a clear long term direction based on an explicit preferred future for rural Australia.

Conclusion

Landcare groups have a fundamental role to play in fomenting commitment to sustainability at a community level, and in acting cooperatively to improve natural resource management. Both of these foci demand local leadership, skilled facilitation and, particularly in those regions where human resources are already scarce and/or stressed, some injection of financial and organisational support. Stakeholder participation is a necessary, but insufficient, condition for rural sustainability and effective facilitation is an important, but not necessarily sufficient condition, for stakeholder participation. Facilitation is not a neutral intervention independent of any political context or preconceived preferred outcomes. The state, or any other institution, will support facilitation to the extent that facilitation furthers its aims. For the consolidation of Landcare in Australia, it is important that these aims, and the future of Landcare facilitation, coordination and technical advisory roles, are clarified and related to complementary policies for rural sustainability.

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12

A View from the Ground: Farmers, Sustainability and Change

David Davenport

Since its establishment in 1989, Landcare has developed a broad base which has been seen to embrace a wide variety of programs, and considerable praise has been accorded it both here and overseas. In recent times, however, an increasing level of dissatisfaction has become evident. Debate on the direction of Landcare has arisen, along with concerns regarding the actual level of change being generated. Many consider that the influence of international agrimarkets is constraining the implementation of programs to reduce degradation, thus negating the efforts of Landcare groups. On a local level, critics point to the limited amount of funding reaching the grass roots of the movement. Also, there is concern that a reduction of State extension services to the agricultural sector may have seriously affected the level of technical assistance available to Landcare groups. These and other elements are fuelling a debate in respect to the effectiveness of Landcare to promote the goal of sustainable development.

There is also recognition that enthusiasm is now being replaced by frustration in some of the more established groups. Complaints about the lack of support to group members, the bureaucratic processes most groups are subject to (particularly the funding process), as well as concerns with the direction the program appears to be heading are becoming more common. Landcare's growth now appears to be slowing, despite both the general acclaim and positivity exhibited by support agencies, and the fact that almost 70 percent of farm enterprises are not involved (see Mues *et al.*, 1994).

The implications for agriculture and the environment in this country are immense. It is apparent that Government – at least at a Federal level – is supporting Landcare as a major vehicle for rural change. The failure of the National Landcare Program (NLP) would be a serious loss. Hence it is not surprising that critical analysis of this program has and will continue to occur. This chapter seeks to add to the debate by identifying the major issues that have emerged, and relating them to experience gained during three years of personal involvement as a farmer-member of a community Landcare group. Specific attention will be given to:

- the attitudinal elements influencing land management;
- the constraints acting on the expression of these attitudes and the practical methods available to allow implementation of suitable management practices;
- the social and cultural issues operating within rural communities that impact on Landcare group effectiveness; and,
- the response of government extension agencies to the challenges involved.

As sociocultural conditions are very diverse, and the method of operation and levels of extension support vary in each State, this study does not claim to be representative of the situation occurring throughout the Landcare Program. However, it is my feeling that many of the issues raised in

this chapter have common roots in rural society generally, and that examination of these can demonstrate the degree to which sociocultural relationships and practices can constrain those who seek to change community practices.

Community awareness

From its genesis, Landcare has been promoted as a partnership between the community and government to address natural resource degradation and develop more sustainable landuse. The central tenet of this partnership was to focus on 'community ownership' of the process achieved through increasing awareness hence (logically?) leading to the adoption of more sustainable practices. The attractiveness of this construct led many to consider that the major role of Landcare was, and is, to facilitate a change in community attitudes. Several questions immediately become apparent.

What is the current rural community attitude towards the Land?

It has been demonstrated that in general farmers already possess a strong custodian attitude to the land (Vanclay & Lawrence, 1995). However, this does not mean farmers automatically instigate improved practices, as there are at least several other factors that influence the expression of this attitude. Firstly, it is important that these practices conform to cultural norms and values which may, or may not, be compatible with a sustainable philosophy. Also, the extent to which land degradation issues are actually recognised and acknowledged is a factor influencing attitudes and behaviour. In my experience many farmers with a family farm history dating back 150 years or so have difficulty in accepting that the condition of the land has deteriorated. Issues such as soil acidity and fertility decline occur over long periods, further lessening awareness of the problems (Vanclay & Glyde, 1994). Improved cultivation techniques, fertilisers, weed control methods and cultivar selection have also, to some extent, masked negative impacts on production. While obvious forms of degradation, such as salinity, are acknowledged, they are often considered to be 'somebody else's problem'. Studies conducted by ABARE (Nelson & Mues, 1993) found that while many farmers recognised a degradation issue few considered that they were contributing to it. Even where responsibility is accepted, the urgency to address such issues is often lessened by arguments that, for example, 'we have always had salinity', or 'the water is coming from elsewhere'. It is thus apparent that current attitudes do not appear to favour the development of sustainable practices.

What attitude is required?

Brian Roberts (1993) argues that the development of a 'Land Ethic' based on a respect for land is an important precursor to achieving sustainability. He contemplates a quasi-spiritual harmony with the land, a partnership based on understanding and sharing rather than exploitation. As an ideological construct, I support this view, but have considerable doubt as to the extent that farmers will adopt what to them may be a major philosophical shift. It must be recognised that worldviews have been formed by cultural influences over many generations and unless a major crisis is seen to be imminent it is unlikely that a change of this magnitude will occur in the foreseeable future.

Who is going to decide the 'right' attitude?

Given the heavy emphasis on self-reliance and independence in rural communities it is hardly surprising that attempts by external agencies to impose change in agriculture practices have not, on the whole, been very successful. Past attempts to influence the attitudes and practices of Australian farmers have largely been directed through government extension services. The implementation of agendas set by governments have been based on a 'top-down' approach, with extension officers working with individual landholders. It is widely recognised that this approach has failed (Lockie, 1997; Vanclay & Lawrence, 1995), and in response the Landcare movement has tried to construct – in rhetoric at least – a 'bottom-up' approach seeking to develop 'community ownership'.

Attitude and awareness: how important are they anyway?

Many are now starting to question the central position accorded to increasing community awareness and understanding in promoting sustainable landuse (Curtis & De Lacy, 1997; Vanclay & Lawrence, 1995). Barr and Cary (1992: 284-5) have observed that:

Perhaps our greatest concern is with a widespread belief that the most important task to achieve a more sustainable agriculture is the raising of community awareness and changing farmers' attitudes to their land ... What is required are profitable and practical conservation farming techniques and management strategies. Where these are not available the best assistance is research directed at producing and promoting practical and profitable solutions, rather than a reliance on evangelical calls to better farming and changing community attitudes.

This view is supported by research which indicates that for many farmers there is a discrepancy between their attitudes to the environment and their behaviour towards it. Although most are aware of degradation, adoption of measures to address these issues often does not occur (Barr & Cary, 1992; Vanclay & Lawrence, 1995). It is therefore apparent that there are other factors affecting implementation of sustainable practices.

Constraints to action

Vanclay and Lawrence (1995) argue that the failure of farmers to adopt environmental management strategies is not necessarily irrational, and that very practical problems constrain the development of more sustainable practices.

Time constraints

In the present economic climate, many farmers are working long hours, which severely restricts the amount of time available to spend on activities that are not seen as essential farm tasks. The animal husbandry and cropping portions of farm work constitute largely non-discretionary time inputs, and as such 'have' to be done. Other activities – such as fencing, farm machinery maintenance etc – support the key farm roles and are frequently attended to by the owner as a cost saving measure. Many farmers employ little hired or contract labour, leaving their time heavily committed. They must critically appraise all activities requiring any time commitment, with the result that 'non-essential' tasks are often neglected. Doubts as to the actual benefit to

be obtained by implementing conservation measures mean that addressing degradation is accorded a low priority by many farmers. This low status is reinforced by the perception that Landcare involves a lot of 'red tape'. It is my experience that many farmers, both in and outside of Landcare groups, believe that there is a lot of 'stuffing around' inherent within the system. The inordinate amount of time spent in meetings, workshops etc generated by the bureaucracy supports this belief and is seen to detract from the time spent on 'necessary' activities.

Availability of alternative strategies

Many degradation issues are subject to long lead-times before the results of strategies to address them are apparent, and in some cases the answers are simply not available (Campbell, 1992). There is also a level of scepticism within the rural community regarding information provided by government 'experts'. These factors combine to see farmers take a wary stance towards the adoption of new farming practices (Vanclay & Lawrence, 1995; Reeve, 1988). This is particularly evident given the recent downturn in farm profits.

Financial

It is recognised both here and elsewhere, that despite increased production levels, returns to farmers have declined in real terms (Chisholm, 1992). This has been seen as a major constraint restricting the ability of farmers to address land degradation (Vanclay & Glyde, 1994). For many, particularly those farmers with high debt levels, this is a major problem. However, among some of the more affluent farmers an expressed lack of financial resources is more an expression of the low priority they attach to developing sustainable practices than a practical constraint. In my own area of activity, I have found that while many farmers state that they cannot afford to address degradation, or even allocate resources to improve productivity (eg, rejuvenating severely degraded pastures), lifestyle and material status displays are often maintained. Examples may include the regular updating of family vehicles or the maintenance of discretionary spending on social activities. Financial management must be placed, therefore, in a wider personal and cultural context in which limited data to confirm the projected economic return of addressing degradation is likely to see it relegated low priority. It is also important to question in this context the level of knowledge farmers hold concerning degradation and its effects.

Farmer Knowledge

Studies conducted by Vanclay and Glyde (1994) in New South Wales found that the level of farmer knowledge about methods to address land degradation is relatively low. Vanclay and Lawrence (1995) consider that a major reason is that many forms of degradation fall outside of farmers' past experience and as a result action is often neglected.

In my own area, I have found that this factor is not just related to environmental issues but is also evident in an apparent lack of knowledge regarding many agronomic principles. Prior to the commencement of the Landcare Group, it was evident that many farmers did not have a basic understanding of soil properties. As a result, there was, and still is, a limited awareness of fertiliser and liming requirements to maintain fertility and promote pasture growth. There was/is little understanding of the benefits of perennial pastures and relatively basic knowledge such

as pasture species identification is limited. While this can be seen to reflect the education levels of most farmers it is important to recognise that the level and type of knowledge held is consistent with the norms and values of the farming subculture of the district. However, it is important to note that this subculture does not embrace all farmers in the district, but that social stratification has led to differences in knowledge levels. For example, until recently most farmers in the area had not conducted soil testing or pasture analysis, and had limited awareness or respect for management tools such as whole farm planning. The exception to this are the two largest landholders, who can be considered to be the ‘top-end’ farmers of the district. These farmers have had considerable involvement with various government extension programs promoting these practices, and it is noticeable that they possess higher knowledge levels than the ‘middle-range’ farmers.

These social differences also cause the adoption of defensive postures by both groups. The middle-range farmers appear to either ignore or not know how to address obvious degradation. This may partly result from pressure felt that admitting to degradation could adversely affect their status in the community. Hence a defensive attitude is frequently adopted where farmers either do not acknowledge that the condition of the land has deteriorated, or rationalise non-action with arguments such as ‘it’s a bad year for nutweed’, or ‘there was always salinity here’. The top-end farmers are forced to defend their relationship with extension agencies as the middle-range farmers consider the acceptance of government assistance as receiving handouts.

Thus it can be seen that the managerial knowledge of the top-end farmers is greater than that of the middle-range group. This is not to infer that the latter are without knowledge, but that a heavy reliance on previous experience has resulted in skills strongly based on action implementation rather than planning functions. Hence, while demonstrating skills in activities such as fence erection, tillage operations, animal husbandry, machinery maintenance and other ‘practical’ tasks, there is an obvious lack of expertise in ‘management’ functions. It could be argued that most farmers in this district are actually farm workers rather than farm managers.

The extension dilemma

The constraints to action discussed above have important consequences for Landcare development strategy, with implications for the style and level of support required from extension services. Yet despite appearing obvious that providing support to a broader, less educated base would require greater resources, rationalisation of agricultural extension services has seen a decline in the availability of technical advice to farmers (Vanclay & Lawrence, 1995; Lockie, 1997). It is important in this context to ask questions about the effectiveness of extension services and how this might best be improved.

Attitudes to Extension

The ability of extension officers to work with farmers is strongly influenced by the standing they have in the community. Anderson (1979) demonstrated that in south-eastern Australia there was a stigma attached to government workers by many farmers. This attitude is found in my own district (most commonly in middle-range farmers), and comments such as ‘they are all the same’; ‘if they know so much about farming why aren’t they doing it?’; and, ‘those who can, do;

those who can't, teach'; are commonly expressed. The reasons for this attitude are complex (see Vanclay & Lawrence, 1994), but a major influence in the district I work in has been the lack of exposure many farmers have had to extension agencies. In accord with the 'top-down' method, previous extension efforts in this region have been heavily directed towards top-end farmers. Unfortunately, it can be seen that the introduction of the 'bottom-up' method has still tended to cater to this group, leading to reinforcement of social divisions.

Extension Understaffed

I consider that a major reason for much of the weakness in the current extension service is the lack of resources which has forced extension officers to operate in a responsive capacity, rather than in a strategic manner. This can lead to development of the top-down method, as often the most frequent request for assistance comes from the top-end farmers who have a history of working with extension agencies. Also, working with these farmers can be seen to be more efficient (Arnon, 1989); a belief that is reinforced where the extension officer classifies 'good' and 'bad' farmers with an inclination to then provide greater service to the former, when it is the latter who need the most assistance (Anderson, 1979). Responding to the interest of the top-end farmers is an understandable reaction, and can be seen to reflect the previous extension approach which many extension officers have experienced. Thus, while the intention in programs such as Landcare has been to apply 'bottom-up' extension methods, the actual implementation has more closely resembled top-down methods (Vanclay, 1994). What is the end result?

It has been observed that the choosing of contact farmers (usually top-end farmers) as models for technology transfer can exacerbate social differences and actually result in limited adoption by the broader community (Arnon, 1989). This accords with my own experience, where it has taken considerable effort to change the view that Landcare is just another means for 'wealthy' farmers to access government funding. Some view the 'community ownership' tenet of Landcare as an intrusion into personal rights, a sort of 'greenie/bureaucrat' partnership. Others believe that governments are seeking a 'cheap way out' by thrusting responsibility to deal with degradation onto the community – talking up the issues but at the same time reducing financial commitment. These issues are basic to the success of Landcare, but are they being addressed?

Landcare: is it addressing the issues?

It has become apparent that Landcare is not successfully addressing many of the issues facing landholders. A major area of discussion appears to concern the issue previously discussed in this chapter – the importance attached to changing attitudes as distinct from addressing pragmatic concerns.

Attitude Versus Pragmatism

Helen Alexander (1995) believes that a major shift in thinking and skill levels is required in rural areas to deal with the barriers to sustainable development. I would concur with these views, but believe that first it is necessary to demonstrate that sustainable practices are both environmentally and economically attainable. I believe that there is considerable scepticism among many rural people concerning this concept, and that farmers are generally more worried about the short-

term survival of the farm than nebulous concerns about what problems may, or may not, arise at some indeterminate time in the future. The debate is somewhat convoluted, in that it is necessary to address the practical constraints facing farmers but, paradoxically, many of these constraints will not be addressed unless there is attitudinal change. I believe, that as these elements are interdependent, the major issue of concern for Landcare is not what should be the main focus of the program, but what is the most effective way to implement programs within the acting constraints, and in a way that will result in changes of attitude *and* behaviour.

Strategic Development

According to Alexander (1995), weaknesses in the Landcare Program are largely due to the lack of an overall strategy which considers all the elements shaping rural Australia. Alexander (1995: viii) observes that 'there is no broadly-shared vision or 'corporate strategy' for Landcare, rural Australia or sustainable development', and suggests the need for a 'whole-of-government' approach involving all three tiers of government and crossing departmental boundaries. In conjunction with this departmental support, Alexander and others recognise the need for a reassessment of the 'community driven' basis of Landcare, as there is doubt about the actual extent that this concept has been developed. Indeed, Vanclay (1994) considers that despite the rhetoric, Landcare embodies a hegemonic project that disguises what are, in reality, top-down strategies. To a certain extent this may be occurring due to a lack of experience in group extension techniques on the part of extension agencies, but it can also be argued that the main problem is that development of the model has been without any substantial theoretical basis (Vanclay & Lawrence, 1995).

In my opinion not enough attention has been paid to the social processes and structures within rural communities, with the result that Landcare has not achieved the level of community unity that is sought. Arnon (1989) has observed that while interaction is an essential component of a genuine social group, differentiation within rural communities means that it is difficult to obtain concerted action on the part of the rural population. The complexity of attaining this unity has been overlooked, as overworked extension officers have tried to implement the method without the support needed to accommodate the complex social mechanisms involved in group action.

I also question the applicability of the 'bottom-up' approach where communities often do not have the knowledge or resource base to create a broadly acceptable vision and implement suitable strategies to achieve it. Community ownership of the process is fine, provided communities know where they are going and how to get there. In my opinion government agencies need to increase the level of leadership to community groups, but this must not be in a directive capacity but as a supportive role involving high levels of community-government interaction. In my opinion this has not been achieved. I am particularly critical of the limited amount of time spent by the Landcare bureaucracy actually on the ground working with landholders. It is apparent that the human resources are too limited and that the available resources are wasted. Campbell (1997) observes that facilitators are diverted from their real role by the amount of time spent on paperwork. The Landcare hierarchy itself appears to spend considerable time on meetings, conferences and paperwork, rather than being out assisting landholders and 'selling' the Landcare message. Even when they vacate the security of their offices it is usually to attend field days and workshops where they can get 'warm fuzzies' by viewing all the 'wonderful' work groups have

done without being exposed to the behind the scenes problems and tensions. I believe that it is this remoteness which has helped develop a lack of understanding regarding the level and form of assistance required by rural communities and Landcare groups.

'Facilitating' Landcare

Campbell (1997) considers facilitation to be a strategic intervention for a well-defined purpose. He sees the major role of Landcare groups being 'to generate commitment to sustainability at a rural community level'. Also, 'to change notions about what is 'good land management' and to establish a supportive context for land users attempting to develop sustainable systems'. Campbell considers that this is not predicated by on-ground works, the implementation of which are only marginally influenced by Landcare groups. However, this is my major area of disagreement as I believe Landcare groups can have a major influence in this area and should make program implementation their central strategy. My argument is encapsulated by Carr (1997) who observes that 'as most groups form to do something about an environmental or productivity issue, the enunciation of that concern is vitally important to group function'. I would go even further and consider that many commentators have 'put the cart before the horse' by insisting that developing community awareness and changing attitudes is a prerequisite to on-ground works. I would argue that the most effective way to change attitudes is through involving landholders in on-ground activities.

How are attitudes changed? According to Vanclay and Lawrence (1995), simplistic attitude models suggest that a stimulus, acting on an attitude, leads to a response. In my opinion, given the action orientated learning styles of farmers, the response is the stimulus which then leads to further responses. This accords with the very strong work ethic of rural people which influences their behaviour and perceptions. In my experience, to be called a 'good worker' is to be accorded the pre-eminent compliment in rural communities – particularly by those holding the sub-cultural values of the 'middle-farmer' subculture. Thus, an individual farmer, management practice or farming system is often evaluated on how closely it accords with this construct. Individuals who do not exhibit these physical work qualities – such as academics, white collar and government workers, etc – are considered to be generally of less worth than 'real workers'.

This attitude also influences management, which is perceived as a physical activity through which 'good farmers' keep their paddocks 'clean', fences in good order, vermin/weeds (including native vegetation) under control and, in cropping areas, produce extensively tilled seed-beds. In contrast, those who spend time 'sitting on their bums' planning, developing non-physical farm aids and monitoring their farming systems, are considered to be lazy and/or poor farmers. One of the top-end farmers commented to me that 'if you are not out in the paddock working, but are in the office planning they [middle-range farmers] think you are wasting your time'. Hence, on-ground works accord with the values and norms of the main farming subculture. They are also a valuable educational tool as farmers' learning is heavily influenced by 'hands on' experience, and they generally gain a greater sense of achievement through physical construction. Therefore, in my opinion the major objective of Landcare should be to support the development and implementation of practical on-ground programs designed to address readily identifiable issues. I believe that this will lead to greater involvement, resulting in increased community awareness and attitudinal change.

Landcare: where to from here?

Carr (1997) argues that more innovation is needed in the extension process and believes that the collaborative learning model provided by Landcare will stagnate 'unless more attention is given to the issues of participatory practice, regionalisation and rural economic development'. In reality group members are only trying to express their understanding of the meaning of Landcare, being literally the 'care for the land' (Lockie, 1997; Campbell, 1992). Hence it is not surprising that the lack of financial support for on-ground works is creating frustration in the community (Lockie, 1997), particularly when groups report that 'these programs have mobilised broader community participation in the Landcare effort' (Alexander, 1995: xiv).

Any element of the Landcare Program which is seen to obstruct the 'necessary' implementation of on-ground works will be viewed negatively by farmers. Of specific concern is bureaucratic red tape, the most obvious example being the 'trial by funding application' that Landcare groups have had to experience prior to receiving grants. Francis (1996) expresses this frustration, arguing that assessment panels appeared to be more concerned with the style of application than the merits of the proposal; and further, that 'well written projects, quoting relevant sections of the Regional Landcare Plan' were those more likely to be approved regardless of their merit. My own frustration with this process concerns the inordinate amount of voluntary time I must spend completing applications and project summaries. The Landcare hierarchy must become aware that many group members feel that this time is largely wasted and should be spent on the 'real' task of on-ground works.

There is evidence that at least some in the Landcare movement are aware of the basic change in direction required. Helen Alexander (1995: xiv) in her final report as National Facilitator suggests that 'it will require a substantial change in the NLP to move from a catalytic focus to long term investment and from support for educational activities to underwriting implementation on the scale necessary'. It is clear that the resources required are not just monetary, but also require the design of a properly structured strategy with suitable human resource infrastructure to provide direction and support to the community.

Conclusion

The complexity of the socioeconomic processes affecting rural communities requires the formulation of a sophisticated strategy to promote and enable the implementation of suitable action programs. I believe that the concentration on developing the 'right attitude' as a precursor to initiating action has frustrated those currently active within Landcare, and reduced its appeal to those waiting for the demonstration of concrete results before making any commitment. My personal view is that rather than spending time and resources on trying to alter basic philosophies, a more practical solution would be to shift the emphasis to the implementation of on-ground activities. I would argue that addressing the needs and wants of farmers through 'hands-on' programs best suits the current worldview held by many farmers. My contention is that attitude change mainly occurs through experiential development and that the exposure to the sustainable development paradigm gained through concrete action will assist adoption of these practices.

The change from initiation to implementation requires a quantum leap in government thinking that will require extensive changes to the current Landcare program. To date, it is apparent that Landcare has developed in a rather ad hoc fashion, and it is necessary to now establish a formulated, structured strategy of land management in this country with practical methods of implementation. I believe that without this shift, the appeal of Landcare will be reduced, resulting in a contraction of participation in Landcare and a lost opportunity to develop an on-going process to address land degradation in this country.

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13

Fine Sentiments vs Brute Actions: The Landcare Ethic and Land Clearing

Robert Haworth

Landcare in Australia is supposed to represent a ‘new ethos’. It is viewed as having the potential to change the face of rural Australia, with over 2,500 groups active in management and restoration programs in the Australian countryside. Andrew Campbell, former National Landcare Coordinator, claims that Landcare’s effectiveness is in ‘generating commitment to sustainability at a community and individual level’. But what is actually being achieved? Landcare rhetoric does not distinguish between sustainable agriculture and ecological sustainability. There is a functional difference between the two, but because Landcare attempts to bridge one of the most potentially disruptive social and philosophical divides in Australian society clarity is sacrificed for ‘feel good’ motherhood manifestos. This chapter will take one example, tree clearing, to demonstrate that Landcare is an ideology which diverts attention from the real forces at work in contemporary Australian agriculture.

Landcare and sustainable development

We live in the Decade of Landcare, when it is generally agreed that Landcare and its various activities are *a good thing*, without too much attention being given as to what is good about the thing, or even what the thing in question is (cf. Lockie, 1997: 29). This amorphous character of Australian Landcare is shared by the overall concept that is generally regarded as its driving force, that of ‘ecologically sustainable development’. All three parts of this phrase are open to different definition and all three support an extensive but inconclusive literature. This has not prevented ‘ecologically sustainable development’ becoming a catch-all objective of many world planning agencies since the coining of the phrase in 1980 by the International Union for the Conservation of Nature in its World Conservation Strategy (IUCN, 1980).

Redclift (1994: 17) argues that ‘sustainable development has gained currency precisely because of the way it can be used to support ... varying agendas’ and ‘the strength of sustainable development lies in its ambiguity, and its range’. It is obvious that Australian Landcare has developed with the same ambiguity, which presumably may be justified on the same grounds. However, as Lockie (1997: 39) warns, this may lead to situations where ‘legitimate conflicts of interest have been glossed over and contradictions in the practice of Landcare ignored’, while responsibility for bad land use practices can be avoided. Attacks on Landcare, or even considered critiques, can be marginalised as unsporting. This was neatly illustrated in the censoring of the conservationist Bob Brown at the 1994 National Landcare Conference (Lockie, 1997) for his remark that Landcare was a ‘triumph of publicity over outcomes’ and ‘advertising over actions’ (Brown, 1994: 31). The pragmatic response would counter that so long as Landcare improves something, even if it is just by way of a better dissemination of best-practice methods in various agricultural techniques, it is worth the time and effort.

Yet there is a very real difference between sustainable agriculture and ecological sustainability, though both can only have meaning if their sustainability is defined by reference to a time scale. After all, for most of the 100,000 year Quaternary glacial cycle what is now agricultural Australia was a bleak treeless steppe; the present dominant ecosystem of Eucalyptus woodland is a product of climatic amelioration and Aboriginal burning practices over the last 10,000 years. On the other hand, many agricultural products may have a marketable life span of only a few decades, depending on fashion and changing technologies and tastes.

On the broader issues, it is interesting to note that 'ecologically sustainable development' has been embraced with most enthusiasm by economists, social scientists and political activists (Reid, 1995). Physical scientists, who may be better able to recognise the extent to which strictly defined physical concepts such as 'sustainability' or 'degradation' can be contaminated with hidden social and political agendas, have treated the concept with more scepticism.¹ It is also surprising that some adaptation of the simple equation first developed by Ehrlich and Ehrlich (1990) ($I = P A T$, where P = population, A = affluence, or per capita consumption, and T = changing technological input, and I is derived from the multiplicative interaction of the three variables) has not been applied to test the political and economic feasibility of applying sustainable practices in countries such as Australia.

Has Landcare stopped mass clearing?

Landcare appears to be in the enviable position of receiving public funding without undergoing a rigorous analysis of its philosophy or purpose. Perhaps precisely because of its ambiguity of ideas and general purpose, as well as the subtlety of many land use problems, Landcare has concentrated much of its actions on the very visible activity of tree planting. The Decade of Landcare was launched by the Hawke Government in 1990 with the apparently impressive aim of 'planting a billion trees Australia-wide by the year 2000'. Over half-way through the decade, how successful has this aim been?

Any use of the measurement of the fluctuation of the number of trees in Australia to judge the success or otherwise of something as amorphous as the Landcare ethos is bound to be simplistic. Nevertheless, it is one indicator that is present and obvious, and gives any investigation somewhere to start. Despite the tokenistic action of much tree planting, it provides one of the few tangible measures with which to judge the practical success of the Landcare ethos, its ability to change the physical nature of the countryside as well as the traditional anti-tree consciousness attributed to many country people. Put simply, has the Decade of Landcare resulted in a net increase in the number of trees in Australia?

The simple answer appears to be no. Although no agency issues figures of annual tree destruction (Siverston, 1994), piecing the evidence together from various sources suggests that there has been no let-up in the clearing of Australian native vegetation in the 1990s. Australia-wide, the amount of tree-clearing began an unprecedented acceleration in the 1960s which has continued ever since (Nadolny, 1991; Kirkpatrick, 1994: 40). This acceleration of the destruction of native vegetation may be viewed in terms of Ehrlich and Ehrlich's (1990) equation as largely a

¹ See, for instance, Morton & Pickup's (1992) discussion of the possibility of rangelands sustainability in Central Australia.

consequence of a greater input of *T*, the new technology of bulldozers and aerially applied herbicides, reacting to the demands of *P*, the doubling of Australia's population between 1960 and 1995, and the trebling of per capita consumption (*A*) of that population over this same time span. The inland tree clearing of the last 35 years has not caught popular attention because it has occurred away from the major population centres. These population centres are largely shielded from the realities of agriculturally-driven habitat destruction by a cushion of national parks and wilderness areas concentrated around the large cities.

Major alterations to ecosystems by recent agricultural development

The late 20th century upsurge in clearing native bush has been most evident away from the south-east of the continent. One of its achievements has been to bring about the almost complete destruction of the Brigalow Scrub in central inland Queensland. The techniques developed in Brigalow destruction are presently being applied to the open woodland of the semi-arid tropics further north, between Emerald, Hughenden and Charters Towers. Nix (1994) relates the story of the almost total eradication of Brigalow scrub from an estimated 6 million hectares of central Queensland between 1960 and 1992 (over three billion trees destroyed if Nix's figure of 500-1,000 trees per hectare is accepted). This had the economic justification that it doubled beef production from this land; however, the farmers then proceeded to carry out a pre-emptive (and economically unjustifiable) strike against the adjoining Gidgea and Eucalypt open woodlands in anticipation of the Goss Government's ill-fated anti-tree clearing legislation (Nix, 1994: 228). Much of the remaining rain forest outside public lands on the Atherton Tablelands was eliminated at the same time and for the same reason. The justification for these gratuitous clearings appeared to be more about a demonstration of political power than a gaining of profit, hardly an argument for devolving power to local rural groups. The tax break that was once given for clearing was revoked in the mid 1980s, so much of this work is a labour of love.

Most of the recent mass clearing around Australia, however, is undoubtedly market driven. In the competitive world markets that Australian agriculturalists are struggling to survive in it is difficult to see how the good intentions of an individual or small group, or even a host of small groups, could have much influence.

The impact of the sheer scale of clearing in northern Australia is difficult to describe to those who have not seen it on the ground. Clearing of the semi-arid savannahs of north Queensland continues unabated, the combination of bulldozer, ball and chain levelling vegetation from horizon to horizon, followed up by extensive chemical spraying of sucker growth. Work by CSIRO in developing legumes that can thrive in what had been marginal grazing land is now 'opening up' the last extensive economically under-utilised lands for beef production. To travel through the regions south and west of Charters Towers is to witness the demise of natural systems on the most extensive scale imaginable. Yet, as with most events beyond the Great Divide, it has elicited little comment from the media or population of urban Australia. The area cleared in the last five years in north Queensland, estimated by the author from satellite imagery and other remote sensing sources as well as field observations, is at least 3 million hectares. Tree density in the open monsoonal woodlands is less than that of the Brigalow region, but assuming 200 trees per hectare this still gives a figure in the order of over half a billion trees cleared in half a decade. Short of a collapse of Australia's overseas agricultural markets, the process will continue until

all developable parts of north Australia are under improved pasture. The loss of one billion trees by the year 2000 for this region alone is a conservative estimate.

Landcare as justification for ecosystem destruction

These examples of native vegetation destruction have been justified (Burrows, 1991) by the needs of rapidly expanding export industries, and the establishment a new equilibrium with nature that would support a sustainable agriculture but retain enough natural phenomena to satisfy modern tastes. Burrows (1991), of the Queensland Department of Primary Industries, strongly defended this program of ecosystem-wide clear felling, claiming that provision had been made for fauna and flora reserves, a close watch was being kept on salinity levels, and that generally the mistakes of the past had been foreseen and taken into account. Interestingly, he also claimed that the existence and growth of Landcare throughout Queensland was sufficient guarantee that ecological justice would be seen to be done. Burrows, and the Department for which he was a spokesperson, plainly regard Landcare as the guardian of sustainable agriculture, not of ecological sustainability. Implied in this approach is that there are a number of possible sustainable ecologies, and that the existing natural ecology can be manipulated to the point of destruction to make way for a viable, predominantly artificial ecology sustained by proper human management.

Despite the assurances of the Queensland Department of Primary Industries, Nix (1994) reports that dry land salinity problems and serious soil erosion are already appearing in the newly cleared Brigalow country to the south of the present zone of transformation. Nix nonetheless also sees hope in the new Landcare ethic as a palliative to problems in this region. My point is that the Landcare ethic is totally ineffective in stopping the factors driving massive ecosystem destruction (technology, population and consumption), and only functions as a bandaid after the same old problems appear that have been well documented for the last 200 years.

Clearing in new and old lands

The Queensland examples demonstrate that it is not the case that 'most land degradation problems have been inherited from previous generations' (Curtis & De Lacy, 1997: 197). Many problems are, of course, historical, but new land degradation problems are continuously being initiated by the ongoing process of opening up new lands. However, much native vegetation destruction is also a result of the continuous adaptation of old lands to new market opportunities, an inevitable result of Australia's dependence on the world market economy. It is thus not simply a result of residual 'development ideology', but an integral part of the Australian economy's attempt to adjust to new world market opportunities.

To demonstrate that mass tree clearing is not just a residual Queensland or frontier phenomenon, it is worth looking at the picture in some of the long settled and established agricultural regions of northern New South Wales, all of which contain active Landcare groups. In the cotton belt of the upper Darling/Barwon/Condamine catchment, aerial photography cited by the New South Wales Government in 1995 (Siverston, 1994) to justify its moratorium on land clearing (New

South Wales State Environmental Planning Policy No. 46–SEPP 46) to an angry farming community indicated that tree cover had decreased by up to 70% in the eight years from 1977 to 1985. Between 1984 and 1990, 640,000 hectares were affected by clearing licences in the Western Division of New South Wales alone. Extensive tree clearing continued in northern New South Wales in environmentally at-risk land until the 1995 moratorium (Siverston, 1994), often against the advice of extension officers (Fogarty, NSW Soil Conservation Service, 1993, pers. comm.) and in defiance of the extremely limited Government controls of those years.

It is noteworthy that much of the northern New South Wales clearing occurred not just in the cotton-growing black soil plains, but also in the long-established pastoral district of the New England Tablelands, where no radically new land use was being introduced. With the expansion of the feedlot industry in the 1980s, however, there was a greater demand for store cattle and a subsequent greater utilisation of previously marginal and until then well-timbered land. The most recent bout of Tablelands tree clearing appeared to slow down somewhat after the collapse of wool prices in 1992, and the associated drying up of ready capital for farm work. It was probably triggered by the extensive conversion of leasehold and crown land to freehold permitted by the incoming NSW coalition government from 1988. Once the landowners had the guarantee of freehold title and, therefore, a long-term return for their investment, they did what Australian graziers have always done – reduced tree cover to that compatible with maximum grass production. Whatever the cause, it is hard to fit this recent burst of clearing in the sensitive upper catchment areas of the Tablelands into the professed sustainability ethic of many of the local landowners, as expressed through Landcare groups and public statements of farmers' organisations (Campbell, 1992; Alexander, 1996, McGauchie, 1966). Nonetheless, as an alternative to the unpopular SEPP 46, the NSW Farmers' Association (1996) has called for its repeal and its replacement by localised vegetation management undertaken by farmers and Landcare groups.

But why should there be a necessary connection between the sustainability of the old Australian ecology and the medium- to long-term sustainability of any particular rural industry? The central parts of New England suffered a devastating loss of tree cover from rural dieback in the 1970s following an earlier program of tree clearing which reduced tree cover below a critical level. Rural dieback in New England actually improved the profitability of many holdings by allowing more grass, and the negative effects of dryland salinity have so far been minimal in this upland area. Nadolny (1991) quotes research that estimated a \$2,000 per year benefit for holdings south-east of Armidale where rural dieback was at its worst. The loss of trees represents land degradation in most people's eyes, and biodiversity has certainly suffered, but there is no evidence that it has made the grazing of sheep for fine wool any less physically sustainable.

Any rural industry, but particularly grazing, is controlled not so much by the wishes of the producers but the rough and tumble of the national and world markets. The history of the pastoral industry for the last 100 years in all parts of Australia has been one of repetitive boom and bust, which has seen rapid build-ups of stock numbers followed by equally rapid collapses, with little time for even the most conservation-minded grazier to think of the land (Beattie, 1956; Friedal *et al.*, 1990). Where is the evidence that the impact of these inescapable external conditions will soften in the future, and more importantly, that farmers can afford not to respond to market or climatic determinants?

Certainly, throughout the Northern Tablelands of New South Wales, Landcare groups and Greening Australia initiatives flourish. Impressive and highly visible rows of trees are planted along the highways and boundary lines in the areas worst-affected by rural dieback. However, in the backblocks, particularly along the still-timbered eastern Falls country, and in the rugged northern granite belt where over half the flow of the Darling River system originates, the 'poison axe' and the bulldozer are continuing their work. As always, it is hard to get exact figures of the areas cleared in the district. However, Barson *et al.* (1995) suggest a figure of 150,000 hectares cleared annually across the State. At 200 trees per hectare, this is 30 million trees per year destroyed in NSW, or close to a third of a billion as that State's contribution to the Decade of Landcare! When the contribution of the other States and Territories is added, it is little wonder that Barson *et al.* (1995) estimated that tree clearing alone is responsible for up to 27% of Australia's greenhouse emissions. Barson *et al.* (1995) estimated that possibly only in Victoria and parts of southern New South Wales did new tree plantings (perhaps partly inspired by Landcare initiatives) outnumber trees destroyed by clearing. That is, only in areas such as the salinised Murray-Darling basin, where the consequences of past clearing are threatening further production, was there any net gain in trees.

Tree planting, outside areas subject to salinity or on steep slopes, may not necessarily have any direct relationship to reversing land degradation. In areas of woody weed infestation trees may even be the land degradation problem. Nonetheless, the destruction of native vegetation cover at an increasing rate by successful modern Australian farming practices underlines the obvious point that sustainable farming need not be the same thing as sustainable land use, nor need either of them necessarily have anything to do with a sustainable natural ecology. The New England graziers have successfully maintained their sheep farming at the expense of native vegetation, only to find that their industry is not sustainable in the world market. Not all the Landcare in the world will save them from external forces, as has always been the way with Australian primary production. We may have to find a more sustainable land use to replace the sheep industry, but if it must also fit the demands of the world economy, there is no guarantee that it will also sustain what is left of the natural ecology. Whether it is ecologically sustainable in the most general sense also depends on a number of unknown factors, such as what size human population we are attempting to support, and what direction new technology will take, and what we do with the product ($I = P A T$).

Ironically, it might be argued that tree clearing is a sustainable Australian activity. As soon as a rural industry falters anywhere in Australia and it becomes uneconomical to continue controlling regrowth, the saplings return, often with several exotic species to strengthen the counterattack. Changes in world markets all but destroyed the dairy industry of the NSW north coast in the 1960s and, combined with a slight climatic shift, this has led to a resurgence of rain forest and woody weeds in the humid coastal and hinterland zone of northern New South Wales (Rolls, 1994). Biodiversity has increased as farms declined and became overgrown. The human population has increased substantially in a new suburban-style distribution pattern, but agriculture is increasingly marginalised. Several previously endangered species, such as the Australian brush turkey or scrub turkey (*Alectura lathemi*), the long nose potoroo (*Potorous tridactylus*), and the red cedar (*Toona australis*) have made partial or significant comebacks (NSW Northeast Forests Biodiversity Report, 1995). A tentative conclusion is that sustainable agriculture and ecological sustainability, in this instance, are incompatible.

Ambiguities of 'sustainability' as a word and an ideal

Dichotomies in the theory and practice of Landcare groups are made easier by the lack of any clearly defined indicators or outcomes for the National Decade of Landcare Plan (Ewing, 1997: 175). This makes it difficult to know how to fulfil the aim of 'progress in addressing land degradation and effectiveness of the Plan as a framework for action' (Sustainable Resource Management Committee Working Group, 1994). Such problems, which amount to not knowing what you are doing or where you are going, shrink into insignificance beside the problem of actually defining sustainable resource management.

The crux of this problem is that 'sustainability' is a term drawn from physical geography and ecology which has been applied fairly promiscuously to problems in the realms of economics and the social sciences. 'Sustainability' has a definite meaning in the physical sciences, but at most can only be a useful metaphor when referring to human-environmental transactions in a liberal society and a market economy (Redclift, 1994). A good example of a sustainable natural system is a mature, climax-stage rain forest, which needs few new inputs and can afford few outputs if it is to maintain its equilibrium. The closest analogy in human society would be traditional communities bound economically and spiritually to the land by rigid totem and taboo. It can, indeed, be argued that the most important function of traditions is to promote the behaviour needed to ensure resource sustainability, that is, behaviour that acknowledges that human society is a dependent subset of natural systems. It need hardly be pointed out that we are living in a society that will accept no such restriction on behaviour, with an economy founded on the notion of endless growth. To my knowledge, no-one in the landcare movement has ever raised the topic of capping growth, and coercive behaviour by legal or social sanction for environmentally desirable ends has not proved popular in rural circles.

Some scientists, such as Lefroy *et al.* (1992), have attempted to catalogue measurable natural indices (water, energy and nutrient cycling, maintenance of biodiversity, etc) in relation to agricultural practice to establish the degree of sustainability of a given operation. Here again, however, agricultural sustainability can only be judged in the context of world markets. Ecological sustainability in this context will almost certainly be compromised in a human-modified ecosystem that will inevitably change with every major market shift.

National Landcare Coordinator, Andrew Campbell (1992: 7), sets out the oddest of all the definitions of sustainability, that of a 'relative' sustainability, the pursuit of which is 'dynamic and continuous'. Perhaps it might be better if Landcare found a word other than 'sustainability' to describe its objective, if language is to maintain any meaning. The real problem comes back to the central theme that Landcare and its backers have confused sustainable agriculture and ecological sustainability. The two seem intentionally conflated all the time by the prevailing rhetoric. Farmers are told they can use these practices, actually get more yield, and at the same time save the planet; in turn they can claim that in doing the former they are achieving the latter.

Debate has been stifled in the interests of maintaining an uneasy alliance between naturally hostile groups, conservationists and the developers of commercial agriculture, whose conflicting philosophical interests represent an increasingly dangerous fault line in Australian politics. Agriculture has proved sustainable in many parts of the world for hundreds of years at the same

time as the natural ecology has been transformed to something predominantly artificial, with only some minor decorative natural features preserved. This is plainly the unspoken objective of commercial agriculture in Australia, as demonstrated by brute actions if not words, but it is a very distressing outcome to those who value nature for its own sake. Landcare serves to obscure the reality of conflict of interest with fine words; clearer definitions might provoke difficult-to-control economic and social arguments, in a country which has been steadily retreating from genuine political debate for the last 20 years, and where what little debate there is among some rural groups tends towards an extremism that frightens the urban elites.

Conclusion

I have dealt with the issue of the imbalance of trees planted to trees destroyed during the first half of the Decade of Landcare because, as Ewing (1997) observed, planting more trees is often seen to symbolise conservation activity. It is also, as Curtis and De Lacy (1997) discovered, the activity favoured by government when handing out funding for Landcare groups. Changing modes of agricultural production, however, at least in northern New South Wales and much of Queensland, are demanding fewer trees, and fewer by many millions of hectares (Burrows, 1990: 20). These are the brute actions that overcome the fine sentiments expressed in Landcare manifestos, the brute actions considered by the technicians to be necessary to maintain sustainable agriculture. The questions that the participants of Landcare may not wish to address is not that of sustainable agriculture, but the broader issue of sustainable land use, and the even broader one of the ecological sustainability of our species (cf. Flannery, 1994). It may be that when all the externalities are taken into account, agriculture might not prove to be the optimum land use over much of Australia. It is difficult to imagine a clear discussion of these issues occurring in the present landcare movement.

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14

'Small is Beautiful': The Place of the Case Study in Landcare Evaluation

Sarah Ewing

As we enter the second half of the Decade of Landcare, attention is increasingly being directed towards the difficult task of evaluating the achievements of the Decade (Commonwealth of Australia, 1991). The 1994 evaluation of the National Decade of Landcare Plan is, at the time of writing in late 1995, soon to be released. The evaluation is in response to the Government's requirement 'to review publicly, not later than 1994, 1997 and 2000, progress in addressing land degradation and the effectiveness of the Plan as a framework for action' (Sustainable Resource Management Committee Working Group, 1994). The task of evaluation was made more complex since the Plan does not clearly identify the outcomes sought through the Decade, nor the indicators by which any achievement might be measured. A major recommendation of the evaluation, therefore, is that any future plan should define outcomes more clearly, and that credible performance indicators be established to facilitate future evaluations. As policy-makers in the States and Territories now turn to a similar task of review of their component plans for the Decade, Landcare rhetoric is being punctuated increasingly by terms such as 'outcome', 'milestones', 'performance measures' and 'targets', in the hope that come 1997 we will be in a better position to assess Landcare's achievements.

It is not that Landcare has proceeded without evaluative scrutiny to date. In recent years, a number of independent studies have sought a better understanding of Landcare groups and their activities. In the main, these evaluative studies have been based at the regional or national level and have relied upon quantitative assessments, such as the number of Landcare groups, the number of members, the amount of group activity or group expenditure (for example, Campbell, 1992; Black & Reeve, 1993; Mues *et al.*, 1994; Curtis, 1995). However, evaluative studies are still few in number, which has meant that the generalisations proposed (for example, 'indices of effectiveness' in Curtis *et al.*, 1993b) have been widely and often uncritically accepted in the Landcare literature. There is no doubt that for policy makers, the tangible, quantifiable data generated in broad-scale studies is appealing. The number of Landcare groups, for example, is often used in political discourse as 'proof' that things are happening on the ground, that Landcare is indeed being put into practice and, presumably, changing the face of the nation.

Broad scale studies, however, tend to produce evaluation frameworks which are removed from the context in which State policy and local practices of Landcare are played out. In this chapter, I argue that in order to reach a better understanding of Landcare, we need a renewed focus on the specific. This chapter argues a case for the contribution that qualitative locality-based research can, and must, make to the evaluation of Landcare. This is proposed not in place of larger scale, quantitative assessments, but rather in complement to them. Indeed, I argue that without some understanding of the local practice of Landcare, it is impossible to know whether Landcare is achieving all that the rhetoric suggests about the more sustainable use of our land.

The importance of place

In thinking through how Landcare evaluation models might benefit from attention being given to the local setting, some guidance can be taken from recent developments in geography. In recent years, geographers have shown a renewed interest in, and advocacy for, specifically *local* studies (Massey, 1984; Harloe *et al.*, 1990). Doreen Massey, for example, has argued that in the search for general laws about the structuring of modern political and economic processes, geographers lost sight of the importance of specificity:

Pointing to general processes does not adequately explain what is happening at particular moments or in particular places ... 'general processes' *never* work themselves out in pure form. There are always specific circumstances, a particular history, a particular place or location (Massey, 1984: 9, original emphasis).

Such views suggest that, in terms of the assessment of Landcare as an appropriate means of achieving sustainable land use, a local perspective would be useful. Landcare can at one level be understood as a general process. It is concerned with the effects of agricultural practices which are themselves an example of how the environment is taken up into global economic systems and, possibly, environmental crises. Landcare can also be understood as a national 'movement', which is bolstered by various Federal and State policy frameworks. Landcare is also, however, about local specificity. Part of the rhetoric of Landcare is to take the management of land degradation back to the local, to decentralise it, to draw upon local farming knowledge and resources. If Landcare is fundamentally about the local, then assessment procedures must attend to this local dimension; to see Landcare as a local response to a wider problem of environmental degradation, and to see Landcare as a process in which government policies about sustainable land use ground themselves in local practices. Landcare is about state policy as embedded in place-specific practices and in local communities.

It is against this theoretical background that I chose to adopt a case study approach to an assessment of Landcare (Ewing, 1995). The case study drew upon the experience of Landcare by farmers on the Dundas Tablelands in Victoria's Western District. Through participant observation and in-depth interviewing across seven Landcare groups, I sought some insight into the practice of Landcare in a local setting, particularly the ways in which government rhetoric about Landcare is enacted at the local level; the way in which Landcare bureaucracy works with, or against, the program; and the way in which funding arrangements contribute to Landcare's effect on the ground. In the remainder of this chapter, I want to illustrate the value of local case study assessments by examining the issue of whether Landcare is, as much of the political rhetoric suggests, a 'community' movement.

The idea of community

Decade of Landcare documents are littered with phrases such as 'community participation', 'partnership with government' and 'cooperation'. The issues raised in the enactment of such ideas are well rehearsed in planning literature, but it is only in recent years that attention has been given to their meaning in natural resource management, in practice, through Landcare. Martin *et al.* (1992: 190), for example, found that, contrary to the rhetoric, the participatory

process espoused in natural resource management policy in New South Wales had been distorted, to the extent that community participation functioned largely 'within constraints determined by, and in the interests of, government'. Similarly, Curtis *et al.* (1993a) have suggested certain biases and inequities in the 'community-led' regional Landcare planning process in Victoria. In my study, similar issues emerged. For example, government tends to equate participation with consultation; 'expert' discourse continues to dominate planning processes; consultation occurs upon plans which appear as if already in operation; and certain groups and individuals have a greater capacity than others to participate in 'participatory' politics and planning. On the Tablelands, those with political experience, who know how to work the bureaucracy or who can leave the farm work to someone else, are the ones most likely to be actively involved in Landcare planning.

However, beyond this question of public participation in planning, rather less attention has been given in Landcare literature to the notion of community *per se*. 'Community' is one of those words that seems to cause little difficulty in everyday speech but which, when imported into the literature of planners and social scientists, becomes slippery and difficult to define. Rather than offer a structural definition of 'community', as was once the case, many social scientists now set out to deal with community as it is symbolically constructed, that is, they emphasise the *meaning* of community (Cohen, 1985). This more open approach to defining community has succeeded in demonstrating that 'structures do not, in themselves, create meaning for people' (Cohen, 1985: 9). Young (1990: 234) suggests that for most people, insofar as they consider themselves members of communities at all, 'a community is a group that shares a specific heritage, a common self-identification, a common culture and a set of norms'. Indeed, it is often the idea of the homogenous farming community, with long-standing ties to the land and a locality, which forms the unstated community model of Landcare rhetoric. In my experience of the Landcare movement in the local context of the Dundas Tablelands, this idea of a 'self-identifying' community in Landcare does not necessarily hold. Participants in Landcare do not all share common experience and common values, and do not all share the same 'capacity' to participate through the structures provided. It is to these issues, as they surfaced through my study of Landcare in the specific setting of the Dundas Tablelands, that I will now turn.

Ideas of 'community' on the Dundas Tablelands

Of seven groups in my Tablelands study only one, the Wando River Landcare Group has, from the outset, had its area based upon a discrete catchment. As its name suggests, it is based upon the catchment of the Wando River, an area covering approximately 35,000 hectares and 120 landholders (Rural Trees Australia, 1990). The impetus for the group's formation was the Potter Farmland Plan project (Campbell, 1991). Two years after it was formed, the group received a substantial grant from the National Soil Conservation Program to fund a catchment mapping project, and it was then that the group's boundaries were formalised. As one farmer explained:

It cemented a bit when we got the funding for the mapping project and then you had to set a boundary ... When it becomes the Wando River catchment, you can very easily draw a line around the catchment, and that's what happened with the mapping (Dundas Tablelands farmer, October 1993).

A boundary was drawn, therefore, according to the conditions of a funded project. All landholders farming within the catchment were considered group members, irrespective of their degree of involvement in the group's activities or in Landcare. This approach conformed with the State's ideal of a catchment based community group and has, therefore, been to the group's advantage in competing for limited Landcare funding. However, the task of meeting the expectations of a diverse community across such a large area creates other difficulties.

Within the Wando River catchment, there were three distinct land systems, on which not only the land degradation problems differed, but also the land use. One land system, for example, supported mixed farming enterprises, including dairying, whilst on another system much larger holdings supported wool growing, prime lamb and beef production and some cropping. The Landcare group, therefore, encompassed farmers of diverse interests and competing concerns, who may also have been both physically and socially distant from other members. The implications of this were described by one member in this way:

You know a classic was that tree pruning day where they all knew where [a group member's] block was, but I didn't have a clue, and there was no-one to tell me and no signs. I suppose you've got the blokes down the bottom end of the group at the river ... You know, you tend to have your 'squattocracy', for want of a better term, at that end of the group [higher up the catchment], and the smaller farmers down the other end of the group. Within the group, you're sort of small – probably socially and economically and in every other way, we're miles apart (Dundas Tablelands farmer, August 1993).

Clearly, the Wando catchment did not conform to the idea of a 'community' based upon mutual recognition and identification. If it did, 'signs' would not be needed. Further, a distinction would not be so readily drawn between the 'squattocracy' and the 'blokes down the bottom end'. This suggests that the 'community' of the Wando River catchment may have been divided not only upon the basis of *land* use, but also upon a legacy of pastoral settlement and class interests. While the catchment may be a logical basis on which to plan and implement Landcare activity, the presence of a coincident 'catchment community' cannot be assumed.

Another example of internal division which persisted in spite of the supposedly unifying logic of the physical landscape, was afforded by the Combined Dundas Tablelands Land Management Group, an umbrella group that was established by local Landcare groups in 1992. Membership of the group was initially confined to six Landcare groups in the 'East' Tablelands, but was later broadened to include Landcare groups on the 'West' Tablelands. At the time of writing, there was something in the order of 15 member groups. 'East' and 'West' Tablelands are names given to two different 'land management units' (LMUs) covered by the Glenelg Region Salinity Strategy (Glenelg Salinity Forum, 1993). LMUs are areas of land that have similar climatic, physiographic and hydrogeological characteristics. However, while lines may have been drawn on a salinity map to delineate 'East' from 'West', I suggest that to a casual observer, the distinction between these LMUs 'in the field' is difficult to discern. In the sense that a map is itself a socially constructed form of knowledge, the notion of a 'Tablelands community' determined by LMUs is, therefore, a contrived one.

This point is important, because Dundas Tablelands 'East' and 'West' respectively have been identified as the region's top priorities for funding. It was in order to capitalise on this, that the idea of the Combined Group was first conceived and its extent determined by the 'East' and 'West' LMUs. The formation and membership of the group were, therefore, motivated by a strategic instrumental view of access to funding, rather than upon the notion of a 'natural' community. Indeed, it emerged that some groups and landholders did not readily identify with this idea of a 'new' homogenous Tablelands community, and the internal conflict that arose on the question of the Combined Group's boundary, of who was 'in' and who was 'out', very nearly saw it disbanded.

The use of these examples is not to imply that Landcare cannot generate a symbolic sense of 'community'. Many of the respondents in my study indicated that prior to the advent of Landcare, with its farm walks and field days, the only part of their neighbours' farms that they knew, was the track from the road to the shearing shed. However, as one farmer put it:

I [now] know some of them by name and I know some of them quite well ... certainly through this I've got to know them a lot better. And some of them I wouldn't have known at all (Dundas Tablelands farmer, October 1993).

It is also true that in many small rural communities a declining population has precipitated the closure of many local services such as schools, post offices, churches and local sporting clubs. As a result, and as argued by Beilin (1994) and Robinson (1994), Landcare groups have the potential to assume a significant social role. As one woman told me:

Landcare, I think it's filling a void that we haven't had filled for a while ... I don't think there has been ... a real community spirit in the area. I mean people talk about it – I wonder where it really is (Dundas Tablelands farmer, August 1993).

Women and Landcare

So far in this chapter I have shown how the notion of 'community', which is so fundamental to much Landcare rhetoric, is not always linked to a 'community' of symbolic importance to those on the ground. I have flagged some unevenness of participation in Landcare, along lines of land use, landscape and class; but there are also other social divisions that lead to uneven participation, suggesting that the rhetoric of Landcare needs to take a more critical stance towards the notion of the homogenous community. One example which I want to draw out, is that of different gender roles in Landcare.

In the western tradition, the agricultural landscape, with its inherent concern for production and mastery over nature, has come to be inscribed with male 'meanings' (Monk, 1992). Men are linked to 'culture', and as Merchant (1980) points out, to a mechanistic world view in which nature is conceptualised as an object to be dominated and controlled. Women, are often portrayed as closer to nature than men, and nature has been feminised in its aesthetic qualities. In her celebrated study of farming women, Whatmore (1991) found women's agricultural labour to be least associated with the technology/machinery dominated sectors of agricultural production. The reasons for this she found to be bound up with ideological notions of mechanical competence

as being 'unfeminine'. My observations suggest that this situation is also likely to be true of labour divisions on the Dundas Tablelands.

Whether we agree or not with this understanding of men and women in relation to nature and labour, there was certainly some evidence to suggest that local acceptance of such differences shaped participation in Landcare activities. Several farmers in my study volunteered particular qualities they thought women brought to Landcare. As one male farmer put it:

Women are far more attuned to, I think, [what is] rather flowerily described as the 'beauty of nature'. You know, if anybody comes on a farm, I guarantee the female says 'what a beautiful view'. I think ... females will look at a landscape and say 'well righto I think we can do something here'. But the men will say 'righto you'll need a four-wheel drive tractor and post driver'. It might be too damned dangerous on the hill, but ... [women] won't think of that, [they'll] think of the concept. I think that's where a lot of that side of Landcare comes, in the females' capacity to take in the nature (Dundas Tablelands farmer, October 1993).

This suggestion that women's knowledge is somehow different to men's was also expressed in a gendered division of labour that was evident on all of the farms that I visited. Men's primary concern was with agricultural production, whereas women were perceived to be more concerned with aesthetics. As one (male) farmer explained of tree planting:

It's something – and Mum's been doing it for years – that women can do that's not, I mean you're not going to have to lift up sheep. It's something that women can do physically and do well and it's well, it's an extension of gardening too, which holds a lot of women's interests. And you know, well you [referring to his wife] go out planting trees when I'm off shearing (Dundas Tablelands farmer, October 1993).

Tree planting is often seen to symbolise conservation activity, rather than changed modes of agricultural production. Tree planting and care, therefore, is often perceived as women's business. One implication of this is that were Landcare in future to be more closely aligned to concerns of farm productivity, rather than conservation, women may be alienated from it, since it would serve to place Landcare squarely back into the 'business' of farming. As one woman observed:

If they [the Government] had come at Landcare through 'let's improve pastures, let's put super on it, improve the species', women wouldn't have gone to meetings ... You watch the next change. If Landcare really does come to [mean], 'profitable farming, improving pastures' ... suddenly the women will be seen as irrelevant ... I think that women are there because they thought initially 'this is a good idea, that farm is bloody awful, it needs more trees' and so they went off to the meetings ... But I think it will change, as more money comes into Landcare (Dundas Tablelands farmer, October 1993).

The men and women of the Dundas Tablelands experienced the farm in different ways, they participated in different activities on it and, no doubt, attached different meanings to it. The fact that there were gendered differences in the roles of men and women in land management may have affected how Landcare was practised. It could be argued that, through Landcare, the distinct gender roles and inequalities of power inherent in the male view of the productive landscape are being reproduced. However, other authors do interpret more positively the impact and changes

in gender relations through Landcare (see Lockie, 1995). Given that women are playing an active and significant role in Landcare, future policy and program development ought to explore the ways in which their participation might be furthered.

The value of case studies

In a short chapter such as this, it is difficult to do justice to the richness of insight afforded by place-based work, and therefore to argue the validity of the analysis I have presented here. I hope, nevertheless, that the examples used go some way to further the cause of the case-study approach. What I have attempted to illustrate, is the way in which a local study offers deeper insights into the fraught status of the idea of 'community' that is so pivotal to Landcare. From even these few examples, what has emerged is a need for policy-makers to acknowledge the social and situational differences within the farming 'community'. As argued by Young (1990), the perception of anything like a common good can only be the outcome of public interaction that expresses, rather than suppresses, these particularities; and this is just one example of the vast range of issues that are excavated through local study of Landcare practice.

The limits to the notion of the idea of community flagged here need not undermine Landcare's laudable emphasis on locally based, community-led efforts directed towards more sustainable use of land. It does, however, suggest that a constructive measure of scepticism should be adopted in terms of the rhetoric of community which underpins the Landcare program. The consultative practices of Landcare need to be sensitive to the often fractured and differently empowered nature of community; they need to work not just to consult, but rather to facilitate meaningful participation across the diverse range of participants.

Single case studies are commonly accused of being so local and specific as to be unlikely to offer valid or useful insights into more general processes. However, questions of 'typicality' betray a confusion between "the procedures appropriate to making inferences from statistical data and those appropriate to the study of an idiosyncratic combination of elements or events which constitute a 'case'" (Mitchell, 1983: 188). Despite this, it remains the case that many policy-makers are yet to be persuaded that qualitative, place-based research can indeed offer them some grounding in 'the experiences of those likely to be affected by a policy decision or thought to be part of the problem' (Walker, 1985: 19).

Conclusion

In this chapter, I have begun to unravel just one of the fundamental ideas of Landcare; that of 'community'. Clearly, if Landcare is to embrace the interests of all Australians, as is its stated aim, then it must be managed in ways that allow for difference. For Landcare to be equitable in its reach to individual Australians, it must allow, not only for the differences suggested here, but also for others, such as people of non-English speaking backgrounds and indigenous Australians.

As we move into the second half of the Decade of Landcare, I would urge some rethinking of the ways in which Landcare's success (or failure) is evaluated. I am not wanting to suggest that the

evaluative frameworks already established for Landcare should be abandoned. Rather, they should be complemented by locally based studies. A local perspective allows a more thorough examination of the *practice* of Landcare in a particular setting, along with all its local specificities and contingencies. If for no other reason, the local perspective at least has a greater capacity to take seriously the evaluative comments of the 'community' members themselves; those men and women who have, in good faith, participated in Landcare programs.

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15

Examining the Assumptions underlying Landcare

Allan Curtis and Terry De Lacy

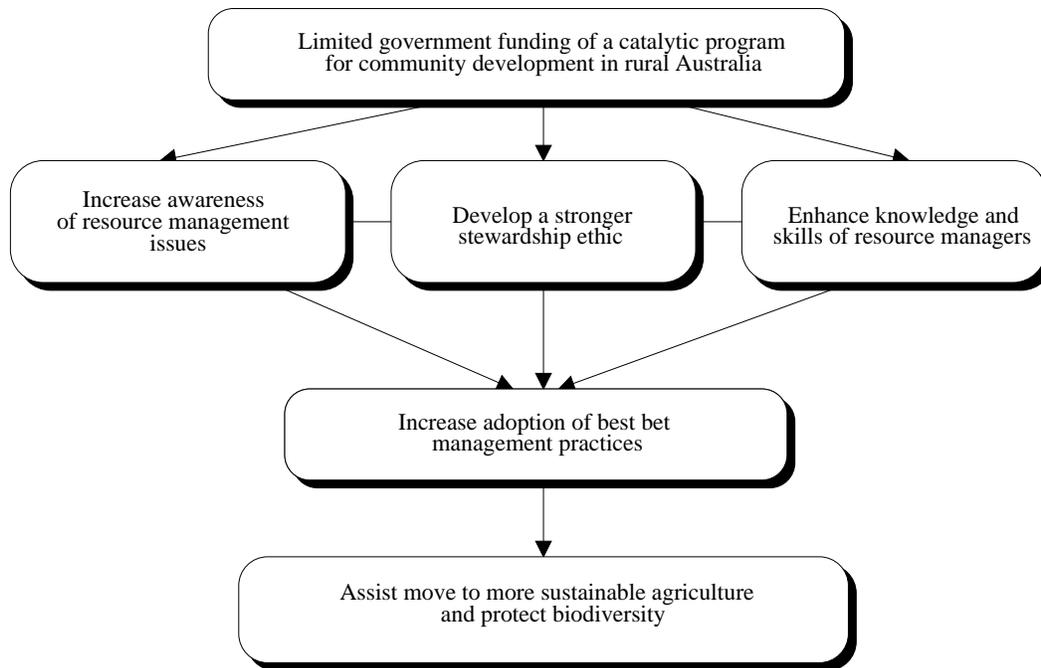
Landcare is seen as an emerging Australian success story and involves a considerable investment of public and private resources. While there has been some work assessing Landcare effectiveness, the assumptions underlying program logic have not been widely considered. Whilst there is widespread community support for Landcare and considerable evidence of program effectiveness (Curtis *et al.*, 1993a; Curtis & De Lacy, 1994; Curtis, 1995), there is some debate about the validity of assumptions implicit in this approach (Martin *et al.*, 1992; Vanclay, 1992). In this chapter, the findings of recent research conducted by us are briefly presented in order to examine the theoretical assumptions underpinning the Landcare Program. Readers are referred to recent journal publications for more complete discussion of specific research instruments and findings (Curtis & De Lacy, 1995; Curtis & De Lacy, 1996; Curtis *et al.*, 1995).

Evaluators can turn to a number of sources in their effort to unravel program theory: they can approach program staff, clients and other stakeholders for their views; they can review literature on the program under scrutiny or similar programs; they can examine program documentation; and they can observe program operation (Chen, 1990; Rossi & Freeman, 1985). Given the lack of explicit program goals, the diversity of stakeholder opinions about Landcare Program objectives, and the heterogeneity of program implementation at the local level, considerable energy was devoted to unravelling program logic. This task was accomplished through:

1. an examination of State (DCE, 1992) and Federal (ASCC, 1991) Landcare Program documents and relevant literature (Farley & Toyne 1989; Campbell, 1991; Campbell, 1992);
2. utilising our, and specifically Curtis' intimate knowledge of Landcare group activities in north east Victoria;
3. personal contacts with stakeholders at local, regional, State and Federal scales; and
4. using information collected through the State-wide group activities report process (Curtis *et al.*, 1993a; Curtis, 1995).

It was determined that the key assumptions underlying the Community Landcare Program (see Figure 1) were that with limited government funding of a self-help program, Landcare group action will facilitate a process of community participation that will mobilise a large proportion of the rural population and produce more aware, informed, skilled and adaptive resource managers with a stronger stewardship or land ethic and thereby result in the adoption of improved management practices and assist the move to more sustainable resource use.

Figure 1: Model of the program logic for community Landcare in Australia



(adapted from Curtis & De Lacy, 1994)

Methodology

Given the difficulty of identifying meaningful biophysical changes in the short term, the limited resources allocated to Landcare, and that other groups and organisations are also responsible for achieving more sustainable resource management, it was decided not to evaluate Landcare using changes in biophysical conditions as indicators of program effectiveness (Curtis *et al.*, 1993a; Curtis & De Lacy, 1994). Using the model of program logic illustrated in Figure 1, the Landcare Program was evaluated by exploring the extent Landcare groups undertook activities likely to: ‘Mobilise the participation of a large and representative section of local communities’, specifically:

1. Provide opportunities for social learning through participation in activities such as meetings, catchment planning sessions, field days, farm visits and demonstration sites and on-farm trials;
2. Facilitate participation of local communities in Landcare strategy and policy development;
3. Assisting the move towards more sustainable resource use in terms of making a significant difference to:
 - awareness of land degradation issues;

- development of a stewardship ethic;
- level of knowledge of resource management topics; and
- the adoption of best-bet management practices.

Information presented in this chapter is derived from a variety of quantitative and qualitative research instruments used to evaluate the effectiveness of the Community Landcare Program using the program rationale as the focus. In collaboration with lead agencies, a majority of Victorian Landcare groups were surveyed during 1991/1992 and 1993 to explore program implementation, assess group effectiveness and gain insight into the agency/community relationship and the role of women in Landcare (Curtis *et al.*, 1993a; Curtis, 1995). Similar surveys were undertaken in the States of Western Australia, Tasmania, South Australia and Queensland (Curtis *et al.*, 1994a; 1994b; 1994c; 1994d) providing an Australia wide sample of 471 groups. By arrangement with the Commonwealth Government, these surveys allowed the States to comply with Commonwealth reporting requirements. New South Wales was the only State not to be surveyed because this State developed its own evaluation and reporting methodology. Information from all surveys in all States is included where appropriate.

Until recently, Landcare groups had not participated in any real sense in Landcare policy development (Curtis, 1993; Woodhill *et al.*, 1992) and it was in this context that the Victorian experience with community reference groups developing nine Regional Landcare Action Plans (RLAP's) was investigated. These plans formed the basis of that State's response to the Commonwealth Landcare initiative and the framework of legislation for integrated catchment management. Participant observation of the RLAP process in north east Victoria during 1992/1993, and a mailed survey using a mix of closed and open-ended questions to all Victorian RLAP participants during 1993, enabled an assessment of the extent to which key stakeholders were represented and contributed to Landcare strategy and policy development (Curtis *et al.*, 1993b).

A survey of all rural landholders in 12 sub catchments of north east Victoria was undertaken during 1993 to describe the characteristics of Landcare participants and non-participants, explore reasons for participation and non-participation in Landcare, and assess the impact of Landcare upon key program outcomes (Curtis & De Lacy, 1994). Whilst most listed rural property owners were men, with the assistance of local residents the researchers were able to target 20 percent of surveys to rural women. As part of this study, a series of focus groups with small numbers of women Landcare participants was conducted to provide further insight into the impact of gender upon Landcare participation and experience (Curtis *et al.*, 1994e).

Findings

Landcare effective in mobilising community participation

The success of Landcare in mobilising community co-operation to achieve more sustainable resource use was confirmed by information in the State-wide surveys of group activity. Analysis of State-wide survey information provided a mean Australian Landcare group membership of

29.4 people (SE± 1.17). Extrapolating from the sample of 471 groups to the 2,200 groups operating across Australia in early 1995 suggested an Australian Landcare group membership of 65,000 (SE± 2,574). Information provided in Table 1 indicated that in the States of Victoria, Tasmania and South Australia, in those areas where Landcare groups operated, around 50 percent of rural landholders were Landcare members. Landcare groups in all States were also successful in mobilising the involvement of large numbers of non-members in assisting or studying the work of Landcare [Table 1]. In all States surveyed, a majority of groups reported that they had mobilised material assistance from non-government sources [Table 1]. As is indicated in Table 1, in the States of Victoria and South Australia slightly more than half the Landcare members participated in each group activity, suggesting a high level of member involvement.

Table 1: *Extent of participation through Landcare*

Indicators of community participation through Landcare	Information by State* (n=groups in State sample, N= groups in State at Jan 1994)				
	Qld (n=72)	Vic (n=145)	Tas (n=76)	SA (n=68)	WA (n=110)
State-wide Landcare group membership at Jan 1994	3,960 (N=132)	13,000 (N=400)	4,625 (N=126)	7,168 (N=243)	4,681 (N=136)
Visitors studying or assisting groups at Jan 1994	3,419	17,068	3,017	7,315	NA
mean % rural landholders as Landcare members	33%	51%	52%	48%	NA
% groups reporting non government assistance	57%	56%	76%	51%	59%
mean member participation per group activity or meeting	33%	53%	NA	54%	NA

(From State-wide surveys of Landcare group activities 1993, N=471)

* All Australian States except New South Wales surveyed.

An important finding from the analysis of Victorian surveys of group activity was that Victorian groups with higher proportions of members participating in group activities performed significantly better on an index of effectiveness ($\chi^2=133.02$, $p<0.01$). This finding was supported by analyses of north east Victorian landholder survey information. Whilst there were few differences between those Landcare participants who attended more than half – compared to those who attended fewer than half – of group activities across a range of social and farming variables (Curtis & De

Lacy, 1994), bivariate analysis established a significant positive relationship between increased participation of Landcare members and higher performance on a number of key Landcare Program outcomes [Table 2].

Table 2: Intensity of participation and key program outcomes

Variable	No of activities attended		Mann-Whitney U	
	>half Mean* rank on variable	<half rank on variable	Z value	1 tailed p
Awareness of land degradation issues -Index# (n=260)	121 (n=153)	143 (n=107)	-2.3971	.0083
Stewardship ethic -Index (n=258)	130 (n=153)	128 (n=105)	-.2155	.4147
Level of knowledge -Index# (n=253)	108 (n=151)	155 (n=102)	-4.9210	.0000
Perennial pasture at Jan 1993 (n=224)	118 (n=137)	104 (n=87)	-1.5380	.0621
Perennial pasture last 2 years (n=211)	115 (n=129)	91 (n=82)	-2.9785	.0015
Soil Tests last 2 years (n=229)	128 (n=138)	96 (n=91)	-3.7538	.0001
Trees planted last 2 years (n=244)	140 (n=146)	96 (n=98)	-4.7285	.0000
Fencing for land protection last 2 years (n=234)	125 (n=141)	107 (n=93)	-1.9783	.0240
Liming last 2 years (n=206)	112 (n=125)	90 (n=81)	-2.8686	.0021
Whole farm planning (n=240)	139 (n=146)	92 (n=94)	-5.4638	.0000

(Landcare respondents north east Victoria April 1993, N=352)

* The mean rank is obtained by a computer procedure which ranks all respondents on the basis of their answers to each question, and then calculates the mean rank value for each group. This is a robust non-parametric test that is not affected by extreme values.

For Likert-type response categories, (1) more important rating than (5), hence lower score on mean ranking indicates a higher ranking for that variable.

Multivariate analyses established significant positive relationships between the extent of Landcare participation and undertaking soil tests in the past 2 years, lime applied in the past 2 years, and involvement in farm/property planning ($p < 0.05$) (Curtis & De Lacy, 1994). These analyses provided some confirmation of the perceived capacity of participatory approaches to deliver outcomes likely to contribute to rural development (Buttel *et al.*, 1990; Esman & Uphoff, 1984; Jones & Rolls, 1982; Kottak, 1991). Large majorities of Victorian groups reported they had conducted

field days/farm walks (73% of groups) and had established demonstration sites (58% of groups). Bivariate analysis using Spearman's coefficient of rank-order correlation ($r_s=.22$, $p<0.05$, $n=95$) established a significant relationship between the number of field days/farm walks conducted by groups and group performance on the index of 'works undertaken' (on best-bet management practices such as trees planted, fencing erected for Landcare work, pest and weed control, perennial pasture established and involvement in property planning) suggesting government funding of Landcare was an effective approach to agricultural extension.

In many ways, participation is a prerequisite for action and the State-wide surveys revealed the vast scale and scope of Landcare work undertaken by groups and individual members. This suggests that groups were an effective approach to extension. In Victoria, almost all (90%) groups reported tree/shrub establishment. Conservative extrapolations suggested the 400 Victorian Landcare groups operating in 1993 planted 2.5 million trees/shrubs in that year. A large majority (79%) of groups reported erecting fencing for land protection work, with conservative extrapolations suggesting Victorian groups erected 3,000 kms of fencing in 1993 (Curtis, 1995). Information from the Victorian surveys also suggested that in most groups, Landcare members participated in decision making and were able to affect outcomes, particularly through discussions at meetings and goal setting and catchment planning processes (Curtis *et al.*, 1993a; Curtis, 1995). Participant observation in north east Victoria, and the State-wide survey of RLAP participants, suggested institutional arrangements were emerging to enable Landcare member participation in policy development; that practical models of state sponsored community participation existed; that many agency staff supported the development of these processes; and that many Landcare participants were prepared to accept the challenge of participation (Curtis *et al.*, 1993b). The researchers' experience as Landcare members and RLAP participants in north east Victoria suggested Landcare has much to offer those attempting to manage difficult common-pool natural resource issues, by creating the conditions in which stakeholders act in a reasonable manner.

Landcare participation makes a difference on key program outcomes

One of the key assumptions underlying the Landcare program is that landholders who are more aware of land degradation issues are more likely to adopt best-bet practices that will assist the move to more sustainable resource management, and that community development processes within Landcare can enhance landholder awareness. In his discussion of farmers' concern about land degradation, Vanclay (1992) noted research suggesting farmers' perceptions of the severity of land degradation on their properties affected the likelihood of their taking action to prevent it. Using Likert-type response categories, respondents to the north east landholder survey were asked to indicate both their perception of the extent key land management issues were a problem on their own properties, and the impact of these issues upon a range of economic and environmental values. Bivariate analysis established that Landcare and non-Landcare participants were engaged in similar types of farming enterprises, and their properties were similar in terms of farm characteristics likely to affect the occurrence and severity of land degradation in north east Victoria (Curtis & De Lacy, 1994). Bivariate analysis also indicated Landcare respondents had significantly higher levels of awareness for almost all of the key land management issues listed (Curtis & De Lacy, 1994), and for an index measuring overall awareness of land degradation [Table 3]. Multivariate analyses were conducted using Landcare outcomes as the response variables

in either logistic or linear regression models, with Landcare membership as one of the explanatory variables. Results of multivariate analyses are summarised in Figure 2. A significant positive relationship was observed between Landcare participation and concern about both the economic and environmental impacts of land degradation issues [Figure 2].

Table 3: Landcare participation and key program outcomes

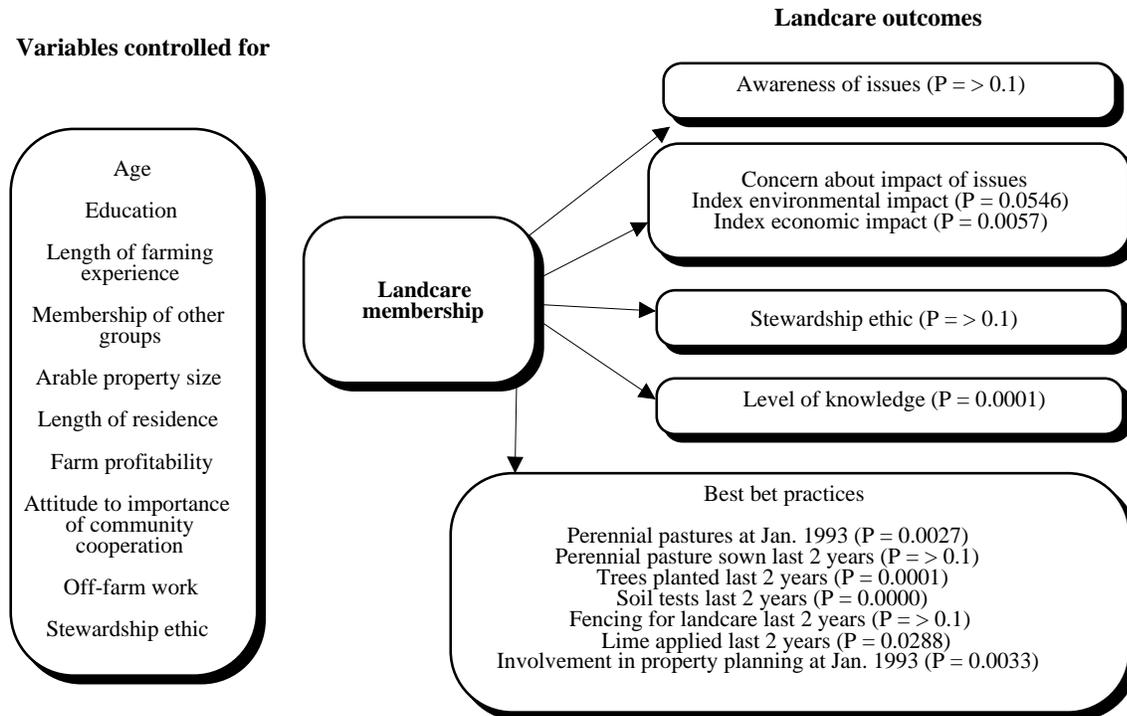
Program outcomes	Landcare (n=270)	Non Landcare (n=77)	MWW 1 tailed p
	Mean rank for each variable*		
Awareness of land degradation issues -Index# (n=347)	165 (n=270)	205 (n=77)	.0012
Knowledge key land management topics -Index# (n=338)	156 (n=262)	216 (n=76)	.0000
Stewardship ethic -Index (n=333)	173 (n=268)	167 (n=75)	.2600
Perennial pasture at Jan 1993 (n=302)	158 (n=234)	130 (n=68)	.0115
Perennial pasture, past 2 years (n=283)	144 (n=220)	134 (n=63)	.1799
Trees planted past 2 years (n=319)	175 (n=253)	104 (n=66)	.0000
Soil tests past 2 years (n=301)	163 (n=238)	108 (n=63)	.0000
Fencing for land protection past 2 years (n=303)	164 (n=241)	106 (n=62)	.0000
Lime applied past 2 years (n=276)	142 (n=215)	125 (n=61)	.0449
Involvement in whole farm planning (n=362)	185 (n=321)	158 (n=41)	.0412

(Respondents in Landcare areas in north east Victoria April 1993, N=352)

* The mean rank is obtained by a computer procedure which ranks all respondents on the basis of their answers to each question, and then calculates the mean rank value for each group. This is a robust non-parametric test that is not affected by extreme values.

For Likert-type response categories, (1) more important rating than (5), hence lower score on mean ranking indicates a higher ranking for that variable.

Figure 2: The impact of Landcare membership on key outcomes using multivariate analysis to control for selected variables



(from Curtis & De Lacy, 1994)

Another assumption underlying Landcare is that through the process of community development, land managers will become more informed, skilled and adaptive resource managers and this will assist the move to more sustainable resource management. Using Likert-type response categories, survey respondents were asked to assess their knowledge of topics which have been the focus of Landcare group activity attempting to manage the key resource issues in the north east. Bivariate analysis revealed Landcare participants reported significantly higher levels of knowledge for all land management topics listed (Curtis & De Lacy, 1994), and for an index measuring overall level of knowledge of land management topics [Table 3]. Multivariate analyses [Figure 2], established a significant positive relationship between Landcare participation and scores on the index measuring respondent's level of knowledge.

Information summarised in Table 3 revealed Landcare participants reported significantly higher levels of adoption for all best-bet practices included in the north east landholder survey, with the exception of perennial pasture established in the past 2 years. Using logistic regression to undertake multivariate analysis controlling for a range of variables [Figure 2], a significant positive relationship was observed between Landcare participation and establishment of perennial

pastures at January 1993, involvement in farm/property planning at January 1993, planting trees in the past 2 years, undertaking soil tests in the past 2 years, and lime applied in the past 2 years. Despite the acknowledged difficulties of unravelling causal relationships within a cross sectional study, the weight of evidence from the north east regional study suggesting Landcare participation makes a difference to the adoption of best-bet practices is substantial.

Concerns with Landcare Program logic

Limited funding unlikely to effect desired changes at landscape scale

Despite evidence in the State-wide surveys of the capacity of groups to ‘pull-down’ resources for Landcare, with a mean of \$9,083 government funding received for groups across all States [Table 4], large proportions of respondents indicated government assistance in the form of money and materials to tackle land degradation was inadequate. Indeed, analysis of data across the five States surveyed established that 33 percent of groups received less than \$2,000 in government funding (Curtis *et al.*, 1994a; 1994b; 1994c; 1994d; Curtis, 1995). The rapid expansion of groups in recent years has additional implications for Landcare funding. Given the limitations of extension as a policy instrument, the intractable nature of many natural resource management issues (Cocks, 1993), the marginal viability of many farms (only 29% of respondent north east landholders reported an on-farm profit, Curtis & De Lacy, 1994), and the considerable off-site benefits of many best-bet practices, it is questionable whether limited funding of a communication process such as Landcare will effect behavioural changes sufficient to achieve sustainable resource management at the landscape level. Evidence from the Victorian surveys of very low percentages (mean of 14%) of creeks and rivers fenced to control stock access, and relatively low proportions of those reporting significant salinity and erosion problems undertaking on-ground action were some examples of the need for greater funding of on-ground works with considerable off-farm benefits (Curtis, 1995).

Efforts to affect behaviour by developing a stewardship ethic appear misguided

Until recently, the accepted view (eg, Roberts, 1992) was that Landcare participants would develop a stronger land ethic; Landcare activity would foster the strengthening of the land ethic of others; and that a stronger land ethic would affect the behaviour of land managers. For Vanclay (1992: 97), ‘Stewardship refers to the notion that farmers are stewards of the land and that farming is a way of life that places implicit responsibility on farmers to look after the land for future generations’. Vanclay (1986) developed a stewardship/land ethic attitudinal scale utilising a series of statements with five point Likert-type response categories. Vanclay’s (1986) stewardship scale was adapted for the north east Victorian landholder survey. Analysis of survey responses revealed no significant differences in the stewardship scores of Landcare and non-Landcare respondents in Landcare areas [Table 3] or between all respondents in Landcare areas and non-Landcare areas (scale score means of 23.3 and 23.4, Mann-Whitney U Wilcoxon signed ranks test, $Z=1.632$ 1 tailed $p=.44$). These results were consistent with Vanclay’s (1986; 1992) findings that scores on the stewardship ethic do not discriminate between adopters and non-adopters of conservation practices. Vanclay (1986; 1992) concluded that most farmers had a strong stewardship ethic and that other factors related to resource availability, farmers’ assessment of risk and other aspects of particular innovations were more important barriers to the adoption of agricultural innovations. A persuasive argument can be advanced that much of the appeal of Landcare is that it reflects

values already widely held in the rural community, including a strong stewardship ethic. As argued by Vanclay (1992), attempts to manage land degradation by changing landholder attitudes appear misguided.

Government appears to be driving Landcare group decision making

Information in the State-wide surveys confirmed that the agency/community relationship is a fundamental element of Landcare: most groups reported frequent contact with government officers, that these staff provided valuable information and advice and also showed respect for the skills and knowledge of most members; most groups received government funding, and government funding appeared critical to the work of many groups in that there was a significant positive relationship between government funding and group performance on an index of group activity (combining information about on ground work and activities related to community development such as the number of general meetings, number of demonstrations sites established, visitor numbers, proportion of landholders as members) [Table 4].

However, it appears government may have a far greater influence upon Landcare decision making than is consistent with Landcare program rhetoric and any practical theory of community participation. As is indicated in Table 4, agency staff played an important role in the decision making of many groups, and in the absence of an independent Landcare organisation, groups are reliant upon agency staff for much of their information and intergroup communication is limited. Whilst weeds was the issue listed by the most groups in each State surveyed as a very significant/significant problem, in every State surveyed, more groups reported activities related to revegetation and fencing (Curtis *et al.*, 1994a; 1994b; 1994c; 1994d; Curtis, 1995) for which government funds are more readily available, suggesting government funding priorities had driven much of the on-ground activity of groups.

Landcare assumes local communities are homogenous

Assumptions of homogeneity at the local scale are unrealistic and provided the basis for much of the critique of modernisation and diffusion theories (Chambers, 1983; Gabriel, 1991; Midgley, 1986; Vanclay & Lawrence, 1995). Landcare assumes there are local or neighbourhood communities of common interest, that it is possible to reach consensus decisions within these communities and that the costs and benefits of decisions can be fairly distributed within local communities. Whilst Landcare may be effective in 'pulling down' resources and in creating conditions for people to solve resource management issues in a reasonable manner, it is possible that the more powerful individuals and communities have accessed a disproportionate share of community resources (Gray, 1992; Lockie, 1994). Multivariate analyses of north east landholder survey information established significant positive relationships between Landcare participation and the length of experience as a farmer, education and membership of other groups (p 's all <0.05) (Curtis & De Lacy, 1994). Analysis of State-wide surveys of groups established that Landcare participation and experience were also affected by gender: men comprised a significantly larger proportion of Landcare members than women (mean 71% for men compared to 29% mean for women $\chi^2 p < 0.01$).

Table 4: The agency community relationship

Indicators of agency community relationship	Information by State (n=groups in State sample, N= groups in State at Jan 1994)				
	Qld (n=72, N=132)	Vic (n=145, N=400)	Tas (n=76, N=126)	SA (n=68, N=243)	WA (n=110, N=136)
% groups reporting material government assistance	77%	80%	82%	84%	88%
median value of government assistance per group	\$6,600	\$4,000	\$4,745	\$4,910	\$2,833
% groups reporting material govt. assistance inadequate	42%	46%	44%	NA	72%
Govt. funds and group rank on index of effectiveness (Spearman correlation)	.49 (p= 0.000)	.63 (p= 0.000)	.14 (p= 0.450)	.37 (p= 0.017)	NA
% groups reporting govt. staff in regular contact	79%	67%	46%	63%	NA
% groups reporting govt. staff respect skills & knowledge of most members	82%	92%	92%	91%	91%
% groups reporting govt. staff provided valuable information & advice	89%	93%	81%	89%	66%

(From State-wide surveys of Landcare group activities, 1993)

Men also occupied a disproportionate share of the higher profile position of chairperson (mean 86% for men compared to 14% mean for women χ^2 $p < 0.01$), whilst women occupied a disproportionate share of the demanding administrative and secretarial positions (mean 42% for women compared to 58% mean for men χ^2 $p < 0.01$ (Curtis *et al.*, 1994b; 1994c; 1994d; Curtis, 1995). Although there appeared to be considerable equity in the distribution of funding for groups for all States surveyed (except Western Australia where information was not comparable) in that only 10 percent of groups received more than \$25,000 for the year: funds obtained by this set of groups represented 43 percent of total funding received in the year (Curtis *et al.*, 1994b; 1994c; 1994d; Curtis, 1995).

Conclusion

Information presented above revealed the vast scale of community participation in Landcare and established that Landcare had moved extension beyond the 'expert farmer' group. Landcare groups and Landcare participants had undertaken considerable on-ground work likely to assist the move to more sustainable agriculture. Information from the north east landholder survey indicated Landcare participation had a significant impact upon landholder awareness of issues, level of knowledge and adoption of best-bet practices. Groups had successfully 'pulled down' resources for Landcare work and Landcare activity appeared likely to provide additional political leverage for local communities.

This information suggested Landcare group activity had made an important contribution towards sustainable resource management and was likely to endure. However, research findings also suggested a number of problems with the program logic. Given low levels of profitability amongst landholders, the vast scale and intractable nature of key issues, and the considerable off-site benefits of remedial action, it is questionable whether limited funding of a communication process will effect behavioural changes sufficient to make a difference at the landscape level. Program emphasis upon developing landholders' stewardship ethic also appears misplaced: there was no significant difference in the stewardship ethic of participants and non-participants. Indeed, to the extent Landcare focuses upon changing individual behaviour rather than societal barriers to rural development, Landcare is open to the criticism that it places too much responsibility upon individual landholders (Lockie, 1994; Vanclay, 1992; Vanclay & Lawrence, 1995).

This research confirmed the community/government partnership as a fundamental element of Landcare (Curtis, 1995). Agency staff had regular contact with most groups, provided valuable information and assistance to groups, and most groups received government funding that appeared critical to group work. There was evidence that Landcare participants contributed to policy development and institutional arrangements for power sharing were emerging. Whilst it is inappropriate to assess Landcare by the standards of spontaneous and autonomous community participation, government appeared to have greater influence upon Landcare decision making than is consistent with program rhetoric or any practical theory of community participation. Government funding priorities appeared to drive group activity, government contact officers had a large decision making role in many groups, and in the absence of an independent Landcare organisation, many groups were dependent upon agency staff for organisational support and intergroup communications.

As a program that involved only limited funding of a community development process, Landcare has probably exceeded any realistic goals established at the start of the Decade of Landcare. However, as the middle of the Decade of Landcare has passed it is time to adopt a different Landcare model. It is well past time to acknowledge that changing attitudes is not the key to changing resource management practices. Whilst funding of community development processes is a fundamental element of Landcare and must be maintained, additional resources are required to increase landholder adoption of best-bet practices, and Landcare group activity needs to be integrated within regional Landcare planning processes. Arguments that increased funding to Landcare is a handout to land managers ignore the community benefits of important Landcare work such as revegetation, fencing water courses and establishing perennial grasses on steep

hills; fail to acknowledge that most land degradation problems have been inherited from previous generations; deny the responsibility of government when government policies have contributed to many land degradation issues; and fail to grasp the important linkage between the conservation of native flora and fauna and the condition of privately owned agricultural land. It is time to build upon the successes of Landcare. Legislative initiatives in New South Wales, Queensland and Victoria have established, or are about to establish, integrated catchment management processes where representatives from regional communities have a key role in natural resource management decision making. These regional bodies can provide the missing links in Landcare: linkages between Landcare groups in regional communities; and a regional perspective that is becoming essential for the effective management of key resource management issues.

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16

Innovation of Diffusion: Landcare and Information Exchange

Anna Carr

Despite their diversity in activities, membership and style, Landcare groups share a commitment to group learning and information exchange. Based on a recent survey of group extension processes, this chapter examines Landcare in the context of shifts in communication theory from viewing data and information as commodities, towards viewing data and information as socially constructed knowledge.¹ Through a critical analysis of Landcare group approaches to information exchange, I argue that despite the rapid acceptance of group approaches, Landcare as a model of collaborative learning will stagnate unless more attention is given to the issues of participatory practice, regionalisation and rural economic development. What is needed are innovations in the processes by which we learn, create, categorise and disseminate data and information, not just recipes or proformas for ‘learning our way forward’. In other words, more innovation is needed in the extension process, and more ways developed in which groups can actively engage in communicating information and constructing knowledge. If policy makers recognise that the historic split between knowledge creation (R&D) and knowledge use or adaptation is a false one, and that both ends of this artificial continuum constantly invent, adapt and negotiate meaning, then it makes no sense to talk of the diffusion of innovation as if it starts from one point and goes in one direction.

This chapter is predicated on the widely held belief that the ‘old paradigm’ of linear extension theory and practice is outdated. Data does not equal information, which in turn does not constitute new knowledge which can be injected into landholders by eager ‘extension specialists’. Much research has been done on the role of agricultural extension officers as educators, informers, advisers, and supporters (Bawden, 1991b; Campbell, 1992; Scoones & Thompson, 1994). It is recognised here that rural communities’ information requirements are changing rapidly. In order to make sensible decisions based on local knowledge, community groups need access to data and information in ways that do not rely on external expertise. The results of this study show that there has been a rapid shift away from the old extension paradigm that belittled, or ignored, farmers’ own knowledge. The new paradigm of extension science reflected in this study recognises that existing local knowledge of landholders is paramount to collective learning, both in community groups and in government agencies. This is quite different to the former model in that:

- a) it presupposes that landholders have valuable knowledge and there is a recognition of the importance of local ways of knowing (Cornwall, Gujit & Welbourn, 1994);
- b) it recognises the importance of farmers sharing information and ideas among themselves and not simply relying on ‘the expert’ for direction and assistance; and,
- c) it opens up important new avenues for local and traditional environmental knowledge to be taught by landholders to government agencies and officers.

¹ This chapter draws on a Landcare case-study conducted as part of my doctoral dissertation into community stewardship and from my current research into landholder groups and extension methods funded by the Rural Industries Research and Development Corporation.

Landcare groups, awareness and adoption

Before a Landcare group even forms, at least some of its members must have (individually) recognised or become aware of a problem in the district. Since most groups form to do something about an environmental or productivity-oriented issue, the enunciation of that concern is vitally important to group function. Moreover, since the way in which these problems or issues are articulated is socially and culturally constructed (Berger & Luckman, 1973; Fisher, 1990), the origin and ownership of the problem itself must be widely acknowledged within the community.

Reference groups² socially construct a shared sense of the multiple realities of living in their community. For example, in the Downside Landcare Group area, widespread dryland salinity posed a serious threat to the future of farming and motivated many people to join the Landcare group (Carr, 1993). However, not all farmers in the district recognised or constructed the symptoms of salinity, and its associated problems, as an encroaching and severely erosive force in terms of productivity, ecology or social cohesion:

We weren't really aware of 'The Problem' until the Landcare group – we weren't prodded into action. But we've been watching 'The Problem' ever since we've been here – its only exacerbated into a real worry over the last fifteen years. Some people say it's not a problem and ignore it – [at least] not a worrying problem – but even they are gradually coming around to realise we've got to do something about it (Downside Landcare Group member, September 1992).

Once prospective group members have communicated sufficiently to build trust on the basis of an established sense of community and sense of place (Carr, 1994), the scene is set for a Landcare group to become action-focussed. Then, the tasks of information exchange and knowledge creation can begin, founded on experiential learning and face-to-face contact. So government agencies can no longer cling to a belief in the traditional research, development and extension process conducted by scientists in laboratories and extension officers in paddocks 'communicating' their messages via a megaphone and a few graphs. Instead, it must be recognised that landholders, scientists, extension officers and others are engaged in a dialectic process in which knowledge and meaning are created through interaction and communication. Furthermore, the context for this interactivity and communication is vitally important since different meanings will arise from different communicative contexts whether at a lecture, in a discussion group, in conversation with a neighbour over the fence, or in bed. Penman (1992) says that communicative acts should be evaluated on the basis of their ability to allow diverse interpretations and enrich opportunities for action. Recent thinking by a range of agricultural extension specialists in this study supports this view and underscores the important opportunity embodied by Landcare and other landholder groups to embrace these ideas and to reject linear extension models.

² Reference groups are those with which individuals assess their own situation and refine their attitudes and beliefs. Membership groups, on the other hand, are those which 'a person is in by some objective criterion, but which that person may not refer to psychologically for self-evaluation and social values' (Turner, 1991:5; see also Brislin, 1988).

The study outlined

Interviews with 28 key stakeholders (including academics, extension specialists, landholders and agricultural consultants) engaged in group extension theory and practice across Australia were held between March and May 1995. The study drew exclusively on qualitative data and quotes are used throughout this chapter to bring the issues to life. The central themes emerging from this research are presented below. The dot-points relate to the advantages and disadvantages of group approaches to information exchange, as perceived by the participants in this study. After each section, some critical and interpretive comments are made relating to the central themes of this chapter. Table 1 provides an overview of these ‘pros and cons’; note especially the differences in perspective between *group* and *institutional* responses. That is, interviewees spoke on behalf of the Landcare groups they worked with, and in many cases, the same people also spoke on behalf of the institutions they worked for. This may reflect conflicting positions for many extension stakeholders about information exchange in terms of timing, responsiveness and approaches to science (ie, perfectionist vs rough and ready models, ‘expert’ vs local knowledge, ‘blue-sky’ vs applied research).

Table 1: Advantages and disadvantages of a group approach to information exchange from both landholder group and institutional perspectives.

Advantages	Disadvantages
Group Perspectives	
Collective learning context	Human frailties and credibility
Diversity & group composition	Elitism & exclusion
Atmosphere & environment	Communication weaknesses
Integration & interactivity	Group-think
Institutional Perspectives:	
Good leadership models	Lack of individual focus
Efficiency gains	Old games with new rules
Access to experts & resources	Agents, departments & power
Power & empowerment	Expense and demand

Advantages

Group perspectives

Collective learning context

- Landholder groups promote adaptation of and experimentation with technology to suit local needs and conditions. They can promote critical understanding and familiarity with new technology, which is a different process to encouraging outright adoption on an individual basis;
- Group contexts can assist individuals to use both single and double loop learning styles.³ In other words, groups can promote collective learning, not just by providing information about new issues and technologies, but through discussion about approaches to this new information;
- Sharing mental models can mean individuals in groups assimilate more information and interpret new data in ways that may differ from individual contexts. Through this increased interactivity, more opportunities are created for individuals to learn from others' experience, information and contacts. This can lead to groups having a broader spectrum of ideas and approaches to help individuals overcome specific problems;
- Meaning is socially constructed through interaction; groups are therefore a natural context for finding out, making sense and taking action – this can happen either through being critically aware, or non-critically consumptive, as a group;
- Groups increase collaborative learning capacity which assists in addressing the individual risk of adopting X or implementing Y. In other words, groups can promote risk taking through risk sharing;
- With effective facilitation, within-group data and information (that which is generated by the group itself, not by an external source) can be systematically organised and easily accessible to all group members;
- A group approach can bring the disparity for individuals between understanding a problem 'out there' and knowledge of a problem on private properties closer together. Over time groups can help reduce this disparity through the process of acquiring knowledge, adapting it, identifying knowledge gaps, doing the research and so on;
- Over time, listening and participating in many conversations can increase individual access to learning opportunities and contribute to local knowledge resources. Group processes can accelerate information exchange and the generation of new knowledge. As one participant put it: 'Group stuff doesn't take too long if you view it in terms of personal shifts. It works at the rate by which people are able to take information on board – to suit the individual, [other] people, the place, the time and the group'.

³ These terms are used in the School of Agriculture at the University of Western Sydney – Hawkesbury to denote the difference between learning within the confines of the prevailing paradigm vs learning how to learn via the employment of a different paradigm.

Adult education theory sheds light on the ways in which adult members of community groups learn. To start with, these ‘learners’ are group members because they want to engage in collective action toward finding solutions to real problems at the time the problem has presented itself – not before they have had exposure to it as with formal educational contexts (Jarvis, 1987). In other words, there is a practical focus to this type of learning – not to pass an examination, but to overcome an environmental threat. In this case the learning process is a by-product of group membership, and the learning is founded upon incorporating the experience of group members in a way which is determined by each group member – not a teacher, lecturer or agricultural extension officer. The learning is totally controlled by group members in an environment which: creates equality, respects diversity, draws upon individual experiences, facilitates shared responsibility, incorporates experimentation and innovation, accounts for emotional attachments to places and people within the group, and encourages social interaction. Indeed, it is this last factor which some theorists believe underlies the whole social learning context.

Social learning theory rests upon the notion that behaviour in small groups is culturally determined by the nature of the group activities in which individuals participate – and through which individuals are moulded – and are, in turn, frequently moulded by the participants (Dunn, 1984). Social learning is, therefore, a collective experience largely determined by the relationship between the individual and the group, and is especially effective in ‘making sense of complex, turbulent environments’ (Dale, 1989: 51). One of the reasons for the effectiveness of this type of learning is that small group environments actively support their members and provide a safe context for experimentation (Friedmann, 1984; Dunn, 1984). This was certainly true for the Downside Landcare group. Based on evidence from the case study of this group, I would add that social learning is more effective in conditions under which there is a strong sense of community (Carr, 1993). Many Landcare groups act as ‘props’ for social learning, and without them communication of ideas and information throughout the community would be less evident.

Diversity and group composition

As noted above, there can be advantages to information exchange and learning in groups where many people are contributing ideas. Canadian research of watershed (catchment) groups illustrates that involving not just more people, but different types of people has much to offer. This is particularly true of those who have not been traditionally consulted in resource management, notably women and children, but also people from non-English speaking backgrounds and indigenous populations (BCRTEE, CORE, FRMP, NRTEE, 1994). Arguably, dedication and a mix of farmer and conservation perspectives led to the generation of Landcare in the first place. Interviewees here spoke of:

- A richness of perspectives in groups and individuals with a range of diverse skills – eg, marketing, management, in-group R&D to name a few. The ‘pool’ of human capital allows groups to reach better solutions than individuals;
- There is diversity in thinking and learning styles, and of experiences, problems, opportunities and potential solutions which can lead to more practical and relevant action for individuals;
- ‘Cross-fertilisation’ of differing perspectives can generate motivation;

- Within such diverse groups, information networks can develop which are stronger and more resilient than individual nodes;
- Individuals can harness others' energy, skills and comparative advantage to increase the collective skill base of the group.

Appreciating the situated knowledge and diverse perspectives of Landcare group members is essential to group learning and collective action (Harraway, 1988; Rosenau, 1992).

Integrative capacity

Through attachment to a local place and scale, Landcare groups can promote the sought after principles of integration and interactivity:

- Landcare groups can produce other spin-offs in the health, education, economic development and small business arenas on the basis of their multiple interests and wider access to technical and professional training;
- Groups have the capacity to integrate local knowledge with outside knowledge in ways that experts or outsiders often do not. They can also integrate information from a wide range of sources;
- Due to their resource-pulling capacity, groups have more chance of getting a panel of experts (eg, pasture, sheep and soils experts all at once), which can generate opportunities for a synthesis of perspectives across different disciplines.

I maintain that without an established *sense of community* and *sense of place*, group members would have less integrative capacity in rural communities. Through historical and cultural attachments to place, as well as a unique and readily identifiable set of 'landcare problems', groups can begin to integrate and examine issues not only from differing points of view, but also from a multi-disciplinary perspective. Accepting that uncertainty and ignorance are a fundamental part of the sustainable management of natural resources, Funtowicz and Ravetz (1991) argue that the ability of community groups to promote integrative approaches to complex bio-physical and socio-economic problems is essential.

Institutional perspectives

Experts & resources

In terms of information exchange, interviewees noted that groups can exert considerably more influence on '*the powers that be*' than individuals:

- In groups it is much easier to challenge expert opinion than it is on a one-to-one basis. In other words, group discussions empower individuals to ask questions and overcome the bureaucratic or academic barrier sometimes present in one-to-one cases where landholders may feel somewhat intimidated;
- As noted above, groups have a resource pulling capacity to get experts or resources and can do so more regularly than individuals;
- Groups have the capacity to share equipment and have cooperative purchasing capacity;

- Limited group resources can also generate energy and commitment to look for alternative sources of information and encourage members to be more self-reliant in their information requirements.

Of course the extension stakeholders employed by some government departments would say that frugality leads to innovation – but perhaps that is to offset funding cutbacks. And yes, groups have the capacity to share equipment, but do they? The assumption that regional approaches to funding landholder groups leads to sharing resources, improved access to experts and greater efficiency was widespread among interviewees.

Efficiency gains

- Groups provide a mechanism for extension specialists to network with a greater proportion of ‘clients’ at once, leading to *economies of scale*;
- Working with groups means that scientists can’t be as isolated from the ‘real world’ as they are in their normal institutional settings. Groups, therefore, provide a ‘ground truthing’ mechanism for science;
- Money for infrastructure may be better spent on groups than on individuals since it goes further;
- Groups can access more and different types of information than individuals. This information might be just as appropriate and relevant to local needs as individually tailored information, while simultaneously opening up debate about non-local agendas (eg integrated catchment management). It may even result in greater democracy or more cosmopolitan thinking;
- It is easier and more efficient to build groups into information networks as nodes in an R&D corporation’s branch network than it is to accommodate individuals;
- More coordinated decision-making in groups can promote efficiency;
- The synergy of learning opportunities in groups means more potential impact for R&D corporations;
- Denoting a change to a new style of extension service, groups help to reinforce the notion that a researcher’s job is not to deliver a final product but to help test and develop ideas in partnership with groups.

The above advantages to information exchange in groups should not be taken at face value. Several studies, for example, illustrate the naivete of some ‘grass-roots’ or group oriented approaches to information exchange in the face of big business, corporate agriculture and the (im)balance of trade (Lockie, 1994; Vanclay & Lawrence, 1995). Nor do these apparent advantages to group approaches necessarily lead to learning and information exchange. This is not a checklist which if faithfully followed will result in better groups, more productive farming systems or more sustainable land management. Groups are certainly not *the* only solution to complex social, economic and environmental problems in rural Australia.

Disadvantages

Many participants commented that group approaches could not fully replace traditional one-to-one extension as landholders could not be completely reliant on group-extension techniques. One person suggested that ideas raised within a group context required further discussion and analysis on an individual basis in order for effective communication to occur. As with the advantages, disadvantages to group-based information exchange are presented from both group and institutional perspectives derived from interviewees' responses.

Group perspectives

Human frailties – personality & credibility

Some people in landholder groups may not want to disclose information in meetings, or may even prevent some items getting onto the agenda given a preponderance for grandstanding, diverting attention or withholding information:

- There are the '*bold and brassy squeaky wheels*', as well as the shy and retiring group members. Both personality types can interfere with effective information exchange in groups since over-powering group members can lead not only to others suffering, but to their own disservice if they lack opportunities for learning and listening to others;
- For those groups operating at either 'the grass-roots' or 'the top-end of policy', information exchange is overtly influenced by the amount of interpersonal trust established. In other words, trust drives who gets what type of information;
- Groups can impede collective learning if members always interpret new information in the light of previous negative or stressful experiences;
- The value attached to information is linked to the credibility of group members' placement of and opinion about the person giving it. Put differently, how new information is heard is linked to what group members think of the information source and his/her credentials;
- '*Wacky individuals may not get their ideas heard. They could be 'fruit loops' or they could be geniuses.*' For individual group members who want to do something different, there is always the potential that they will be ridiculed for standing out from the crowd.

The concepts of belonging and exclusion are of paramount importance in group theory. Festinger describes many factors of group belongingness, attraction and membership, especially in terms of the effect of having friends in the same group (Festinger, 1953), the effects of reward and humiliation on group membership (Festinger, 1950a) and the effect of intra-group conflict and prejudice on membership (Festinger, 1950b). Personality conflict was frequently mentioned by participants as disadvantageous to groups.

Group think

Participation, or involvement, are cited in almost every evaluation of Landcare as key elements of a 'successful' group (Goss & Chatfield, 1991; Oates & Campbell, 1992; Rush & Associates, 1992). However, there is also the danger of overt influence and conformity, or 'group think'. Put simply 'group think', or pressure to conform, can lead to the suppression of diversity, forced

inertia and an inability to look outwards. Groups operating under the ‘group-think phenomenon’, are characterised by closure to new ideas. Highly cohesive groups may not permit new ideas if members are ensnared within closed-loop information systems:

- Prejudice and ignorance can be more firmly entrenched if a group is not able to engage in critical learning styles. Some group settings will maintain ignorance unless members adopt a conscious and critical educational agenda;
- Groups can lower the level of discussion to the lowest common denominator, or what one stakeholder interviewee called the ‘*tyranny of consensus*’. In these contexts, individual members’ ideas can get lumped together under an umbrella categorisation. Thus, good suggestions may get lost given the equal weight given to all ideas and votes;
- In addition to groups rejecting potentially good ideas out of hand, group think can lead to a reluctance for some group members to say *anything* publicly – severely compromising effective information exchange;
- Decisions by individual group members to adopt new information or technology can be mediated (or weakened) by other group members. One interviewee went so far as to say that ‘*information might be filtered, distorted and selective in a group context*’;
- Group members may not actively seek out the information pertinent to their own needs, but rely instead on passively attending meetings to stay involved and be seen to be participating. One interviewee argued that this can lead to cases where information is being denied to individuals that they may otherwise have got from elsewhere. In these cases, individuals merely absorb information in a new (group) context. This has the doubly negative effect of a) not being an active information search and b) subscribing to the osmotic theory of information adoption whereby one person pours it on and the others soak it up!

Reinforcement and influence theories are useful to explore here. The concept of reinforcement in a community group context refers to fulfilment of both group and individual needs while maintaining a ‘positive sense of togetherness’ (McMillan & Chavis, 1986: 12). Psychologists have identified several reinforcing features of the individual-group relationship, these include the status of being a member, the success of the group, individual competencies within the group and shared values within the group (McMillan & Chavis, 1986). Social influence theory is very important in the context of landholder groups. John Turner who synthesises literature in this field from the 1930s to the early 1990s defines this term very well:

The key idea in understanding what researchers mean by social influence is the concept of a *social norm*. Influence relates to the processes whereby people agree or disagree about appropriate behaviour, [and the processes whereby people] form, maintain or change social norms (Turner, 1991: 2, original emphasis).

Group think phenomena are experienced through normalisation – the establishment of group norms and through conformity – the majority influencing a minority. However, social influence theory would not support the view of one interviewee who stated that if individuals were only permitted access to information outside group contexts, the ‘distortion’ would not occur. It is not as if information exchange is a uni-directional linear process, much like feeding mail into a post-box!

Elitism and exclusion

A particular disadvantage in rural groups is the danger of elitism and distancing from non-group members as evidenced by these interviewees' comments:

- Often one partner of the household is excluded due to family responsibilities;
- In many cases there is a gender bias since women are often not active participants;
- There are frequently unequal power structures within groups relating to problems of leadership, exclusivity and in-group politics;
- Some non group-joiners believe that all government money is going into group approaches thereby reinforcing elitism;
- Cross-cultural representation is often not good in groups if membership is limited to white-Anglo-Saxon males. *'If you only have people who are like each other in groups, it is questionable whether those groups are truly representative'*;
- Some groups have established group-rules; eg, a waiting list for membership and not missing more than 3 meetings, which may promote in-group elitism and exclusivity.

Institutional perspectives

Old games, new rules

- 'Institutions and their agents haven't seen the benefits of group approaches to info exchange yet – because they haven't recognised they're playing a different game yet – they're still trying to measure the benefits of groups using the same goal posts – whilst failing to see that there are entirely new goals and gains to be made from groups'. To further the analogy, institutions are not recognising that they're playing in a different ball-park;
- From a governmental perspective, one informant told me that the information shared by groups might be 'wrong' or 'inaccurate' or 'incomplete', and that this may lead to individuals not having access to 'the full-picture', or all the 'necessary facts' to make a wise decision.
- Some extension staff have suffered a perceived loss of power. A different service is being provided now to the one they were used to, and sometimes their expectations have not kept pace with the changing modes of service delivery. Additionally, extension staff have perceived a loss of individual interaction with landholder clients (the 'mateship factor'). As one interviewee said, 'they're not getting the same 'jollies' out of service provision';

Many officers have difficulty dealing with the participatory processes involved in Landcare, and with acknowledging the legitimacy of local, non-expert knowledge which they entail. Individual extension agents, as well as institutions, perceive the current situation to embody instability and a lack of control over outcomes, client direction and service provision. Officers feel caught in the middle between old and new institutional processes. Some believe that they don't have the 'right' skills or knowledge to facilitate group processes and feel overburdened in *having* to learn group facilitation skills on top of those once used for one-to-one interaction (Wilson, 1993).

Agents, departments and power

- In groups, individuals back each other up in debates. Therefore, changing a group's mores may be much more difficult than changing those of individuals on a one-to-one basis.⁴ Similarly, 'if a group's culture mediates against an extension officer introducing new ideas, it can lead to cases where a group can tell an extension officer to get stuffed if s/he brings ideas or information members are not ready to hear or don't want';
- Territoriality of agencies' groups can prohibit the relative freedom of information exchanged within and between Landcare groups;
- Groups may take on board information and move in directions that differ from the agendas and policies of external agencies;⁵
- An extension officer reported that one distinct disadvantage in giving information to groups is that an extension officer may feel overly criticised, questioned and 'put on the spot', leading that person to feel apprehensive about giving opinions or advice. They may also feel disrespect from groups.

Some groups are currently reacting to government extension agendas and going it alone. The widespread assumption that since governments hold the purse strings they also control the research, development and extension (RD&E) agenda, and that groups can't get money from other sources, is outrageously patronising according to private-sector interviewees. The underlying belief of some government interviewees that they rightfully control groups' information processes, rather than being players in the same game, is more insidious. Despite (and perhaps because of) new facilitation training courses for EOs, there appears to be some backlash from groups which feel 'facipulated'⁶ if their ideas and directions are not taken seriously. Although not a recent phenomenon, that these fears remain at all is reason to audit facilitation courses and examine what communication and facilitation styles are being promoted.

Demand

- Group process can create a demand for information and servicing that government can't keep up with in terms of the *real* issues in groups, not just productivity, but also in planning inter-generational succession, conflict resolution, communication, occupational health and safety, leadership training and others;
- It was reported that there were too many groups for the number of bureaucrats and researchers, leading to fragmentation of extension efforts and no time to look at the overlap between groups, or possible shared resources amongst different agencies.

⁴ The opposite may also be true where individuals look to reference groups for approval before changing ideas.

⁵ For example, in Western Australia some groups have endorsed a controversial salinity control measure known as Whittington Interceptor Banks (WI-SALTS) popularised in the early 1980s by Harry Whittington. Agriculture departments across Australia have distanced themselves from the practice of 'banking' paddocks because they believe it is not scientifically founded.

⁶ A term used derogatorily by one interviewee to mean manipulation through facilitation.

Groups are asking for more and different types of information. If this demand continues, it may mean that governments and corporations will have to contend with issues previously outside their jurisdiction and not fitting their corporate goals. Whether these are described as ‘tangents’ (as one interviewee mooted) depends on where you sit, but they do indicate that there are new and pressing issues for groups which require some political attention.

Increasing regionalisation efforts could have positive impacts on landholder groups if sufficient energy and resources are provided for effective coordination, and if issues are permitted to emerge from the bottom-up rather than imposed from the top-down. At the same time, unless more attention is directed to issues of participatory practice in groups, regionalisation could increase the disadvantages of landholder group approaches to information exchange.

Conclusion

The ‘Landcare model’ is still relatively new. Landcare groups are engaged in new forms of communication practice which celebrate diverse perspectives, engage in collaborative learning contexts and provide scope for integration, to recap on a few of their advantages as a medium for information exchange. In ‘old paradigm’ language one could say that the Landcare model has been widely adopted and appears to be meeting rural community needs. But, Landcare does not suit everyone, is not designed to cope with all rural conservation or production issues and will require considerable local adaptation if it is to be sufficiently flexible and innovative to remain a positive force in group learning and communication.

Sticking with the concept of a ‘Landcare model’ of information exchange, one should ask:

- a) what exactly is being modelled, extended or adopted?
- b) why is it being adopted and why do some ‘opt out’ or dis-adopt Landcare?
- c) who is adopting it and who is not adopting it?

There are still too few critical studies of Landcare. Some have concentrated on Landcare as an exclusionary or elitist activity (Gray, 1992). Others have questioned the ability of small groups to do anything constructive in the face of big business, state policies and international agricultural trade (Lockie, 1994; Vanclay & Lawrence, 1995). Issues such as over-demand for extension services, changing departmental cultures and lack of an individual focus are yet to be thoroughly explored.

While the setting for extension may have changed from a desk in town to a farm in the catchment, and from a one-to-one context to a group setting, old habits of exclusionary language die hard among some extension officers. This is not so much a comment about the nature of the ‘old guard’, as it is about the need for more education and communication skills throughout rural institutions – both in the community and in government offices. This is certainly true for some agricultural extension staff, ‘*especially the older ones*’, who have become the ‘*meat-in-the-sandwich*’, caught between old departmental cultures and new expectations that they will suddenly engage in more participatory extension practice (Wilson, 1993).

Landcare supporters would do well to take heed of Bawden's notions of systemic development and critical learning systems if Landcare groups are to continue on as dynamic players in rural Australia, while also becoming more widely accepted in urban Australia. In other words, landholder groups must engage in some sort of meta-analysis of information exchange if they are to be an effective medium for 'extension'.

Being critical is being consciously open to questioning everything – and that must include a critical consciousness about the process of learning, and the ethical, aesthetic, and socio-political contexts in which it must occur, as well as about its outcomes (Bawden, 1995: 4).

Landcare is already into double-loop learning. At the risk of generalising, I would say that most Landcare proponents are already engaged in teaching about teaching or learning how to learn. What is necessary now are new ways of thinking about teaching and learning and new approaches to rural development within the context of the nature of knowledge itself. Critical learning takes place against a backdrop of philosophy, ethics, logic and values in questioning prevailing world views and assumptions about the nature of reality (Bawden, 1995). If Landcare is truly to become an accepted medium for *dialogue and exchange* – of ideas, information and skills, then it is necessary to look outside current disciplines and paradigms and think critically when defining research problems and refining groups' issues and expectations.

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17

A Critical Assessment of Landcare in a Region of Central Queensland

Patrick Morrissey and Geoffrey Lawrence

Landcare in Australia is in a critical phase of its development. While numerous articles have appeared about the movement at the State or national level detailing, in particular, organisation, objectives and problems, what appears to be lacking is an understanding of Landcare at the regional level. When attempts have been made to capture what is occurring within Landcare groups, the focus has usually been on Landcare-as-extension, sustainable management practices or group-based solutions to local environmental degradation. Furthermore, since much of the literature on Landcare is based on southern Australia, the experiences from regions in States such as Queensland are often omitted. A major problem arises when the findings from the south are inappropriately generalised as being representative of Australia as a whole.

In this chapter an overview of the ‘experience’ of Landcare in the Wide Bay-Burnett region of Queensland is presented. The region covers some 52,000 square kilometres in mid to southern Queensland defined broadly as the area from Gladstone in the north to Noosa in the south and extending westward to the Great Dividing Range. It comprises population centres such as Bundaberg, Gympie, Hervey Bay and Maryborough and rural Shires such as Biggenden, Isis, Kingaroy, Miriam Vale, Monto and Burnett. Primary production in the region includes traditional industries such as fishing, timber, beef, and sugar. More recently, horticultural crops, including fruits, vegetables and flowers have had a significant impact on the local regional economy. At the 1991 Census, the population of the region was approximately 195,000 but has grown since that time to be more than 200,000. It is a region which continues to experience migration from the south with retirees as well as younger families seeking new work and lifestyle opportunities.

As part of this case study, 25 Landcare groups were observed over a period of three years from mid 1991 to mid 1994. The primary author of this chapter, in the process of fulfilling his role as the region’s Landcare facilitator, was in a position to evaluate the ways in which Landcare groups formed and what they achieved and hoped to achieve. What is presented here is based on wide experience and close involvement with the Landcare groups in the study region. It is written more in the form of a critical and reflective overview than a systematic sociological investigation. The aim of the chapter is to pinpoint the ways Landcare in one region of Queensland varies from that reported elsewhere in Australia and to highlight some issues which might be addressed in future research.

Landcare in Australia

Conclusions about Landcare’s perceived success in achieving the objectives set out in Decade of Landcare Plan are sometimes based upon the assertion that ‘success’ can be measured in terms of the increase in the number of Landcare groups in Australia. While this is clearly inappropriate, it is nevertheless important to recognise the degree to which rural Australia has embraced

Landcare. The Commonwealth Decade of Landcare Plan (Commonwealth of Australia, 1991) anticipated that the number of Landcare groups would stabilise at somewhere between 1,000 and 1,200 by 1995. Campbell (1994a; 1994b) reported that the number of Landcare groups had reached 2,000 comprising about 30 percent of rural land users. Alexander (1993) also suggested that perhaps 30 percent of the farm-based population may be involved in Landcare and a recent ABARE (Mues *et al.*, 1994) benchmark survey indicates that almost one third of all farmers participate in Landcare groups. Lockie (1993; 1994), following Curtis, Tracey and DeLacy (1993), has suggested that the unexpected increase in the number of Victorian Landcare groups to more than 1,400 highlights the commitment, by members of rural communities in that State, to maintaining the health and productivity of farmlands and other resources.

Curtis *et al.* (1993) and Campbell (1992; 1994a) believe it is important to assess the effectiveness of Landcare groups according to their ability to engender local commitment to conservation farming methods. Mues *et al.* (1994) propose that there is a correlation between the existence of significant land degradation and Landcare membership. They also acknowledge that there are regions in Australia where land degradation is widespread and yet Landcare membership is below the national average.

Landcare in Queensland

The official launch of the Decade of Landcare in 1989 was cautiously received by the then Queensland Minister for Primary Industries. For reasons which have yet to be established, the Minister determined that every group formed in the State would have a departmental officer on its committee – someone who would monitor the actions of the group. When it was later perceived by government that Landcare did not pose a threat to primary industries in the State (and, later still, that there could be benefits derived from fostering the Landcare movement), the formal requirement for departmental representation on group committees became optional. Nevertheless, at the time of writing, most formally appointed groups have departmental officers represented on group committees. These officers attend most meetings, usually at the group's request. This differs from other States where involvement by government officers is either not required or is not as frequent. Nor is it motivated by – as it might be thought – the view that the activities of groups might contradict government policy in rural areas. One could be forgiven for believing there has been a degree of paternalism associated with state involvement during the formative years of Landcare in Queensland.

Recent attempts by the Queensland Department of Primary Industries (QDPI) to broaden the base of Landcare – both in the community and the Department – including its desire to broaden the Department's Landcare presence away from its limited but traditional soil conservation preoccupations, have been effective in some areas. However, the State appears to be reluctant to let its officers move too far away from what is seen to be its core business of promoting efficiency and competitiveness in rural production (QDPI, 1993). QDPI's considerable efforts in trying to have other State agencies become involved in Landcare has not been particularly successful. Apart from the enthusiasm of a number of individual officers scattered throughout the State, there is little 'ownership' of Landcare among other government departments (QDPI, 1993). This is in the face of considerable attempts to implement a 'whole of government' approach to solving problems at the local level (and which is so much in vogue in other areas of government activity

in Queensland). And when involvement has occurred, there is suspicion that the motivation for involvement is the perception among agencies that the National Landcare Program is a substantial source of funds in times of contracting State budgets.

Landcare in the Wide Bay-Burnett region of Queensland

In the early and critical developmental phase of group formation and consolidation, most Landcare groups in the study area had access to only one agency official responsible to assist in group facilitation. Yet up to 30 agency staff, located within the communities in which Landcare groups were operating, formally offered their technical support to groups. Two extension officers out of approximately two hundred staff with a full or partial extension role had responsibility to provide 'process support' to the 40 Landcare groups in the South East Queensland region. Despite the lack of such support – which was much desired and needed by the emerging groups – technical support was in abundance. In some instances, agency staff with a traditional extension agenda outnumbered farmers at meetings. This would appear to be different from the situation in Victoria where several lead agencies had an expressed policy of assisting in group formation and in developing group independence – not in creating agency-dependency on technical experts (Campbell, 1992).

In 1991, two out of the 25 Landcare groups employed part-time coordinators. By 1994, 14 Landcare groups had access to part-time coordinators who were employed by those groups. Skilled and enthusiastic professional assistance from those within and outside the groups has, not surprisingly, been shown to improve the ability of groups to perform their stated objectives. The opposite has also been demonstrated: where an inappropriate input is made and where the outsider is relied upon to perform specific group objectives, the group's performance and effectiveness may be undermined. One change in operational focus for many groups has been a move towards 'semi autonomy' where the group directs the activities of its paid coordinators. Generally, the State has wanted this situation to develop – it acknowledges that part time coordinators should be employed by the groups. The potential difficulty remains, however, that groups are employing coordinators with government funding. What real autonomy have the Landcare groups in this situation?

While – as suggested earlier – the national estimate for farmer membership of Landcare is in the order of 30 percent, observations from the Wide Bay-Burnett area suggest less than 5 percent of farmers/graziers are members of Landcare groups. Importantly, of the 25 groups in the study area, at least five (ie 20%) had a previous life as a committee or association before the advent of Landcare. They had existed as erosion hazard advisory groups, conservation groups, rural discussion groups or progress associations. Many changed their name to include the word 'Landcare' when this was perceived to be a prerequisite for obtaining increased funding.

As well, observations suggest that 12 Landcare groups in the study area (or some 50% of the total) were created and subsequently dominated by landholders whose primary objective was to control Landcare for their own purposes and to counteract, where necessary, the 'participatory framework' which Landcare fostered. This was partly to ensure that the so-called 'greenies' (which for many farmers is a catch all phrase for ex-urbanites not attached by inheritance to the land) did not have

the opportunity to set the agenda or to make trouble for local farmers. Focus group studies in southern Queensland (see Blackett *et al.*, 1992) appear to confirm this. In its initial phase at least, Landcare was generally perceived by those outside the movement as being green-influenced. Farmer involvement was one mechanism to stifle attempts by the greens to alter the trajectory of district agriculture. The motives for group formation in Queensland have not been studied in any detail. Yet, if membership increases have been motivated by an attempt, as in the Wide Bay-Burnett area, to limit the influence of those interested in conservation, this would have us question whether 'success' of Landcare should ever be measured in terms of groups and numbers of participants. If these motives are reflected throughout Queensland and elsewhere, it would tend to undermine any claim that local support for the aims of Landcare is proportional to the number of groups and their membership. It also raises other issues, including the best means to spend the substantial public funds which are now allocated to resource-use decision-making through community-based structures.

Notwithstanding the above point, it is necessary to stress that the mix of people who have joined the Landcare groups in the study area is thought to have contributed to vitality and to the discussion of important issues – such as urban encroachment on rural lands, use of chemicals in agriculture, and the role of native vegetation in the landscape. In many groups, the 'traditional farmers' were interested – almost exclusively – in agricultural issues; the 'alternatives' [farmers other than the traditional ones] were interested in establishing the means for 'cohabiting with nature'; and the 'ex-urbanites' were interested in becoming part of their new rural community. Such a combination of interests was viewed, by many of the professionals who worked with these groups, as being highly conducive to discussion and action. These 'participatory' Landcare groups – where discussions about more general issues such as the health of the land often prevailed – were probably more representative of the wider community than were primary-producer oriented groups. The 'participatory' Landcare groups in this region were thought to be among the most effective in Australia in fulfilling their set objectives. And, interestingly, this was in contrast to the findings from Victoria, which indicated that successful participation was related to visits by members to other farmers' homes and farms. Few of the Landcare group members in the study area participated in on-ground works on other farmers' properties.

In terms of group composition, there were two ideal-typical models: (1) those largely comprising, and dominated by, farming people whose families had been in the district for several generations (whom we term the Traditionalists); and (2) those comprising a mix of new settlers, and farmers who were prepared to work in a group with newcomers (whom we will term – despite the obvious bias – the Progressives).

The Traditionalists were relatively long term residents (whose families had been in the district for between 40 and 100 years). Although several women were present, this group was characterised by the predominance of white middle aged males whose property ownership conferred high local status and whose petty-bourgeois affinities meant that they had an interest in retaining the status quo. They usually had membership on other decision-making bodies in the district. The further the distance from the major population centres on the coast, the greater the tendency for this group to dominate. With previous experience in dealing with government agencies and with expectations that the State would provide assistance when called upon, this group worked from a 'rural owner' power base to mobilise the resources of government in ways which would bring money and/or expertise to bear on local problems. They tended to adopt a pyramidal decision-

making structure (see Rogers *et al.*, 1988) which allowed a small clique of people representing the major local industry – for example, sugar or beef – to dominate discussions and strongly influence outcomes.

The Progressives comprised non-farming new settlers, and the more recent farmers (those with less than 40 years on their properties). Residing in the more populous coastal towns or more scenic rural hinterland, the new settlers tended to espouse environmental ideals such as the ‘health’ of the land and river systems. They were particularly motivated by the notion of ‘community’ and were interested in undertaking group activities which would address what they detected to be local environmental degradation. Few had training in land or water management and were usually naive about the sorts of services provided – or activities performed – by State agencies. They were usually eager to find out what was available and once they had established what resources could be harnessed, were grateful to receive any support on offer. They were a diverse group of various ages and represented different education and employment backgrounds. There were many more women in this group than among the Traditionalists. They had a rather broad view of Landcare – it was never simply about agriculture – and were eager to begin ‘hands-on’ projects. There were factional power blocs within this group, which we could broadly describe as ‘environmental’ versus ‘agricultural’, but, as with the Traditionalists, the agenda was usually set by the farmers whose local knowledge and connections meant that decisions were made to their advantage.

The issue of the political power on offer to these groups should not be overlooked. The Queensland Landcare Council acts as a peak body for Landcare matters in Queensland, advising State ministers directly and federal ministers indirectly. Since only bona fide Landcare groups can elect Landcare representatives to this Council, there is added incentive to start a group or including the name ‘Landcare’ in an existing title. This is one reason – it would seem – why local government representatives, who were also farmers or graziers, were quite keen to become involved in Landcare. In many meetings, and particularly in decision-making activities, they acted as community gatekeepers, ensuring that what was occurring at the meetings was consistent with their own understanding of what was ‘best’ for the local community. Those representing the already entrenched interests of rural industry tended to influence negatively the direction of discussion, ridiculing new ideas and demoralising otherwise enthusiastic members. In some instances, the deeply entrenched and overlapping power structures of farming/local government militated against new, more sustainable farming options being taken up by the very groups whose future was dependent upon improved resource use.

The Landcare groups in the region reflected factional and coalitional power structures (see Rogers *et al.*, 1988) in which special interest groups struggle against each other for influence over community decisions. In communities with a mixture of farmers and new settlers, farmers usually had superior political skills and were able to manipulate decisions to their advantage. This is not to say, however, that farmer leadership was a distinguishing feature of the Landcare groups. Leadership *per se* was something of a scarce commodity in most groups.

It has been recognised that the lack of effective leadership has been a major constraint to improved effectiveness among Landcare groups in Queensland (Morrisey, 1993). Ineffective or deficient

leadership is not unique to Landcare. In rural areas it is often a reflection of the limited pool of those with leadership skills and training. And it is also associated with the phenomenon of over-commitment by the small number of people who do possess the requisite leadership skills (see Campbell, 1994a). It might also tell us something about the degree to which communities perceive merit (or otherwise) in a formal Landcare organisation – with its time-consuming meetings and projects (see Morrisey & Smith, 1994).

Poor leadership is often seen by community peers and governmental alike as the cause of limited performance among groups. In small rural communities, Landcare groups which were devoid of local leaders possessing community status and peer following, have difficulty in attracting the more established local farmers. These groups find it difficult to persuade a cross-section of the community to become active participants in formal group activities such as meetings and projects. In contrast, field days on topical issues and which have credible speakers tend to attract mainstream locals – without the need for structures such as Landcare.

The degree to which those who are construed to be credible local leaders take an active interest in the local Landcare group, determines to a great extent group formation and effectiveness. Five groups in the district were perceived by their local peers, and by the agency staff support them, as having poor leadership and/or poor local credibility. These groups had low attendance numbers at meetings and events. Low credibility in leadership can be associated with being new to the area, being a non farmer/grazier in a rural area, or being of questionable integrity, or of non-traditional political persuasion.

As with many Landcare groups, where small numbers in a community are involved, the extent to which they are a representative of a cross section of the community will help determine the legitimacy (and subsequent ownership) of an idea as well as its chance of eventual success within the broader community. Some Landcare members in the study region were perceived by their peers to be made up of people interested in using public funds for private benefit. Not surprisingly, when this was identified it tended to undermine group decision-making and limited the extent to which people would consider the new options under discussion.

Most Landcare groups within the region comprised small numbers of individuals motivated by distinct but competing ideologies. They met every few months to discuss local Landcare issues, to fulfil constitutional obligations and to plan activities. In conservative rural districts, most groups were usually made up of representatives of local rural industries, and other interested individuals. In some areas, a few enthusiastic individuals within shire-wide Landcare groups – which covered more than one town and many separate local communities – believed their local Landcare group was not meeting local needs. This accounts for why the most recently formed groups were breakaways of existing Landcare groups. They became either subgroups or completely separate incorporated bodies. This splitting helped some groups to operate on a more personal basis, the more manageable size allowed people to keep in touch, and where less formal group structures developed, this fostered participation in group activities. The trend toward the formation of groups representing smaller ‘communities of common concern’ appears to enhance individual participation in group activities and to increase overall satisfaction. Yet, generally, most groups in the region still operate on a Shire-wide basis. This is in contrast to the NSW model of Landcare where groups often represent very small geographical areas.

Literature from southern States (see ABARE, 1994; Curtis, 1993) documents the projects upon which Landcare groups are working. They tend to be practical projects aimed, for example, at cleaning up creeks or planting trees. Yet virtually all groups in this study area believed 'raising awareness' of land degradation was the major priority. For exclusively rural groups, the trend from 1991 to 1994 has been to broaden the focus from landholders to include urban communities. And some groups – those comprising farmers with an agrarian fundamentalist disposition – have argued that the drought, recession, cost price squeeze and rural migration to the coast are as much a problem as soil and water degradation. For them, 'raising awareness' means making town and city residents aware of their plight. While an understandable sign of frustration with the present-day economics and conditions of farming, one must ask whether the politicisation of rural economic decline is a legitimate role for Landcare. Furthermore, the overall effectiveness of their awareness-raising activities can be called into question. While groups felt they were getting the Landcare message across, none had any mechanism for evaluating what was filtering through to the general community, and, just as importantly, an understanding of how the community acted upon the information it received. Many of the groups, while believing their activities were a positive contribution to the raising of the status of Landcare in the region, had no basis whatsoever for holding that opinion.

Summary and concluding comments

Landcare practices in one Central Queensland region are different from those occurring in other regions of Australia. While a good deal more research needs to be undertaken, it is possible, from a study of groups in a fairly typical region of Queensland, to suggest that two aspects stand out immediately: the tendency for groups to be located on a Shire basis; and the preoccupation with promoting the ideals of better landuse and conducting field days, rather than relying upon local on-ground projects as the basis for interaction and knowledge transfer.

In regard to the organisational issue of Shires being the preferred basis for group formation, it could be suggested that if the boundaries have 'meaning' for locals, and that this leads to better identification of the geographical area to be covered by the group, there is no reason for concern. And Campbell (1994a), for example, places some faith in the ability of local government to provide a suitable framework for the extension and consolidation of Landcare. In contrast, it might be argued that the coincidence of the Landcare and Shire boundaries suggests local government 'ownership' of – or at least an element of control over – the activities of the Landcare group. As we have seen from the above analysis, there is a tendency for local government representatives to be present on Landcare groups, and, when present, to bring to the group a fairly conservative approach to the issues of land and water management. Does a local government 'presence' assist or limit the activities of Landcare groups in Queensland? Landcare groups in Victoria and NSW and their counterparts in Western Australia (LCDCs) usually operate as small socially cohesive groupings – often based upon sub-catchments (Campbell, 1992). Is the effectiveness of a group related to its affiliation – or otherwise – with an existing political boundary? Is the sub-catchment a more 'natural' basis for group formation? These are questions for future research.

In relation to 'Landcare-as-promotion' versus 'Landcare-as-action', it is important to reflect upon the issue of social agency. Should Landcare comprise many different types of activity, with aims

and objectives decided by the group which is formed – or should it conform to the more structured demands of government? In other words, is it legitimate for a Landcare group to spend time publicising the environment, the rural crisis or some other concern of the moment – rather than, say, becoming involved in fencing off different land types, soil testing or adjusting stocking rates – if *publicity* is what the group believes is important? To what extent is the government prepared to tolerate the intrusion of what might be seen as extraneous issues into the agenda of natural resource management? One virtue of the Landcare model is its flexibility and diversity. At present there is general agreement by government agencies that the groups should be allowed to develop according to their identification and ‘ownership’ of issues. A question for future consideration is: will governments be prepared to condone groups politicising, criticising and publicising issues which contradict or undermine government policy?

The lack of leadership in Landcare is an issue not confined to Queensland. But the presence of QDPI officers as ‘overseers’ is. How do we interpret their presence? On the one hand, they provide expert knowledge and a direct connection to the State and its activities in the region. On the other hand, they come to their respective groups from positions of power and are sanctioned by the State. To what extent might their technical support/policing role weaken group activity and prevent discussion of alternative resource-use options in the district? In the study region many of the officers who attended the sessions were trained as traditional extension agents and found it somewhat uncomfortable adopting a facilitating role. These officers were generally people who had been with the Department for many years and whose idea of involvement was to inform group members through field days and in group meetings about agricultural problems. They appeared to do so in the best of faith, genuinely believing that their input would lead – in a supportive way – to logical and appropriate solutions to local problems. But what was actually needed by the groups was process support – interaction with an officer who had the skills to move the group through its decision making processes. The employment of officers with process support skills is a high priority for QDPI and, indeed, some of the more recently graduated officers attempted to fulfil the new role required of them – with mixed success. The issue of the level at which ‘technical support versus process support’ should be provided to groups is one which needs to be better addressed in Queensland and remains another potential topic for social science-based research.

Curtis (1993) reported that in the Murray Darling Basin, ‘rapidly expanding numbers of Landcare-type groups cannot be effectively facilitated or resourced’. This conclusion would appear to have some validity in the study area. But this does not recognise the complexity of the issue in Queensland where the role that agency staff play is more crucial to group effectiveness than is the number of staff available. A more fundamental concern is to understand the motives of groups so as to recognise whose opinions they reflect, and to assess the extent to which government should support Landcare – over and above other strategies – as the basis for better land and water management for Australia.

Finally, the observation that farmer groups dominated in virtually all settings is one which might also be taken up by those evaluating Landcare in Australia. It appeared in this study that even when ‘green’ interests were represented, they could not rival the farming interests in terms of political astuteness or local political ‘connections’. The inevitable outcome was that traditional farmer interests were nurtured within and legitimised by the groups. This may have been appropriate and desirable, but there is a suspicion that while traditional farmers continue to

hold both formal and informal power, they may be expected to dominate the Landcare agenda. If their input truly represents local feeling, then this may be seen as a sign that Landcare is working well at the grass roots level. But if it is simply a means by which the farmers are able to block the suggestions of those people they believe threaten their own activities, then Landcare faces the prospect of being labelled a 'special interest' or sectional organisation, and of being abandoned by those with town affiliations, or with broader non-farming priorities. It is sobering to consider Campbell's (1994a: 38) finding that those Landcare groups formed to 'form a bridgehead against the greens' are often those which are least effective.

Findings from regional Queensland indicate that employing participatory processes, devolving responsibilities, and adding the word 'Landcare' to a group of people, does not necessarily lead to the outcomes inherent within Commonwealth and State Decade of Landcare Plans. In fact, in contrast to the general perception fostered by Landcare groups that they are effective local vehicles for information dissemination, evidence from this study indicates that the gatekeeping role performed by the property owners and councillors actually limited the issues discussed and the type of information generated. Observations from the study area suggest a more sober and critical evaluation of Landcare is needed, not only in a regional context, but on a national level.

The issue of future government commitment is also one of importance. Campbell (1994a: 289) has correctly stated that 'it is simply unfair and totally unrealistic to expect voluntary groups of people ... to fix land degradation or develop more sustainable farming systems without significant external support – financial, technical, institutional and moral'.

The issue of 'burnout' is one of particular concern to those involved in the movement (see Campbell, 1994a). If greater support – and greater support in a more organised manner – is not forthcoming, it is likely that the transition in Australia from 'productionist' to 'sustainable' agriculture will be impeded or severely delayed (see Cock, 1992; Campbell, 1994a). Given the importance of Landcare to Australia as a whole – in the context of stagnating or deteriorating State and Local Government revenues (see Fagan and Bryan, 1992) – it is expected that considerable funding will need to come from the Federal Government (see Campbell, 1994b).

As we approach the middle of the Decade of Landcare with Senate enquires and formal reviews of Landcare under way, it is interesting to observe that one of the main activities of Landcare groups in regions throughout Australia is to lobby for substantial increases in public funding to be allocated for remedial on-ground works on private land. While such funding would be distributed at the discretion of local Landcare groups, it must be questioned whether this is nothing more than the endorsement of a simplistic solution to complex socio-economic and environmental problems. It could be argued – in contrast – that unless funding decisions are made on the basis of a more substantial assessment of the causes of land and water degradation, and a realistic appraisal of the effectiveness of current policies and programs to address them, Landcare will have failed in its major mission – that is, to bring about positive and effective change in the way natural resources are managed in Australia.

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18

What future Landcare? New Directions under Provisional Funding

Stewart Lockie

Attempting to plot the future for any domain of social practice is a danger-fraught enterprise; and one that is made even more so in the case of Landcare by the multitude of social relationships involved, and the equally myriad understandings of Landcare promoted through those relationships. This has not stopped some rather notable attempts to plot such a future. These range from Andrew Campbell's (1992) vision for far-reaching changes in resource use, research and development and economic management; to Brian Roberts (1995) bold predictions about a 'hiccup' in the 'landcare movement' halfway through the Decade of Landcare – caused by the frustrations of bureaucratisation, economic pressure and under-funding – followed by a nation-wide renaissance of environmental concern, ecological literacy, support for alternative production systems and spiritual values. As tempting as it would be to focus on such heady claims, the intent and approach of this chapter is rather more conservative. It will seek rather to clarify the extent of change in Landcare policy initiated following the change of Federal Government in March 1996, and to explore the implications of this for the Landcare Program and rural environmental management more generally.

For seven years following its inauguration in 1989, the National Landcare Program (NLP) operated under the aegis of a Federal Labor Government. Stable government under a party committed to funding Landcare for an entire decade, along with bipartisan support, combined to give the Landcare Program an unusual air of security. A number of factors have combined, however, to make a reconsideration of Landcare following the change of government timely. These include the extraordinary majority enjoyed by the Liberal-National Parties Coalition in the lower house; the post-election 'discovery' of a \$10 billion 'black hole' in budget forecasts that has been used to rationalise spending cuts and failures to honour pre-election commitments; the tying of expenditure on new environmental initiatives to the partial sale of the state-owned telecommunications utility Telstra; and criticisms of Landcare funding and administration in pre-election Coalition policy documents. More specifically then, the change of government raises questions regarding both changes in the extent and targeting of funding for Landcare activities, and on the extent to which non-government Landcare practice may be influenced by such changes.

At the time of writing, there remains some uncertainty in the final levels of budget allocation to the NLP – primarily due to ongoing parliamentary disputes over the partial sale of Telstra – uncertainty that may lead some to believe this chapter premature. However, there is much more at stake here than whether or not Landcare Program budgets will be cut, expanded or re-directed. To understand fully the implications of any likely changes we must also seek to understand the impacts of pre-existing policy and the nature of state-community relationships within Landcare. It is argued here that Coalition policy proposals and budget allocations do not demonstrate such an understanding and, therefore, that some of their goals and claims are potentially misguided.

Election promises and budget allocations

In the leadup to the 1996 Federal election, the Coalition parties announced a range of environmental and sustainable agriculture funding initiatives totalling \$1.15 billion over five years through the establishment of a Natural Heritage Trust; \$279 million of which they believed directly targeted at Landcare (Liberal-National Coalition, 1996); and all of which was dependent on the partial sale of Telstra (Hill, 1996). It was stated that money dedicated to this trust would be devoted exclusively to capital projects, and that all interest earned on the Trust would be devoted to recurrent expenditure on environmental projects. At the end of the five years over \$300 million would remain in perpetuity in the Trust (Liberal-National Coalition, 1996). Initiatives relating to agriculture included:

- \$164 million additional funding for the National Landcare Program;
- \$80 million to introduce a system of Landcare taxation rebates/credits for primary producers;
- \$32 million for a National Land and Water Resources Audit;
- \$15 million through the Rural Adjustment Scheme to encourage the adoption of property management plans;
- \$19 million to finalise and implement the National Weeds Strategy;
- \$16 million for the control and eradication of feral animals;
- \$163 million to implement the Murray Darling 2001 project;
- \$85 million for a new National Rivercare initiative;
- \$20 million to encourage the development of farm forestry (Anderson, 1996: 10).

All these proposed expenditures are spread over five years beginning in 1996-97, suggesting that NLP funding may extend beyond the initial commitment to a Decade of Landcare. To place the magnitude of these increases in funding in perspective; the initial Commonwealth commitment at the beginning of the Decade of Landcare in 1989 was \$320 million over ten years. The 1992 Environment Statement lifted that commitment to \$426 million over four years, and in 1994, the Minister for Primary Industries and Energy forecasted that by 1997-98, nearly \$770 million would have been provided to Landcare through his portfolio (Collins, 1994). It was also estimated that Landcare tax deductions accounted for about \$37 million in 1992 (Collins, 1992). In early 1996, the former Prime Minister Paul Keating committed the Commonwealth to additional spending of \$460 million over four years, comprising \$176 million for the National Landcare Program, \$90 million for the Murray Darling Basin initiative, \$12 million for the Rural Adjustment Scheme, and \$173 million to a range of biodiversity programs (Farley, 1996). On this basis it was evident that in the absence of major changes, by the end of the Decade of Landcare the Commonwealth would have spent over \$1 billion (Farley, 1996).

The Coalition environment policy states that all the funding commitments associated with the Natural Heritage Trust 'are additional to Labor's budgeted funding for the environment and the sustainable agriculture elements of the Primary Industry Portfolio such as the National Landcare Program' (Liberal-National Coalition, 1996: 9). It certainly appears on this basis, therefore, that the Coalition Government intends to increase direct expenditure on Landcare considerably over

1995-96 levels if the partial sale of Telstra goes ahead and, if not, then to at least maintain expenditure. Although the figures here also indicate proposed increases to indirect expenditure through the tax system to be about 40 percent higher than expenditure in 1992, it is important to note that 1992 expenditure may not accurately reflect usage of tax concessions in subsequent years (see Collins, 1994).

The rationale for this provisional expansion of expenditure on Landcare is important and, therefore, worth quoting at length. According to Coalition primary industry policy:

The Landcare movement has proved to be a major cultural revolution among Australian farmers. However, it is suffering as landholders become increasingly disillusioned with the lack of resources available to make it work.

The key to moving Landcare forward is to restore farm profitability so landholders can make the on-farm investment needed to reclaim degraded land and adopt production and land and water management systems which are sustainable in the long term.

Labor has been loathe to provide Commonwealth support for Landcare works on private property. This is illustrated by the inadequacy of Landcare taxation arrangements and the fact that funding priorities under the National Landcare Program have placed emphasis on education and extension. Funding for on-ground works has been scarce and generally limited to demonstration projects, while local communities have received proportionately little money.

Landcare must now make the transition to the implementation phase.

A Liberal-National Government will give a major new impetus to Landcare, including the provision of tax benefits, to reinvigorate its activity, particularly with regard to on-farm works, and to Landcare groups undertaking remedial and preventative works on private land (Anderson, 1996: 11-12).

Policy documents relating specifically to the Natural Heritage Trust also provide a rationale for increased funding for Landcare. According to the Minister for the Environment:

Additional funding of \$279 million for Landcare will provide much needed support for implementation of plans, based on a catchment and regional approach. Of this, \$20 million is for Farm Forestry programs. Substantially increased support will also be provided for the development of community initiated and managed projects on public and private land ...

The increased funding available through the Natural Heritage Trust package will *allow Landcare to enter a new phase*, increasing public investment to better meet community needs and priorities.

The government will ensure that communities and landholders will have an important role in priority setting processes, and that the delivery mechanisms will be as streamlined as possible.

Trust funds will allow the National Landcare Program to be *refocussed*, to address priority problems at an integrated regional level ...

An enhanced NLP will also provide an expansion of property management planning, to give farmers improved natural resource and business management skills.

Other NLP initiatives will address floodplain management and provide the option of extended income tax measures to encourage investment in on-farm Landcare works (Hill, 1996: 33, emphasis mine).

Several of the claims made in these policy statements resonate with a good deal of the research that has been conducted into Landcare to date. Both Lockie (1994a) and Campbell (1994) suggest that Landcare has been associated with substantial cultural change in the ways that rural people recognise land degradation and organise themselves to address it, while the rest of the chapters in this volume attest to the complexity of such change. Despite this, it has been argued many times that the impact of localised cultural change and action will be limited by the ability of farmers to invest in more sustainable practices at a time when they face tightening terms of trade, high debt and volatile market conditions (eg, Lockie, 1994b; Martin & Woodhill, 1995). Within this environment, frustration with the educative and extension focus of the NLP has been evident (see Alexander, 1995; Campbell, 1997) and, consequently, calls to increase funding for 'on-ground' works are bound to be popular (see Davenport, 1997). The expansion of the pre-existing system of tax deductibility for soil and water conservation investment to include tax credits is also likely to be popular among farmers faced with low levels of profitability.

Beyond political rhetoric: the history of Landcare's 'new phase'

At face value, these policy documents suggest that should the Natural Heritage Trust proceed and funding for Landcare increase, a major reorientation of the program will ensue. If, on the other hand, the partial sale of Telstra is delayed and funding levels remain static, they suggest that Landcare will miss a major opportunity to capitalise on the work that has already been done, and very likely collapse under the weight of expectations this work has created. Many observers will be left wondering whether this is little more than typical political hyperbole, or whether it is based on a sound and insightful analysis of the future for Landcare. I will argue here, that while I do not consider the proposed changes to be entirely empty political rhetoric, nor are they as revolutionary or as fundamental as are suggested.

Calls to increase funding for the Landcare Program, and to reorient it towards funding works 'on the ground', are not new (see Campbell, 1997). Neither is the suggestion that Landcare has successfully moved through an awareness raising and planning phase, and that it is now time to move on and 'implement' it (eg, Alexander, 1995). This raises two related questions; firstly, how the Landcare Program was developing under the previous government in order to address these concerns and viewpoints; and secondly, what evidence exists to assess the possibility these suggestions offer for an effective Landcare Program and better environmental management? The address by Senator Bob Collins, then Minister for Primary Industries and Energy, to the 1994 National Landcare Conference, provides ample evidence that the previous government was both aware of popular criticisms of Landcare, and prepared to canvas a variety of strategies to do something about them. Senator Collins (1994: 17) reminded the conference that the foci of Commonwealth funding had been on assisting research, developing information and skills in land management practices, and supporting the formation of Landcare groups. To go beyond

these foci would have required a ‘significant expansion of funding’, and raise serious questions about how such funding could be allocated equitably. Senator Collins then suggested the possibility of dealing with allocation problems by increasing the catchment management focus of Landcare funding (rather than an on-farm focus); and the possibility of expanding Landcare’s funding criteria to explicitly target weeds and feral animals. All these suggestions appear to have been taken up by the Coalition, although we are still left with the question of whether \$279 million over five years is a sufficient boost in funding to support this reorientation.

When the Federal Labor Government announced its continuing support for Landcare in January 1996 – including its increased funding commitment – a major feature was on the emphasis on regional planning and initiatives (Farley, 1996). Not only was \$128 million available ‘to assist with the development and implementation of catchment plans by local communities’ (cited in Farley, 1996: 3), funding also became available to construct works on private lands where these formed an essential component of a catchment plan agreed to by the community. With funding also available to assist in the development of individual property management plans – as components of regional plans – it appears that the Coalition policy quoted above reaffirms, rather than reformulates, in many respects the pre-existing Commonwealth approach. A more substantial departure from pre-existing policy appears with a shift of funding from government-administered NLP activities to projects that directly involve and benefit the community (QDPI, 1996). Such a redirection of funds would appear to be targeted at dealing with the perception that most NLP money is tied up in administration and fails to make a difference ‘on the ground’; a perception that has been criticised by Collins (1994) – who argued that up until 1993-94 only about four percent of NLP moneys were spent on administration – and by Campbell (1997) – who points out that the NLP subsumed the old National Soil Conservation Program, and was never intended as a source of funds solely for community Landcare groups.

Overall, it seems that the change of government has had substantially less impact on Landcare programs than the party-political rhetoric surrounding the election campaign would suggest. Indeed, it may well transpire that the most important change is the uncertainty that has been introduced by the Coalition Government’s strategy of tying the funding of its Natural Heritage Trust and, therefore, a substantial proportion of total NLP funding, to the partial privatisation of Telstra.

Government action through Landcare: rationales for the existing model

Measuring the actual magnitude and cost of land degradation in Australia presents more than a few difficulties. Nevertheless, the 1978 Collaborative Soil Conservation Study estimated that 51 percent of rural land used for agriculture needed some form of treatment for erosion or vegetation degradation. The cost of structural works then believed necessary to deal with that erosion was estimated at 2 billion 1989 dollars (Standing Committee on Environment, Recreation and the Arts, 1989). Around the same time, the CSIRO estimated that land degradation cost the nation \$1.2 billion each year in lost production (CSIRO Division of Soils, 1990), while some more recent work published by the Land and Water Resources Research and Development Corporation suggested that land and water degradation cost Australia \$1.41 billion per annum, including \$450 million per annum on expenditure to deal with it (Alexander, 1995). As problematic and

incommensurate as these various estimates are, it is reasonable to conclude that the roughly \$150 million spent per annum by the Commonwealth can only be as effective as the additional efforts to deal with degradation it generates among other resource users (see Lockie, 1994b). As Campbell (1997) argues, to directly and effectively tackle land degradation Commonwealth expenditure would need to be of several orders of magnitude greater than current levels. With or without the sale of Telstra, such an increase in funding has not been forecasted.

It is, of course, the case that all layers of government contribute resources to deal with degradation, greatly expanding the overall public commitment. Even within this context, however, it must be remembered that State governments – as those with primary responsibility to deal with natural resource management issues – have historically been reluctant to take direct action to deal with rural land degradation. Their major emphasis has been, and continues to be, on the provision of research and extension services that landholders make use of on a voluntary basis (Bradsen, 1988). When the National Soil Conservation Program (NSCP) was initiated in 1983 (see Lockie & Vanclay, 1997) a greater role was signalled for the Commonwealth in the facilitation and coordination of conservation efforts, but in no way was it implied that a fundamental shift was underway towards the direct funding of private works programs. As the NSCP was subsumed within the NLP, this coordination and facilitation role was expanded to incorporate the fledgling Landcare group network, with money becoming available to assist groups initiate trial and demonstration projects, and to undertake property and catchment planning. At that point, it was envisaged that Commonwealth funding for the Decade of Landcare would be matched by the States. Although it is difficult to tell just how much State governments have spent on Landcare, it has been evident that their agencies have redefined many pre-existing research and extension activities as Landcare activities in order to compete for Commonwealth funding (Campbell, 1991; Lockie, 1992; Martin *et al.*, 1992).

The intent of this general thrust in the National Landcare Program is clear, and surprisingly consistent with the economic rationalist doctrine that has dominated government over the last two decades (see Lockie, 1994b; Martin *et al.*, 1992). The neo-liberal political philosophy underpinning economic rationalism promotes small government, minimal regulation, and the active promotion of ‘market solutions’ to social and environmental problems. Land degradation is conceptualised in this context as the outcome of distorted market signals that encourage producers to externalise the environmental costs of production – to either disregard problems that may not occur for some time in the future, or to ignore the off-site effects of farming practices – despite the negative impacts they have on the productivity of the resource base (see for example Commonwealth of Australia, 1991). According to this doctrine, governments may acquire a legitimate role in correcting distorted market signals and encouraging producers to internalise the full social and environmental costs of production, provided this does not lead to direct regulation of production. To date, the NLP has attempted to do this by improving the quality of information that is available to landholders about land degradation, their ability to interpret that information, and their ability to plan and manage their resources on the basis of it.

While critical analysis of the effectiveness of the emphasis in Landcare funding on trials, demonstrations and planning is necessary (see Martin & Woodhill, 1995), two points relevant to the current considerations can be made. First, Landcare has enabled Federal governments to present themselves as both active in attempting to deal with land degradation, and non-

interventionary in the affairs of State governments and individual land-users (see Martin, 1997). Second, the apparent success and popular support for Landcare has enabled Federal governments to commit themselves to a program of action that even from an economic rationalist perspective would not be seen as economically irresponsible (see Collins, 1994). Federal Coalition plans, on the other hand, to provide direct funding for on-ground works on private land seem inconsistent with the economic rationalism and severe fiscal austerity espoused in other areas of policy and, therefore, suggestive of a degree of political opportunism given the populist appeal of funding such works. This raises the question, again, about whether sufficient funding can be provided to enable such works to be undertaken on a scale that would substantially improve the health of the Australian agricultural landscape. This chapter has suggested that Natural Heritage Trust or not, such a magnitude of funding does not appear likely to become available.

Plotting and planning: the basis for change in Landcare.

It is well established that the forms of government support available to Landcare groups have a major impact on their activities (Curtis & De Lacy, 1997; Lockie, 1996). Expanded support to encourage the adoption of property management plans through the Rural Adjustment Scheme, and the reaffirmation of a catchment and regional approach to funding projects, are at once: likely to continue reinforcing these as a major component of Landcare group activity; more consistent with the neo-liberal characteristics of the pre-existing approach to Landcare than increased funding for 'works'; and more consonant with the directions for Landcare's evolution identified by the previous government.

It is possible to argue that activities focused on developing the ability of landusers to calculate the costs of land degradation and implement 'best-bet' practices to deal with it are, in the end, likely to have far more impact on the landscape than will funding for direct works at current levels of expenditure. Property and catchment planning, demonstrations and trials, and even assistance to implement priority catchment projects, all contain the possibility of mobilising far more resources from within the community than it appears likely will be allocated by Commonwealth governments. They are also capable of embodying more holistic understandings of potential strategies to deal with degradation than 'works on the ground' (with all their connotations of bulldozers, contour banks and other engineering solutions), enabling notions of sustainability to be more closely integrated with everyday farming practice (including livestock, pasture and crop management). Not only then does the ability of the NLP to mobilise community resources remain of fundamental importance to Landcare's success, but the particular effects of involvement in property planning and other knowledge based activities also need critical examination.

I have already argued in Chapter 3 of this book, that the particular ways in which people understand 'Landcare' have major implications for farming practice and environmental management, through the association of Landcare's positive social and environmental image with specific farming practices – such as 'conservation farming' – and corporate identities. It must also be recognised that in much the same way, the knowledge practices promoted through Landcare are not socially or environmentally neutral. In my own research into Landcare in south west New South Wales, I found only two notable differences in the use of farming practices recommended as more sustainable between members and non-members of Landcare groups. Those practices were tree planting and property planning (Lockie, 1996). This was not surprising since small amounts

of funding were available to assist in tree planting projects, and trees constituted a very visible expression of environmental action. Similarly, not only was property planning heavily promoted by those agencies supporting Landcare groups as an appropriate group activity, small grants were available through the Rural Adjustment Scheme to help pay for a consultant to assist in developing a plan. Other practices – such as the establishment of perennial pastures, lime application and reduced cultivation – had been taken up just as enthusiastically by Landcare members and non-members alike.¹

When property planning was examined in more detail, however, it emerged that those farmers who had undertaken one form or another of planning exercise used significantly more farm inputs than those who had not. Those with property plans used more than twice the lime and spent twice as much per hectare on farm chemicals. They also appeared to spend about 50 percent more per hectare on fertilisers.² Planning appeared to make little difference to the use of other recommended practices, or to the reorganisation of farm layout. These results suggest that the information technologies promoted to farmers through Landcare primarily support an intensification of resource use. For the individual farmer, the information garnered through the planning process both enables short-term investment decisions in farm inputs to be made with greater confidence, and suggests to them that they have little choice but to make those decisions if they are to maintain sustainability (see also Lockie, 1996, in press). The interpretation of soil test data, for example, tells farmers that decades of highly productive agriculture – following the superphosphate and subclover revolution – has seen the gradual acidification of their soil. Neglecting to lime, therefore, will see their plants crippled by low pH. Once the, rather costly, decision to lime has been taken, the maintenance or improvement of productivity becomes imperative in order to ensure an economic return is made on the investment in lime. Extra attention must subsequently be paid to minimising the risk of crop losses through inadequate nutrition or pest damage, leading to increased rates of fertiliser and chemical use. Moving from one apparently objective problem – acidity – farmers are told that they must adopt whole systems of input use that, ultimately, promote the very problem they set out to address, and thereby to further intensification of input use. The information that supports these decisions is generated by an agri-science complex that has a direct interest in promoting the intensification of agriculture, and is ill-equipped (or unprepared) to support alternative models (Kloppenburg, 1991). While I do not wish to enter here the debate on high versus low-input agriculture, it is worth pointing out that the sustainability of our current crop of recommended and ‘best-bet’ practices is very much open to question (Lockie *et al.*, 1995; Lockie & Vanclay, 1992; Vanclay & Lockie, 1993), and that the intensification of resource use associated with them seems more in tune with the interests of off-farm agribusinesses in selling inputs than with the financial and ecological stability of family farmers (Vanclay & Lawrence, 1995). Both these points have been made repeatedly by farmers

¹ Other research in different areas has, of course, revealed some different results (see for example Curtis & De Lacy, this volume), which are reviewed in Lockie (1996). The point here, however, is not about how great a difference Landcare membership makes to farming practice, but about the particular effects of participation in property planning.

² This result (t value=1.77) was not quite statistically significant at the .05 level (p=.082), reflecting the relatively small sample size (n=63). See Lockie (1996) for more detailed presentation and analysis of this data.

when given the opportunity to express their concerns (Baynes *et al.*, 1994; Lockie *et al.*, 1995; Lockie & Vanclay, 1992; Vanclay & Lockie, 1993).

It is apparent, then, that the indirect forms of influence used by governments to date through Landcare have considerable implications for agricultural practices and the health of agricultural landscapes. Although these implications may not be as readily apparent as those resulting from the funding of ‘works on the ground’ – indeed, research has consistently shown farmers to believe Landcare to have had minimal impact on their farming practices (eg, Lockie, 1996; Wilkinson & Cary, 1992) – they should not be discounted in policy formulation and analysis. Alongside Coalition claims to refocus the Landcare Program on implementation, is a maintained commitment to these indirect forms of influence. It must be remembered – as pointed out by both Martin and myself in earlier chapters – that the ‘participatory’ and ‘devolutionist’ discourse surrounding Landcare does not somehow dissolve the power relations embedded in Landcare discourse, and nor does it seem to challenge the hegemony of high-input agriculture in agricultural research, development and extension.

Conclusion

Through this chapter, I have discussed the possible implications of changes in the funding of the National Landcare Program to Landcare more generally. In reading these conclusions, however, it is important to remember that there are many other factors impacting directly on land management in Australia, including: the movements of international commodity markets; the fluctuating demands of ‘green consumerism’; competition for rural land from urbanisation, tourism and other developments; the development of new enterprises and practices; and the rejection of ‘conventional’ agriculture by farmers dedicated to the various systems of organic production. Thus, I have avoided here brash predictions about the future for Landcare. Needless to say though, that the more Landcare group membership is perceived to help deal with this complex and volatile environment, the more secure its future will be.

In many ways, the approach to Landcare adopted by the previous Commonwealth Government sought to do just this. It sought to define land degradation as a problem for which the whole community has responsibility – not just government – and it implemented programs that attempted to improve the ability of individuals and groups to deal with it themselves. This was not only consistent with the neo-liberal philosophy underpinning economic rationalism, but was reflected in the Commonwealth approach to a whole range of rural policy issues such as drought management and commodity marketing. Nevertheless, it was evident that many Landcare participants were frustrated by what they saw as excessive bureaucratisation and too little direct action. The Coalition government has sought to capitalise on this discontent by promising to fund more ‘works on the ground’, and by reallocating funding from State government agencies to community Landcare groups. At the same time though, it has maintained or strengthened – depending on the sale of Telstra – those programs that sought to exert a more indirect influence.

Overall, then, it seems that the changes to the National Landcare Program under the current Commonwealth government are less than radical. The seeming ambivalence of this assessment will be of small comfort to those in State agencies who have seen their projects and programs cut

as funds have moved into direct support for community Landcare. Still, it can only be hoped that the increased proportion of funding targeted directly at Landcare groups helps to maintain the vitality and strength of this extraordinary network of community organisations, without promoting unrealistic expectations about how much remedial work will actually be funded by the Commonwealth. Even where direct funding is limited to priority works in catchment plans the possibility exists of discontent with the ability of Commonwealth funds to 'implement' Landcare. The previous government was extremely careful not to imply that funding could extend beyond a facilitative role. While it is likely that Coalition promises to do so will be seen by many as typically hyperbolic in the context of the March 1996 election, it is not necessarily unreasonable for others to suppose a more literal interpretation – they may well be disappointed.

The future contains many challenges for those dedicated to Landcare. While I do not portend to offer a comprehensive list, I do believe that there is still a great deal of critical thinking and analysis to be done in: assessing the impact of corporate and agribusiness domination of agriculture on environmental management; generating and supporting genuine alternatives to current production systems; developing agricultural landscapes that support vital rural communities; analysing the articulation of Landcare with the increasingly assertive discourses of 'best practice' and 'quality assurance'; and looking to the future for Landcare into the next millennium. While these issues are predominantly apparent at a macro-level of analysis, we must also remember their more localised articulation in the lives and practices of individual 'Landcarers'. Similarly, we must remember that more localised social and cultural change is also of fundamental importance, and so we should continue to consider the implications of changing gender relations, extension practices and inter-farm cooperation. It is all too obvious that Landcare does not operate in some sort of social vacuum, and so our gaze must be turned to these other arenas of social practice and policy. Too often we see visions for change mixed up with uncritical acceptance of the way things are. This is no future for Landcare.

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