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# **Community First:**

Landcare in Australia

ANDREW CAMPBELL

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Andrew Campbell recently completed a three year contract to the Australian Government as National Landcare Facilitator, evaluating the Landcare programme, providing a national overview of the activities of landcare groups in all states and feedback on the thoughts and aspirations of the people involved. He is presently undertaking post-graduate studies in the Department of Innovation and Communication Studies at the Agricultural University, Wageningen, focussing on the institutional implications of sustainability for agricultural extension, education and research. His book describing Landcare through case studies of individuals and landcare groups is entitled *Landcare: Communities Shaping Their Land, Their Future*, and is published by Allen and Unwin, Sydney (1994).

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# COMMUNITY FIRST: LANDCARE IN AUSTRALIA

## Andrew Campbell

#### Introduction

In Australia, a grass-roots revolution called 'landcare' has turned land conservation extension on its head. Close to two thousand voluntary community landcare groups are working to develop more sustainable systems of land use, supported by a national ten year funding programme. This paper introduces landcare in Australia as a community-based approach to the development of more sustainable ways of using the land. It is not easy to define landcare or even to draw its boundaries. Landcare is not really an extension programme at all in the sense of a system of planned interventions with discrete objectives. Rather, landcare blends elements of community and environmental education, action research and participatory planning to tackle a range of environmental and production issues in a tremendous diversity of bio-physical and administrative environments. Policy makers are reacting to on-ground developments, rather than precipitating action in a strategic way.

## Land Degradation in Australia

The impact of European man on the Australian environment, in the equivalent of a day and a half out of a year compared with the known period of aboriginal occupation (Lefroy et al, 1992), has been astonishing in its scale. In that time, it is estimated (Australian Bureau of Statistics, 1992) that:

- half of the forests and one-third of the woodlands have been cleared for agriculture;
- ninety seven species of vascular plants are extinct and about 3329 plant species (17% of the total) are either rare or threatened;
- twenty species of mammals and 10 species of birds are extinct and a further 111 vertebrate species are considered endangered;
- more than 500 species of exotic plants, animals and invertebrates have been deliberately introduced and many of them have been ecologically disastrous;
- and water repellency affect roughly half the land used for agriculture; and
- fresh water resources are threatened by eutrophication, sedimentation and salinity.

In the wheatbelt of south-west Western Australia, the Department of Agriculture in 1991 estimated that subsoil compaction affects 54% of the cleared land in the agricultural area, with an annual cost of \$153 million in production losses alone; water repellence affects 32% of cleared land (\$150 m pa.); salinity affects 3% of cleared land (\$105 m pa.); soil structure decline affects 22% of cleared land (\$70 m pa.); and water logging of crops and pastures affects 11% of cleared land (\$90 m pa.). Erosion and acidification problems are relatively minor by comparison, bringing the total annual cost to \$615M million, or 17% of the Gross Value of Agricultural Production (GVAP) for this region in 1988/89 (Lefroy et al 1992).

Note that these are only the costs in terms of annual losses in production, in one region of one State. Losses in GVAP (17% in this case) are not recognised as a cost of agricultural production in the national accounts. Rather, expenditure on land conservation, which is directed at reducing this cost, is registered in Gross National Product as income (Eckersley, 1991). Depletion of natural capital such as soil, fresh water and biodiversity is not accounted for at all.

## **Background to the Development of Landcare**

Involvement of farmer groups in soil conservation is not new, but the breadth of issues being tackled by landcare groups, the impetus for groups forming, the degree of group autonomy and the momentum and ownership of the landcare programme is quite distinct from past group approaches, which were essentially driven by state government agencies and focussed more narrowly on reducing soil erosion (Campbell, 1989).

The earliest forms of the current landcare groups are probably the Land Conservation District Committees which were constituted under the Western Australian Soil Conservation Act of 1983 (Robertson, 1989), and the Victorian Farm Tree Groups, established jointly by the Victorian Farmers and Graziers Association and the Garden State Committee in 1981 (Campbell, 1990). In 1986, Victoria revised its group extension activities to take a broader (focussing on soil, water flora and fauna, rather than just soil conservation) and a more bottom up approach, registered under the new banner of 'LandCare'. These programmes grew much faster than expected with a minimum of resources, and were credited with enhancing the extent and the quality of land user involvement in land conservation activities. Recognising the potential of bottom up, community group based approaches to land conservation, the National Soil Conservation Programme (NSCP) was re-organised in 1988 to provide national support for community landcare groups.

Suddenly the level of attention to landcare increased dramatically. In mid-1988, an historic partnership was forged between the National Farmers Federation (NFF) and the Australian Conservation Foundation (ACF), or more particularly, between their respective Directors, Rick Farley and Phillip Toyne. The NFF and ACF jointly developed a National Land Management programme in spring 1988, which proposed a ten year programme, the key elements of which were funding for landcare groups and property planning (Farley and

Toyne, 1989). The joint thrust of two powerful lobby groups, unlikely bedfellows from opposite ends of the political spectrum, presented a fascinating image to the media. The potent political ingredients of timing, a discrete package with broad voter appeal, against a background of exponential growth in community awareness of environmental issues, ensured that landcare became 'flavour of the month'.

Prime Minister Hawke presented a major environment statement in July 1989, which announced that the 1990s would be the Decade of Landcare and outlined a \$A340 million funding programme based to a large degree on the NFF-ACF document. With the Commonwealth signalling its endorsement of the concept of community landcare groups in such a tangible way, the stage was set for accelerated growth of the group programmes in Victoria and Western Australia, and for extremely rapid establishment, growth and resourcing of group programmes in other states.

By October 1989, the total number of landcare groups in Australia was about 350, a number which doubled by July 1990. Despite tough economic conditions in rural communities, the explosive growth of the landcare movement has continued, with some 2000 groups by early 1994, comprising more than a quarter of the farming community.

#### What do Landcare Groups Do?

One of the features of the Australian landcare movement is its extraordinary diversity. It is impossible to describe a 'typical' landcare group, except in broad terms as a group of (usually rural) people who have come together voluntarily to cooperatively tackle environmental issues and develop more sustainable systems of land management. Despite the diversity in group activities, there are stages of development which are generally applicable to landcare groups. This sequence should not be construed to suggest that the life cycle of groups is linear - it is not uncommon for groups to become dormant or much more active with the departure or addition of a key member or a change in the type and level of external support.

#### Formation

A farmer, local activist or department person (or any combination of these), who is concerned about a land management issue, feels that a landcare group is the way to go, talks it over with friends/neighbours/extension staff and calls a meeting. The meeting elects a steering committee, which investigates local problems, interest, resources and assistance available, then calls another meeting to form a group and elect a committee (although sometimes this happens at the first meeting), which may comprise the entire group, or be an executive subset of the group.

### Establishment

The group is formed, it usually defines its land degradation problems and what it knows about solutions. Boundaries, goals and membership are determined. The group identifies

sources of assistance, usually becomes legally incorporated and maybe puts in a submission for government funding, often depending on the level and type of input from local extension staff. The local community becomes aware of the group, which grows quickly and develops relationships with local and state government agencies and other sources of assistance.

### Consolidation

The group develops a plan of action to progress towards its goals, or proceeds on a bright ideas basis from meeting to meeting, or essentially responds to extension inputs. The first scenario is obviously preferable, but the majority of groups in Australia usually have elements of all three. The group may have a part-time coordinator and usually develops a reasonably clear understanding of its relationship with government agencies. Some of the people involved with the early development of the group and some people on the fringes of group activity may become less active, but membership continues to grow.

Early activities in the establishment and consolidation phases often include:

- field days/farm walks/bus tours;
- meetings, some with guest speaker(s);
- production of a simple brochure about the group, or an occasional newsletter;
- demonstration projects usually land degradation rehabilitation works on a prominent site in the local area; and
- flights over the group area and/or a bus trip to landcare groups in other regions.

#### Maturity

The group has settled down, with easy identification of leaders and future leaders, talkers, workers, followers, sleepers and hangers-on. Some turnover of members occurs, with membership numbers fairly constant. The group has a clear understanding of its role and goals and is well known within the local community. The group has developed on-going relationships with state and local government, with local businesses, community groups (including neighbouring landcare groups), universities, researchers and consultants, schools and other landholders. The interaction with government staff for technical advice may remain high, but reliance on the State for stimulus and financial support dwindles.

Regular activities of the group include:

• development of a catchment or district plan which identifies land degradation problems, discusses the challenges of achieving sustainability in the local context and sets out a coordinated approach of implementation;

- facilitating the development of individual property plans within the context of the catchment plan employing consultant(s), running workshops, short courses, coordinating incentives and resources such as aerial photos;
- active involvement in natural resource monitoring programmes, often in conjunction with schools, state agencies and scientists;
- developing local inventories of natural resources (e.g. remnant vegetation, seed sources) and documenting local knowledge about land and its management;
- demonstration projects and cooperative works organised and/or supported by the group;
- actively drawing from a wide range of support government and non-government;
- involvement with local schools in an extension role and in group projects;
- short courses or seminars, in which the group gathers expertise from a range of sources;
- development or purchase of equipment for hire to members and other land users;
- study tours to other regions;
- research and development trials with state agencies, universities, and agribusiness;
- involvement in state and local government planning processes;
- exhibits at local shows and field days; and
- production of educational pamphlets, videos, manuals.

The sequence above is potentially misleading in that it implies that landcare groups move sequentially through a process of evolution. In reality it is usually more disjointed and haphazard.

## What has Landcare Achieved?

It is still too early to measure many of the impacts of landcare. But it is not too soon to be asking who is involved in landcare and what they are getting out of their involvement.

Research carried out in the last three years (Campbell, 1992; ABARE, 1992; Black and Reeve, 1992), suggests that roughly one in four farmers are involved in landcare or rely on landcare groups for information. This is a significant penetration of landcare into rural communities over a period when many people could have been expected to be pre-occupied with pressing short-term financial difficulties.

The farmers who are in landcare groups or receive advice from landcare groups, on average, are younger (ie, in their mid-fifties), earn higher levels of cash income, have higher levels of debt, are more active seekers of information from a wider range of sources; they are more concerned about the future, more positive about and receptive to government and importantly, they undertake more land conservation practices than other farmers.

Many people involved in landcare are learning a lot about their own property, about the land in their district and about issues they may have rarely considered in the past. Group leaders in particular have gained great satisfaction from seeing other people get involved, from influencing others through their interaction in the group and occasionally from group projects.

But the learning and satisfaction is often tempered by growing frustration: about the level of knowledge and resources available to seriously tackle problems; about the few people who really understand what needs to be done and the amount of poor land management still occurring; and about the bureaucracy, paperwork and politics of landcare, particularly project funding.

Some groups have already created a climate of opinion more favourable to the adoption of improved land management practices in their districts and some groups have achieved notable successes in land management improvements particularly suited to group action, such as controlling rabbits and weeds.

Landcare, by involving committed people closest to the land, has the potential to be the first step in evolving new land use systems and new relationships between people and land, which build upon human resources instead of discounting them or seeing them as part of the problem.

## **Community First Approaches**

### Land Literacy

Enlightened regulations fostering a 'cooperative adjustment' in land management standards are only likely to be feasible if the condition of natural resources is well understood by the people managing those resources and by anyone proposing to specify and enforce standards of management. So land resource assessment and land condition monitoring are complementary to any improvement in regulatory instruments. They are also complementary to the effectiveness of landcare groups in generating commitment to sustainability at an individual and community level.

Land resource assessment and land condition monitoring does not have to mean highly specialised survey teams using complex instruments with unpronounceable names producing beautiful maps which then reside in map files, vertiplans and computers in government offices, never to be seen by the people who actually live on and manage the land.

There are much more exciting and useful ways to generate and use information about the condition of natural resources, ways which may even improve the management of those resources.

Land Literacy refers to activities designed to help people 'read the land', to understand the condition of and trends in the environment around them, and to make the invisible become visible. Some of the land literacy activities (White, 1992) include:

- *Farmer fly-overs*: enabling farmers to see their catchments and farms from the air at times when land degradation trends are most visible, often with a profound impact on their perceptions.
- *Making the invisible, visible*: activities and publications which better assist land users to recognise emerging problems, for example soil salinity and soil structure assessment kits and farm monitoring handbooks.
- Community action research: exemplified by Saltwatch, Drainwatch and Watertable Watch. These land literacy programmes democratise technology, putting scientific techniques into the hands of the public. Students collect information, store it on computers and send it by disk to government agencies for processing. In this way much more data can be gathered from more sampling points than is conceivable for a government agency, and a demand is generated for the analyses and interpretations of this data. People involved in gathering information are more interested in finding what it means and taking it seriously. For instance, *Ribbons of Blue* in Western Australia involves school students in gathering and managing information on water turbidity, pH, temperature, sediment, biological oxygen demand, nitrogen, phosphorous and conductivity.
- Organisms as indicators (the canary in a coal mine): the South Australian Wormwatch programme provides a kit with illustrations of worm species and information about their life cycle and crucial role in soil structure and fertility, and asks rural and urban people to find, identify, count and record the worms in their localities. This information is used in a Commonwealth Scientific and Industrial Research Organisation (CSIRO) Division of Soils research project on earthworms and sustainable agriculture.
- *Listening to the Land*: just as art galleries supply audio tapes to enrich the experience of people by giving them new insights as they move from painting to painting, interpretive tapes in vehicles can assist people to understand the environments they are travelling through. The first such tape, based on interviews with landcare members from the Warrenbayne Boho area, will hopefully assist travellers along the Hume highway from Melbourne to Sydney to gain much more from the trip than stress and fatigue.

Land users are starting to collect and monitor information which was largely the province of specialists five years ago. Landcare groups and some individual land users are now familiar with technology such as piezometers, Geographic Information Systems, neutron moisture probes, aerial magnetrometric surveys and electromagnetic detection of potentially saline areas. The data from the land literacy programmes can of course be integrated with the practical experience and intuition of land users in preparing farm and catchment plans, ensuring that these plans recognise the ecological impact of farming practices.

However the major value of such programmes is the speed and effectiveness with which they transmit local environmental knowledge through communities, teach people to observe and monitor the health of the land around them, and democratise technology, giving local communities ownership of technical information and local responsibility for local issues, and enabling them to formulate much more acute questions for scientists and regulators.

#### Farm and Catchment Planning

One of the most common activities for landcare groups is property and catchment planning. Most land degradation problems which concern groups cross property boundaries and are thus more suited to catchment-based approaches. As more landcare groups define their own needs and approach the same task in their own way, the evolution of different approaches to farm and catchment planning has accelerated. Some groups are using computer-based Geographic Information Systems (GIS), others have developed very simple processes based around enlarged aerial photographs.

Preparing a catchment plan as a framework for individual property plans is a valuable strategic activity for landcare groups. Various planning processes are evolving in different circumstances, but common ingredients include the following:

- a base map of the district is prepared, often using an enlarged aerial photograph and group members receive base maps for their own properties at a larger scale;
- the group, with the aid of a facilitator drives and/or walks around their district, developing a common understanding of its characteristics, and agreeing on a common local language for describing the different types of land the ecological land units;
- group members use their local knowledge and the information generated in the group to analyse and map the land units on their own properties this information is aggregated to compile a land unit map for the catchment;
- the group discusses land management issues and potential elements of more sustainable systems, both at the farm scale and at the catchment scale. Property and catchment planning processes can assist individual land users at the paddock and farm scales, and groups of land users at the catchment scale, to gather, analyse, synthesise and apply information to move towards sustainability.

The context in which land users are seeking and applying information is critical for research and extension. The congruence of the quest for sustainability, the emergence of

property and catchment planning and the explosion in community participation through landcare groups represents a watershed in the development of an *Australian* agriculture.

## **New Roles**

Landcare groups have precipitated the emergence of new roles which are distinctly different from the roles associated with the traditional labels of extensionist, researcher and farmer. Four emerging roles, all working in participatory ways with rural communities at a district or regional scale, can be identified – facilitation, coordination, catchment planning consultancy and environmental education. The latter two are still embryonic, with only a handful of practitioners, so for the moment the discussion is confined to facilitation and coordination. This can be a tricky stage of the process, and a skilled facilitator/consultant can be of great assistance, speaking as 'the voice of the catchment', and stimulating farmers to look at their own properties in the context of the wider landscape.

#### Facilitation

Essentially the aim of the facilitator is to foster community synergy. This means helping the group to make best use of the human resources available, by acting as a link person within the group and the local community, but also from outside. One farmer described it this way: *"without the link person it is like having a motor without a spark plug"*.

Facilitation can also mean helping to develop a shared sense of direction among all the relevant actors. This requires a sufficient insight into group processes to be able to assist groups to find and set direction, to identify factors preventing the group from reaching its potential, and to work through these issues with the group.

Facilitation is much more a matter of skilled listening, asking the right questions of the right people at the right time, than it is delivery of technical information or packages. This can mean challenging farmers to open their minds to new possibilities, to new ways of looking at their situation, their resources and the options open to them. One facilitator, a former archaeologist, described this aspect of her role to that of the piece of grit in the oyster, which hopefully leads to the development of a pearl. The art of fostering group synergy is delicate. It involves knowing when to lead and when to wait. It also requires empathy with farmers.

Facilitators are often involved with a number of groups at one time. While their main role is in the early stages of group establishment, they may perform a short-term troubleshooting role with mature groups from time to time, or be involved with rejuvenation of groups in decline. Facilitators ideally have sufficient technical skills in land management to be able to assist groups to set technically sound goals and access appropriate advice, but this is not essential. More importantly, facilitators must be able to handle the fine balance between intervention and strategic withdrawal in group activities. Good facilitators tend to work themselves out of a job, withdrawing as groups become self-reliant.

## Coordination

When groups have a clear idea of what they want to do and how they are going to do it, the amount of voluntary time which can be put in by the few people who do most of the work often becomes a constraint. At this stage a coordinator becomes useful. The role of the coordinator is to sustain the momentum of the group, to keep members involved and to ensure that group plans are implemented. Coordinators assist voluntary group leaders to organise meetings, they take an active role in planning and managing group projects, keep less active group members interested, provide a link between group members and sources of technical advice and do public relations and liaison work on behalf of the group.

Coordination of resources is central to this role. For example, organising farmer contributions to projects, seeking assistance from outside groups and organising cooperative efforts between a number of farmers or with other groups. The coordinator demystifies the technical side of land management and provides ready access to straightforward, practical advice at the local level.

In many instances, particularly in southern States, the coordination role is played by a former group leader, who is paid on a part-time basis to put more time into landcare group activities than would otherwise be possible. This is a great arrangement where it works well. As Kate Walsh (in Oates and Campbell, 1992) puts it:

"A local coordinator can say 'we' (eg 'we are responsible for our roadsides') instead of 'you.' This brings ownership of problems and solutions back to the community. We have local knowledge and perhaps some intuition for what is needed."

The coordinator is seen as an independent person with an important liaison role between the group and government. Because they are local, their expertise tends to stay in the area for much longer than departmental advisory officers, who tend to be much younger and very mobile, as the promotion and reward systems within most state agencies make it very difficult for people to pursue a career within extension without having to re-locate regularly or move to a desk job. The on-going role of local group coordinators can relieve the administrative burden from the government agency, giving the local community ownership and a degree of what Röling (1991) refers to as 'countervailing power'.

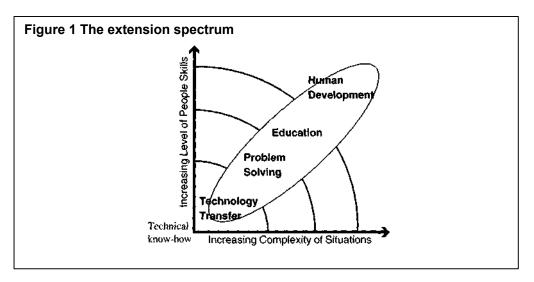
## **Implications for Extension and Research**

So the ultimate goal of landcare is sustainable land use - how do we get there? There are three key ingredients required in order for land use and management to become more sustainable. Land users must want it, they must know what to do and how to go about it, and they must have technically feasible options which are economically profitable (Campbell, 1991; Cary, 1992) and socially acceptable (Röling, 1991).

Comparing most Australian farming systems with the parameters of sustainability discussed above, it seems clear that there is also a fourth equally important ingredient - the processes required to change from existing systems in a coordinated way, particularly at the landscape scale, to anticipate and plan for change rather than reacting to it.

This is not to suggest that sustainability is something which can be ordered in a prescriptive way, that there is a blueprint to implement. More sustainable systems of land use are much more likely to occur through a diversity of approaches as land users and communities evolve new systems of land use according to their own circumstances.

If the critical ingredients are missing, the possibility of developing sustainable systems of land use is remote. Without commitment, other priorities will always be more urgent than developing sustainable farming systems. Without resources, people will become burnt out by anxiety and frustration. Without a knowledge of where we are going and how to get there, the fast start fired by initial enthusiasm will lose momentum. Without a process for planning for change, involving the relevant players and determining actionable first steps, adhocery and false starts will result. Equally, where innovations are complex, where costs and returns may be hard to identify or apportion, where there is no immediate return, or where the innovation challenges community norms (all common attributes of more sustainable farming systems), then linear communication from researcher to extension agent to farmer will rarely influence adoption.



What might a research and extension system appropriate for the 1990s and beyond look like? Figure 1 (after van Beek and Coutts, 1992) neatly captures the extension spectrum - from technology transfer (in which paternalism and the 'expert syndrome' thrive) to human resource development.

Different approaches to extension, requiring different types of skills, are appropriate in different situations. This should not be construed to suggest that technical know-how and technology transfer are displaced as situations become more complex, rather they are built upon as the spectrum moves towards empowerment.

However the social and economic aspirations of many landcare groups, and their focus on the community and catchment level, necessarily limit the applicability of technology transfer approaches to a narrow portion of their spectrum of concerns.

Extension and research is being required to change to mission-centred, rather than problemfocused approaches; it is having to learn new skills to work effectively at a community, rather than a paddock level; and it is having to concentrate far more on process - who is involved at what level, who asks the questions and who listens, and who owns the process, rather than on its traditional concerns of tasks and outputs.

# The Empires Strike Back - the Resilience of the Dominant Paradigm

The deficiencies of the linear model of information flow from research to extension to transfer to diffusion have been researched and exposed for many years, yet institutional structures, government policies and programme funding are still largely based on this model. There are clearly strong interests supporting this model, investing it with a certain stature and resilience. This section discusses, in the context of landcare, some of the less tangible issues which conspire to prevent the emergence of participatory models for improving land use and management.

#### The Fuzziness and 'Threat' of Empowerment

The most effective landcare groups always enjoy a constructive relationship with state land conservation agencies. Where this is the case, it is usually because the group has found individuals within departments who are responsive and helpful, without having any desire to control the direction of the group either for their own benefit, or according to their own perception of the group's best interests. In short, people who have developed what Bradby (1992) calls *"the art of public listening"*.

While the landcare movement is both a reflection of and a catalyst for changes in the way government agencies interact with community groups, there remain some pervasive attitudes and institutional cultures which are a formidable constraint to landcare groups taking the step from raising awareness of problems to being key players in developing solutions. This is not a criticism of the individuals within state agencies, especially not of those closest to landcare groups, most of whom are dedicated people working long hours for no additional reward. Rather, it is directed at the organisations and cultures within which these people work.

Land degradation will not be solved by traditional extension approaches. Further, land degradation will not be solved by government. Landcare is not a new extension programme, but a fundamental change in philosophy, reaching beyond agriculture, into the wider community.

This is a difficult concept for many government advisers to grapple with. They have spent many years working away from the public gaze, implementing government programmes, in contact mainly with the top 15–20% of the 5–6% of the workforce who are farmers. Suddenly, the mass media has discovered land degradation, powerful lobby groups such as the Australian Conservation Foundation and the National Farmers' Federation have united forces to stimulate the government into providing unprecedented financial support, and the entire community seems to want to be involved. The involvement of other sectors of the community in land conservation is highly desirable, but for state soil conservation agencies, this means 'letting go', being less proprietorial about land conservation.

Terms such as 'empowerment', 'community-based' and 'bottom-up' are becoming hackneyed in the literature accompanying new government initiatives. Yet the rhetoric is rarely followed through (or even acknowledged by) all layers and sections within government agencies. The trouble with empowerment is that in the landcare context it is seen to mean (Woodhill et al, 1992):

"transferring power for decision making and the allocation of financial resources from government bureaucracies to community groups and joint community/government decision making forums. Such a change can be threatening to existing institutions and power structures...The risk is that those with the power and resources attempt to use community participation for their own ends and organisational goals (even if those ends may be directed towards their view of what is 'good' for a particular community) and hence are not genuine about empowerment."

A few examples will illustrate government agency attitudes and cultures constraining the effectiveness of landcare groups:

- the number of managers who still appear to think that 'community consultation' means holding a public meeting to inform people what the department is doing in their area;
- the expression 'my landcare groups', often used in the context of 'anyone wanting to talk to my groups has to go through me', or 'why wasn't I informed that you were talking to so and so?'
- empire building, the securing of extra resources for the department, the focus on means rather than ends 'never hand any money back, we must spend it or commit it before June 30 or we won't get it next year its better that we spend it than the other mob';

- hierarchical lines of command preclude 'bottom-up' decision-making within agencies, making it extremely difficult for agencies to act corporately in a way which gives meaning to 'bottom-up';
- the expert syndrome 'we'll do the inventory/ monitoring/ planning/ set up the trial and we'll let you know the results/ provide you with a map or plan - we know what's best!';
- paternalism 'we'll look after the funds/employ the person/buy the vehicle for you don't you worry about that!'

Many professionals within agriculture and natural resources departments have little training in 'people skills' or participatory processes, or even ecology, because traditionally their departments have had a production-oriented, reductionist orientation. Among the hundred or so NSCP-funded landcare facilitators, project officers and coordinators, there are journalists, archaeologists, teachers, engineers, foresters, horticulturalists, small business people, farmers and agricultural scientists, and almost half are women. Yet most of the state agency staff they are working with are male agricultural science graduates (Reeve et al, 1988).

Involving the community can be time-consuming and frustrating and it is scary for people who are not naturally disposed to dealing with people and/or have not had relevant training. Seen through the prism of existing institutional cultures, community participation is tedious, its outcomes are often intangible and its cost/benefits debatable. But the complexities of developing new ways of using the land which meet environmental, social and economic objectives mean that genuine community participation in decision making and resource allocation cannot be side-stepped.

Engel (1990) identifies two constraints to effective participatory strategies in extension:

- a dominant bias in favour of research-based knowledge frustrates the input of other types of knowledge (e.g. farmers' practical nous) which are equally necessary for sustainable solutions at the farm level; and
- institutional difficulties in coping with the dynamics of and type of solutions developed if agencies aim at an effective "fusion of horizons" at the farm level.

Fostering new institutional cultures that encourage listening and learning will require leadership from senior managers to demonstrate that the rhetoric about bottom-up is not merely bluster. This will mean giving the community real say in allocating resources.

A key constraint to landcare group effectiveness is that government agencies supporting landcare groups lack staff who are skilled in dealing with voluntary community groups, and have yet to develop institutional cultures and participatory processes which foster genuine community involvement and self-reliance.

## Conclusions

The challenge of developing more sustainable systems of land use and management is fundamentally different from the task of increasing the adoption of an agricultural innovation. The time frames, geographical scale and technical uncertainties implicit in ecological sustainability, and the political, economic and social complexities of changing land use systems, mean that new social and institutional competencies and modes of action need to be developed.

Agricultural research and extension organisations, if they are to remain relevant in the sustainability era, must adjust their focus beyond the plot, the paddock, the farm and the farmer, to consider the community, the catchment and consumers.

Landcare in Australia is an example of a community-based response to the challenge of sustainability during a period of severe resource constraints. The key ingredients of landcare are its lack of structure, the primacy of land users in determining group directions and activities, the integration of conservation and production issues, the involvement of people other than farmers in groups and the extent to which groups assume responsibility for their own problems and resources. Landcare group activity often involves and is complemented by innovative approaches to monitoring land status (land literacy) and by participatory approaches to planning better systems of land management at farm and catchment scales.

'Community First' thinking means a change in focus: from transferring information to asking the right questions; from presenting to skilled listening and interpretation of feedback; from starting with research outputs to building upon the diverse knowledge and inputs of many stakeholders.

Community First thinking breaks away from limiting notions such as 'top-down' and 'bottom up'. Facilitating community synergy, assisting communities to work together to assume responsibilities for defining and tackling their own problems, can inform research and extension approaches at both the individual farm level and at the institutional level.

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Sustainable Agriculture and Rural Livelihoods Programme



International Institute for Environment and Development 3 Endsleigh Street London WC1H 0DD The Sustainable Agriculture and Rural Livelihoods Programme

The Sustainable Agriculture and Rural Livelihoods Programme of IIED promotes and supports the development of socially and environmentally aware agriculture through policy research, training and capacity strengthening, networking and information dissemination, and advisory services.

The Programme emphasises close collaboration and consultation with a wide range of institutions in the South. Collaborative research projects are aimed at identifying the constraints and potentials of the livelihood strategies of the Third World poor who are affected by ecological, economic and social change. These initiatives focus on the development and application of participatory approaches to research and development; resource conservina technologies and practices: collective approaches to resource management; the value of wild foods and resources; rural-urban interactions; and policies and institutions that work for sustainable agriculture.

The Programme supports the exchange of field experiences through a range of formal and informal publications, including PLA Notes (Notes on Participatory Learning and Action - formerly RRA Notes), the IIED Participatory Methodology Series, the Working Paper Series, and the Gatekeeper Series. It receives funding from the Swedish International Development Cooperation Agency, the British Department for International Development, the Danish Ministry of Foreign Affairs, the Swiss Agency for Development and Cooperation, and other diverse sources.

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