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LANDCARE IN AUSTRALIA – A SUCCESS STORY

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ABSTRACT

The emergence of the Landcare movement in Australia is relatively new. "Landcare" is the name given to a community based participatory program, initiated by the community and supported by governments of all persuasions. This paper provides a background to Landcare and why it has emerged as a significant force in encouraging environmental change.

Australia is a large country with a diverse range of natural environments some of which are extremely fragile. Two hundred years of human occupation and agricultural activity has lead to significant degradation of natural resources. While some of this degradation will be very difficult to reverse, Landcare has provided a framework to address the problems, plan and implement solutions and most importantly to develop sustainable systems which are more empathetic with the environment on which they depend.

Significant environmental problems include a continuing development of soil salinity in farming areas, the deterioration in waterway health and consequent water quality, erosion and soil loss from farmed land, losses in biodiversity (vegetative and animal diversity) and thus an overall reduction in natural capital.

Landcare, with its broad focus on the environment, has provided some solutions. There has been a substantial increase in awareness of the problems. There are many examples of success stories where environmental problems have been reduced or even eliminated. Landcare has provided a catalyst for the development of new or modified farming systems which are more sustainable. Through Landcare, public funding providers have been provided with a focus which allows them to direct resources at a particular problem, such as water quality.

This paper also includes two case studies, providing examples of how Landcare can work for individuals and a community. It is impossible to represent the number and diversity of Landcare projects in operation, however the examples shown do help to build a picture of the operation of Landcare in Australia.

1.0 HISTORY OF LANDCARE IN AUSTRALIA

The Landcare movement in Australia grew out of a concern that farming practices, were leading to degradation of the resource base that farmers were relying on – their own land. In 1986, the term "Landcare" was developed at Winjallock in Victoria and

with the encouragement of the Victorian Farmers Federation and the Victorian State Government, the Landcare movement began.

Later, in 1989 the then Australian Prime Minister, Mr. Bob Hawke, announced the Decade of Landcare. This was the result of a plan developed between the National Farmers Federation and the Australian Conservation Foundation, an alliance uncommon at the time between a farming organisation and an environmental lobby group. The Decade of Landcare plan provided a framework for planning and funding with A\$360 million provided for the decade. It aimed to establish 2000 Landcare groups by the year 2000. This target was reached in 1994, and by 1997 3200 groups were operating in Landcare.

Thus a mechanism was formed, encouraging a focus on key Landcare issues such as the prevention of soil erosion, soil salinity, water pollution, soil structure decline and noxious weed control. The focus of the Landcare movement has now developed much wider perspective. Landcare provides a medium for many community interest groups to work on the issues of sustainability and integrated catchment management. Natural Resource Management and ecological sustainability are central to Landcare, but there are also many social and economic issues which relate to the development of appropriate management systems in Australia.

In 1996, the newly elected Federal Government announced the Natural Heritage Trust (NHT) initiative. "The trust will be used to foster a partnership between the community, industry and all levels of government in the pursuit of better environmental and natural resource outcomes" (Natural Heritage Trust Guidelines, 1997, Australian Government). Landcare funding has traditionally been provided by a combination of federal and state governments in Australia, industry and individual stakeholders, and this situation will continue. The NHT is a funding mechanism which aims to distribute Landcare funding to community groups who then use this funding for local Landcare requirements which may include, education, employment of personnel, resource mapping, awareness and training.

The scope of Landcare now goes well beyond agricultural activity. It encompasses all aspects of the environment and includes Coastcare, Waterway Management, Native Vegetation Preservation and Urban Landcare issues. In fact and as might be expected, the current wider perspective of Landcare has brought with it the need for sensitive management of special interest groups so that potential areas of conflict may be avoided, and the positive momentum of the movement is preserved.

2.0 WHY IS THE LANDCARE MOVEMENT SO SUCCESSFUL ?

There are few movements or organisations, which have grown as rapidly as the Landcare movement in Australia. It could be judged to be successful based on rapid growth, however there are other environmental benchmarks to consider.

In simple terms, Landcare started as a community driven organisation. It was not an invention of government, nor was it a framework foisted on the community at large. Initially many communities focused on single issue Landcare, addressing a local on

farm problem such as soil salinity, stream bank erosion, or woody weed growth. Once Governments became involved many Landcarers were attracted by the prospect of being allocated assistance in the form of funding to address problems.

The approach of community groups varies enormously, particularly in the use of funding. Some groups work as community groups on a community basis where they will assist in completing particular work on private landholders' properties. In contrast, some groups promote education and awareness of Landcare, while expecting individual landholders to complete their own work. Others will broker the funding with appropriate checks to ensure that work is competently completed, thus overseeing the appropriate allocation of funding. Ultimately, the Landcare movement has provided a wide framework whereby public monies can be disbursed to target Landcare issues. As mentioned, the issues are many. Some common examples would include tree planting in a salinity re-charge area, deep rooted perennial pasture demonstrations, education and awareness for adults and school children, plant and animal pest control and promotional programs. School children regularly are involved in Landcare activities, providing a strong base for Landcare activity of the next generation.

Following the establishment phase, Landcare groups moved towards project management where a theme or plan would target a particular problem in a specified geographic region. This in turn expanded to embrace a systems approach, providing a water catchment focus. Now, many groups are using a catchment plan, where landholders complete whole farm plans on their own properties and which take into account the integrated catchment management objectives on a catchment basis (Note Appendix 1, Principles of Integrated Catchment Management). In this way, individual actions are integrated with other landholders within a defined catchment.

As part of the systems approach, the process is to evaluate the production system carefully with known desirable natural resource management outcomes. This can then lead to modifications in the farming system. Modification examples include the introduction of minimum tillage, the introduction of new pasture varieties or even the integration of new enterprises into the agricultural system.

Often, with organised community planning, people involve themselves in Landcare activities as a consequence of peer pressure (Beilin pers comm. 1997). The principles of Landcare are readily identifiable and have very wide appeal to the community. Although it may not be documented, a sense of involvement in a community is often suggested as a reason for Landcare involvement. However, it is more likely that this is an incidental benefit and the real reason is the incentive for funding and the associated planning framework which in fact provide the ingredients for involvement in Landcare.

Management practices and approaches have developed and changed as the movement has grown. To achieve broadscale change and adoption in natural resource management, one of the most important changes required is in the mindset or approach to thinking. While this is evident in some places, this process must continue to expand the benefits of Landcare.

The table below indicates that beneficial land management practices are more likely to

be undertaken by persons who are members of Landcare groups.

Differences between farm practices of landcare (lc) and non-landcare (non-lc) group members

	All broadacre		Cropping		Sheep/beef		Dairy	
	non-lc	lc	non-lc	lc	non-lc	lc	non-lc	lc
Practices which are part of the farm management program:								
Use perennial pasture species	63	70	30	43	65	85	84	93
Subdivisions of different land classes	33	51	24	61	32	41	24	52
Exclude stock from areas affected by land degradation	25	47	22	46	16	39	14	47
Regular soil testing	28	40	54	52	22	25	42	58
Regular monitoring of water quality	14	36	12	51	12	42	17	33
Regular monitoring of pasture	71	79	46	70	65	63	88	94
Manage crop rotation to minimise land degradation	42	62	85	94	22	40	30	32
Tree and shrub planting	38	64	34	61	29	77	47	84

Source: Mues et al, ABARE 1994

The role of government in the success of the development of the Landcare movement must be acknowledged. Environmentalism in Australia grew in popularity during the nineteen eighties. The subsequent election of environmentally active politicians provided evidence of growing support. Consequently, the advent of Landcare provided governments with the opportunity to focus on the "middle ground", using an environmental argument. Therefore, while in other areas there has been a general reduction in Government provision of services, funding for Landcare has been increasing.

3.0 REALISING THE POTENTIAL OF LANDCARE

There is still much to be achieved in realising the potential of Landcare. While there are many issues, key criteria are discussed below;

Sustainability & Economics

If the economic benefits of implementing sustainable land management practices can be readily identified, the development of these practices (solutions) will readily follow. A Property Management Planning framework is one means of achieving this process. (Note case study one and case study two later in this paper).

Leadership

Community Landcare relies on leadership at a community level. Landcare coordinators have been employed in many districts; there are more than a hundred and fifty funded by the National Landcare Program. This system is unique in that while coordinators are usually state or nationally funded, they are managed and sponsored by regional or local government authorities.

For Landcare to continue its development, the coordinators must be well qualified, possess excellent communication skills, and be able to relate to the technical aspects of works carried out.

Communication of Landcare Information

As the Landcare movement has grown in Australia, so has the demand for communication. A large number of community projects have been successful, and the extension of information about these projects to the wider community can only add to the strength of Landcare. Provision of an easily accessible data system, outlining project content and location will assist in planning and implementation of future projects.

Planning and Monitoring

Planning and monitoring are key elements in managing Landcare. At every landholders' level, carrying out whole farm planning and integrating this with planning at a catchment level is vital. In all regions, catchment plans must include implementation strategies which address the specific issues for that region.

Role of Government

The role of government has been discussed in this paper in relation to funding, and it is unreasonable and impractical to expect the current generation of landholders to pay for two centuries of degradation. Therefore a high value is placed on the impact of funding. Conversely it is also important that a welfare mentality does not develop with a continued expectation that funding will operate in perpetuity. All stakeholders must take responsibility and thus governments have a role in providing a portion of the necessary commitment.

The Role of Research

There is an ongoing role for research. In many cases the problems are complex and more research is necessary to develop workable solutions. It is imperative that research does focus on generating solutions. This also extends to the research and development of new farming systems which ensure environmental sustainability.

Urban Support

Urban support for environmental issues is also a key component of maintaining political support for commitment in Landcare. In some cases urban Australia contributes to significant environmental problems, such as water quality.

As part of maintaining urban support, the Landcare movement must be prepared to

cultivate an image of achievement in reversing some of the environmental problems the country does have.

4.0 CASE STUDY 1: THE MURILLA LANDCARE GROUP

This case study provides an example of how Landcare operates at a community level in Australia.

The Murilla Landcare group was formed in 1988 to raise awareness on the sustainable use of natural resources in the Murilla Shire. Murilla Shire is located in the Western Darling Downs region in Queensland.

The Groups initial primary focus was with soil erosion but other issues include soil fertility, pasture decline and weed control. The Group has 54 financial members. In 1993 in co-operation with two nearby Landcare groups the Murilla Landcare Group employed a Property Management Planning Coordinator using National Landcare Program funding. The coordinator works from the Murilla Landcare Centre, also established by the Group.

Property Management Planning is the name given to a planning framework and shows landholders how to plan the management of their properties by integrating personal goals with sustainable agricultural production and conservation of soil, water, flora and fauna. The key success of Property Management Planning is raising the focus of looking after natural resources while producing rural commodities. Regional Planning now forms an important component of the Landcare Groups' activities. Catchments for both the Balonne and Condamine River are included in the planning process.

The Murilla Landcare Group manages education programs for schools and the adult community to encourage people to explore ideas on resource management and to stimulate debate on natural resource issues. In its aim to appeal to the wider community by providing useful information, the Group runs field days, workshops and seminars on a wide array of topics including Landcare for profit, farm finance and investment, propagating native plants, balancing nature with productivity and weed awareness. In summary, the Murilla Group is an example of an active, enthusiastic and productive Landcare Group.

5.0 CASE STUDY 2: TOM and SUE LOUGHRIDGE

This case study provides an example of how Landcare has contributed to the development of the farm business owned and operated by Tom and Sue Loughridge.

Leading the way in Landcare practices

Tom and Sue Loughridge of Loch, Victoria, won the 1996 National Roundup landcare Primary Producer Award for their leadership in landcare practices in their community and for their capacity to develop landcare alongside traditional farming techniques. The Loughridges demonstrated leadership in their community when, in the early 1980's, they decided to integrate landcare practices with traditional farming techniques.

They have been recognised for pioneering soil conservation practices to fix the soil erosion problems of the area, which have illustrated the profitability of such practices. Initial scepticism from nearby farmers led to increased interest after the Loughridges achieved productivity figures amongst the highest in the district.

The Jeetho West Land Protection Group was formed in 1988 to tackle environmental problems in the district on a larger scale.

Setting the plan in motion

The Western Strzeleckis Range, with its steep and rounded hills and lush streamside pockets, is highly productive dairy country but is prone to severe landslips.

According to Sue Loughridge, the idea of planting trees started after they visited another farm in Gippsland on a wet and rainy day, and the cattle on that farm looked better as they were sheltered by trees. "We started planting trees on our property for shelter for our cattle, however we kept on going when we realised the benefit of tree planting for countering erosion," Sue said.

In order to maintain the farm's long-term viability, the Loughridges moved to stem soil losses from the landslips, tunnel erosion and streambank erosion. Before revegetation work began there was virtually no tree cover, either remnant or planted.

Tom and Sue began an extensive tree planting program on their 110 hectare dairy farm in the high rainfall hill country of South Gippsland. Over 20 000 trees were planted, with particular attention to the most erosion prone areas. They also planted wood lots in areas of the farm which were unproductive for other use.

On the remainder of the farm extensive pasture renovation was carried out, combined with rotational grazing which resulted in good year round grass cover. In 1989 the Loughridges also completed a Whole Farm Planning Course and have since been implementing the concepts. Areas which they are working on include

- Weed control
- Streambank stabilisation
- Fox and rabbit destruction
- Establishing wildlife corridors

Managing for land conservation and farm profit

In the early 1980's, large sections of the farm were affected by soil erosion, including landslips and tunnel erosion, and stock losses were considerable. As a result of the extensive tree planting these problems have been stabilised and there have been no further stock losses. New land management practices have also seen the Loughridges achieve increased production from less land.

Since 1982 the dairy herd has increased from 160 to 230, even though some 15 per cent of the farm has been retired from grazing to stabilise the soil. Computerised farm records kept since 1982 show the increases in production that Tom & Sue have achieved.

BUTTERFAT PRODUCTION

1982: 170-180 kg/cow

1994: 220-225 kg/cow

PROTEIN

1982: 140 kg/cow

1994: 175 kg/cow

* This production is from non-housed stock grazing dryland pastures.

Promoting Landcare practices within the community

The Loughridges became members of the Bass Valley Landcare Group in the mid eighties and have since initiated the formation of the Jeetho West Land Protection Group, as well as assisting in the formation of other landcare groups through the South Gippsland District.

Tom and Sue's property is a model of good Landcare practices. Since the results of the Loughridge's hard work have become visible, many people have visited the farm and received advice on tree planting and soil conservation.

6.0 SUMMARY

This paper has provided an overview of Landcare in Australia. While much has been achieved, there are still many challenges to be addressed if Landcare is deemed to be successful. I welcome the opportunity to listen and learn of experiences in other countries around the world.

Landcare in Australia has provided a catalyst for new thinking. It has provided a framework of approach in resolving significant environmental problems. The community focus is a key component of the success of Landcare.

There is still much to achieve, however the progress to date is significant and a worthwhile contribution to natural resource management has already occurred.

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APPENDIX 1

Principles of Integrated Catchment Management

Integrated catchment plans have been developed to integrate the management of land, water and related biological resources in order to achieve the sustainable and balanced use of these resources. It is most common for the plan to relate to a specified geographic area. There is no set framework for catchment plans, they will include;

- An audit of current geographical features of the catchment.
- An assessment of specific environmental problems e.g. salinity, erosion.
- An assessment of priority plant or animal pests.
- An assessment of other key issues in the region.
- A stakeholder assessment of the region.
- Management strategies which address key outcomes relating to sustainability.
- Implementation strategies which identify how and when management strategies are to be implemented.

The Queensland Government outlines the key principles of Integrated Catchment Management as;

- Land and water resources are basic and interactive parts of natural ecosystems and their management should be based on river catchments as geographic units which account for the interactions between these resources.
- River catchments are continuously changing in response to natural processes and human activity, and their management must take account of these changes.
- The management of land and water resources must be coordinated, with decisions based on the best available information.
- In a democratic society, sound land and water management is best achieved through the informed action of individual users and managers of these resources.
- A balance between economic development and conservation of land and water resources must be maintained.

