Capturing market and other benefits from improved land management

Tony Gleeson, Selwyn Heilbron, Bob Hudson and Jock Douglas

APRIL 2006

Natural Heritage Trust
Helping Communities Helping Australia
An Australian Government Initiative

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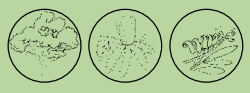

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Abbreviations

ALCS	Australian Land Certification System
ALMS	Australian Landcare Management System
CMA	Catchment Management Authority
DAFF	Department of Agriculture, Fisheries and Forestry
EMS	Environmental Management System
FMS	Farm Management System
GN	Gippsland Natural
ISO	International Organization for Standardization
JAS-ANZ	Joint Accreditation System of Australia and New Zealand
MLA	Meat and Livestock Australia
MSA	Meat Standards Australia
NAP	National Action Plan
NHT	National Heritage Trust
NRM	Natural Resource Management
TPA	Trade Practices Act

Executive Summary

What the report is about

This report identifies how to enable market and other forces to play stronger roles in supporting ecologically sustainable land management. It focuses on what is required to enable the markets for agricultural inputs and outputs to recognise environmental attributes.

What we did

We reviewed information about the topic, consulted with agricultural input and agricultural output marketers, and conducted business research on agricultural output markets.

The people and organisations we worked with included input suppliers, a group of farmers developing a proprietary environmentally-labelled meat product, and a major mass market marketing and distribution corporation interested in developing an environmentally-labelled, umbrella corporate brand. The input and planning initiatives conducted with them allowed us to add much detail to the picture we developed.

Key drivers are reducing risk and promotional advantage

What we found

Agricultural markets. Reducing risk and gaining promotional advantage are the main drivers for incorporating environmental values in the markets for agricultural inputs. Reducing risk is of particular interest to the financing and insurance sectors, whereas the promotional advantage of supporting good environmental practices tends to apply variably across all farm input sectors.

Gaining promotional advantage is the main driver for incorporating environmental values in the marketing of agricultural produce although the potential advantages in doing this vary as much as the products and the markets themselves.

A broad based, voluntary land management certification system - essential to the incorporation of environmental attributes in agricultural markets

Incorporating environmental attributes. It is clear that not having a broadly based voluntary Australian land certification system (ALCS) will continue to severely constrain the incorporation of environmental attributes in agricultural markets. A certification system for land management is one in which authorised (accredited) organisations and/or individuals verify (certify) the adoption of defined land management processes or practices and/or the achievement of defined environmental outcomes.

As well, a system or systems of labelling that identifies products produced under the certified form/s of land management is needed.

Land management schemes must be ecologically sound, attractive to land managers and credible

Land management certification. The purpose of land management certification is to improve environmental outcomes. The best way of doing this is by certifying land management systems that are ecologically sound, attractive to land managers and credible. These three criteria would be met by a land management certification system that:

- Builds on an effective regulatory system through voluntary participation hence encouraging performance beyond regulatory compliance.
- Comprehensively deals in an integrated way with the various ecological components (including soil, water, vegetation, air, biodiversity and landscape and heritage features) and their interactions.
- Is applicable to all land, irrespective of type of land use, and provides for links across the landscape.
- Has acceptable management process and/or practices and/or environmental outcomes that are credibly verified and "tagged".
- Avoids prescriptive approaches that constrain intrinsic motivation (and hence creativity and commitment) and that do not accommodate the complexity, heterogeneity and uncertainty applying to most forms of land management.
- Cost effectively provides benefits, at least as a core system, to as many organisations and individuals as is possible, including land managers themselves, governments at all levels, catchment management agencies, domestic and international markets for farm inputs and outputs, and research organisations.

Land management certification would be included in broader labelling about product safety and value

Labelling agricultural products. Introducing a system of land management certification will enable individuals and organisations involved in the food and fibre chains to choose products from producers with a certified system. The presence of such an environmental attribute would most likely be built into a broader branding concept that also attests to, for example, the value and safety of the product.

Leadership from public sector essential to implementation

Implementation. Any land management certification system needs to deliver improved environmental outcomes effectively and efficiently. This report outlines the steps required for the implementation of the system and for an associated product-labelling system. The essential requirement is for leadership from the public sector.

Investment in improving land management is constrained by a lack of recognition of good land management

Conclusion. Investment in improving land management is constrained by a lack of recognition of good land management. This constraint would be removed by the introduction of a national voluntary system of land management certification.

A system of land management certification would enable operators in the private and public markets for land based goods and services to develop strategies resulting in benefits to landholders who have a certified system. In turn, this would increase the motivation of land managers, by far the largest investors, to improve land management. It would also increase the effectiveness of public sector investment in improving land management.

Short Report

Many factors operate in rural Australia to restrict the motivation and capability of land managers and their support agencies to improve land management and environmental outcomes.

The **purpose** of this report is to identify how to improve land management by strengthening the commercial links between land managers and the suppliers of farm inputs and the consumers of farm outputs, principally food and fibre products.

To this end we have developed an **implementation plan** for certifying land management to enable market and public sector recognition for improving land management. As well, we have developed an **implementation plan** for labelling farm products produced according to a certified land management system.

These implementation plans address many of the causes of institutional failures constraining improved land management.

Rewarding improved land management

There is potential for improved land management to be supported through the supply of farm goods and services.

The origin and scale of goods and services supplied to the farm sector vary widely, as does the potential for distant, regional and local suppliers to support improved land management. Additionally, technological innovations, in particular the use of E-commerce and electronic tracking systems, can have a big impact on the supply chains for farm good and services.

Suppliers identified as having particular potential to influence improved land management are:

- the finance and insurance sectors
- product suppliers seeking to differentiate their product on the basis of environmental management
- catchment management authorities
- local government.

The **finance and insurance sectors** appear the most promising avenues for supporting improved land management through the potential reward of discounts for services supplied to land managers using a sustainable management system. Representatives from these sectors have indicated interest in supporting improving land management, as managing risk is a major consideration for them.

For suppliers of other commercial goods and services to farms, there may be fewer opportunities for good environmental managers to be rewarded with discounts. However, there are some positive signs with **national product suppliers** seeking to differentiate products. At a **local level** suppliers and farmers can develop productive supplier-customer relationships incorporating environmental considerations.

As **local governments and catchment management authorities** have a direct interest in improved local and regional environmental outcomes, there is scope for both to play increasing roles in improving environmental management on farms.

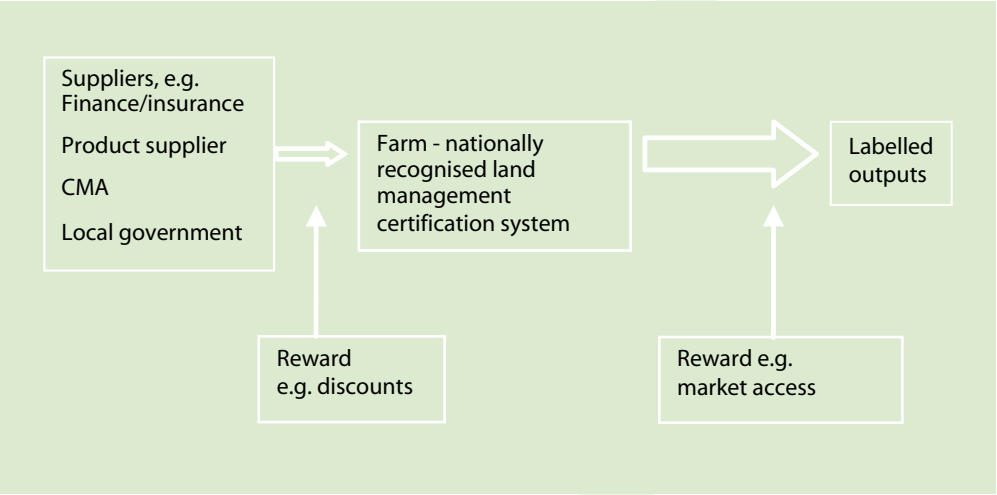
Local government has made a positive start in some shires by rewarding good environmental

operators by offering substantial discounts. Local government should be encouraged and enabled to respond on a much wider scale, as it is a direct beneficiary of improved environmental management from structural, economic and social perspectives. However, given the limited capacity of many rural councils to generate rates revenue, wider adoption of such schemes is unlikely unless they are given extra financial assistance.

The marketing of outputs from environmentally beneficial land management systems potentially offers a significant opportunity to obtain commercial benefits (see case studies below).

The findings of this project point clearly to the need for a system to certify land management practices that is recognised by suppliers of goods and services and the buyers of farm outputs. A certification system for land management is one in which authorised (accredited) organisations and/or individuals verify (certify) the adoption of defined land management processes or practices and/or the achievement of defined environmental outcomes (see figure).

Figure. Beneficiaries of recognising environmental land management systems.



Case studies

Using two case studies, we examined how the potential to incorporate environmental attributes in the marketing of farm outputs might be converted to reality.

The first case study (Enviromeat) is based on a proprietary-branded product aimed at a boutique market and the second case study is based on a corporate (or "home") brand aimed at the mass market. In both cases the aim was to identify the elements of an environmental business marketing plan that would help capture the benefits from improved environmental management.

CASE STUDY 1: ENVIROMEAT

Enviromeat is the brand developed by a group of Victorian Gippsland farmers to capture the market benefits of environmental management. Enviromeat farmers have an externally-audited Environmental Management System (EMS). They operate a free range grazing system, and monitor grazing, soil, fertiliser, weeds, pests and chemical use, biodiversity and water quality.

At the end of 2005 about twenty-five farms had been certified under the group's EMS. The group currently aims to sell 7 to 10 beef bodies per week to test the prices and margins it believes it can achieve in the marketplace for Enviromeat. The eventual aim is to move up to selling 30 beef bodies per week to justify a paid supply coordinator.

Strengths. The group has a well-developed EMS system based on the internationally accepted ISO 14001 standards; it is comprised of progressive, effective producers; it has dynamic leadership and membership; and it is experienced in the field of cooperative marketing.

Constraints. Limited and variable grass-fed supply of Enviromeat product; the group is risk averse, capital-constrained, has limited beef processing/ retailing knowledge; and there is a lack of analysis of possible price sensitivity and financial outcomes.

Enviromeat beef has been trialled at farmers' markets, and results have been encouraging. In June 2005, a specialty food chain agreed to trial the sale of Enviromeat product in its outlets, and this started in October 2005.

Enviromeat is at the stage in its marketing evolution where it needs to determine with some certainty that the consumer is willing to pay a price that compensates producers for the extra costs of growing and marketing the product. Enviromeat's pricing plan is based on producers obtaining much higher returns than for beef sold without environmental certification.

The group should aim to develop a supply management plan with its distribution partner/s to build up potential and actual supply volumes in tandem with evolving consumer demand. It should also examine the possibilities for expanding the group membership to increase supply.

An **alternative marketing scenario** for Enviromeat would be one that is not subject to the assumptions and constraints identified above. In particular, a greater appetite for risk and removal of the capital constraint would see a different plan emerge.

This could include:

- positioning in the market based on super-premium product
- a multi-product branding strategy based on a broad Enviro-brand
- an export program aimed at high-end overseas specialty supermarkets/wholefood chains, which would then be used as a promotional selling point in the Australian market
- a domestic distribution strategy based on supplying Enviro-branded outlets
- supply expanded by means of a large scale, national program to facilitate ISO14001 compliance among producers and processors supplying product under the Enviro-brand.

The system for certifying land management proposed in this report would enable the market for Enviromeat products to be increased. Establishing an Australia-wide, credible system for certifying land management, based on an international standard, would enable wider recognition by consumers, both in Australia and overseas, of what the Enviromeat producers are doing to improve land management. More consumers would therefore be able to express their support for improved environmental management by buying Enviromeat product.

CASE STUDY 2:
ENVIRONMENTALLY-LABELLED, CORPORATE-BRAND PRODUCT

A leading marketing and food distribution company wants to develop an environmentally labelled range of products under a corporate brand.

The brand encompasses a range of products with specific attributes. By purchasing them, consumers express their preferences for products which have those attributes, such as: reduced fat; low salt; vegetarian; lactose free; gluten free; high energy; suitable for diabetics; organic; country of origin – where made or packed; Australian or overseas owned business. The product range with one or more of these attributes now available includes cordial, margarine, tea, ice cream and eggs.

The company is considering introducing environmental certification as one of the attributes of this brand for a number of reasons. These include: brand extension; promoting the image of the company as caring for the environment; encouraging suppliers of products to the company (including farmers) to produce them in an environmentally-beneficial manner; and promoting the company as sensitive to issues of environment in rural areas where it supplies many retail outlets.

The corporate brand product packaging currently includes the brand name and then lists a number of product attributes, e.g. high energy, lactose free, vegetarian etc. The plan would be to include 'environmentally certified' to this list. This would effectively provide an opportunity for a large-scale, mainstream or mass market to be developed for products produced in an environmentally beneficial manner.

The key consideration for the company in developing a plan is its ability to manage and ameliorate the risks to it from making environmental claims on a corporate brand product that may not be able to be verified. For this reason the company considers that independent certification of the veracity of the claim they make about the environmentally beneficial activity is a key factor and, further, that third party auditing against a standard is central to consumer trust and confidence. The company believes that there should be government involvement in setting the standards and accrediting those who are auditing compliance, possibly through the use of accreditation bodies like JAS-ANZ.

Other important elements for the company are as follows:

- A standard based on regulatory requirements plus recognised environmental management processes might be enough to meet consumers' needs for environmentally labelled products.
- The standard need not specify environmental outcomes, although this element and others relating to the labelling would need to be tested through consumer research.
- The labelling system should cover a wide range of farm products, i.e. the standard should not be unique to a particular industry or product.
- Notwithstanding the point above, environmental labelling should begin with unprocessed or simply processed products like eggs, milk or nuts rather than more processed products like cakes or prepared meals. Labelling of value-added products would require environmentally certified systems in place at various stages of production and for multiple inputs into the production process, and this would add to the complexity of the labelling process.

- An environmental labelling logo based on the model of the National Heart Foundation's "red tick" is essential. This would increase consumer awareness of environmental labelling through promotional and educational campaigns linked to the logo, and increase consumer confidence in the labelling claims through the setting of standards for award of the logo.

What is holding back development of the company's environmentally labelled brand?
The crucial element is not having a certification system that enables the company to claim, and the consumer to easily verify, that the environmental management system underpinning the label is recognised as a genuine one in that it meets certain minimum standards.

The company would consider initiating discussions with interested parties on the design of a system (preferably involving government) for recognition of an EMS standard to underpin this environmental labelling. It would also consider undertaking market research into key aspects of consumer requirements for environmentally labelled products.

The question of whether or not the certification of land management needs to be based on delivering externally prescribed environmental outcomes as well as on environmental management processes and/or practices would be the subject of further investigation, including thorough consumer research.

The system for certifying land management proposed in this report would help the company manage the risks associated with certification of the environmental claims underpinning the label. Establishing an Australia-wide, credible system for certifying land management, based on an international standard, would give the brand owner confidence that the claims made are based on an accepted standard; that only those meeting the standard can make the claim; and that compliance with that standard is independently audited.

This in turn would make it easier for the company to introduce its environmentally labelled corporate brand products to the mass market.

Who benefits from certification of land management?

Improving environmental outcomes beyond regulatory compliance relies heavily on the motivation of land managers. An effective way to build their motivation is for the beneficiaries of improved environmental management to recognise and reward activities that improve environmental performance.

A important question that follows is; who benefits from improved land management?

Land managers benefit from improved environmental management in a variety of ways, including through improved productivity, reduced potential legal liabilities and improved asset values.

Businesses supplying or selling farm inputs and outputs may benefit from improved environmental performance through consequential reduction in risk and/or incorporating desirable environmental attributes in marketing strategies.

And **communities** generally benefit from improved land management as a result of the production of public goods such as higher quality air and water. Communities would benefit also from improved effectiveness and efficiency of publicly funded environmental programs.

Although different beneficiaries of improved land management have their own particular requirements there is a strong case, on grounds of effectiveness and efficiency, for a core certification system for land management that caters for common requirements and which is flexible and responsive enough to cater for changing requirements over time.

A land management certification system should have as its goal improved environmental management beyond that required for regulatory compliance. It should: be attractive to land managers, be credible both nationally and internationally, and apply across all types of land use.

Labelling of agricultural products

Implementing a certification system for land management, irrespective of the type of land use, would enable all land managers and all other potential beneficiaries to gain from such a system. However, given the dominance of agriculture as a form of land use, there is also a need to develop a system or systems for labelling food and fibre products produced by landholders who have a certified land management system.

A voluntary labelling system for environmental attributes in farm products should meet the following design criteria:

- be based on a credible certification system for land management
- be relevant to both domestic and export markets for farm products
- be WTO compliant i.e. be internationally recognised
- be applicable across all farm products
- be applicable to mixed products at the retail level
- not lead producers to be locked into particular product chains, i.e. it should not be exclusive to particular customers
- adhere to competition and consumer legislation.

Implementing the land management certification system

Creating an Australian land certification system (ALCS) will require leadership, analysis and the application of large doses of pragmatism.

LEADERSHIP

Creating the ALCS to meet emerging requirements, as proposed in this report, presents significant leadership challenges, the main one being the need for all involved to envision leadership as an enabling trait rather than one that excludes or dominates.

This is an information infrastructural issue and there is a strong case for leadership from government. This does not mean that government will have to be responsible for the ALCS but it will be hard to create the system without government leadership and financial support.

Creating the ALCS meets the principal criteria normally applied to determining whether or not there is a case for government involvement. These criteria are as follows:

1. There is market failure, i.e. the market alone will not result in optimal outcomes. This is generally considered to be a precondition for government intervention.

Improving land management is constrained by market failure arising in part from some outputs being public goods and in part from the widespread incidence of externalities. Additionally, most land-based products are credence products in relation to environmental performance, i.e. consumers of those products cannot verify their environmental attributes simply through their consumption so they need to rely on credible information provided with the product. Lastly, economies of scale and of association exist for certifying land management and these economies will be hard to capture in an approach that is too fragmented and based on individual land uses, products and/or regions.

2. Creating the ALCS meets the need for government intervention to address the causes rather than the symptoms of market failure.

   The ALCS meets this criterion as it would facilitate adoption of a comprehensive range of market benefits and other approaches to drive improved land management, including but not restricted to enabling markets to recognise environmental attributes, to providing a foundation for holistically-based tender and auction systems and to reward the provision of ecoservices, including public goods.

3. The ALCS is in concert also with the view that getting the mix and complementarity of policy instruments right is usually more important than the selection of a particular policy instrument.

4. The ALCS has a clear and measurable policy outcome, i.e. improved land management.

5. The ALCS needs to be effective and cost efficient and it is highly likely that it can be designed to meet these criteria.

ANALYSIS

Having an ALCS that enables a number of beneficiaries to gain, irrespective of the type of land use, accords well with the nature of land use in Australia. It also accords well with the need for drivers for improving land management not to be restricted or inextricably linked to payments in relation to agricultural products.

Land use in Australia

- less than two thirds of the Australian land mass is used for agriculture
- over 60% of farms operate two or more agricultural industries producing over 70% of agricultural production
- downstream processing and marketing of agricultural products are often multi-product based, both domestic and international, and rely on large volumes of consistent supply
- all forms of land use produce both private goods and public goods and are invariably associated with spatially related externalities
- more than 50% of farmers rely on non-agricultural income for more than half of their net household income.

Because of the way land is used in Australia (see box above), it would be counterproductive for there to be total reliance on the agricultural sector or on agricultural product based considerations alone to design and implement an ALCS.

To establish an ALCS, more analysis is needed on issues such as the scope of the system, setting standards, organisational functions and structures, the establishment of a logo and finan-

cial considerations. Among other factors it is important that these analyses are guided by the need for landholders to be both intrinsically and extrinsically motivated so there is a need for environmental indicators and targets to be established by individual landholders taking into account broader spatial considerations.

Relying too much on externally prescribed indicators and targets saps intrinsic motivation and is likely to be less cost effective than those systems built on the aspirations and capabilities of individual landholders. As well, the analyses should lead to the design of a system that recognises the interdependence of the biophysical elements, i.e. of water, soil, vegetation and biodiversity.

All of these industry and land use features can be embedded in an ALCS that recognises that the drivers for improving land management should not be based on agriculture alone, should not be agricultural product specific, should be able to be applied across the landscape irrespective of type of land use, and should be recognised both domestically and internationally.

PRAGMATISM
Finally, considerable doses of pragmatism are needed to avoid loading up the system with extra objectives and complexity.

Implementing the environmental labelling system

Once the ALCS has been established, a national labelling system for agricultural products could be implemented reasonably easily. The key implementation issues are related to the mechanisms for linking the products to the land certified under the ALCS, i.e. information and communication management, education and promotion, and rules and governance.

Conclusions

The findings of this project indicate that, over time, operators in the markets for land-based goods and services would develop commercial strategies resulting in benefits to landholders with a land management certification system in place. An increase in the flow of benefits would increase the motivation and level of investment in improving land management from by far the largest investor, landholders. In turn this would have beneficial impacts on the effectiveness of public sector investment.

For the future, there is a broadly based view that demand for environmentally labelled goods from retail consumers will increase but the extent of this demand is uncertain.

Notwithstanding the probability of increased demand for environmentally friendly products and the likelihood of cheaper product, tracing the incorporation of environmental attributes into mainstream food and fibre marketing will be difficult.

The ALCS and the associated labelling initiative outlined in this report would provide an approach that could succeed in Australia, given appropriate implementation. It is based on certification of a national land management system with a symbol to indicate compliance that could be used on inputs to and outputs from certified properties. It has the advantages of simplicity, wide coverage of products, and maximum potential afforded to the private sector to realise opportunities from environmental labelling, and hence generate maximum net benefits (public and private) from environmental land management.

In essence, producers want to express their interest in managing their land in an environmentally beneficial manner and the broader community wishes to express its desire for land to be managed sustainably; a system for certifying land management is the linking mechanism.

About this report

Notwithstanding considerable improvements in environmental management practices, the condition of land[1] throughout most of Australia continues to deteriorate or is under threat. It is widely recognised that the solution to this problem lies in establishing more effective institutional arrangements. However, actually achieving that goal is proving to be a continuing challenge for the private, public and community sectors.

This report focuses on improving the effectiveness and efficiency of public and private sector efforts to improve environmental outcomes from the management of our impacts on land based resources, i.e. soil, vegetation, water and biodiversity, in rural Australia. While they are not dealt with in this report, we recognise, however, the important interplay between environmental and economic and social outcomes.

More specifically, we have assessed the potential for improving environmental outcomes by incorporating environmental attributes in the commercial links between farmers and the suppliers of farm inputs and the consumers of farm outputs, mainly food and fibre products.

The focus is on market benefits that flow from providing inputs to farms managed in an environmentally beneficial manner. These benefits are distinguished from other commercial benefits that flow from improved environmental management including, for instance, more efficient use of natural and added resources such as fertiliser, reduced risk of legal liabilities and improved asset valuations.

We have identified what is required to enable commercial links to be strengthened in ways that also accommodate the needs of other organisations, in particular catchment management agencies and public natural resource management programs and policy analysts.

Finally, we have developed implementation plans that are anchored on the concept of a partnership between the public and private sectors that reflects the varying causes of market and government failure in land management.

[1] Land refers to soil, vegetation, water, biodiversity and landscape and heritage attributes.

CHAPTER 1

Farm inputs

Society is now seeking higher standards of environmental stewardship across all occupations, including from farmers and other land managers. Farmers who respond to these demands are likely to ask the question – how will I be rewarded?

Farmers who adopt improved land management are likely to see improved profitability and the value of their asset base increase, but these changes may be slow to materialise. Furthermore, farmers are often unable to capture the full benefit of their improved land management practices so they seek to identify ways through which other beneficiaries of improved land management might share in the costs of implementing that improvement.

This chapter examines the potential for the suppliers of farm input products and services to enter into mutually advantageous partnerships with farmers who undertake improved environmental management practices.

Farm inputs, supply chains and marketing strategies

There is a wide range of externally sourced farm 'inputs', including machinery, seed, fertiliser, chemicals, finance, insurance and technical and other services. As well, the nature of the farm input supply chains and in the marketing strategies applied to farm inputs vary greatly.

FARM INPUTS

Inputs have been divided into different product groups based on their characteristics and services.

Products. The first product group includes those products in common or everyday use and which, in one form or another, have seen years of sale to farmers. They include generic agrochemicals such as standard fertilisers and animal drenches, fencing materials and watering system inputs. These products are sold to farmers from a range of domestic and imported sources and are generally marketed on a volume basis with low to moderate margins. They have no unique attributes and are often discounted on a volume and/or payment basis.

The second product group includes those that are patent protected and are marketed with little opportunity for discounting and with strong market support from the distributor and resellers. These include cropping plants covered by plant breeder rights, the newer chemicals and genetically modified (GM) seed lines that are intellectual property (IP) protected with varied distribution, use and marketing restrictions.

The third group includes high priced capital items used on farms, including plant and machinery. These items are bought infrequently, are subject to serious technical and task suitability evaluation by intending purchasers, and carry the international brand in the district for long time periods. In the case of new models or new technologies, first district sales are important in establishing the credentials of the item. There is some enthusiasm for good equipment to be used by efficient and profitable farmers.

Services. Farmers also are significant users of services at the farm level, including accounting, legal, veterinary, farm management and technical advisory services. Other services provided by contractors include shearing and crutching, mulesing, lamb and calf marking, progeny testing and fleece weighing as well as crop contracting services, which include sowing, crop spraying, harvesting, hay making and cartage. Farmers use also the services of providers such as fencers, timber workers, road maintenance crews, noxious weed sprayers and building maintenance and painting teams.

SUPPLY CHAINS

Product supply chains to farmers have changed a lot over the past few decades and there is the potential for further change in response to globalisation and product partnerships. One way in which this may occur is where the purchaser supplies some or all of the inputs required for a particular farm output. Product-production partnerships may be part of a quality control program or they may result from suppliers wishing to protect intellectual property rights, as occurs most often with genetic material.

The difference between the supply chain for goods and that for providing services is that services are more likely to be sourced locally or regionally. This means the potential business relationships between suppliers and users will be more personal, more closely integrated with the local community and will rely heavily on local managers and business owners to make decisions about service provision and pricing.

MARKETING STRATEGIES

The various groups of product and service inputs and product/service chains have different marketing arrangements.

The generic agrochemical is a volume product and offers little opportunity for discounting unless the local reseller sells large volumes and can bargain prices down accordingly. Other common farm use products are for the most part sold with local reseller support with few opportunities to or interest in discounting except for volume and/or finance arrangements such as cash on delivery or prepayment.

Large plant items, like tractors, which are made overseas, are supported and priced by their national and state distributors and the local reseller in a different way to, say, local reseller support and pricing of a generic agrochemical or unbranded polythene pipe used in a stock watering system. The tractor is a 'name' or brand product and as such attracts manufacturer and distributor support in terms of promotion and advertising. In such a situation there is a possibility that the manufacturer/distributor and/or local reseller may discount.

The main marketing strategies currently used by suppliers across a wide range of products can be summarised as follows:[2]

- *Production concept*, mass produced, widely available, inexpensive
- *Product concept,* high quality, innovative, high performance, brand name
- *Selling concept,* products require aggressive promotion and marketing
- *Marketing concept,* products are focused much more on buyers needs, putting people first
- *Societal marketing concept,* meeting needs, wants and interests in a way that enhances customer and society wellbeing.

Marketers and resellers might take actions that also affect how the product is finally marketed to the farmer. For example the following market developments might occur:

- *Alliances*, by forming productive networks with other suppliers, even competitors
- *Partner suppliers, partnerships,* development of favoured supplier, subcontractor, customer relationships
- *E-commerce,* suppliers deal with an unknown customer, what will they do with the product/service.

Given that marketers also have to confront a rapidly changing marketing environment, what options are open to them and how are they likely to affect their customers? Options include:

- developing relationship marketing, which involves focusing on long-term, profitable customers
- giving customers lifetime value by consistently delivering a better product at a competitive price
- treating customers as partners in delivering finally to the end user
- developing individualised customer databases where the attributes of each farmer will be detailed, including environmental credentials.

[2] Kotler, Philip (200), *Marketing Management,* Prentice Hall International Inc., pp 17-26

The question arises as to which of the above marketing strategies will most likely provide environmentally conscious farmers with long term and sustainable relationships of benefit to both input suppliers and themselves?

In principle, marketing arrangements focused on the long term needs of the customer through the development of a marketing 'relationship' (as distinct from a pure 'selling' activity) have the potential to support such farmers.

The system that has traditionally operated in the supply of goods and services to Australian farms is where the manufacturer/importer (the originator) supplies goods and/or services to a local reseller who markets/sells them through sales staff to district farmers. There are variations on this theme with large originators having state branches or wholesalers who service the resellers.

Usually, the originator decides on product marketing policies and strategies, advertising and promotional budgets, discounts and terms to apply to resellers, special marketing programs etc. At a local level the reseller decides on localised marketing strategies and advertising. Localised marketing and promotional strategies are generally of the 'sausage sizzle' type or generic support from the reseller for local charities or community-supported activities. In the past, information flows have been from originator to reseller to farm client with little if any feedback loop, a traditional and conservative approach.

At a policy level, resellers have been careful to bind originators in, wherever possible, to ensure any discount or promotional cost comes off the originator's bottom line. Of course, the reseller maintains the upper hand in dealing on a one-to-one basis with each client by offering things such as discounts for volume, prompt payment, prepayment and cash. In large volume transactions, resellers go back to the originator looking for discounts they can pass on (and add value to) instead of discounts that go straight against their bottom line.

It is therefore clear that up to the present time there are likely to be discount or enhanced trading opportunities created by the originator, the reseller, and the originator and reseller in combination. Other trading or reward opportunities for farm input users might include a free holiday (where the holiday supplier is providing the opportunity as part of a marketing strategy), the supply of some other goods or service at a low or zero cost which the reseller has in surplus (last year's stock, slow moving inventory etc) and able to be used as a rewards tool at little or no cost to the reseller.

Discounting and other marketing strategies have been focused on increasing sales volumes and improving product line and firm profitability. However, the sales environment has altered over the past decade and it is likely there will be changes in the relationships between originators, input suppliers, farm users and farm product purchasers and users.

Future developments in the marketing of farm inputs

How might the supply chain develop over the next 5 to 10 years?

In the last decade the most important and dynamic influence on the marketing of farm inputs has been the internet. Previously, manufacturers and originators made an effort to position the reseller between themselves and the farmer client.

The information flows facilitated by the internet and the need for the originator to market the company's products using an interactive website will alter the dynamics of the relationships

between all stakeholders. For instance, it is expected there will be more purchaser-to-manufacturer/distributor contact with the internet providing information and contacts to potential purchasers. This strengthens the hand of the purchaser and provides them with additional opportunities in terms of pricing.

Brand name distributors will protect local resellers to some extent where agency loyalty is rewarded. However, with increasing globalisation, many variations of products will be available on the market and it is likely they will be more or less unsupported in the retail marketplace. These products, available through E-commerce, have the potential to cause local resellers significant problems at the low end of the price schedule. For example, the herbicide product glyphosphate (previously sold under patent by Monsanto as 'Round Up') has in the 10 years since becoming generic attracted around forty manufacturers in Australia.

Improved rural communications and internet access have the potential to further erode local resellers' trade as a result of the development of volume based input cooperatives, modelled to some extent on the 'Wal-Mart model' of tight inventory control, high volume throughput and exacting payment terms. This type of discount trading is unlikely to be involved in rewarding environmental managers as its focus is entirely on cost cutting and discount driven sales.

While there is some current disquiet about the strengthening of resellers' positions as a result of technical and knowledge management support from manufacturers, the internet has the potential to develop much stronger links between manufacturers and farmer customers, delivering substantial bottom-line savings to both groups. It is likely that resellers will come under increasing pressure in terms of quality and quantity of service delivery in the future. In fact, it is possible that a two-tier system will evolve where the originator deals directly with the farmer over the internet for products such as generic inputs (inputs free of patent and IP limitations) while the reseller is the conduit for high-cost, high-margin, patent-protected inputs.

OTHER INFLUENCES ON MARKET RELATIONSHIPS

Three other events have had or are likely to have a profound influence on market relationships. They are:

1. The aggregation of manufacturers/suppliers in the agrochemical sector has concentrated market power into fewer hands so the companies enjoy economies of scale at all levels of their business activity. They also have an ability to supply serious competitive pressure to their resellers.

2. The purchase of Landmark by AWB Limited from Wesfarmers Limited is indicative of the increasing interest in linking input suppliers (Landmark) with output marketers (AWB). The expansion of Elders Australia from being mainly a supply of farm inputs and services into a marketer of farm outputs reflects a similar trend.

3. The introduction of GM crops. While experience in Australia is largely restricted to the cotton sector, US experience shows that the linkages between seed and input suppliers and the suppliers of technical support services have been strengthened by the GM companies to the detriment of independent service providers.

In many commercial activities, Australia appears to follow US trends. Already in Australia there are more, larger farms due to aggregation, and more, smaller 'lifestyle' farms from subdivision. The larger farms are more likely to be located further from large population centres while the smaller farms are within, say, three hours drive of urban areas.

The supply chain in these two areas will evolve differently. Larger farms will actively seek a range of commercial outcomes with their suppliers and through purchasing cooperatives; smaller farms, which have lower turnovers and reduced commercial horsepower and perhaps lower management capacities, will struggle to extract trading concessions from their suppliers.

It is likely that the growth in non-farming rural business opportunities will occur in the services sector, paralleling the development in services growth in urban areas. Technical, accounting and legal advices are already major services provided to farmer clients. Crop contracting services such as spraying, harvesting, haymaking, cartage, grain drying, hay and grain storage as well as fertiliser application and contract labour supply are certain to grow as farmers set out to avoid buying expensive and infrequently used equipment. Livestock contracting, including shearing, crutching, mulesing, lamb marking, veterinary services and stock handling services, will become more common as farmers set out to avoid the employment of casual and permanent labour with on-costs, OH&S issues and employee provisions.

Contractors offering crop and livestock services will be interested to work with good managers thereby reducing their risk and lowering their liability. This may prove an opportunity for good environmental managers. Their systems will clearly indicate a systematic management program and adherence to applicable acts and regulations that will deliver better commercial and environmental outcomes while minimising risk to all concerned in the business. As the contractor services noted are generally locally supplied, local contractors will prefer to work with farmers who deliver a low risk-working environment. Those farmers are most likely to be farmers who have adopted high quality management systems on their farms.

Ikerd[3] makes the point that agribusiness corporations in the USA have convinced their clients that high-input, high-yield agriculture is the only way forward, noting that new programs such as 'precision farming' are likely to recommend higher fertiliser and chemical input levels. The corporations might also postulate that biotechnology will provide the answers to environmental sustainability and, in the case of the introduction of Ingard/Bollgard® in Australian cotton production, studies conclude that the use of aerially applied pesticides has fallen by 50%. However, while Ikerd takes a view that agribusiness corporations and production sustainability is an unlikely partnership, it is as well to recognise that a viable agricultural sector is of immense economic importance to both supply and output businesses. Given that fundamental relationship, there are sound reasons to suppose that partnerships and alliances between input suppliers, farm users and output purchasers and processors are more likely to flourish than not.

Although there is some concern about the growth of contract farming and the potential for farmers to become simply production contractors to large multinationals which own the IP of seed and other inputs, there is little evidence to date that this is likely to become a large scale problem. Under Australian conditions, where the market drives most decision making in the absence of subsidies and other market distortions and the independent nature of farmers is legend, there appears to be much room for input suppliers, farmers and output purchasers and processors to work cooperatively to gain mutual benefits. The recent moratorium on GM canola release is indicative of farmers' recognition of market worth and current market competitive advantage compared to a potential production improvement.

[3] Ikerd, John, University of Missouri, Sustainable Agriculture: It's A Matter of People, Published in Sustaining People through Agriculture column, Small Farm Today, July/August 2000

The Cargill[4] press release "Performance Finance", combining Cargill's strengths in risk management and grain marketing with John Deere Credit's expertise in cash-flow management, identifies shared interests between input and output firms. In this situation Cargill seeks to reduce its exposure to crop purchasing by entering into preseason agreements in exchange for crop term credit supplied by their partner John Deere Credit. In addition, Cargill offers a 2% reduction in the credit interest rate where farm inputs are bought from Cargill AgHorizons input supply centres.

Cotton Australia's Best Management Practice (BMP) highlights short-, medium- and long-term benefits to the farmer from adopting the package. Among the medium term benefits listed are:

- lower insurance premiums
- better access to finance
- suppliers/consultants that are BMP accredited.

The last point raises a question about what farmers look for when they propose to adopt a new technology, make an investment or change their management practices. Inevitably, the question of benefit, payoff, added profit or lower input cost becomes the issue.

A farmer who has adopted improved environmental management practices has invested and value added; harvesting the value added might be through lower input costs (suppliers see lower risks and/or improved credibility and standing for them here). Alternatively, the environmentally sensitive farmer might demand that suppliers of goods and services adopt improved management practices, QA or that their goods are produced in a sustainable and socially acceptable manner so that the farmer's sustainability is not at risk because of the inputs used.

What flows from this is that farmers looking to benefit in the market place for their environmental practices would be advised to seek alliances and partnerships which improve the bottom lines of input suppliers and farmers alike. Discounts on 'rubbish' inputs are of no long-term value to the farmer. Farmers want to use quality inputs of goods and services on which they can receive discounts because they are lower risk/higher credibility customers of the supplier.

In addition, farmers need to understand the goods and service product chains at every level if they are to negotiate partnerships with their suppliers. Farmers who are low maintenance (in the eyes of the suppliers) will seek to exchange part of the supplier's added value for a volume discount. Suppliers of high quality goods and services will seek to enhance the credibility and standing of their business by discount 'riding' on the environmentally responsible farmer's standing.

The question then becomes one of testing the hypothesis that input suppliers across a wide range of goods and services will in fact trade some margin of value added (profit) for lower risk/low maintenance and/or added credibility in the market.

[4] "Cargill, John Deere Credit offer farmers new financing alternatives", Cargill Press Release, Minneapolis, USA, February, 2000

Responses of input suppliers to improved environmental management on farms

Insurance sector

Review work completed for Liverpool Plains Land Management Committee[5] indicated that the workers' compensation insurer in NSW, Workcover, was prepared to offer discounts to farmers who had implemented WorkSafe procedures on the farm. WorkCover also indicated an interest in the improved (thus safer) operational practices likely under an environmental management system. The review also found that the finance sector was interested in reducing risk and had been considering discounting for lower risk (productivity, environmental, OH&S etc) clients but had not formally adopted such a position. However, there is anecdotal evidence that volume borrowers and low risk clients already receive some interest rate concessions when they apply enough pressure on lenders.

A more recent RIRDC-coordinated study[6] showed that most farmers interviewed would be seeking workers' compensation premium discounts of about 20 to 25% if they were to be convinced to adopt accredited farm WorkSafe practices on their farms. Interviews with eight workers' compensation insurers revealed that all supported the concept of WorkSafe accreditation on farms but were loathe to support its adoption by offering farmers discounts. Insurers generally offered premium discounts (up to 20%) to farmers on an experienced-based system (nil, few and low claims history) that clearly reflected for the most part the OH&S practices on farms. In summary, the insurers were willing to reward clients on the basis of past OH&S performance but unwilling to support measures that might lead to improved OH&S performance.

WorkCover NSW (a managed fund jurisdiction) has run a Premium Discount Scheme (PDS) in the cotton industry with discounts of 10, 10 and 5% in years 1, 2 and 3. After the first year, 66% of farmers had reached an acceptable OH&S standard on farm. Currently WorkCover NSW is completing actuarial studies on the PDS to determine whether the costs of the scheme (in terms of discounts, training and administration) to the insurer are more than offset by reduced claims and payouts for on farm incidents.

In WA, Wesfarmers Federation Insurance (WFI) has been involved with Farmsafe WA for the past five years. WFI has been offering premium discounts of between 5 and 15% to farmers in addition to supporting health and safety workshops and following up by having WFI representatives visit workshop attendees on farm to review the implementation of FarmSafe in the field. The results of the farm review define the level of discount. WFI reports a reduced accident rate on FarmSafe farms of 20% since the scheme started.

The RIRDC study revealed that insurers generally see some opportunity for group schemes where discounts have the potential to flow because of the size of the pool. This may provide some opportunity for catchment or group environment schemes. However, the review recorded that 15 to 20,000 members might be needed to provide the scale required.

The same review noted that financial institutions such as Westpac and Elders Rural Bank seek to invest in rural Australia in areas of high social benefit such as water conservation and waste management. The review contends that farm safety, a socially beneficial activity, might also be

[5] Bob Hudson Consulting Pty Ltd, Liverpool Plains Catchment Investment Strategy, Evaluation of the use of environment management systems as a way to link market benefits to sustainable land use change. June 2002

[6] Gordon Jenny, Fisher Sarina & Garnett David, Safe systems of work on farms, Incentives for Adoption, Farm Health & Safety Joint Research Venture, RIRDC Publication No. 04/103, July 2004

of interest to the same institutional sector. One of the objectives often attributed to environment management systems is the maintenance of health and safety standards. Where such systems can be integrated with WorkSafe protocols, QA or other farm work and enterprise practice assurance schemes, there may be opportunities to gain leverage with input suppliers.

In USA, The Northwest Michigan Groundwater Stewardship Program worked with the North Pointe Insurance Company of Michigan in the spring of 1997 to develop an insurance program that rewards farmers for clean water practices[7]. North Pointe Insurance investigated Farm*A*Syst and the goals of the Michigan Groundwater Stewardship Program and concluded that Farm*A*Syst could be at the forefront of "preventive insurance". Farmers could gain credits through three levels of improved groundwater leading to a 20% reduction in insurance premiums. Farm*A*Syst is funded nationally by USDA's Cooperative State Research Education and Extension Service, Natural Resources Conservation Service, and Environment Protection Agency.

Some insurers offering protection of farm revenue in the USA also offer discounts for well-managed operations (Crop Growers Insurance Services & First Pioneer Farm Credit, Connecticut).

Supplier sector

While there are indications that some input suppliers to Australian farms have an interest in managing their business risk by dealing with better managed farms and businesses and rewarding those farms accordingly, this concept has not been closely scrutinised at either a national or local level. National manufacturers and goods and service providers and multinationals oversee the activities of their branches, agencies and franchises at a local level and determine generic policies for their operations and interactions at a customer level. Locally operated businesses determine the marketing programs and sales strategies to operate with regional farm businesses.

The evidence collected to date both in Australia and overseas highlights the need for measurable objectives to be achieved, e.g. reduced groundwater pollution, decreased farm accidents for input providers to be interested in some form of financial support or sponsorship of the farm sector. This requirement presents some difficulty for management systems that are entirely process based, that is those audited only against the adoption of prescribed environmental management process standards.

It is likely, however, that the anticipated variable needs of input suppliers for prescribing particular environmental outcomes can be met cost effectively in parallel with the adoption of environmental management systems. For instance, in the case of the Australian Landcare Management System (ALMS), landholders will be required to implement an ISO14001 compliant environmental management system and also to take account of catchment level priorities and strategies and to demonstrate continuous improvement in support for biodiversity conservation.

While supply companies may gain some credibility and enjoy additional trade from supporting environmentally credible producers, the likelihood of real financial gain accruing to them is relatively slim simply on a turnover basis. However, the other side of the business coin, risk, is another matter. While a supplier of fence posts is possibly little concerned about how the

[7] U.S. Environmental Protection Agency, Nonpoint Source News-Notes, November 1998, Issue #54

purchaser uses those posts, a supplier of insurance, banking, professional and other business services is likely to be vitally interested in how the firm's services are used. The same could be said for suppliers of high technology plant and equipment, freight and transport services and complex production systems.

Some additional thought should be given to the likely impact of E-commerce in agriculture over the next decade. Australian farmers are becoming much more adept at using the internet to access data and information and they are gaining more confidence in their use of E-commerce. Improved rural and regional services, training and encouragement to use E-commerce by state and national agencies allied to an increasing awareness of opportunities provided by the internet point to an increase in its use to both buy inputs and sell products in the years to come. Such an increase will have an impact on some local businesses and the goods and services they supply. The impact on travel services is already noticeable and other goods and services are likely to be affected depending on the type of good or service.

At this stage there is little enthusiasm for input pricing support for producers who are early adopters of environmental management systems or other environmentally acceptable practices. While the community, suppliers, consumers and farmers all agree that environmentally progressive farmers should in some way or other be rewarded for their contribution to their farm, the catchment and the community, rewards to farmers are currently those that accrue on their properties from being better, more systematic managers, operating with a lower risk profile (especially in the OH&S area) and using all natural resources in a more sustainable way. However, this somewhat subjective outcome is not seen by farmers as the kickstart they need to adopt new systems, protocols and practices in addition to a management audit which that introduction brings.

Where a supplier of goods and services recognises there is a potential risk to his or her business by the activities of the purchaser, that supplier may recognise the upside of dealing with users who are in a lower risk category such as environmentally certified farm operators. Insurance is a service that is sensitive to claims history; a client with a low claims history is seen as a better financial proposition (and worthy of a reduced premium) than an unknown prospect or a client with a less satisfactory claims record.

In areas like Workers' Compensation there is an interest in offering premium discounts where management leads to reduced OH&S risks. While general insurance might not offer many opportunities, crop and fire insurances and perhaps personnel insurance, which have the potential to be risk reduced by better property management practices, may offer some opportunities for premium review in the light of lowered risk. However, while it is a competitive industry, insurance is conservative in its pricing, and it is likely to react cautiously to approaches based on proposals rather than claims history.

Finance sector

It is generally recognised that improved environmental management helps sustain the land asset base against which much financing in the rural sector is secured. It is also widely understood that demonstrated good managerial performance positively affects financing arrangements. Nevertheless, the finance sector generally has been cautious in its response to calls for policies favouring good environmental managers. While the sector may consider improved environmental management on Australian farms to be a positive outcome and something that they philosophically support, it is early days in terms of uptake and persistence on a national scale. Organisations like Westpac, which has taken a strong stand on the environment since the early 90s, have signalled a commitment to improved environmental outcomes from their

major borrowers by adopting the Equator Principles[8]. Whether this approach will trickle down in due course to smaller borrowers is another issue.

Local government

In some instances, local government has responded to land managers who have improved their environmental management by reducing annual rates. This has so far been limited in its scope and happened mainly in shires in southern Victoria and the coastal hinterland in south-east Queensland. Indications from Environs Australia, the local government environmental network website (www.environs.org.au), are that few shires in NSW west of the Great Dividing Range are members, a situation that has not changed much in the last three years.

While well intentioned environmentally, local government perhaps sees itself as financially hamstrung in trying to reward the better land managers as rating levels are controlled on the upside by state government. It therefore raises the question – if good land managers are to be rewarded by reduced rates, should poor land managers be penalised by increased rates? Given the fixed pool of revenue available to local government from rating, the current outcome is not supportive of good environmental managers.

Product supply sector

Most goods used by the farm sector are reasonably high volume, low margin items. Most farmers are least-cost commodity producers who are very cost conscious and consistently worry about unit and marginal costs as they seek to stay in business in a trading situation dominated by the fact that they are 'price takers' and subject to the cost-price squeeze. The philosophy of least costs is one espoused as official policy by the National Farmers Federation since 2002 and the reaction throughout the supply chain has been one of volume discounting with manufacturers and resellers meeting the market in an attempt to maintain or increase market share.

In such a situation there is no interest in providing discounts in support of a purchaser's management system, rather volume purchased and payment terms are more likely to facilitate a discount. Farmers approach several suppliers and ask for a supply price for the order; in doing so they test the resellers' willingness to cut their margin (discount) to get the business.

For higher profile or brand goods, two scenarios are likely in the supply channel. For goods that are patent protected (agrochemicals), all participants in the supply chain work to maintain margins. In this situation the manufacturer is trying to recover as much of the substantial research, development and commercialisation investment as they can while the product is patent protected.

Products that are high value and internationally branded (such as a tractor or grain harvester) do perhaps offer some opportunity for pricing options to suit a marketing strategy. It is important to determine where any discounting takes place in the chain – is it at the national distributor level (in which case the local reseller's margin is unaffected by a discount to a buyer) or will it come straight off the vendor's bottom line? Is discounting to environmentally sensitive farmers part of a national marketing strategy or is it simply a regional reseller who recognises the marketing opportunities as a result of improved credibility and reduced risk by supporting such farmers? There is no indication at this stage that national goods distributors have

[8] The Equator Principles are a voluntary set of environmental and social screening criteria and guidelines that provide a framework for banks to manage environmental and social issues in project financing. They are based on the shared environmental and social standards of the IFC and the World Bank, and apply globally to development projects in all industry sectors with a capital cost of US$50 million or more. http://www.ifc.org/ifcext/equatorprinciples.nsf/Content/ThePrinciples

developed marketing strategies that might fit in with, say, an environmental management system but as opportunities occur which a national distributor judges will position the business advantageously, such strategies might well emerge.

At a local level, resellers will treat farmer customers differently based on their buying performance, credit rating, loyalty to the reseller and their potential 'benefit' to the reseller in terms of fewer problems (reduced risk) and a potential credibility upside. Historically, farmers have been inclined to seek favourable trading terms based on commercial expectations rather than broadening their approach to one more of a 'trading partnership' where each party is a beneficiary.

As farmers become more in tune with market opportunities, the development of sophisticated input and output trading 'partnerships' could become more common; such a development will provide opportunities for good environmental managers to press for commercial recognition of their contribution. Already there is evidence where a local crop input supply firm may only service 25 to 30 major farm clients even though turnover might be ten million dollars a year. In such a situation the supplier-farm customer relationship is paramount in ensuring the ongoing success of the supply business.

Conclusions

For farmers and input suppliers to develop fruitful partnerships both parties must identify the rewards they are looking for. It is likely that the preferred rewards will vary between originators at a national or state level compared to local resellers. And it is likely there will be big differences in the preferred rewards sought by different product and service providers. For example, the finance and insurance sectors may be dominated by risk aversion while consultants and contractors might view farmer credibility as a major issue.

There is some evidence of farm input suppliers being interested in working in partnership or alliance with output (food and fibre) businesses. While such arrangements might add complexity, current evidence is indicative of a trend towards more rather than less integration along the supply chain. Businesses combine resources to improve their individual capacities and capabilities and to enhance firm bottom lines. There is good reason to suppose that a properly positioned farm firm might also improve its bottom line if it can deliver an acceptable benefit to a supply chain combination of firms.

It is likely that input-based rewards for good environmental management on farms will be slow to develop and there will be no landslide of support to EMS driven by potential input rewards. However, several promising leads need to be exploited, as follows:

Encouraging take up by the insurance industry. The insurance industry, which has the most to gain (or save) by encouraging farmers to adopt more sustainable management practices, requires local and national pressure to take up the opportunities available to it. There are opportunities for the national rural service companies (Elders, Landmark etc) to encourage their insurance underwriters to take an innovative stance by rewarding good farmers.

Involvement of the banking industry. While the banking industry has been supportive of the concept through the Australian Banker's Association, it is likely that more progress will be made by giving one of the more innovative banks an opportunity to create a market niche with a package linked to an environmental management system, e.g. by providing a discounted interest rate linked to other rewards for those farmers adopting and maintaining such systems.

The actions taken by Westpac are encouraging in this regard. Environmental based market action also provides the banks with an opportunity to help meet their espoused triple bottom line reporting which is and will become a larger feature for public companies seeking to differentiate themselves in the marketplace.

Discounted shire rates. The impact of poor agricultural practices in a catchment or local government area can be severe. Flooding of and damage to roads and railways, spread of weeds, watercourse erosion and siltation are but some of the problems. As some shires are able to offer discounted rates to good environmental managers, their good example needs to be promoted to other shires.

Involvement of CMAs. It may be the role of Catchment Management Authorities (CMAs) to advise their constituency how to extract commercial concessions from local suppliers. A CMA has the potential to finance an education and training role for EMS adoption in the catchment. However, it does not have the ongoing resources to fund EMS adoption on a catchment-wide basis, rather it can lead, educate, train and encourage farmers on how they might best extract rewards for EMS adoption from a range of suppliers and purchasers of farm products.

Involvement of local suppliers. At the end of the day street-wise farmers who have adopted EMS and are recognised in the district for their technical and commercial performance will have something to offer local suppliers. Whether they see it as a low risk, credibility or market opportunity is immaterial to the farmer, they simply need to drive an improved commercial bargain as a result of their standards of management.

Rewards for good environmental management

There is no doubt that land owner-managers receive commercial recognition for good environmental stewardship when they sell the asset. While the focus in the past has been mostly on the likely profitability of a farm, future trends are likely to see a much greater interest in the environmental resources of the property.

Traditionally, good farm managers have been those that maintain farm improvements, control weeds and pests, minimise erosion, stock reasonably conservatively while aiming to make a modest profit. However, the EMS-adopting farm manager is going at least one-step further in committing to a process of 'continual improvement' on the farm. This process is more demanding in terms of inputs and costs but the long-term payoff for the farm and its catchment is much higher in terms of environmental outcomes.

Clearly the difference between a good manager (in the traditional sense) and a manager committed to 'continual improvement' is where the need for reward lies. This is a complex story to tell and not an easy story to sell in terms of potential benefit to other parties. However, if society wants improved biodiversity, reduced land degradation from erosion, reduced dryland salinity and improved riverine systems, it is unlikely that simply applying traditional good management will be enough. The environmental positives that flow from EMS at the farm level require promotion and marketing so that the rewards will flow to adopters.

Currently, the potential to gain a commercial advantage by farming in an environmentally sustainable manner by adopting EMS and a continual improvement program is limited and indications are that in the future, input discounts and incentives are unlikely to become a principal driver for EMS adoption. However, there are indications that some farmers may be able to gain some commercial advantage with their suppliers by demonstrating they are triple bottom line managers, are lower risk and offer increased credibility to their suppliers.

Given the supply chain and marketing changes over the past decade and likely future changes, it is clear that the farm sector will need to push for recognition if it wants its environmentally focused farms to be rewarded for their local and regional contribution to improved environmental outcomes.

The insurance and banking sectors appear to offer the best prospects because of the lower risk attributes of EMS and similar systems. Local government has made a positive start in some shires by rewarding good environmental managers and should be encouraged to respond on a much wider scale as it benefits directly from improved environmental management. Local government and CMAs have a direct interest in improved local and regional environmental outcomes and there is scope for both to play a role in increasing EMS adoption on farms.

As far as commercial goods and service providers are concerned, EMS-adopting farmers will need to convince these suppliers that they have something to offer in terms of lower risk, more efficient management and increased credibility from being adopters, which they are willing to share with their suppliers on a partnership basis. This is more likely to be a locally driven activity where local farmers are dealing with local suppliers. Successful local arrangements may pave the way for more regional and national partnerships to take place.

Farmers who adopt EMS and similar programs are managing beyond 'good' management. They are starting a process of continual improvement that, on a catchment and wider scale, has the potential to develop real, long-term environmental improvement. While input suppliers rewarding these farmers have some potential to encourage improved environmental management, the real issue is the need to gain area-wide momentum in EMS adoption thereby proving to key suppliers that the process and outcomes are in their best interests as well as those of the client partners.

CHAPTER 2

Farm outputs

Marketing outputs from environmentally beneficial land management systems potentially offers a significant opportunity for land managers to obtain market based benefits from their adoption of improved practices.

How these outputs might be marketed varies greatly. At one end of the output spectrum is the case of a proprietary-brand product, owned by a group of farmers, aimed at a boutique market. At the other end of the spectrum is a corporate (or "home" brand) product, owned by a large corporation, and aimed at the mass-market.

This chapter identifies what is needed to enable these products to be established in their respective marketplaces to obtain benefits from improved environmental management.

Case Study 1 Proprietary-branded product aimed at a boutique market

BACKGROUND

In 1999 a group of beef producers from the Gippsland region in eastern Victoria decided to work together to sell their beef. Their goal was to produce high quality grass fed beef that would reward the consumer with an enjoyable eating experience every time.

They developed a brand called "Gippsland Natural" (GN). For this product, the producers decided that the meat had to be independently graded using the Meat Standards Australia (MSA) grading system that aims to guarantee that the meat is tender provided it is cooked using the recommended method.

Producers also wanted to emphasise a number of other aspects of the product. These were:

- Healthy – the product was promoted as a "cleaner, greener alternative" against the background of genetically-modified organisms and overseas food scares.
- All natural – the product was promoted as being free-range and raised on grass, with no antibiotics or growth hormones. The producers "wanted to promote natural, grass-fed beef, produced by holding the welfare of the stock and land as paramount" [9].
- Traceability – all product was traceable from the producer through to the retailer, based on MSA requirements. The GN literature says that "when you purchase Gippsland Natural beef you can find out who produced the beef and where they farm"[10].

There were 36 members of GN. GN members are currently killing from 12 to 15 head of cattle a week to supply bodies to six retail outlets. These outlets sell GN product all year, but for about 10 weeks per year the group must source from non-members to supply cattle as there is not enough grass available during these winter months.

GN has sold its members' product through a number of butcher shops and independent food outlets in the Gippsland region and Melbourne, all of which clearly identify themselves as selling GN product.

In 2000, members of the group developed and implemented their own EMS. The Gippsland EMS was designed for ISO certification and aimed at being applied with quality assurance programs.

The Gippsland EMS aimed to enable up to 60 producers to work through the EMS process. Properties that implement the Gippsland EMS would be able to sell the meat under a separate brand from GN called "Enviromeat".

This would be distributed through selected retail outlets that are different from those selling GN. The aim would be to explore how retailers and consumers value a product produced under an environmentally sustainable management system.

[9] Gippsland Natural promotional leaflet

[10] Ibid.

As well as having an externally-audited EMS, Enviromeat farmers must: operate under a free range grazing system so the cattle have grass at all times; have procedures and monitor for bio-diversity and water quality management; and operate under environmental best management practice, including monitoring for grazing, soil, fertiliser, weeds and pests, and chemical use.

At the end of 2005, twenty-five businesses had been certified under the Gippsland EMS. In effect, Enviromeat is GN product with the additional requirement of an externally audited EMS. The Enviromeat project is coordinated by one of the GN board members and assisted by a project manager.

Key drivers of an environmental marketing plan for Enviromeat

- The principal 'stop/go' requirement of the marketing plan is increased profit from beef product sales rather than better environmental management, social benefits, or on farm productivity.
- The members have a low acceptance of (additional) risk entailed by the Enviromeat initiative above their primary aim, which is to develop the Gippsland Natural brand.
- The exercise is not highly capitalised. The administration of the Enviromeat initiative is done on a part-time basis and is supported by external funds from Government programs for environmental management.
- Probable supply, at least in the early stages of the initiative, is too low to enable a wide range of profitable marketing options to be investigated although these options will increase as the system matures. For example, supplying a major mass-market retailer would be ruled out in the early stages since large quantities of regular supply are required almost from the beginning, often to complement large scale promotion activities (for which the suppliers may be required to contribute financially).
- There is an optimum level of supply in the early stages which reflects available quantities and enables a reasonable return to be made to producers and hence provides a demonstration effect for them to expand supply on a regular basis.
- Product quality (MSA) is fundamentally important.
- Continuity of supply is essential, but this can be varied depending on the market outlet. As noted above, for a mass market retailer supply needs to be continuous and matched to volumes predicted by the retailer. For a single delicatessen outlet, the demands for continuity are less restrictive.
- Depending on the optimum level of supply, the product will either be a boutique product or will compete with other beef products. This will entail different approaches to marketing.
- There are a number of alternative outlets that can be targeted, including domestic or international markets of varying scale.
- The price can and should be set on the basis of what selected consumers are willing to pay in the various market outlets available. The potential for creating a new market through product innovation should be considered, while bearing in mind the assumptions about risk preferences and the other assumptions cited above.

Strengths and constraints of the Enviromeat initiative

Strengths	Constraints
The group has a well-developed EMS system	A risk aversion rather than a risk management mindset
It is comprised of progressive, effective beef (and sheep) producers	Low preparedness of producers to allocate capital to build the business
It has dynamic leadership/membership	Low and variable supply
It is experienced in the field of cooperative marketing	Lack of local, national or international marketing (as distinct from analytical) experience/skills
	Lack of dedicated beef processing/ retailing knowledge
	Lack of analysis of possible financial outcomes, price/cost sensitivity analysis etc.

Given these strengths and constraints, what could be the key elements of a marketing plan for Enviromeat?

MARKETING CHANNELS

The key initiative will be developing a marketing channel for the product. The preferred option among the alternatives would be through targeting specialty food outlets. At the end of June 2005, a specialty food chain agreed to trial the sale of Enviromeat product in its outlets, and trials started in October 2005.

Additional elements of the plan will include: determining pricing that ensures custom and generates competitive returns for all participants and, being a new product, tailoring supply volumes to meet demand.

Enviromeat has initially been marketed through farmers' markets as a trial because the demand for product was likely to be small enough to match supply at this early stage of its development.

The next step would be to determine the prices and volumes that can be sold to supermarkets in the urban centres, based on the experience gained in the urban farmers markets.

However, unlike its sales to the farmers' markets, which were in the form of boned, packed products, the aim would be to sell bodies directly to the supermarkets for them to cut according to their needs. The reasons for this are:

- to generate savings shifting on intermediate processing and handling costs
- over time, develop large volume requirements.

A constraint on ability to supply is the winter period. There are a number of ways to overcome this constraint. If the returns were adequate, winter supplementary feeding could be undertaken with silage without prejudicing the "pasture-fed" attributes of the product. Another option is for alliances to be established with producers in other production areas.

Marketing options

Notwithstanding the current direction of Enviromeat, there are a number of options for marketing channels that it might adopt for its plan.

These include:

- boutique (generally single outlet) delicatessens
- urban produce markets
- specialty, multi-outlet food chains
- independent supermarkets
- mass market retailers
- direct to consumer.

There is also the potential of export markets as well as the domestic market. The market potential for such products might be large internationally, but this would need to be considered in the light of the additional costs and risks entailed.

In the domestic market, the preferred option as the most promising market channel target is independent supermarkets or specialty retailers who focus on premium food products. The volumes they require are larger than those of boutique delis and urban farmers markets, but are not so large that they exceed the ability of Enviromeat to supply.

Boutique delicatessens tend to require very small volumes. Urban markets would represent a natural evolution from the rural markets currently supplied by Enviromeat, but supply of meat to these markets tends to be concentrated in the hands of a small number of butchers who are only likely to require small volumes.

The major chains are considered unlikely to be interested because of the small volumes of supply available and the lead times required to lift those volumes. As the supply of product increases, there may be opportunities to graduate towards supplying them.

Direct sales to consumers are a possibility, especially with buying over the internet. Internet purchasing and direct delivery of food is provided by the major chains, and it might be possible for Enviromeat to team up with the major chains. While direct sales of premium meat are well established in the USA, for example, it would represent a new marketing channel for meat in Australia.

The volumes available for supply in the short to medium term, given any particular return, are essentially determined by the numbers of producers who can meet the requirements for being an Enviromeat supplier. The specialty outlets can tailor their requirements more closely to the volume of available supply for new products. They also aim to provide high quality products to generally affluent customers in established residential areas.

The aim should be to develop relationships with such outlets to enable market information to be gathered on consumer reactions to the product while simultaneously developing alternative promotional initiatives for the product.

There are a small number of these specialty retail chains, located in the main urban centres. They generally operate between three and five outlets. If this is not successful, the fallback strategy should be to focus on specialty retail outlets not part of chains.

In line with this plan, discussions have been initiated by the Enviromeat coordinator with a specialty chain in Melbourne, and may be initiated with another in Sydney. If these do not succeed, the fallback plan would be to supply boutique delicatessens or urban markets to build up towards supplying the larger outlets.

Enviromeat is at the stage in its marketing evolution where it needs to determine with some certainty that the consumer is willing to pay a higher price than for GN meat and that returns to producers are sufficient. This will entail more trials to test consumer acceptance.

The key initiative will be developing a marketing channel for the product. The preferred option among the alternatives would be through targeting specialty food outlets. At the end of June 2005, a specialty food chain agreed to trial the sale of Enviromeat product in its outlets, starting in October 2005.

PRICING

Enviromeat is currently positioned in price between GN product and organic product. GN product aims to be priced at the best market price attainable for the particular cut. The aim is for Enviromeat to provide an alterative to organic product for those who are environmentally conscious. Organic product was felt to require a very demanding degree of compliance, and hence would restrict supply of product far more than by requiring Enviromeat certification.

According to the Enviromeat coordinator, organic product generally trades at around a 15 to 20% price premium to ordinary product, so the aim is for Enviromeat product to trade at around a 10 to 15% price premium to ordinary product. GN aims to be priced at the top end of the supermarket price for 'ordinary' beef.

The only data on Enviromeat prices and margins to date is that available from the sales of limited volumes of boned products at farmers' markets, making it difficult to extrapolate from this situation to a normal retail market.

Enviromeat's pricing is based on significant returns to producers being obtained if the above-price premiums can be achieved in the marketplace. However, this depends on the returns to producers for boned product being maintained at the same level as for the unboned product, which is planned to be sold to the specialty supermarket chains.

Enviromeat now needs to determine with some certainty that the consumer is willing to pay a higher price than for non-EMS product and that returns to producers are sufficient. This will entail more trials to test consumer acceptance.

SUPPLY MANAGEMENT

Enviromeat should aim to develop a supply management plan with its distribution partner/s to build up the potential and actual supply volumes in tandem with evolving consumer demand. It should also examine the possibilities for expanding the group membership to increase supply. To tailor supply volumes to meet demand, Enviromeat producers could consider developing a transition to EMS-compliance category, different gradations of EMS compliance or developing alliances with or incorporating as members other producers who could comply with Enviromeat certification.

Enviromeat could examine the possibility of including in its supply system as members other farmers who have similar EMS systems and who also supply product that meets the Enviromeat requirements. For example, producers undertaking ALMS could be included as suppliers under the Enviromeat brand if they also met the other requirements.

Enviromeat should aim to develop a supply management plan with its distribution partner/s to build up the potential and actual supply volumes in tandem with evolving consumer demand.

AN ALTERNATIVE SCENARIO

An alternative scenario would be for a plan based on Enviromeat not being subject to the assumptions and constraints identified previously. In particular, a greater appetite for risk and removal of the capital constraint would see a different plan emerge. This could entail the following elements:

- Positioning in the market based on super-premium product (similar to super-premium ice cream for example), with very high levels of product presentation and packaging.
- A multi-product branding strategy based on a broad Enviro-brand, e.g. Envirofruit, Envirograin etc.
- An export program aimed at high-end European, Japanese and US specialty supermarkets/ wholefood chains. Successful penetration of these outlets would then be used as a promotional selling point in the Australian market.
- A domestic distribution strategy based on supplying Enviromeat to Enviro-branded outlets, and supplying other Enviro-branded food products in selected suburbs based on market research to identify concentrations of environmentally-conscious, upscale consumers.
- Supply expanded by means of a large scale, national program to facilitate ISO14001 compliance among producers supplying product under the Enviro-brand, processed at ISO14001 compliant processors.

CERTIFYING LAND MANAGEMENT

The system for certifying land management proposed in this report would enable the market for Enviromeat products to be increased. Establishing an Australia-wide system for certifying land management, based on international ISO standards, would enable wider recognition by consumers, both in Australia and overseas, of what the Enviromeat producers are doing to improve land management.

Case Study 2 - corporate (or "home" brand) product owned by a large corporation and aimed at the mass-market

BACKGROUND

A leading marketing and distribution company operating in the food and other fast moving consumer goods categories is considering introducing an environmentally labelled, corporate brand product.

An important strategic initiative by the company is the creation of its corporate brand aimed at providing consumers who want to buy food products which reflect their lifestyle preferences and needs. By purchasing these products, consumers express their preferences for products which have attributes such as: reduced fat; low salt; vegetarian; lactose free; gluten free; high energy; suitable for diabetics; organic; country of origin – where made or packed; Australian owned business. The range of products developed so far with one or more of these attributes includes cordial, margarine, tea, ice cream and eggs.

The company is considering introducing environmentally certified products in its brand based on the belief that many consumers, including those who already buy its corporate brand products, would be attracted to an environmentally labelled product.

ISSUES IN DEVELOPING AN ENVIRONMENTALLY LABELLED PRODUCT

Environmentally labelled products could fulfil the following functions for the company:

- complement and add to other corporate brand product attributes, e.g. low salt, biodynamic
- differentiate the company's products from competitors' products
- strengthen relationships in regional communities where the company supplies many outlets.

A number of issues need to be identified and addressed in implementing this concept, as follows:

- What would be the consumer demand for environmentally labelled products?
- From the retailer's perspective, what type of environmental management system should underpin the environmentally labelled products and ensure the consumer's expectations can be met?
- What are the economics of environmentally labelled products?
- What should be the role of government in environmentally labelled product?
- What are the key marketing issues for environmentally labelled products?
- What is the exposure to risk for the company in introducing environmentally labelled products and how should these risks be managed?
- What supporting action is required to make environmental labelling by the company work, e.g. consumer awareness/education issues?

The plan developed below addresses these issues.

KEY ELEMENTS OF THE PLAN

Aim of environmental labelling for the company

The aims of environmental labelling, not, necessarily in order of importance, are as follows:

- extension of the corporate brand to additional products demanded by customers who are conscious of lifestyle choices and needs
- promoting the image of the company and its many customer outlets as caring for the environment
- encouraging suppliers of products sold by the company to produce them in an environmentally-beneficial manner
- the company being seen to support rural production best practice as a long-term viable industry strategy.

Nature of the claim to be made

The nature of the claim to be made is reflected in the type of label to be adopted. The company considers the type of label best for its purposes as being one that entails verification of pro-environmental activity by a third-party and indicates overall environmental preferability of a product. Organic labelling is an example.

The key factor for the company is **independent verification** of the environmental activity to ensure trust on the part of consumers in the environmental claims being made. This means that the requirement for third party auditing is central to consumer trust and confidence. The

company believes that a label which entails a self-declared claim without independent verification would not elicit consumer trust.

A label based on environmental processes will meet consumers' needs for environmentally labelled products, and the company does not believe that a label which requires specified environmental practices or outcomes is necessary at this initial stage. This, however, would need to be verified in short and medium term consumer testing.

The company would not at this stage consider joining an international environmental labelling initiative such as EurepGAP given the multiplicity of systems that would flow from the self declaration nature of EurepGAP.

The company also believes the labelling initiative should be low costing to the suppliers and be clearly aligned with Australian consumer preferences and attitudes, which it believes differ from those methods and suppliers in Europe (who have been severely affected by major food safety and disease scares originating on farms).

Scope of the label

A key issue for the company is the scope of the label, i.e. what products it applies to. In the company's view it will be easier to begin environmental labelling of unprocessed or simply-processed commodity fresh products like eggs, milk or nuts rather than more processed products like cakes or prepared meals.

This is because for value added products there would be a number of products involved as inputs in making the final consumer product, which may need to be covered by the environmental label. For example, as core processing is done, flavours and additives are generally required and these would all presumably need to be produced under an environmentally-beneficial system.

There would also be multiple points in the production chain which may need to comply with the standards adopted for the labelling. Even for a simply processed product like milk, it would need to be clear to consumers whether the environmental label applied only to production on the farm or also at the processing plant.

If only some stages of production are undertaken under such a system, this would need to be specified in the labelling, making the label more complex (unless the whole supply chain encompassed ISO standards) and potentially, but not necessarily, detracting from the message to consumers.

Whether or not consumers would be prepared to accept the fact that only a small part of the supply chain is certified as being environmentally beneficial would need to be one of the many aspects to be tested in consumer research before such products were considered for including in the corporate brand.

Nature of the production system

The company's corporate brand product packaging includes the name of the brand and they list a number of product attributes, e.g. high energy, lactose free and vegetarian. The plan would be to possibly add "environmentally certified" to this list.

This label would mean that the product has been produced in an environmentally beneficial manner. The company believes that a process standard embodied in an EMS is acceptable,

and that the standard need not specify outcomes, although this belief and others relating to the labelling would need to be tested in consumer research by the company.

It does not believe that it needs to select one particular EMS as the basis for the label, rather it believes that there should be independent auditing of compliance with a standard, and that there should be an agency to assure consumers that the EMS used in the production of the product meet some basic criteria. According to the company, a government agency should ultimately set the standards and accredit those who are auditing compliance or oversee the enforcement of the standard using accreditation bodies like JAS-ANZ.

The company considers the labelling system adopted for organic products as the main model for environmentally labelled products. This system has the key advantages of:

- Building confidence with its consumers as it is now being enhanced through a better third party auditing system.
- Covering a wide range of farm products, i.e. the organic standard and the regulatory system underpinning it is not specific to a particular industry.
- A government authority is now responsible for ultimately setting standards, which gives consumers additional confidence. The company believes that in the consumer's mind the government is the party certifying the standards of importance, not the auditors.

The company also believes an environmental labelling logo is required, the suggested model being a symbol similar to the National Heart Foundation's "red tick".

Such a logo would achieve the following:

- increase consumer awareness of environmental labelling through promotional and educational campaigns linked to the logo
- increase consumer confidence in the labelling claims through the setting of thoroughly agreed standards before awarding access or use of the approved logo.

The company does not necessarily wish to develop and own its own logo for environmentally labelled products. It might consider obtaining use of such a logo as a "first-mover" for a period of exclusivity.

However, the company is more concerned that the logo be as widely recognised as possible because this will maximise consumer awareness of the availability of environmentally labelled products. The company seeks to obtain a lead in supplying the needs of these consumers by being first in the market to introduce a range of such products through its corporate brands.

It also wishes to obtain benefits for the company by maximising recognition of the company as a supporter of good environmental practices, rather than obtaining benefits through monopolising the environmental logo.

Environmental management system to underpin labelling

Elements of the above plan mean that some aspects of the EMS to underpin the corporate environmental labelling have been determined. For example, the company does not support a self-declared label, and supports a third-party audited system to underpin the label.

Furthermore, as noted above, the company's preference is that the environmentally beneficial practices and recognition of the environmental label be adopted as widely as possible so that

its environmental brand could potentially tap into as broad a base of environmentally-conscious consumers as possible. To this end, the environmental management system underpinning labelling should cover as many food producer categories as possible.

The emphasis would be on maximising the number of producers from which the company could draw products for its brand, rather than on maximising the number of products produced by environmentally beneficial practices. This is because it plans to develop its own environmentally labelled, corporate brand products rather than just selling other companies' environmentally labelled products in the early stages.

The company believes that the management system must be credible to consumers. Ideally it should also have the support of relevant interest groups, including environmental lobbying groups.

Its preference is for the environmental management system underpinning labelling to begin at the farm level and for its coverage to progressively increase to include successive stages of the processing and distribution chain.

The company does not believe that all producers operating EMS must achieve ISO14001 certification immediately. However, ultimately complying with an internationally recognised standard like ISO might help provide additional confidence for consumers. Complying with ISO also means that the consumer who wishes to dig into the system underpinning the label has to undertake lower search costs.

Accordingly, the company believes the EMS underpinning environmental labelling should be based on an ISO standard. Once the company has established a firm view on the system to support labelling (including following the results of market research discussed below), it would seek to discuss this with relevant stakeholders to elicit their reactions and obtain their support.

Key elements of a desirable EMS for the environmentally labelled brand

- Covers as wide a range of food producers and food products as possible
- Is third-party audited by accredited auditors recognised by QSA or other approved auditor competency based certification parties
- Is recognised by consumers quickly
- Is based on the ISO standard for environmental management or any system that is equivalent
- Enables the consumer to easily verify that the management system underpinning the label was recognised as a genuine one
- Enables trace back of the product to the production system which is claimed to be environmentally beneficial. Such trace back need not necessarily be available to the consumer for every product, but would need to be available to the company in some form.

Recognition mechanisms to underpin environmental labelling

There are many different potential environmental management systems and different potential providers of environmental management systems. This means there could be many EMS systems vying for the attention (and confidence) of consumers. For the company this means potentially having to choose between competing EMS systems to underpin its environmentally

labelled brand, or having a number of EMSs and increased associated labelling costs with risks of confusing consumers.

Until a mechanism is developed for establishing what constitutes a genuine EMS recognised as such for the purposes of environmental labelling, the company will be unable to market such products with any real confidence in its ability to manage the associated risks.

There are a number of options in this regard:

Option 1. Rely on the Trade Practices legislation, i.e. any product that claims to be environmentally certified would have to meet the requirements of the *Trade Practices Act* in relation to false or misleading representations. This would, however, mean relying on the legal system to recognise and eventually rationalise any false or misleading claims. This places much risk on the company and also fails to meet, at least in the short to medium term, the company's requirements for a system that achieves widespread recognition for the underpinning of its environmentally labelled products.

Option 2. Rely on any environmentally labelled products being underpinned by ISO standards. However, consumers may not understand what the ISO standard means. To ensure national application, it would be necessary to incorporate the ISO standard into the Fair Trading laws of the states and territories.

Option 3. Establish a central agency to set the standards for what constitutes a legitimate EMS, which the company would use as a reference point for its environmentally labelled product. Such an agency could be a private organisation (like the Heart Foundation which effectively sets the standard for determining what can be labelled as "heart-friendly" food) or a government-approved body or agency. The company believes that government needs to be involved in high-level recognition of EMS standards to underpin environmental labelling, much as it is now in the organic labelling process. The company believes it should discuss with interested parties (including government parties like DAFF, JAS-ANZ) the design of a system that would be based on government standards development. This would give just high-level recognition of what constitutes an EMS for the purposes of environmental labelling.

Market research

The company believes consumer market research would need to be undertaken to answer questions such as:

- what types of products are important to consumers environmentally
- whether a logo is required as well as standards for environmental labelled product
- the level of traceback required to underpin the labelling system
- the level of assurance required in the production systems to underpin environmental labelling.

The company would prepare some visual representation of various products and test what they mean to consumers on their test panels.

SUMMARY

The company wishes to develop an environmentally-labelled range of products under its corporate brand. Key elements of its plan to achieve this are:

- The key factor is independent verification of the veracity of the claim to be made about environmentally-beneficial activity. This requirement for third party auditing is central to consumer trust and confidence.
- A label based on environmental processes is enough to meet consumers' needs for environmentally labelled products. A process standard embodied in an EMS is acceptable, and the standard does not need specify outcomes, although this belief and others relating to the labelling would need to be tested in consumer research.
- It does not need to select one particular EMS as the basis for the label, rather there should be independent auditing of compliance with a standard, and there should be an agency to assure consumers that the EMSs used in the production of the product meet some basic criteria such as ISO 14001 compliance. There should be government agency ultimately setting the standards and accrediting those who are auditing compliance or oversee the enforcement of the standard using Accreditation Bodies like JAS-ANZ.
- The labelling system should cover a wide range of farm products, i.e. the standard and the regulatory system underpinning should not be specific to a particular industry or product; and that a government authority should be responsible for ultimately setting standards which gives consumers additional confidence.
- An environmental labelling logo is required modelled on the National Heart Foundation's "red tick". Such a logo would increase consumer awareness of environmental labelling through promotional and educational campaigns linked to the logo; and increase consumer confidence in the labelling claims through the setting of standards for award of the logo.
- Environmental labelling should begin with unprocessed or simply-processed commodity products like eggs, milk or nuts rather than more processed products like cakes or prepared meals. Labelling of value-added products would require environmentally certified systems in place at various stages of production and for multiple inputs into the production process, and this would add to the complexity of the labelling process.

What is stopping the company developing an environmentally labelled brand?

The key factor is the **lack of a certification system** that enables the company to claim, and the consumer to easily verify, that the environmental management system underpinning the label is recognised as a genuine one in that it meets certain minimum standards.

The company would consider initiating discussions with interested parties on the design of a system (preferably involving government) for recognising an EMS standard to underpin this environmental labelling. It would also consider undertaking market research into key aspects of consumer requirements for environmentally labelled products. The question of whether or not there need to be environmental outcomes achieved as well as environmental processes would be the subject of further investigation, including thorough consumer research.

The system for certifying land management proposed in this report would help the company manage the risks associated with verification of the environmental claims made by the label. Establishing an Australia-wide, credible system for certifying land management, based on the international ISO standard, would give the brand owner confidence that the claims made are

based on an accepted standard; that only those meeting the standard can make the claim; and that compliance with that standard is independently audited.

In summary, the company would consider undertaking environmental labelling of its corporate brand products under a plan:

- based on an EMS which is ISO compliant
- with a system for verification in place that does not involve the company.

This in turn would facilitate the company introducing environmentally labelled corporate brand products to the mass-market.

CONCLUSIONS

Implementing a land management certification system would greatly increase the feasibility of commercial companies incorporating environmental attributes into their business marketing and promotional strategies.

The results from each of the case studies, the first for a proprietary-branded product aimed at a boutique market and the second for a corporate (or "home" brand) product owned by a large corporation and aimed at the mass-market, show that the implementation of a land management certification system would substantially increase the feasibility of commercial companies incorporating environmental attributes into their business marketing and promotional strategies. Clearly this would represent a significant driver for improved land management.

It has been commented to the case study investigators that the findings of the studies need to be discounted as it is in the interests of the promoters of farm outputs to support the introduction of a land management certification system. The alternative view supported by the investigators is that this is a highly desirable situation for it indicates that if the main roadblock can be removed, that of not having a land management certification system, then there are at least some product marketers and promoters who would be prepared to incorporate environmental attributes into their business strategies.

CHAPTER 3

A land management certification system

This chapter describes a voluntary system to certify environmental attributes related to the management of rural landscapes. Such attributes might be embedded in land management processes, practices and/or in the products from rural landscapes.

The chapter is written from a public policy perspective embracing those features, aspirations and responsibilities of key organisations and individuals concerned with rural land management. However, the analysis is restricted to certification systems that are voluntary so the motivational needs of land managers are given prominence.

How to implement a voluntary system to certify environmental attributes needs to be considered within a broader policy framework. This framework encompasses the roles of complementary policy instruments, including regulation, financial incentives and penalties, research and development and education and training. The nature of the voluntary system should be determined on the basis of the additional benefits and costs likely to flow from including the voluntary system in a balanced portfolio of policy instruments.

The portfolio of policy instruments should recognise the many challenges faced by land managers, policy analysts, and program managers and by land management support personnel. These challenges arise from the need to deal with institutional and ecological complexities. These difficulties are often accentuated by a lack of reliable data. The overall objective is to devise a portfolio of complementary policy instruments that promote and enable improved land management.

Achieving the policy goal

The main goal of a voluntary system to certify environmental attributes is to improve the effectiveness and efficiency of environmental management beyond that which is likely to be achieved in the absence of such a system. To achieve this goal the certification system needs to have two key interrelated features.

1. It needs to reduce institutional[11] constraints to improved environmental outcomes that are unlikely to be as effectively addressed by other interventions, for instance through regulation. These constraints arise because institutional arrangements are not aligned with environmentally supportive beliefs, values and norms. These misalignments result from:
   - Some products of landscape management having public good characteristics, i.e. they are not diminished by use and/or they cannot be or are not priced, for example landscape amenity and aesthetic values, forms of air pollution. This results in inequitable sharing of benefits and costs arising from environmentally beneficial land management.
   - Inequitable sharing of benefits and costs arising from the unrestricted flow of private goods from land management practices (offsite effects), for instance offsite effects of soil erosion, weed and pest invasion etc.
   - Organisational structures and processes and policies and programs that favour sectional interests at the expense of the public good.
   - The pricing of some ecological outputs, for example food and fibre products but not of others, for example aesthetic values.
2. The system needs to have ecological integrity; it needs to deal with the complexity of ecosystems. Ecological integrity refers to the need for the design of the system to reflect the ecological interactions and production realities that underpin environmental performance. Ecological interactions occur between the essential components of the environment (water, vegetation and soil), with these interactions in turn being affected by the activities of land managers and the broader community, in the latter instance through, for instance, the community wide impacts on climate.

System design

NEED TO FOCUS ON IMPROVING LAND MANAGEMENT

There is much confusion currently about the primary purpose of a certification system and hence about the design and implementation of any such system.

In 'Developing a National Certification Process for Environmental Management in Australian Agriculture' Rowland *et al*[12] have canvassed the nature of a system for certification of the use of Australia's agricultural land and for monitoring the environmental resilience of Australia's agricultural land.

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[11] Institutions include the practices of groups, the organisations formed by government, industries and communities and their policies and programs, including laws, regulations, codes of practice, and the operation of markets. The institutional framework influences and enables individuals to act in the public good. It is this framework that enables governance, the exercise of political power to manage a nation's affairs (Gleeson T. and Piper K. 2002, 'Institutional reform in rural Australia: Defining and allocating property rights', Property Rights and Responsibilities, Current Australian Thinking. Canberra: Land and Water Australia).

[12] Rowland P., Waller M., Gorrie G. and Douglas B. (2005) 'Developing a National Certification Process for Environmental Management in Australian Agriculture' Rural Industries Research and Development Corporation, Canberra.

Understandably, agriculture has a dominant position in institutional arrangements related to rural Australia. However, as is evident in the Rowland report, this domination by agriculture can lead to the understanding that the system is one that certifies the environmental attributes of agriculture rather than one that certifies the appropriateness of land management. The agricultural centricity of this approach underpins the Rowland proposal that the certification system ought to evolve through convergence of the different approaches being adopted by different industries within the agricultural sector, many of which have multiple objectives of which continuous improvement in environmental performance is not necessarily the dominant one. The Rowland proposal is further complicated by the inclusion of the objective of achieving a national monitoring of environmental resilience, an objective for which the adoption of environmental management systems is arguable ill suited.

There is potential for a system as proposed by Rowland *et al* to go off the rails or, at the very least, to miss an opportunity to improve environmental management. Agricultural certification or the labelling of agricultural products is an important consideration but it is only one (and a secondary one) in a certification system for land management. Certifying Australia's agricultural products as 'Green' is a means to an end, not an end in itself.

Admittedly, adopting a voluntary certification system for land management will be much influenced by who benefits and who bears the cost. However, the end point should be improved environmental management with the distribution of benefits and costs being an important determinant of adoption of the certification system.

NEED TO BUILD LANDHOLDER MOTIVATION

There is a range of potential beneficiaries of a system of certification of land management and the needs of all of these beneficiaries should be considered in the design of the system.

To improve rural environmental performance through the application of voluntary mechanisms, landholders in the private, public and community sectors need to:

- be motivated
- have the strategies and tools needed to deliver improved environmental outcomes
- have the capability to continuously implement and improve those strategies.

The key factor in improving environmental outcomes through voluntary pathways is the need to strengthen the motivation of landholders to improve environmental performance; i.e. the motivation to participate in a voluntary way to build on the baseline of performance required by legislation. Sustained and creative effort requires a mix of intrinsic and extrinsic motivation. The intrinsic motivations are driven by the internal satisfaction of achieving and the extrinsic by the external rewards resulting from delivering desirable outcomes.

One way to efficiently build landholder motivation and to reduce operational costs and complexities is to enable the many different end users or 'markets' for improved environmental management to benefit from the introduction of a universal yet flexible voluntary system that certifies environmental attributes of the management of rural landscapes.

These end users include:

Land managers. The system would provide land managers both in the private and public sectors with a basis for self, community and market recognition of their environmental management achievements and/or activities. Such a system would provide land managers with a

clearer understanding of and potentially reduced liabilities in relation to community expectations of land managers. These expectations include but are not restricted to, legal requirements related to soil, water and vegetation management, and the granting of property rights such as access to water and the granting of leasehold property leases.

Key features of this group of end users include:

- Diversity: in environmental management imperatives, in their motivation and capability to improve environmental performance and in the mix of landscape products.
- Dynamism: having a short time of managerial influence relative to the time scales required for sustained environmental performance.
- Multiple independent managers: a relatively large number of operators having differential impacts.
- Organisational context: operating in influencing cohorts/organisations traditionally segmented according to reductionist (commodity) and geopolitical (State) imperatives with little alignment to improving environmental performance.
- Poor signals: need to deal with market and government failure due to production of public goods and externalities.
- Diverse product and service markets: regional, national and international markets for individual and composite products, moving through product chains of varying length and complexity.

Suppliers of farm inputs. In some instances the system would reduce the commercial and liability risks potentially incurred by suppliers of financial, insurance and technical services and chemical and other physical farm good and services inputs.

Key features of this group of end users include:

- wide ranging mix of large to small scale users with a diversity of managerial capacity to efficiently and effectively use the supplied goods and services
- most produce commodities, are therefore price takers and seek to remain as low cost producers to survive
- most are not trained to market their competitive advantages to suppliers thus reducing their ability to forge financially rewarding terms with suppliers
- production focused to the detriment of alternative strategies for sustainable land use.

Customers and consumers of land products (food, fibre etc products). A system for verifying environmental attributes of land management and/or of the products arising from farms would enable farm product customers to be informed about the environmental practices and/or outcomes pertaining to farms.

Key features of this group of end users include:

- Diversity of income and consumer taste preferences
- Apparent increase in preference for food that is produced in an environmentally beneficial manner, as evidenced by increasing demand for organic food globally and survey findings that environmental management issues influenced the activities of substantial proportion of food industry participants[13]

[13] Blackshaw P., 2000, "Environmental accreditation system: market analysis project", Agriculture WA, Perth

- Asymmetry in information between producers of land products and consumers of those products about the environmental attributes of production systems. Producers have more information and consumers require the means to certify that information, i.e. consumers require a certification system to enable their preferences for environmentally-beneficial products to be expressed in the marketplace.

Customers and consumers of environmental services. Agencies responsible for supporting activities having the general goal of improving land management, for instance catchment management organisations and government departments.

Key features of this group of end users include:

- Many organisations. There are nearly 60 catchment management organisations and a variety of local, state and national agencies concerned with land management for which a land management certification system based on core requirements would provide benefits.
- Need to link activities between property-based activities and sub-catchment, catchment and regional activities where linkages are weak. This remains a key limitation to landscape wide environmental improvement.
- Reductionist approaches. Many of the markets for environmental outcomes are specific to a particular environmental outcome, for instance water, and this element-by-element approach can lead to ecological imbalances and hence perverse effects.
- Organisational context. Operating in influencing cohorts/organisations traditionally segmented according to reductionist (commodity) and geo-political (State) imperatives with little alignment to improving environmental performance.
- Poor signals operating within market failure due to the production of public goods and externalities.

The system requirements of individuals and organisations within and between these broad categories of end users will vary and they will vary for a particular individual or organisation over time. Nevertheless, a case can be made on grounds of effectiveness and efficiency for there to be a core system that caters for common requirements and which is flexible and responsive enough to cater for changing requirements over time.

NEED TO ENCOMPASS A VARIETY OF LAND USES

The need to improve environmental management in rural Australia is not restricted to the Australian land mass nominally used for agriculture. While agriculture occupies 62% of Australian land, increasingly even those 'agricultural' lands are being used for a variety of purposes, including so-called lifestyle activities, nature conservation and tourism. Furthermore, at least half of Australian farmers earn at least half of their net household income from non-agricultural pursuits[14] hence limiting the extent to which their motivation might be enhanced by the greater capture of benefits from the farm input and farm output marketing chains.

There is also a strong move to support and monitor land management within a spatial dimension, that is within a sub-catchment and catchment dimension.

This all means that it would be undesirable for the system to be restricted to agricultural products or to those practices or outcomes that relate exclusively to agricultural lands. As there will inevitably be changes to land use across Australia, the system should not favour or disadvantage particular land uses.

[14] Gleeson, T, Turner, C and Douglas, R (2002) 'Beyond agriculture: changing patterns of farm household income', a report for the Rural Industries Research and Development Corporation, Canberra.

NEED FOR SYSTEM TO BE APPLIED ACROSS PRODUCTS AND PRODUCT CHAINS

Even within an agricultural context there is a strong case for certification systems to be applicable across all farm products, i.e. certification must be related to the management of the landscape, not just the final product (which could be seen more as a quality assurance approach).

Agricultural producers seek to minimise the number of certification systems and in particular the complexity, duplication and costs of system auditing. They also seek to gain knowledge from any form of certification to help them with management.

In the year ending June 2002:

- about sixty-one per cent of Australian farmers[15] accounting for 71% of agricultural production, operated two or more agricultural industries[16]
- twenty-seven per cent of farmers accounting for 41% of production operated three or more agricultural industries.
- only ten per cent of cotton growers producing 10% of cotton production have cotton-only farms
- only eleven per cent of wool and sheep meat producers producing 3% of sheep products have sheep only farms[17].

Furthermore, the mix of industries on farms is dynamic with landholders altering the mix of industries to cater for market and natural resource management and other imperatives.

Given this mix of industries on farms, past and continuing policy, program and political emphases on commodity-by-commodity approaches to improving land management are inappropriate. Of course this is not to deny the need for industry-specific considerations to be built into a national system for certification of land management. However, that requirement should not override the need for such systems, in the first instance, to be based on whole-of–farm, landscape-linked, management-based considerations.

Adoption of a land management certification system that is whole of farm and landscape linked is supported also by the multi-land use requirements evident in the needs of catchment organisations and of food processors, wholesalers and retailers. These groups, like agricultural producers, seek to minimise the number of certification systems and in particular the complexity, duplication and costs of system auditing. Given the spatial dimensions of environmental management such universality of the certification system can be supported also on ecological grounds.

NEED FOR THE SYSTEM TO BE CREDIBLE

The land management system needs to be certified by accredited certifiers against a known set of indicators. Indicators may relate to management processes (such as the ISO14001 processes), to practices such as best management practices as advocated by some industry organisations, and/or to environmental outcome indicators.

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[15] Defined as having an estimated value of agricultural (livestock, cropping, horticulture) operations equal to or in excess of $22,500

[16] Industries being defined as beef, dairy, sheep (wool and sheep meat),poultry, pigs, other livestock, cereal crops, oilseed crops (excluding cotton), other crops(excluding cotton and sugar cane), cotton, sugar cane, vegetables, fruit and nurseries.

[17]Gleeson T., Lewis L. and Grosser M (in press) 'Alliances to assist implementation of environmental management systems' Rural Industries Research and Development Corporation, Canberra.

Selecting the indicators for a national voluntary land management certification system needs close consideration, with the options being management processes, management practices and/or environmental outcomes. This process should be guided mainly by the need to motivate land managers to use the system.

It is a given that the system needs to lead to environmental improvement and that the certification needs to credible in relation to the claims made of the system. However, these requirements, contrary to oft-repeated claims (see Rowland *et al* 2005), do not of necessity require that the national indicators be either of a process, practice or environmental outcome nature. Rather, the fundamental requirements for certification should be that adopting the system would be expected to lead to improved environmental outcomes and that such outcomes be monitored, using indicators within the entity to which the system relates, for instance a farm or a national park.

One could envisage the system to be based on an accepted environmental management process standard, such as ISO14001.

ISO 14001 requires the land manager to comply with all legislative requirements and to use a standard set of decision making processes to select high priority areas for environmental improvement. The land manager is required to monitor these improvements. The certification is of adoption of prescribed management processes (the standard) supported by monitoring of environmental improvements. The critical factor here is that, with external assistance if appropriate, the areas to be addressed and the indicators and the targets are selected by the land manager as being both relevant and achievable.

Proposals for certification systems for land management that do not require universal adoption of prescribed environmental outcome indicators and achievement of prescribed environmental outcome standards are criticised on the grounds that there is no certification of universally achieved environmental outcomes. However, such criticisms not take account of the following key factors.

- It is very doubtful if universally applicable and practical indicators and standards can be identified given that such outcomes have not been forthcoming from large past investments over a prolonged period. Currently, we are struggling to accurately identify problems, let alone have a definitive set of solutions to bring to bear.
- Regulation rather than a voluntary instrument is most likely to be the appropriate policy instrument if such indicators/standards can be identified.
- Imposing prescribed indicators and standards is highly likely to greatly reduce the adoption of a voluntary certification system.
- The delays inherent in determining and negotiating such indicators and standards are likely to be so great as to jeopardise the introduction of the system.
- The proposition that a system based around prescribed indicators and standards is necessary to engage land managers in meeting catchment targets established within the context of programs such as NHT and NAP does not give due regard to the behavioural underpinnings of voluntary systems for achievement beyond regulatory compliance. In fact, should this be an outstanding constraint on these programs it would be advisable in the first instance to examine deficiencies within the design of those programs rather than make the certification system subservient to them.
- Prescription limits innovation and so is likely to discourage experimentation and pursuit of new or better strategies and outcomes.

NEED FOR THE SYSTEM TO BE SIMPLE

A national system for certifying land management needs to encompass an on-property monitoring and data management system aligned to the needs and the capabilities of the participating land manager. These are very focused needs and constrained capabilities.

Broader discussions about national and regional NRM indicators, standards, monitoring and data management needs are useful in their own right (see Rowland *et al* 2005), but they are likely to become a significant distraction to the introduction of a certification system for land management. The broader scale monitoring will help land managers (if done with an eye to practicalities) but it is not a critical element of a system for which the participating landholder will be responsible.

Implementation

Creating a national voluntary land management certification system will require leadership, analysis and the application of large doses of pragmatism.

LEADERSHIP

Creating a national system to meet emerging requirements, as proposed in this report, presents significant leadership challenges, the principal one being the need for all involved to envision leadership as an enabling trait rather than one that excludes or dominates.

The need to envision leadership as an enabling trait is not explicitly recognised in the National Framework for EMS in Agriculture. Rather it makes a number of statements that do not lead to a clear and consistent position on the question of leadership.

For instance, the framework recognises that 'the Commonwealth has a strong role to play in providing leadership and support', reflecting *inter alia* that 'EMS has enormous potential to achieve landscape outcomes' and that 'a key challenge for the Framework is the need to reduce complexity'. Nevertheless the framework lists leadership by industry and community as the first principle for adoption of EMS.

Depending on what angle one takes, this approach to resolving leadership roles reduces to a 'not me, but you' or a 'me, not you' approach, neither of which is particularly helpful. It is also inconsistent with the use within the framework of a market failure based analysis to identify the roles for government. This approach clearly requires the government to take a lead role when market failure occurs or is likely to occur. However, the framework inexplicably states that it would be undesirable for the government to be involved in 'accrediting certification schemes', an activity for which the extent and severity of market failure is readily apparent.

Essentially, the impact of establishing a national land management certification scheme would be to enable markets to evolve to recognise environmental outcomes and attributes. This is a 'bread and butter' role for government. Land managers currently are unable to capture fully the benefits of investment in land management because some of the outcomes are in the form of public goods (for instance cleaner air), and due to externalities whereby the benefits (for instance lower salinity) are captured by other land holders. Additionally, given the history, culture and structure of land ownership, investment risks and lags are likely to constrain investment in land management. Lastly, introducing a national land management certification system would greatly reduce transaction costs in public natural resource management programs and would provide significant data of use in public policy development.

ANALYSIS

As outlined earlier in this chapter, further analysis is required for the establishment of a national land management certification system, including:

Scope. Should the system apply only to land used mainly for agriculture or to land more broadly?

Standards. To what extent do process, practice or environmental outcome standards or different levels of those standards, or mixes of more than one of those standards, satisfy the requirements of a national system?

Nature. Should the system be based on ISO14001 process requirements and if not on what other internationally recognised set of standards?

Organisational functions and structures. What organisational arrangements would be most effective and efficient?

Logo. What would be a suitable logo for certified systems of land management?

Financial. What would be the cost of the system and how would it be financed? One way to partially address this question is to determine the 'environmentally neutral'[18] marginal benefit of introducing such a system; that is across a range of adoption rates what would be the reduction in existing ongoing costs of determining eligibility for existing support for environmental improvement, of determining regulatory compliance and of monitoring outcomes by for instance catchment management authorities and a wide range of national, state and local government funding and regulatory programs?

PRAGMATISM

Enabling various interest groups and agencies to load up a national system for certifying land management with additional objectives and complexity will be one of the greatest obstacles to its establishment.

This phenomenon is already being manifest in two ways. First, complex national environmental indicators, standards and monitoring arrangements are being considered that take little account of the practicalities and costs of implementation let alone taking account of the predictable adverse impacts on landholder motivation and hence on adoption of the certification system.

Second, including aspects of agricultural production, for instance product quality control and agricultural productivity, that go beyond the direct scope of environmental management are being considered. Including these issues in a land management certification system would add unnecessary complexity, in part through lumping together responsibilities of the public and private sectors.

Given the above, it is necessary to adopt a continuous improvement approach to the design and implementation of the land management certification system. There is also a need to accept that the risks inherent in an adaptive management approach are much reduced by beginning with a limited number of sound design principles and objectives.

[18] Where there is no environmental improvement or regression irrespective of whether the system is introduced or not.

Conclusions

The findings of this project indicate that over time operators in the markets for land based goods and services would develop commercial strategies resulting in benefits to landholders having a land management certification system. This increase in the flow of benefits would increase the motivation and level of investment in improving land management from by far the largest investor, landholders. In turn this would have beneficial effects on the effectiveness of public sector investment.

For reasons of effectiveness and efficiency, a system for certifying land management should meet as much as is possible the needs of the many individuals and organisations responsible for and involved in improving land management. These individuals and organisations include land managers themselves in agricultural and other sectors; various regional organisations, including catchment management authorities; and all arms of government involved in improving land management. Such universal application at least of the core elements of a national voluntary system for land management certification would significantly strengthen the motivation of land managers to improve environmental performance.

In essence, producers want to express their interest in managing their land in an environmentally beneficial manner and the broader community wishes to express its desire for land to be managed sustainably; a system for certifying land management is the linking mechanism.

CHAPTER 4

Labelling system for environmental attributes in farm products

The land management certification system outlined in the previous chapter provides a base on which different parties can build initiatives to generate different outcomes all aimed at improving land management. For example, **landholders** can adopt the system to generate satisfaction, for accessing resources, to reduce risk of legal liabilities, for asset value retention/enhancement, and to help meet regulatory requirements.

For those responsible for **public policy and programs** it provides a certified ecologically sound system upon which to base activities to support improving land management.

For **input suppliers and output marketers** it provides a base from which market benefits can be generated as a result of adopting the environmental land management system.

One means by which market recognition of the land management activity can be realised is by labelling products from properties adopting the system. This is a means by which the managers of those properties can inform consumers about what they have done, and hence attract consumers to buy those products.

This chapter examines the role that labelling can play in enabling market benefits to be generated and identifies the design of the labelling system that should be adopted to make this happen.

What is environmental labelling?

At the most general level, a label is a note, tag or sticker that specifies details of something's contents, destination, ownership, origin etc. A "tag" need not necessarily be physically attached to something – there might be an 'association' in the mind between say a product and attribute of that product. One can say that something is 'tagged' by association with a location, e.g. a product from a remote location may be associated with environmental purity without necessarily being physically labelled as such.

We use the term "environmental tagging" to encompass any label, association or perception that links environmental attribute/s to a product. In this report we focus on environmental labelling, which is a specific type of tag that is physically attached to a product, including a product brand.

Environmental tagging is the process of certifying to the environmental attribute of a product and/or production system. It suggests the environmental quality of a product to inform consumers and help them target expenditures towards products and systems they most want. An environmental label provides a physical aspect to the tagging process.

An environmental label enables those who undertake environmentally beneficial production to better inform buyers and input sellers about an environmental attribute of their products or the attributes of their production systems. It can thus generate recognition in the marketplace for the farmer's environmental activities or environmental performance.

Why environmentally label agricultural products?

If it is well designed, environmental labelling provides credible environmental information to consumers. It can thus help tap into a market and generate income for the producer and add value for the consumer, i.e. create private benefits and promote environmentally preferable production and consumption patterns, with some public benefits[19].

The products labelled can generate private benefits if people are willing to pay more for it than they would for the product as a commodity. Consumers may be prepared to pay a higher price because of perceived benefits to themselves or the community generally. Or the benefit may be generated through enabling access to a market that would otherwise not be accessible, e.g. due to restrictions on products produced without adoption of the land management system concerned.

A number of drivers influence the incentive for labelling, and these drivers vary according to the party involved along the value chain. The outcome of these forces determines who benefits and who pays from the labelling process.

For food producers, two major factors drive their interest in providing environmental information: access to markets and search for price premiums. Market access is mainly evident in access to overseas retailers which have Type II labels e.g. Tesco and Sainsbury are major European retailers who have home-brand labels which require adherence to environmentally-beneficial practices.

[19] OECD 1997, Organization for Economic Cooperation and Development, "Eco-labelling: actual effects of selected programs", OCDE/GD(97)105.

It is inevitable that participation in labelling programs will involve incremental costs, so producers expect to gain a premium for their products to offset these costs. While it is always hard to obtain a premium for produce, this does occur in some instances[20].

Price premiums are more likely to be achieved for niche compared with mass-market commodity products, and in export compared with the Australian domestic market, given the apparently lower demand for consumer environmental products here compared with overseas. Premiums in Australia appear to be pretty much restricted to organics[21] (Bob Hudson *et al* 2002).

Retailers are key participants in providing environmental information given their closeness to consumers. Key factors influencing retailers in providing such information include the ownership and returns to the labelling process.

Retailers have tended to develop "Home Brands" for environmentally-labelled products, where development and enforcement costs of (and returns to) the environmental label accrue to the retailer. In the case of private brands, the costs and returns accrue to the brand owner. In the case of eco-labels that are applied on top of home or private brands, the costs and returns are split between the labelling agency, the producer of the product and the retailer.

A key factor determining government and third party involvement is that environmental goods are "credence goods" – the consumer cannot evaluate attributes through use. This means there is an imbalance of information between producer and consumer and this can generate a "market failure" if consumer choices are being impeded or opportunities to improve environmental outcomes by influencing firm behaviour are being lost[22].

Governments may make labelling mandatory and/or require third party involvement to address this market failure. Third parties can help verify, inspect or certify environmental claims.

Benefits of labelling

A number of overseas studies have examined the overall impact of environmental labelling. While such studies often indicate that consumers may prefer these products to standard ones, and in some cases are willing to pay more for them, few studies have examined actual store sales to see if these programs are effective in raising demand. Specific studies like this have concluded that they had little impact on demand.[23]

Two major factors were believed to be responsible for the lack of impact on demand: the limited understanding and knowledge of the label, and the confusing message portrayed at the interface between the customer, the label and the store.

Environmental attributes may be explicit (e.g. organic) or implicit (e.g. arguably King Island, which has an environmentally-pure image without claiming such attributes using a management or certification process). That is, information can suggest environmental attributes, e.g. a picture on the product without claiming that attribute, the environmental "tagging" process mentioned previously. However, this relies more on information already being held by the con-

[20] Pahl L., 2003, "Market-oriented environmental assurance for food and fibre production", Rural Industries Research and Development Corporation.

[21] Bob Hudson Consulting, Synapse Consulting, SG Heilbron, "Liverpool Plains catchment investment strategy", prepared for the Liverpool Plains Land Management Committee, 2002.

[22] Productivity Commission 2002, "Submission to the environmental management systems working group".

[23] Durham C., McFetridge M. and Johnson A., 2002, In-store demand for ecolabeled fruit, in Lockeretz "Ecolabels and the greening of the food market, Lockeretz W, editor, Proceedings of a conference held in Boston, MA., November 2002.

sumer before purchase. An association between environmental attributes of goods and private benefits (e.g. health or taste) can come from labelling, but may also already exist in the consumer's mind[24]. Apart from private benefits, as mentioned above, labelling may also generate public benefits. The public generally could benefit through stimulating better environmental management more effectively and cost efficiently than through increased investment in other instruments (and that has private and public benefits) and through better than otherwise economic performance. However, the issue would be whether the returns would compensate for any public investment involved in the labelling.

Different types of label

There are many different types of environmental labelling. For example, in 2002 the Consumers Union listed 88 environmental labels operating in the United States – 37 were for organic products and 7 were for sustainable agriculture[25]. The seven labels considered by the Union as providing for sustainable agriculture are detailed in the table on page 59.

Who should undertake the labelling?

An important factor in improving the likelihood of successful labelling is addressing the question of what is the appropriate level at which labelling should be undertaken, i.e. at the private firm, the industry or the society (government) level?

Labelling entails the functions of standards, testing, certification and enforcement. Private firms, industry and government can each undertake all of these functions or some of them in combination.

The credibility of the tagging, who pays for it and who receives the benefit thereof are important in deciding the workability of alternative tagging strategies. The credence nature of environmental products means that there is likely to be under investment by the private sector in those goods, but before a case can be made for public intervention it would need to be justified as the most effective form of intervention to promote better environmental management.

Government involvement to make labelling mandatory ensures that the labelling is undertaken, but it may not be the best path to take. This depends on the type of information provided and the costs/benefits of providing the information.[26].

Mandatory labelling is an appropriate tool when consumer preferences differ widely on product characteristics; information to be provided is clear and concise; it enhances consumer safety; costs and benefits of consumption are borne by consumers; standards, testing and enforcement services can be established; and no political consensus on regulation exists so labelling is a compromise solution. However, mandatory labelling is rarely effective in addressing environmental aspects of food production and consumption[27].

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[24] Bougherera D. and Grolleau G., 2002, "Can ecolabeling mitigate market failures? An analysis applied to agro-food products", in "Ecolabels and the greening of the food market, Lockeretz W, editor, Proceedings of a conference held in Boston, MA., November 2002

[25] Durham, McFetridge and Johnson 2002 supra

[26] USDA 2000, United States Department of Agriculture, "Economics of food labeling" Economic Research Service Agricultural Economic Report No. 793.

[27] USDA 2000 supra.

Table. Seven labels approved by the US Consumers Union as providing for sustainable agriculture.

Bird friendly	An animal welfare label
Demeter certified biodynamic	Indicates that the products were produced without the use of synthetic pesticides and fertilisers; and without animal by-products. It currently applies to dairy products, fruit, meat and vegetables.
Rainforest Alliance Certified	Follows standards set by the Sustainable Agriculture Network (SAN) (also formally known as the Conservation Agriculture Network) that are designed to promote tropical conservation and direct commercial agriculture practices in the tropics. It currently applies to beverages, chocolate and fruit.
Salmon Safe	The aim of the program is to recognise farm operations that contribute to restoring stream eco-system health in important native salmon fisheries of the Pacific Northwest.
The Food Alliance	A coalition of farmers, consumers, scientists, grocers, processors, distributors, farm worker representatives and environmentalists that certifies farmers for sustainable agriculture practices. Farmers must meet TFA standards for pest and disease management, soil and water conservation, and human resource development. The conservation standards are copyrighted by The Food Alliance. It currently applies to frozen foods, fruits, nuts and vegetables. The Food Alliance also forms partnerships with retailers. This is not a certification program but rather a way to promote TFA products in the marketplace . Retailers pay a licensing fee for TFA logo usage and can purchase merchandise for TFA promotion.
The Nature Conservancy	Conservation Beef is a "landscape conservation program" that was formed through a joint partnership between The Nature Conservancy (TNC) and Conservation Beef (CB). Conservation Beef is a group of ranchers in the West who commit to long-term land or watershed conservation measures as described in Conservation Beef Stewardship Standards. The standards discuss soil and water quality, riparian and wetland condition, upland condition, wildlife habitat, long-term conservation, and animal husbandry, but have no firm requirements. Ranchers are certified annually by a natural resource professional who is mutually agreed to by the rancher and CB. Long-term trends will be monitored at 3-5 year intervals using methods selected by the rancher. Different ranchers may use different methodologies.

The success of private labelling initiatives would be expected to depend heavily on efficient and comprehensive information flows along the value chain, i.e. retailers knowing what consumer demand is and conveying it back to producers, with contractual links encompassing clear standards and enforcement systems. Certification can involve third parties but not necessarily so if the retailer stands behind the brand.

Branding is likely to be more effective and feasible when products are less transformed (e.g. farmer-branded eggs) and when the product chain is shorter, with fewer participants vertically and horizontally. For niche products, supply volume is less important than for mass-market products, while for mass-market products, large volume supply of consistent products is critical.

Producer-driven labelling initiatives are probably more dependent on third-party verification and independent certification (e.g. ISO) supporting them than would be environmental goods labelled with a reputable retailer's own brand (e.g. Nature's Choice) to back the label up. Brands may also transfer their reputation to environmental attributes, making them more credible[28].

Design of the labelling system

The objective of an environmental labelling system is to enable those undertaking environmental land management to tell the market about what they have done, and hence to obtain private benefits and generate attendant public benefits.

Given the introduction of a national certified environmental land management system as advocated in the previous chapter, the only other national requirement for the introduction of a national labelling system for agricultural products would be use of a logo to indicate to the general public that a property complies with and has been certified under the land management system.

Once the land management certification system has been established, those landholders certified as complying would be able to market products or buy inputs on the basis that their property is certified under the system. They would be able to use a logo of some kind, e.g. a green "tick", to signify their certification. The symbol could be placed on products sold to them or by them.

The label could be used for different products along the value chain, and farmers, processors and retailers could apply it. The responsibility for ensuring that the product ultimately came from a certified property would rest with whoever used it, so if sued by a retailer that retailer would need to ensure that the product came from a certified property. This could be achieved through information and trace back systems currently in place or being developed for many food and fibre products.

Such a system would achieve the following:

- The logo would enable clear communication about what was being claimed i.e. compliance with the national environmental system.
- There would be maximum opportunity given to private enterprise marketers of output or suppliers of input to use the labelling where they believed a return could be generated.
- Government involvement would be restricted to stopping unlawful use of the tick. The consistency of the land management/labelling system with the *Trade Practices Act* will also need to be addressed as part of the process of implementing the labelling initiative, as competition law potentially applies to environmental labelling claims in a number of ways. (A brief discussion of the application of trade practices laws to environmental labelling is attached in the Appendix.)

Education would be needed for consumers to be made aware of what the "green tick" meant. This applies not only to domestic but also to export markets.

Implementation

Once the voluntary land management certification system has been established, a national labelling system for agricultural products could be implemented reasonably easily. The key

[28] Bougherara and Grolleau, 2002 supra

implementation issues are related to the mechanisms for linking the products to the land certified under the national land certification system.

This entails a number of steps that can broadly be categorised as falling into the following:

- information and communication management
- education and promotion
- rules and governance.

The major initiatives required in each area are as follows:

INFORMATION AND COMMUNICATION

- Establish an up to date register of certified properties. In all likelihood this would be undertaken as part of the land certification process. An electronic database would also enable maximum transparency for consumers of labelled products sourced from the certified properties.
- Establish a register of products supplied to or from those properties. Emerging technologies such as Radio Frequency Identification for individual products could facilitate this, or more simply could be applied to a group of products, e.g. oranges from a particular property.

EDUCATION AND PROMOTION

- Creation of a logo which can be applied to those products. This would need to be determined on the basis of various attributes such as customer recognition
- Establish an agency to authorise the application of the logo. This would also require an information system linked to the register of certified properties and products from those properties
- Education to establish understanding of the logo among potential producers and consumers of labelled products (domestic and international).

RULES AND GOVERNANCE

- Determine the rules for the use of the logo, including costs, ensuring that the use of the logo complies with relevant domestic competition and consumer laws
- Agree on a *modus operandum* between the logo agency and the competition and consumer agencies covering the enforcement of relevant laws and standards, international trade and other relevant laws internationally.

Key parties to be involved would include:

- government agencies responsible for the environment, food and agriculture, standards and competition and consumer affairs, and international trade
- key food supply chain participants all the way along the chain from input suppliers to distributors
- consumer associations.

Many of the participants would also need to be involved in establishing parameters for the land certification system, and this, together with the need for an integrated approach to the two areas, suggests that one central agency should be made responsible for driving the implementation process in respect of both certification and labelling.

Conclusions

For the future, the commonly held view is that demand for environmentally labelled goods will increase, but the extent of this demand from retail consumers is uncertain[29].

A critical factor will be reducing the costs of such programs relative to the benefits. Technological advances may help reduce costs. For example, individual product trace-back technologies like Radio Frequency Identification smart chips, which can be read by wireless technology, could record information about individual consumers and products.

Notwithstanding the probability of increased demand for environmentally friendly products and the likelihood of cheaper product tracing, incorporating environmental attributes into mainstream food and fibre marketing will be difficult. Consequently it is critical that strategies to capture benefits from improved environmental management are based on a system of land management certification that applies broadly to land irrespective of land use and that meets the needs of a range of public and private sector organisations involved in improving land management.

The land management certification system and the associated labelling initiative outlined in this report would provide an approach that could succeed in Australia. It is based on the need for land managers to capture a range of benefits from improved land management, not just from the markets for food and fibre products. It also recognises the need for improved effectiveness and efficiencies in public sector policies and programs to improve environmental management. It has the advantages of simplicity, wide coverage of products, and maximum potential afforded to the private sector to realise opportunities from environmental labelling, and hence generate maximum net benefits (public and private) from environmental land management.

[29] USEPA 1998, United States Environmental Protection Agency, "Environmental labeling issues, policies, and practices worldwide", EPA 742-R-98-009.

APPENDIX

Environmental Labelling and the *Trade Practices Act*

The *Trade Practices Act* (TPA) covers environmental labelling in a number of ways.

In response to a number of misleading marketing claims in the late 1980s and early 1990s, the Australian Competition and Consumer Commission (ACCC) issued a guideline for industry covering environmental claims in marketing in February 1992. The guide commented that some environmental claims then being made might risk breaching the general proscription of misleading and deceptive conduct under the TPA.

In June 1993 a sub-committee of the International Organisation for Standardization (ISO) Technical Committee on Environmental Management began work on standards covering environmental marketing claims. This was in response to growing international concern about the lack of consistent guidance for environmental claims and for 'eco-labelling' schemes.

The development of the International Standard for environmental marketing claims reached a milestone with the approval of ISO/DIS 14021.2 in September 1998. As a result the Joint Standards Australia/Standards New Zealand Committee on environmental labelling adopted the ISO Draft International Standard, Environmental labels and declarations - self-declared environmental claims as an interim Australian Standard [AS ISO 14021 (Int) - 1998]. In 2000, Standards Australia/Standards New Zealand formally designated the interim standards as AS/NZS 14021:2000.

This standard has 18 specific requirements about aspects of claims, including requirements that they be:

- accurate and non-deceptive
- substantiated and verified
- specific about the improvement or benefit claimed
- specific about how comparisons are made
- specific about whether the claim is about the product or the packaging.

The standard also governs the use of symbols, and requirements for evaluation and verification. It contains detailed requirements for companies making the 12 most common environmental claims, e.g. 'recyclable', 'waste reduction', 'reduced resource use', 'reduced energy consumption'.

The standards deals only with voluntary self-declared claims and not those made in conformity with formal eco-labelling schemes where use of an eco-labelling symbol is allowed when the scheme's stated environmental criteria are met.

There is also handbook which has been published by Standards Australia (which has a different status to a standard being only for information – a so-called lower consensus process) covering ISO 14042 for Type 3 declarations which entail third party certification.

If a claim is made that a product has been produced under the ISO standard and that is not the case, then the claim can be found to be misleading and deceptive under the TPA.

A label claiming that a product has been produced in an environmentally beneficial manner more broadly also needs to comply with the misleading and deceptive conduct provisions of the TPA.

To determine whether conduct is misleading or deceptive the test is whether in an objective sense the conduct of the appellant was such as to be misleading or deceptive when viewed in the light of the type of person who is likely to be exposed to that conduct. Broadly speaking, it is fair to say that the question is to be tested by the effect on a person, not particularly intelligent or well-informed, but perhaps of somewhat less than average intelligence and background knowledge. The question is not whether the purchaser was deceived but whether the conduct was misleading or deceptive.

It must be borne in mind that the test for misleading or deceptive conduct is objective: Is the claim likely to mislead or deceive? The test is not whether the marketer intended deception to occur. Of course, where a statement is made that is or purports to be of a factual character, the act will be breached unless the statement can be substantiated.

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