RURAL INDUSTRIES RESEARCH
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Environmental Partnerships

Combining sustainability and commercial advantage in the agriculture sector

A report for the Rural Industries Research and Development Corporation

by Neil Gunningham and Darren Sinclair

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Foreword

One of the biggest challenges confronting farmers is being able to reconcile economic imperatives with the need for environmental sustainability. At stake is the long term prosperity and viability of the Australian agricultural sector. This Report examines progress, both within Australia and internationally, of an exciting new policy development that aims to do just that: environmental partnerships.

Environmental partnerships aim to harness the relationship between commercial markets and institutions (including governments, retailers and environmental organisations) to deliver improved environmental outcomes on the ground. In order to better understand the potential attractions and shortcomings of such an approach, this Report employs a number of agricultural case studies.

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This report, a new addition to RIRDC's diverse range of over 700 research publications, forms part of our Resilient Agricultural Systems R&D program, which aims to foster the development of agri-industry systems that have sufficient diversity, integration, flexibility and robustness to be resilient enough to respond opportunistically to continued change.

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Peter Core
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Introduction

This Report explores the use of environmental partnerships as a means of improving environmental and commercial outcomes in the agriculture sector. Such partnerships are defined as follows:

> An environmental partnership is a cooperative agreement between, on the one hand, business, and, on the other hand, one or more second parties (government) and/or third parties (eg environmental organisations or commercial entities, including other parts of the supply chain), whereby business voluntarily undertakes to achieve certain environmental improvements in exchange for some benefit provided by other partnership participants.

The report argues that in some contexts, environmental partnerships can provide equitable and effective solutions to some environmental problems and that they offer an attractive, and as yet under-utilised, policy option. Suitably harnessed and designed, they could make a valuable contribution to resolving the broader environmental challenge facing Australian agriculture.

Policy context

The most compelling environmental challenges confronting the agricultural sector include:

- maintaining a clean and green image (or risk a discount or inability to sell one's produce);
- maintaining food safety standards (or face consumer boycotts);
- demonstrating compliance with an ISO accredited environmental management system (or risk supply chain pressure as this becomes a de facto international trade standard); and
- complying with the environmental requirements of supermarkets and other retailers (or risk losing valued markets), and pressures from current or threatened environmental regulations.

Any failure to come to terms with these external pressures will involve increasing penalties, both internationally and domestically, and both in the market and outside. It will involve a threat to the long-term prosperity of Australian agriculture and even to the survival of some components of it.

Current environment protection policies have failed to provide sufficient incentives for environmental stewardship or to assist producers to manage risk in an environmentally benign manner. And parts of the farming community, lacking awareness of the need for sustainable practices, have maintained their traditional hostility to government intrusion in their affairs.

Environmental partnerships, however, offer a middle course between the two extremes of traditional regulation and self-regulation and voluntarism.

Benefits

In agriculture, there are three major benefits that may be derived from environmental partnerships:

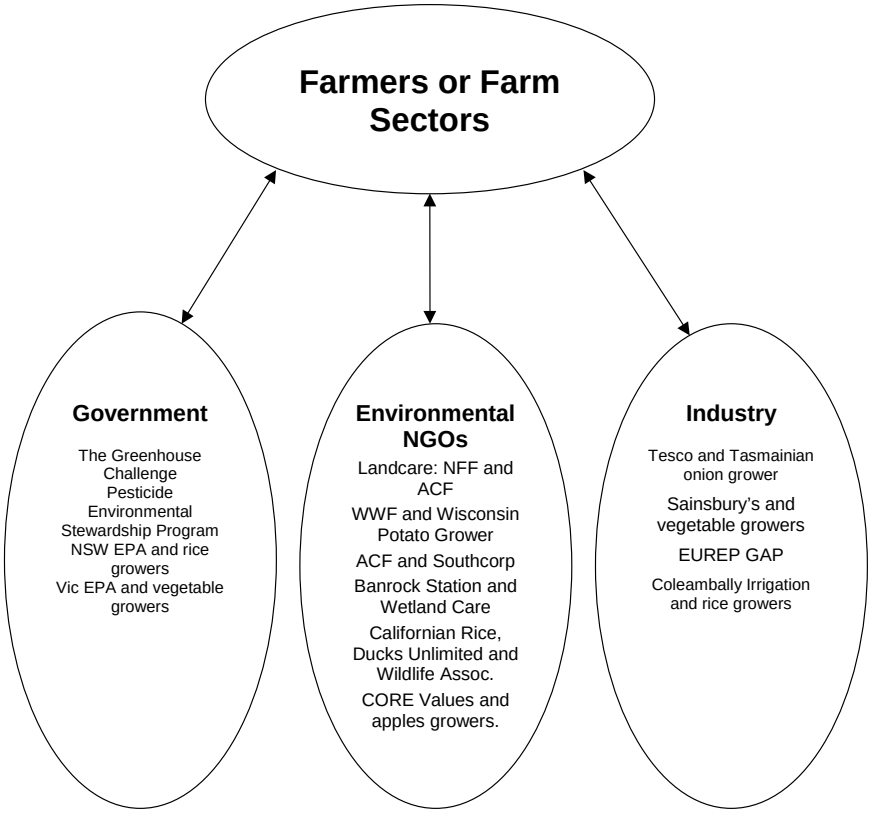
- First is a commercial benefit. Environmental partnerships may provide opportunities for greater on-farm productivity, while others, most notably with environmental groups and/or which use environmental labelling, may facilitate a greater market share, access to new markets, the ability to charge a price premium, or significantly, continued market access.

- Second, is a political benefit. Environmental partnerships may provide farmers with greater environmental credibility in promoting their position in range of policy fora. Necessarily, as a condition of entering such partnerships, agricultural sectors will have to take demonstrable action to improve their environmental performance.

- Finally, the broader attraction of environmental partnerships in agriculture lies in their ability to combine industry flexibility and ownership on one hand, with the credibility of external, third party engagement on the other hand, even where that third party is not a regulatory agency.

Partnership models

The particularly structure and applicability of environmental partnerships will vary depending on the particular circumstances of an industry and of the key potential partners. The three major types of environmental partnership models are described below.



Industry and government partnerships

Probably the most common form of environmental partnership involves some form of agreement between an industry sector (or enterprise) and a government agency. Over the last few years, such approaches have become increasingly popular, and, in one form or another, their use has permeated worldwide. For example, there are over 300 negotiated agreements between industry and government in European Union countries although only a small minority of these involves agriculture.

From the perspective of the agricultural sector, such a partnership may provide several benefits:

- First, governments have considerable resources and expertise that may be used to assist the sector in improving its level of environmental performance. This could take the form, for example, of the provision of information, education, technical support and training. As such, government agencies could expand their current "environmental extension" service to the agricultural sector.

- Second, government agencies (at least those with regulatory powers) may be able to offer some form of "regulatory relief" to encourage voluntarily improvements in environmental performance. In effect, this would entail using partnership arrangements as an alternative to mandatory regulatory obligations, either for agricultural sectors as a whole, or for individual farmers.

- Third, government agencies may also provide a degree of external legitimacy to the environmental efforts of an agricultural sector (although this may not be as convincing to the wider community as the credibility provided by the involvement of an independent environmental organisation).

There are two types of government-industry partnership models:

- *Public voluntary partnerships* – these are devised by an environmental agency and individual enterprises are invited to participate. As such, industry participation is purely optional. Industry "challenge" programs (eg the Greenhouse Challenge) are perhaps the best known.

- *Negotiated agreements* – these involve specific commitments to environmental protection elaborated through bargaining between industry and a public authority. Most commonly, they are entered into by an industry association and government against a backdrop of threatened legislation.

Industry and environmental organisation partnerships

A still evolving environmental partnership model is the "green alliance" between an agricultural sector or an individual enterprise, and one or more environmental organisations. Such alliances involve collaboration between business and environmental groups to pursue mutually beneficial goals. Most commonly, business seeks to obtain the political goodwill and credibility which NGOs bring to the partnership – benefits which may translate into risk reduction, decreased costs or increased revenue through market advantages. In exchange, environmental groups will expect a commitment to improved environmental practices on the part of their industry partner.

However, even if there are sufficient mutual benefits to make the partnership seem worthwhile, it may still not eventuate, given a history of mistrust, and sometimes conflict, between the would-be partners. A number of factors contribute to the success of such partnerships, including:

- shared or reinforcing goals; trust; respect; clarity about the desired outcomes of the partnership;

- access to the skills and resources needed to adequately support mutually agreed upon activities;

- meaningful indicators of progress;

- reporting of results and accountability, buy-in to both parties; and

- and open sharing of information.

Industry and industry partnerships

There are now a multiplicity of groups involved in the chain of agri-food production, and/or as stakeholders who influence the decision-making process at farm level, including decisions on resource use and environmental practices. The increasing power and influence of various players in the supply chain also opens up opportunities for new environment protection strategies, including the formation of environmental partnerships. Supermarkets in Europe, particularly in the United Kingdom, are already providing environmentally preferred food products, and in the future it may be increasingly difficult to penetrate these markets without being able to demonstrate environmental as

well as quality control processes. The experience of Tesco's and the Tasmanian onion growers is an example of a path-breaking supply chain environmental partnership in an Australian context. The greatest prospects for industry to industry environmental partnership are:

- in areas where products are supplied directly to the consumer;
- where it is possible to differentiate between what is being supplied by different retailers; and
- where the consumer particularly cares about the environmental credentials of what is supplied.

Multi-party environmental partnerships

Environmental partnerships may also involve multiple partners, and this can often achieve more than can be achieved in bilateral arrangements. This is because one or more additional partners can provide valuable, and sometimes essential attributes that the initial two partners lack, thereby enriching the partnership and compensating for its initial weaknesses. However, notwithstanding the benefits which multi-party partnerships can provide, such arrangements also bring with them substantial costs which, in some circumstances, can outweigh their benefits. At the very least, each additional partner will increase the transaction costs and complexity of the partnership, and also the risk of disharmony and the breakdown of the entire arrangement. For these reasons it will not always be rational to seek to include additional partners.

Creating successful environmental partnerships

The Report identifies several factors conducive to the development of successful partnerships:

- a coincidence between public and private profit;
- the prospect of mutual gain for both/all partners;
- a focus on local issues with readily monitored results;
- exposure to green markets/companies which trade off their public image;
- disparities in power along the supply chain;
- the burning deck: getting partnerships off the ground; and
- leveraging commercial third parties

Key design features

While the circumstances identified above may be the most fertile in which partnerships can grow, experience suggests that they must also be structured in ways which maximise their chance of success. Here, a number of features can be identified as being of particular importance:

- adequate incentives for participation;
- clear environmental targets;
- adequate accountability and transparency; and
- encouragement of continual improvement, flexibility and innovation.

Implications for government

Although environmental partnerships can play important roles in environmental protection, agricultural producers, NGOs and others, will not necessarily organise themselves into such partnerships, even when they might provide win-win outcomes. There may be an essential policy role for government in encouraging, facilitating, rewarding and shaping such partnerships, including:

- steering the boat rather than rowing – an emphasis on facilitation over intervention;
- kick-starting environmental partnerships to overcome start up costs and other initial barriers to their adoption;
- providing incentives – this will vary with the circumstances;
- introducing regulatory flexibility and encouraging the use of environmental management systems;
- reducing risk - a short-term role if the private insurance market fails to do so; and
- supplying information and assistance: this can form an inducement to enter into a environmental partnership.

Conclusion

Beyond the specific policy prescriptions identified above, a number of broader points emerge from the various empirical studies and analyses conducted to date:

- First, as we indicated earlier, in the case of government and industry environmental partnerships, there are well known and readily identifiable benefits in including third parties in the process of developing and overseeing such agreements.
- Second, that environmental partnerships, like voluntary agreements more generally, are often best used when an environmental problem is in its early stages and it is premature to regulate it directly.
- Third, the weaknesses of voluntary environmental partnerships can often be compensated for, and their strengths enhanced, by combining them with most, but not all, forms of command and control regulation.
- Fourth, as the OECD notes, voluntary agreements more generally can play a useful role in "lubricating" the regulatory policy mix.
- Fifth, environmental partnerships do seem to generate major positive "soft effects" such as collective learning, generation and diffusion of information, learning by doing and demonstration effects, increased stakeholder participation and consensus building, which are arguably key objectives and virtues of many negotiated agreements.
- Finally, the evaluation of environmental partnerships requires a dynamic analysis: the second generation of such partnerships may be somewhat different from the first, and considerably more likely to provide public interest benefits.

Chapter One – Introduction

> To achieve outstanding triple bottom line performance, new types of economic, social and environmental partnership are needed. Long-standing enemies must shift from mutual subversion to new forms of symbiosis. The resulting partnerships will help each partner perform traditional tasks more efficiently, while providing a platform from which to reach towards goals that none of the partners could hope to achieve on their own.[1]

At the beginning of the 1990s, the idea of environmental partnerships was almost unknown. Relationships between business and non-governmental organisations (NGOs) were largely adversarial, and little attention was given to the prospect of constructive engagement between them. Relationships between business and government regulators, while sometimes less strained, were rarely based on the establishment of mutual trust, and the pursuit of "win-win" solutions. And many government policies were not markedly successful in achieving levels of environmental protection necessary to avert further serious, and in some cases, irrevocable, environmental degradation.

Four things changed during the 1990s. First, many NGOs recognised that conflict and confrontation are not necessarily the best means of achieving the best environmental results. Second, governments and policy-makers increasingly lost faith in conventional forms of direct regulation (commonly referred to as "command and control"). Third, (and closely related to the last point above) there was a winding back of the regulatory state[2], and considerably less political support for direct intervention in the affairs of industry and agriculture. Finally, and crucially, increasing numbers of business enterprises were influenced by the "greengold" thesis: the view that improving environmental performance can be a net gain rather than a net loss. On this view, investing in the environment has the potential to improve economic efficiency and business image, and generate new product and environment technology markets.

All this has created fertile ground for the development of more constructive relationships between major stakeholders, and in particular between government, business and environmental NGOs. Sometimes these relationships involve agreements between business and NGOs, or between governments and business, or even between business and business along the supply chain. On other occasions, they may embrace governments, NGOs, business *and* a range of other third parties, who, as we will see, held out the promise of acting as surrogate regulators and performing many of the functions that government regulation was no longer ready, willing and able to fulfil.

The result is that, in the early years of the 21st century (notwithstanding the numerical domination of conventional regulatory approaches) there are many examples of environmental partnership approaches across a wide variety of countries and continents. In Europe, such partnerships (largely in the form of negotiated agreements between government and individual companies or industry sectors) have rapidly become one of the principle environmental management and policy instruments at a national level. In the United States they have become an important component of "Reinventing Environmental Regulation".[3] In Australia, developments have been less systematic, and the term "environmental partnerships" is only slowly gaining currency. Nevertheless, a number of the best known Australian policy innovations do involve such partnerships, even if they are not necessarily referred to in these terms. These include Landcare and the Greenhouse Challenge Program.

Many of the "first generation" of environmental partnerships were developed in the war-torn arena of industrial pollution but they have since evolved in a variety of other environmental contexts. Of these, none is more important than agricultural production, an area which faces a wide range of

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[1] Elkington J K *Cannibals with Forks*, 1998.

[2] In could be argued, however, that in the case of *some* parts of the agricultural sector, instead of being a regulatory rollback, there has in fact been the imposition of a greater regulatory burden.

[3] See Clinton W J and Gore A Jr *Reinventing Environmental Regulation*, White House , Washington DC, 1995.

serious environmental challenges, including loss of biological diversity, loss of natural habitats, pollution of off-farm ecosystems, on-farm pollution occasioning loss of productivity, and health risks resulting from exposure to agricultural chemicals.

As we will demonstrate, environmental partnerships provide an additional policy option which can make a variety of contributions to environmental protection and ultimately, to sustainable development. Such partnerships may be used to improve environmental outcomes in areas where regulations are currently lacking. They may be used to plug gaps in the existing regulatory framework, they may by used to encourage individual enterprises or industry sectors to go ”beyond compliance” with existing regulation, and they may facilitate more constructive relationships amongst the main stakeholder groups in relation to a wide range of policy issues.

Yet despite the potential policy significance of environmental partnerships, our knowledge of, what works and what doesn’t work, and or how best to design such partnerships, both as free standing arrangements, and more importantly, in combination with complementary policy instruments, remains very limited. For example, even in Europe, where some forms of environmental partnership (particularly negotiated agreements between government and business) have been in place for some years, our knowledge of how they perform and why, is still far too limited. Although a body of empirical evidence is beginning to build, the jury is still very much out on these questions. And much of the evidence that is in (which relates mainly to the industrial sector and to the “first generation” of environmental partnerships) suggests that many of these partnerships may be seriously under-performing and that the “second generation” of such instruments needs to be much more carefully designed if it is to achieve its efficiency and effectiveness goals.

To summarise, the challenge of sustainable agriculture is not only one of the most important issues confronting humankind, but also one desperately in need of more imaginative, constructive and above all, successful, policy instruments. The central question for this Report is whether, to what extent, and in what circumstances, environmental partnerships in agriculture have these qualities. When, where and how can such environmental partnerships be used to achieve solutions which, at the very least, move us closer to the ultimate goal of sustainable agriculture? Until we have a much clearer understanding of how, why, and in what circumstances some partnerships apparently succeed, whilst others demonstrably fail, we will not be in a position to determine the most effective structure and application of future partnership arrangements. It will be particularly important to ascertain how well such approaches work compared to the available alternatives. How efficient or effective are they, to what extent can they be relied upon as a substitute for other policy instruments and to what extent and in what circumstances can they be better used in complementary combinations?

This Report consists of seven chapters. In Chapter Two, we provide an environmental and policy context for the Report. In Chapters Three to Five we examine the particular benefits of different kinds of environmental partnerships and in particular: industry and government partnerships; industry and environmental organisation partnerships, industry and industry partnerships, and multi-party partnerships. Finally, in Chapters Six and Seven, we explore the circumstances under which environmental partnerships are most likely to be successful in achieving both economic and environmental goals and we make a series of broader policy recommendations about the appropriate role of environmental partnerships in Australian agriculture. In this context, since successful partnerships will commonly not evolve spontaneously, we focus particularly on the role of government in encouraging, facilitating and developing such partnerships.

Our analysis is based first, of the available empirical and theoretical literature, most of which is European or North American in origin. This literature provides important insights which facilitate developing a strategy for using environmental partnerships within Australian agriculture. Nevertheless, there are important cultural, political and institutional differences between Europe, North America and Australia, and sensitive to these, we have conducted our own empirical work within Australia. In particular, using semi-structured interviews with stakeholder groups, we have conducted a series of our own case studies on particular partnerships within Australian agriculture.

We have also directly examined some major overseas initiatives.[4] It is through a combination of our empirical work and a synthesis of the international literature, that we develop our recommendations and policy prescriptions in the final chapter. In doing so, we provide a set of criteria and principles which may serve to provide guidance to governments, the agricultural industry, environmental and other public interest groups, and other stakeholders, on how best to use environmental partnerships within agricultural environmental policy.

[4] The embryonic nature of the concept of environmental partnerships and the lack of all but a few overseas "on-the-ground" experiments, means that the best (and indeed the only practicable) way to complement or analysis of the international literature was through an empirical approach involving semi-structured interviews, obtaining qualitative data from key actors directly in a manner not achievable through conventional (and limited) published sources. Specifically, the interviews were conducted with a representative sample of the groups directly involved (the various partners identified earlier) and also with other relevant actors such as consumer representatives, environmental consultants and ISO 14000 specialists. This sample was supplemented by strategically targeted interviews with other key actors identified on the basis of "snowball sampling". In total, 120 interviews were conducted.

Box 1 – Defining environmental partnerships

There is no formal or objectively correct definition of environmental partnerships. The term is used to apply not just to a range of circumstances in which various combinations of business, government and/or other third parties enter into specific understandings with each other but also to include a regulatory philosophy under which inspectorates work cooperatively with industry. Some even use it to encapsulate a more facilitative way of "doing business" with other stakeholders[5]. For present purposes, we define such partnerships in terms broad enough to embrace a substantial range of cooperative stakeholder relationships but rigorous enough that the term does not become vacuous. The following definition is proposed:

An environmental partnership is a cooperative agreement between, on the one hand, business, and, on the other hand, one or more second parties (government) and/or third parties (eg environmental organisations or commercial entities, including other parts of the supply chain), whereby business voluntarily undertakes to achieve certain environmental improvements in exchange for some benefit provided by other partnership participants.

There are three key components to this definition. First, there are the notions of "partnership" and "cooperation". A dictionary definition of partnership involves "players being on the same side or team". In this context, "partnership" implies that all participants agree to "cooperate" in contributing to the success of a jointly defined agenda. This is a recognition that partnerships involve participants working together in a mutually supportive manner.

Second, there is the stipulation of "voluntary participation". Compulsion could never achieve the cooperation which is inherent in the concept of "partnerships", nor could it ensure that participants continue to strive for continuous improvement, or to foster cultural change such that participants integrate environmental sensibilities into their core business practices. In all these circumstances, volunteers perform immeasurably better than conscripts. In practice, however, it may be that some subtle forms of persuasion (bordering on coercion) are applied from a variety of quarters. For example, industry associations may apply pressure to their members to join; governments may threaten to apply harsher, more draconian regulatory standards; and organisations may employ publicity campaigns. But how individual enterprises choose to respond to these outside pressures is very much up to them, and the agreements and partnerships they shape remain, in essence, voluntary.

Third, is the exchange of "benefits" and "responsibilities". This simply refers to, in the first instance, a range of potential contributions from one group of participants that may induce participation from another group, and in the second instance, the range of environmental improvement obligations that are associated with those inducements. For example, a producer may enjoy the use of a green label, conferred by an environmental organisation, in exchange for ensuring that certain mutually agreed environmental benchmarks are met. Or an industry group may negotiate an agreement on behalf of their members undertaking to provide improved environmental performance in exchange for various benefits and incentives provided by government. Arguably, these environmental performance goals should be 'discrete, attainable and potentially measurable".[6]

[5] See for example, *Partnerships for Sustainable Development: the role of business and industry*, UNEP, 1997.
[6] Long F J and Arnold M B *The Power of Environmental Partnerships*, Dryden Press, US, 1994, p 6.

Chapter Two – Environmental partnerships: A context

Responding to the environmental challenge

Over the past decade, there has been a growing community concern about the negative environmental consequences of agricultural practices. Pesticides in the food chain, rising water tables, increasing salination, land clearing, loss of topsoil, loss of biological diversity and river algal blooms are amongst the most pressing problems. This increasing public sensitivity, in conjunction with a somewhat better scientific understanding of the nature of the problems, and evidence of their severity, has generated substantial external pressures on Australian agriculture.

The most compelling environmental challenges confronting the agricultural sector include: maintaining a clean and green image (or risk a discount or inability to sell one's produce); maintaining food safety standards (or face consumer boycotts); demonstrating compliance with an ISO accredited environmental management system (or risk supply chain pressure as this becomes a de facto international trade standard); complying with the environmental requirements of supermarkets and other retailers (or risk losing valued markets); and pressures from current or threatened environmental regulations (see Box 2).

Any failure to come to terms with these external pressures will involve increasing penalties, both internationally and domestically, and both in the market and outside. It will involve a threat to the long-term prosperity of Australian agriculture and even to the survival of some components of it. These external pressures will almost certainly increase in the future, and the agricultural community will have to accommodate to them as best it can, or face some very unpalatable consequences, inflicted by local and international markets and by supply chains, consumers, public interest groups, government or all of the above.

Essentially, two choices are available for Australian agriculture. The first, and reactive, response is to mount a vigorous defence of the *status quo*. The legitimacy or reasonableness of some of the external pressures may be challenged, or the extent of the environmental problems involved, or the need to change existing practices in order to curb further degradation. While this approach, through political lobbying or other forms of resistance, may be effective in the short term, it is unlikely to be a tenable long term solution both because the range of the external pressures are so diverse, and getting stronger over time, and because many of these are beyond the control of Australian agriculture or its lobby groups. For example, it will not be possible to stem wider community concerns about the environmental impacts of farming; Asian export markets' demands for clean and green produce, European supermarkets' requirements for demonstrably safer foods, or of international supply chains for ISO 14001 certification.

Ultimately, however, the strongest argument against a continuation of current practices (from a farmer's perspective) is that some of them threaten seriously to undermine the long-term productive capacity of the land itself. Thus a defence of the status quo will not ensure either the long term economic or environmental sustainability of Australian agriculture. Many farmers themselves recognise this. Indeed, notwithstanding resentment of "overtly green rhetoric", there is often a remarkable similarity between the expressed views of many landholders and the overall objective of sustainable development: a strong desire to pass on their properties in a healthy and productive state for future generations. Indeed, the vast majority of farmers express a deep attachment to "the land", although they face increasing difficulties reconciling short term economic imperatives with long term environmental aspirations.

Box 2 – Drivers of improved environmental performance

Land degradation and deteriorating environmental conditions

Nitrification and nutrification of water systems, high water usage and dry-land salinity, loss of native vegetation and of biological diversity, soil structural and nutrient decline and dependency on herbicides and pesticides, are among the problems which threaten farm profitability and even viability;

Public and environmental group pressure

The increasingly widespread perception that the environmental problems of Australian agriculture are reaching crisis point, has brought unwanted attention from environmental groups and more widespread criticism of current farming practices from a variety of other sources;

Clean and green

the maintenance and promotion of a clean and green image has become a vital marketing tool for the Australian agricultural industry. International markets, particularly in Northern Asia, expect the highest quality for their agricultural imports. The presence of pesticide residues, for example, could result in import bans and have a detrimental commercial impact for many years to come. This has brought demands for demonstrably improved environmental practices, raising the possibility that certification under the International Standards Organisation's ISO 14001 will become a de facto international trade standard, with which the supply-chain will demand compliance.

Food safety

Consumers both nationally and internationally, are increasingly sensitive to the quality of the food they eat, and willing to punish heavily, any industry or enterprise that fails to live up to consumer demands. Not surprisingly, an increasing number of agricultural sectors have responded by introducing comprehensive food safety management programs. Eventually, however, it is arguable that the issues of food safety and environmental performance will merge, both in the mind of the consumer, and in terms of the application of relevant management systems on the farm.

Retailers

There is an growing trend amongst (economically powerful) supermarkets chains, particular in Europe, and to a lesser extent North America, to exercise a purchasing preference for sustainably harvested produce. In many cases, this is linked to consumer demand for "natural" foods that are free of pesticides and other chemical residues, but may be expanded to cover a range of environmental issues. In Australia, too, consumer demand for such produce has expanded. Large retailers can wield enormous power over the upstream agricultural suppliers and successfully demand higher environmental standards.

Regulation

The application, or in some cases, the threat of government regulation, can be a powerful driver of improved environmental performance, although historically, traditional point-sources of pollution have been the main target and the agricultural industry has largely avoided the 'command and control' approach. Whether the "Second generation' of regulation, will adopt an equally 'hands off' approach to agriculture remains to be seen.

Against this backdrop, there are compelling reasons for Australian agriculture to adopt the second position: a progressive and pro-active approach to environmental problems, and to seriously engage with, rather than merely resist, the problems and pressures it faces: economic, environmental, and political. Such an approach will almost certainly enhance farmers' capacity to shape their own destiny and better influence the direction of external policy outcomes. It will give them a better chance of coming to terms with the environmental challenge in ways that meet both the long term sustainability needs of the land and their own both short term and long term economic imperatives. It will also give Australian agriculture bargaining credibility at the negotiating table, and broader legitimacy with external stakeholders.

In this report, we focus on one important component of such a proactive approach, the role of environmental partnerships. We argue that such partnerships can provide equitable and effective solutions to *some* environmental problems and that in some contexts at least, they offer an attractive, and as yet under-utilised, policy option. Suitably harnessed and designed, we suggest that they could make a valuable contribution to resolving the broader environmental challenge facing Australian agriculture.

The case for environmental partnerships

In order to appreciate the potential contribution of environmental partnerships we begin with a very brief summary of the policy instruments currently available and in use and their limitations[7]. We then suggest the in-principle benefits of environmental partnerships in enriching and complementing this instrument mix, and identify the advantages they have over a number of other possible strategies.

The limits of traditional policy instruments

At one end of the environmental policy spectrum is traditional regulation (commonly referred to as "command and control"), that involves an external government agency mandating particular environmental requirements through legislation. This approach has three core characteristics: the imposition of external standards; their reinforcement by inspection; and if necessary, by the imposition of penalties. There are some clear advantages to this approach. For example, traditional regulation carries a moral message (it is wrong to disobey the law) and has a high credibility rating amongst the wider community because its environmental improvement targets are perceived as independently imposed and enforced.

However, in respect of the rural sector in general, coercion is a particularly blunt instrument, a problem often compounded by the poor design of many regulatory regimes. Farmers are highly resistant to regulation, monitoring is extremely difficult and expensive, and sanctions lack political acceptability. Even where command-and-control is practicable, it is not necessarily desirable. Such measures are commonly criticised by economists as being inefficient, unnecessarily intrusive, and unduly expensive to administer. Some regulations may inhibit innovation and discourage people from searching for more efficient ways to use a resource. And in circumstances where what is needed are positive measures to reverse degradation, in conjunction with the development of an ethic of environmental stewardship, then command-and-control has little to contribute. It neither encourages a sense of ownership of environmental problems and solutions, nor is it conducive to changing attitudes to environmental management.

Moreover, such regulatory standards as do govern agricultural practices can themselves be unwieldy and difficult to enforce. Uniform standards, while less costly to develop and to administer, fail to account for variations in the robustness of ecosystems. Agricultural practices that are damaging in some contexts may be relatively harmless in others. Differentiated standards on the other hand, entail

[7] This is taken in part from our previous work. See Chapter 5 of Gunningham N and Grabosky P *Smart Regulation*: *Designing Environmental Policy*, Clarendon Press, Oxford, 1998.

greater administrative and enforcement costs. And relevant regulatory responsibilities may be distributed across a number of agencies, including those responsible for air quality, water quality and food safety. Enforcement problems are exacerbated by difficulties of monitoring and identifying the source of much agricultural chemical pollution.

Economic incentives might offer a more flexible and cost-effective means of improving the environmental performance of agriculture.[8] In principle, negative incentives in the form of taxes and charges, could provide appropriate price signals to encourage environmentally appropriate behaviour in at least some circumstances. However, they also involve difficult institutional and political challenges. Not least, they are deeply mistrusted by recipients who often regard them as largely a government revenue-raising device, and they provide serious difficulties to the fiscal and tax collection authorities in policy design and execution.[9]

In the agricultural sector, subsidies are a far more common (and needless to say) popular option. These can be justified as the means by which farmers are paid to provide society with public goods through the Provider Gets Principle (on the basis that the agricultural sector is a provider of environmental services to society).[10] For example, in Europe, subsidies are increasingly used to protect and maintain those areas created by extensive agricultural production methods by motivating farmers to produce in conformance to environmental management requirements. This approach "is in harmony with the self-understanding and dominant agricultural ideology and culture, as it can be seen as an ideological defence of the autonomy of farmers 'free choice'."[11] However, such measures have not been markedly successful, not least because of heterogeneity across producers and asymmetry of information. For example, since it is in farmers' self-interest to get the best possible contract with the central agency, they have no immediate economic incentive to reveal their true effectiveness with regard to conservation issues. Again, once an agreement is in force "it is in the interest of the central agency that the farmers work hard to fulfil the conditions of the contract while it is in the farmers' interest to exert the least possible effort".[12]

At the other end of the policy spectrum to traditional regulation are the so called "soft options" of information, education support and voluntarism. Traditionally, agricultural environmental policy has been based on such mechanisms and in particular upon the provision of information and on persuasion by government authorities. The fundamental role of the latter has been not to police agricultural producers, but to assist them to do the right thing. Thus in the early days, regulation of agriculture focussed on the promotion and development of the industry, and even when environmental concerns were raised this did little to change the basic model of agricultural support rather than regulatory control.[13] However, these strategies too, have their limits, although they are often necessary underpinnings to more interventionist approaches.

For example, education and information may be able to bring about best practice in exceptional cases, and by the most professional and civic-minded producers, but for the most part, cannot achieve

[8] However, in practice incentives provided are often perverse. Former incentives which rewarded land clearing fall in this category as do current incentives in the domain of agricultural chemicals, where high chemical input farming is rewarded. See Chapter 5 of Gunningham N and Grabosky P *Smart Regulation*: *Designing Environmental Policy*, Clarendon Press, Oxford, 1998..

[9] See generally Chapter 5 of Gunningham N and Grabosky P *Smart Regulation*: *Designing Environmental Policy*, Clarendon Press, Oxford, 1998, and references therein.

[10] Hasler, B and Nielsen P "Voluntary Agreements in Environmental Management in Agriculture" CAVA Working Paper, no 99/10/11, 1999.

[11] Hasler, B and Nielsen P "Voluntary Agreements in Environmental Management in Agriculture" CAVA Working Paper, no 99/10/11, 1999, p 5.

[12] Hasler, B and Nielsen P "Voluntary Agreements in Environmental Management in Agriculture" CAVA Working Paper, no 99/10/11, 1999, p 9.

[13] Barr N F and Cary J W *Greening a Brown Land: The Australian search for sustainable land use*, Macmillan, South Melbourne, 1992; and Davidson B R *European Farming in Australia: An economic history of Australian farming*, Elsevier Scientific Publications, Amsterdam, 1981.

substantial change because of the divergence between the producers short term economic interests (and even survival) and environmental needs (which require solutions the economic dividends of which are usually long term). These instruments are particularly unlikely to work in the case of economically marginal producers (who cannot afford to wait for long term benefits). Nevertheless they are often an essential foundation for the more effective working of other, more interventionist instruments.

For very similar reasons, voluntarism is a convincing option only where there are both manifest 'win-win' opportunities in environmental improvement and the economic dividends these will provide are of a very short term nature. But in circumstances where agricultural producers face difficulties reconciling short-term economic imperatives with long term environmental aspirations, there is little evidence of success. As is commonly pointed out: "it's hard to be green when you're in the red". Industry self-regulation has an equally undistinguished history. It lacks credibility with external stakeholders, and is widely regarded as an attempt to give the appearance of regulation while serving private interests at the expense of the public.[14]

To summarise, current environment protection policies are deficient in a variety of ways. They have failed to provide incentives for environmental stewardship or to assist producers to manage risk in an environmentally benign manner. And the farming community, lacking awareness of the need for sustainable practices, has maintained its traditional hostility to government intrusion in its affairs. Enforcement of regulation has similarly proved difficult, and these problems have been compounded by poor regulatory design. Finally, from a political perspective, one might reasonably conclude that on the one hand, direct government regulation and economic instruments will be very unattractive to farmers while self-regulation and voluntarism, although much more attractive, will be unconvincing to external stakeholders and unlikely in themselves to bring about the degree of environmental improvement and change that is required.

There is, however, another option available – one that attempts to steer a middle course between the two extremes of traditional regulation and self-regulation and voluntarism, and in so doing, take advantage of their respective attributes while compensating for their particular weaknesses. This is the option of environmental partnerships, which have emerged largely as a pragmatic response to the need for greater flexibility, equity and effectiveness in the way we approach environment protection in the agricultural sector.

The benefits of partnerships

The broader attractions of environmental partnerships are have been summarised as follows:[15]

- *Improved effectiveness:* when a company, agency or non-profit seeks to protect a watershed or reduce polluting emissions, it faces many psychological and physical boundaries. Outsiders, for example, cannot force private landowners to change practices on their lands in order to improve wildlife habitat. If one of these parties chooses to work alone, it faces a strong possibility of failure. While the participation of a variety of organisations is time-consuming and difficult, a coordinated plan may be critical to achieving the stated long-term environmental goal;

[14] The experience of self-regulation in a number of industries operating in a variety of jurisdictions points to the following failings that have given rise to this credibility problem: an inherent incentive for unmotivated members to "free ride" on the efforts of others; an unwillingness and/or incapacity on the part of the responsible industry association to impose sanctions on recalcitrant members; a lack of transparency and accountability, making it difficult for external parties to determine if genuine environmental progress has been achieved; and a potential conflict between short term, profit driven self-interest and the need for long term investments in environmental improvement.

[15] Long F J and Arnold M B *The Power of Environmental Partnerships*, Dryden Press, US, 1994, pp 30-31.

- *Increased efficiency:* an organisation may have a variety of strategic options, each of which will produce a desired environmental goal. Faster implementation periods, lower execution costs, and lower expected resistance by affected parties are forms of efficiency that can be derived from partnerships. For example, if organisations are attempting to minimise negative impacts of mining, grazing and timber harvesting on river water quality and fish populations, a voluntary collaboration that produces enforceable agreements will be more efficient, in terms of time and money, than a regulatory process or an extended period of litigation.

- *Enhanced equity:* higher levels of participation through voluntary partnerships tend to improve the equity inherent in problem resolution and, just as important, enhance the perception of equity. Whether intentionally or unintentionally, environmental protection programs may allocate costs or benefits in ways that affected parties consider unfair. Alternatively, regulation may not yet have addressed a situation that is considered patently inequitable. Voluntary partnerships can accelerate both the debate over equity issues and the implementation of good solutions.

- *They fulfil their missions more effectively:* in the non-profit sector, organisations often do not possess control of the resource they are attempting to protect. Thus, they must convince, cajole, and coerce others - whether companies, regulators, or individuals - to do what they believe is most appropriate. Likewise, agencies with a mandate to protect human health or natural resources cannot always use regulation to reach the parties most responsible for environmental degradation. Partnerships offer unique access to organisations that a participant does not have control over;

- *They gain access to a larger resource base:* most non-profits, agencies and corporations have been hit by flat or declining budgets. Non-profit organisations may find themselves competing directly with others for limited resources. Working through partnerships gives each organisation expanded access to asset bases controlled by others;

- *They increase the predictability of operations and public relations:* corporations are particularly sensitive to the potential of environmental issues to stop or delay core operations. Partnerships that help avoid litigation and conflict, increase predictability. They also provide very considerable public relations benefits, particularly when they include non-profit and community based organisations.

In the specific circumstances of agriculture, there are three major benefits that may be derived from participation in such partnerships. First is a commercial benefit. Environmental partnerships, particularly those which strive for win-win outcomes and a systematic approach to managing environmental problems, may provide opportunities for greater on-farm productivity, while others, most notably with environmental groups and which use environmental labelling, may facilitate market benefits, either though a greater market share, access to new markets, or the ability to charge a price premium for environmentally superior produce.

Second, is a political benefit. If partnerships can be successfully negotiated with key external stakeholders and would-be critics of the industry, this will provide farmers with greater environmental credibility in promoting their position in range of policy fora. Necessarily, as a condition of entering such partnerships, agricultural sectors will have to take demonstrable action to improve their environmental performance and this too will provide a credibility in negotiations which may otherwise be lacking.

Finally, the broader attraction of environmental partnerships in agriculture lies in their ability to combine industry flexibility and ownership on one hand, with the credibility of external, third party engagement on the other hand, even where that third party is not a traditional government regulatory agency. Moreover, “increased stakeholder participation offers the opportunity to resolve value

difference, set priorities, research problems, and implement solutions. The involvement of all key stakeholders makes solutions more systematic, and more lasting".[16]

Some important trends both within agriculture and in the broader society, suggest that the opportunities for such partnerships are increasing. For example, the shift towards vertical integration gives rise to possibilities of supply chain pressure for improved environmental performance, while globalisation may facilitate greater competition in international markets in terms of cleaner production and organic produce. In the case of agricultural chemicals, the potential convergence of interest between the interests of producers and the environmental interest (if less chemicals can still achieve the desired crop yield) in conjunction with increased market demand for less chemical residues, also holds out the potential for public policy to facilitate win-win outcomes.

As with all other environmental policy instruments however, the particularly applicability of environmental partnerships will vary depending on the particular circumstances of an industry and of the key potential partners. We explore the implications of the opportunities identified above and how to harness them, and the circumstances in which such partnerships are most likely to flourish, in the following chapters.

Environmental partnerships in practice

Environmental partnerships may take many different forms. For example, "industry participation" may be individual or collective, and individual participation might also involve several variations. An umbrella partnership could be negotiated and implemented through an industry association, but participating enterprises could be left to establish individual targets. Or there may be a very broad partnership program that encompasses both individual companies and collective associations. And the agreement itself may also vary widely and take on many different features. Then there is the question of the legal status of such agreements. Many will be "binding in honour only" but some participants may wish to encapsulate their agreements into legally binding contracts. The form of a partnership will therefore likely depend on the particular structure and circumstances of the relevant industry sector and particularities of the environmental issue at hand.

Another reason why partnerships vary so widely is the diverse range of participants potentially involved. These include: individual companies; industry associations; government (federal, state and/or regional); quasi government bodies (such as standard setting bodies and universities); retailers, wholesalers and consumers; and community organisations (including environmental and other public interest groups). There are also a very substantial number of possible partnership permutations, involving bipartite, tripartite, or even multipartite combinations.

There are many different approaches one could take to the analysis of environmental partnerships, no single one of which is inherently 'best'[17]. For present purposes, we found the most convenient division to be in terms of the particular stakeholders involved, because this enabled us to distinguish clearly the different role that each party could play, the mutual benefits at stake, and the circumstances in which

[16] Long F J and Arnold M B *The Power of Environmental Partnerships,* Dryden Press, US, 1994, p 4.
[17] For example, Long F J and Arnold M B *The Power of Environmental Partnerships,* Dryden Press, US, 1994, pp 61, suggest there are four types of partnership. 1 *Pre-emptive partnerships* attempt to defuse a situation that is already hostile or pre-empt a situation that is potentially hostile. The opportunities in these partnerships are constrained, at least initially, due to the conflict that has existed among the parties. 2 *Coalescing partnerships* bring together parties that depend on each other to accomplish their goals and that are rivals competing for projects and resources. There may be some threat of hostility or disagreement among the parties, but mostly the challenge is to create a common vision parties can support. 3 *Exploration partnerships* are opportunistic attempts to research or investigate environmental issues of joint concern. Often, they involve parties that have not previously worked together. 4 *Leverage partnerships* are the most opportunistic, win-win partnerships. They allow each party to make modest investments in environmental improvements in return for a relatively high social, political or financial return.

certain types of partnerships were most likely to be viable. So in the following chapters, we address (i) industry-government partnerships; (ii) industry-NGO partnerships (iii) industry and a industry partnerships and (iv) multi-party partnerships. We analyse the particular benefits of each of these types of partnership, the circumstances in which they are likely to work best, and also their limitations.

Chapter Three – Industry and government partnerships

Probably the most common form of environmental partnership involves some form of agreement between an industry sector (or enterprise) and a government agency. Over the last few years, such approaches have become increasingly popular, and, in one form or another, their use has permeated worldwide. For example, there are believed to be over 300 negotiated agreements between industry and government in European Union countries, although only a small minority of these involve agriculture.

The reasons for the growth of this form of partnership are many. They include the need to fill the vacuum left by the retreat of the regulatory state, and the interest of individual enterprises, or more commonly, an industry sector, in seeking (at best) a flexible, cost-effective and more autonomous alternative to direct regulation, or (at worst) a means of avoiding the imposition of binding standards altogether.

This development also reflects, as the European Union's Fifth Action Plan points out: "the growing realisation in industry and in the business world that not only is industry a significant part of the (environmental) problem but is must also be part of the solution".[18] This form of environmental partnership as a result, places substantial responsibility on the individual enterprise or industry sector itself, to design its own environmental policy and the means by which it will be implemented, on the assumption that industry knows best how to abate its own environmental problems.

What are the attractions of this particular partnership combination? From the perspective of the agricultural sector, such a partnership may provide several benefits. First, governments have considerable resources and expertise that may be used to assist the sector in improving its level of environmental performance. This could take the form, for example, of the provision of information, education, technical support and training. As such, government agencies could expand their current "environmental extension" service to the agricultural sector. Second, government agencies (at least those with regulatory powers) may be able to offer some form of "regulatory relief" to encourage voluntarily improvements in environmental performance. In effect, this would entail using partnership arrangements as an alternative to mandatory regulatory obligations, either for agricultural sectors as a whole, or for individual farmers. Third, government agencies may also provide a degree of external legitimacy to the environmental efforts of an agricultural sector (although this may not be as convincing to the wider community as the credibility provided by the involvement of an independent environmental organisation).

From a government perspective, agricultural industry partners would be expected to put in place some form of environmental improvement strategy, and crucially, to deliver on agreed environmental objectives. Within this overarching objective usually come certain further obligations, such as to provide a greater level of environmental transparency. As we will demonstrate, such partnerships may provide a good means of encouraging an agricultural sector to place greater emphasis on environmental protection, and to assume greater ownership of the problem. They also consume fewer government resources than traditional forms of regulation, and are more politically attractive.

The case for such partnerships is even more persuasive when it is appreciated that the major alternatives identified in Chapter Two, all have serious limitations. Prescriptive regulation, for example, is difficult and potentially costly to enforce, particularly in geographically isolated regions, and may also impose additional and unnecessary costs on industry. Information, education and voluntarism, on the other hand, tend to be ineffective in isolation because of the gap between

[18] European Commission Communication from the Commission to the Council and the European Parliament on Environmental Agreements, COM (96) 561, Brussels: European Commission, 1996.

farmers' short-term economic interest and environmental protection, and the absence of any mechanism to overcome this hurdle. Partnerships, in contrast, hold out the possibility of achieving more progress, more cooperatively, and at less cost, than the available alternatives.

Against this backdrop this section seeks to identify how such partnerships work, where they work, what their strengths and limitations are, and how they can best be used within the overall framework of environmental policy design. It will be particularly important to ascertain how well such approaches work compared to the available alternatives. How efficient or effective are they, to what extent can they be relied upon as a substitute for other policy instruments and to what extent and in what circumstances can they be better used in complementary combinations? In the following sections, following in part the definitions adopted by OECD[19], we explore these questions in relation to the two types of government-industry partnership arrangement which are the most prevalent and the most important in environmental policy terms:

- *public voluntary programs*, which involve commitments devised by the environmental agency and in which individual firms are invited to participate. Such participation in the voluntary program is a choice left to individual enterprises; and

- *negotiated agreements,* which involve commitments for environmental protection developed through bargaining between a public authority and industry. They are frequently signed at the national, state or regional level between an industry sector and a public authority.[20]

Public voluntary partnerships

Public voluntary partnerships are programs devised by an environmental agency in which individual enterprises are invited to participate. In their most common form, the regulatory agency pre-sets a target and invites firms to commit to achieving it as part of a formal program. Inducements to join may include some technological or financial assistance and public relations benefits, as for example, from the right to take advantage of a green logo. As such, industry participation is purely optional.

Industry "challenge" programs are perhaps the best known form of public voluntary program. One of the most notable examples is the United States EPA's 33/50 program, under which government hopes to stimulate firms to identify "win-win" solutions from which they will derive economic benefit at the same time as achieving pollution reduction targets. Under 33/50, firms are encouraged to reduce the release of toxic chemicals through positive public recognition.[21] Industry participation is completely voluntary and commitments are not enforceable by law. Instead, the program relies on cooperation between industry and the EPA, and subsequent positive public recognition of environmental achievements. Participating firms are required to pledge some degree of reduction of their releases of any of the specified chemicals and to develop detailed action plans, but can adapt them to target the least costly abatement measures. Evaluations reveal that firms participating in the 33/50 program have significantly reduced toxic chemical releases although whether they would have achieved similar reductions in the absence of the program, is unclear.[22]

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[19] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000.

[20] Consistent with the OECD approach, we do not explore private agreements reached through direct bargaining between stakeholders, such as polluters and pollutees, because very little information is available concerning such agreements.

[21] Miller A S "The Origins and Current Directions of United States Environmental Law and Policy: An overview" in Boer B, Fowler R and Gunningham N (Eds) *Environmental Outlook: Law and Policy*, Federation Press, Sydney, 1994.

[22] Arora S and Cason T N "An Experiment in Voluntary Environmental Regulation: Participation in "EPA's 33/50 Program" 28(3) *Journal of Environmental Economics and Management,* 1995, p 271; Ransom P and Lober D "Why do firms set environmental performance goals: some evidence from organisational theory" *Business Strategy and Environment,* 8, 1999, pp 1-13.

Although the number of public voluntary partnerships has been increasing, the overall number of such agreements is not large. In the European Union, at the time of writing, there were estimated to be less than 20 such agreements, although the number in North America is somewhat larger.[23] The number of such agreements applying specifically to agriculture is very small. The fact that such agreements are normally engaged in between government and individual enterprises, and that most agricultural enterprises are too small to have an interest in seeking individual reputation recognition, may well be a major explanation for this. Below, we examine in more detail the most prominent Australian example, the Greenhouse Challenge, and the most developed American example applying specifically to agriculture (PESP). From these studies we seek to draw some broader lessons concerning the potential role of this form of partnership.

The Greenhouse Challenge

A prominent Australian example of a public voluntary partnership is the Greenhouse Challenge, which was introduced as part of the Commonwealth Government's climate change policy.[24] It provides a framework for the formation of cooperative partnerships between Australian industry and government, whereby companies, either individually or collectively, voluntarily agree to pursue greenhouse gas abatement opportunities greater than that which would have occurred under a "business as usual" scenario.

Participation by individual companies in the Greenhouse Challenge involves three steps: a commitment to take up the Greenhouse Challenge; development of a Cooperative Agreement which outlines (following an audit) how the company will limit greenhouse gas emissions (or enhance carbon "sinks"); and third, regular reporting of progress in implementing the agreement. Industry groups, in contrast, sign a Facilitative Agreement that commits them to encouraging their members to join the Greenhouse Challenge. Small enterprises may also participate as Greenhouse Allies which links them to the efforts of larger enterprises. Purported benefits of participation include: saving money (by saving energy and reducing waste); access to technical assistance (in identifying, monitoring and forecasting greenhouse gas emissions); access to a national network of Greenhouse Challenge businesses (facilitating sharing of information on improving efficiency and greenhouse performance, and latest innovations): and recognition of efforts (members are able to market their greenhouse actions to the community, their customers, suppliers and staff and have access to the Greenhouse Challenge Members' Logo to use on your products and corporate information). At the time of writing, some 547 companies and industry groups have joined the Greenhouse Challenge program.

An evaluation of the Greenhouse Challenge program by Dr Christine Parker[25] concluded that despite some positive attributes, namely the support of industry groups, the coincidence of energy efficiency and productivity, and the greater consideration of emissions performance in business decision-making, that it suffers from a number of serious shortcomings, namely:

- Participation is likely to be limited in the absence of a "credible threat of imposition of a more coercive program" in the event of failure of the Greenhouse Challenge;

[23] See Mazurek J "Government Sponsored Voluntary Programs for Firms: An Initial Survey" National Academy of Social Sciences/National Research Council, Workshop on education, information and voluntary measures for environmental protection, Washington, DC, Nov, 2000.

[24] The initiatives of the New South Wales Sustainable Energy Development Authority (SEDA) and its Energy Smart program is similarly based on voluntary commitments by business 'partners' to implement energy efficiency action plans and to upgrade 75% of their operations, if profitable, over five years. SEDA in return provides technical assistance to identify and help implement profitable energy efficiency project along with marketing support to gain recognition for partners as good environmental citizens.

[25] Parker C "The Greenhouse Challenge: Trivial Pursuit?" Vol 6 No 1 *Environmental Planning and Law Journal, 1999,* pp 63-74.

- The accountability of participating companies may be compromised by a lack of performance targets and/or enforcement mechanisms in the event of non-compliance;

- The emphasis on cost effective energy efficiencies may perpetuate a bias towards conservative and trivial improvements;

- Companies may be tempted to use the Greenhouse Challenge to divert attention away from "serious environmental damage caused by other parts of company operations";

- The program may be too narrow in focussing on greenhouse gas emissions to the exclusion and/or detriment of other environmental considerations;

- The very limited uptake of the Greenhouse Challenge logo demonstrates a potential lack of government incentives to participate and/or strive to achieve better outcomes.

The Greenhouse Challenge also provides an insight into some of the difficulties associated with extending environmental partnership approaches to the agricultural sector. Indeed, at the time of writing, only a relatively small number of agricultural enterprises or industry groups had entered into Greenhouse Challenge partnerships. This is despite the fact that agriculture is potentially a major contributor to both sinks (for example through farm forestry) and sources (for example through the production of methane and land clearing) of greenhouse gas emissions, but it is also likely to be one of the sectors most adversely affected by climate change.

The low participation rate for agriculture is recognised in a recent report on the Greenhouse Challenge that emphasises the importance of achieving:

> … comprehensive sectoral coverage by addressing gaps in current Challenge coverage, eg by targeting low participation sectors such as agriculture ...[26]

Why have the participation rates of agriculture in the Greenhouse Challenge lagged behind other sectors? Some of the reasons put forward by relevant government officials include the following:

- Farmers are ignorant and/or sceptical about the nature of the greenhouse problem and the potential impact on their future prosperity.

- Farmers are ignorant about their possible contribution to greenhouse gas emissions.

- Farmers often have relatively small management capability with insufficient resources and expertise to devote to environmental management issues, including greenhouse gas emissions.

- Farmers are geographically remote making it more difficult effectively target them through greenhouse education programs.

- Farmers are in many instances economically marginal making them reluctant to take on additional commitments.

- Farmer in many (but not all) instances do not have as a close a working relationship with representative industry organisations making it more difficult to generate interest amongst the membership base.

Now that the Australian Greenhouse Office has identified the agricultural sector as a priority for the formation of future greenhouse partnerships, there may be additional resources available to assist the industry in formulating an effective greenhouse gas abatement and/or carbon sink creation strategy.

[26] *Greenhouse Challenge Evaluation Report*, Australian Greenhouse Office, Commonwealth of Australia, 1999.

In this regard, particular attractions of the Greenhouse Challenge to the agricultural community are, first, that it is a completely voluntary, cooperative program, and second, that partnerships can be formed with entire industry sectors, usually through their relevant industry association, rather than individual farmers. In this context, it should be noted that the relatively small group of Greenhouse Challenge partnerships have been dominated by those agricultural sectors with the following two characteristics: first, a tightly knit, cooperative industry structure, and second, a relatively high propensity to greenhouse gas emissions, in particular, methane gases (a far more potent greenhouse gas, for example, than carbon dioxide). These sectors include the Pork Council, the Sugar Growers, and the Rice Growers Association.

Pesticide Environmental Stewardship Program

Probably the best known private/public environmental partnership program specifically in the agricultural sector is the Pesticide Environmental Stewardship Program (PESP). This is a joint initiative of the United States Department of Agriculture and the United States Environment Protection Agency (EPA). According to official literature, PESP: "is a partnership between EPA and pesticide users to reduce pesticide risk in agricultural and non-agricultural settings" and is based on a reciprocal voluntary participation between the government and various organisations in the agricultural sector.

Partners (farmers that use pesticides, or representative organisations of those farmers) must agree to develop and implement formal pesticide reduction strategies, and to define and report on these strategies to the EPA on a regular basis. Supporters (organisations such as food processors and retailers that do not directly use pesticides, but who have considerable influence of the those who do, through either commercial or political pressure) agree to promote pesticide reduction programs. [1] Both formally sign a statement to support the goals of PESP.

In exchange for their participation, partners receive a mixture of technical assistance, seed money and public recognition from government. For example:

Each PESP Partner and Supporter is provided an EPA Liaison, from the Office of Pesticide Programs or an EPA Regional Office, who works with the member to provide information and assistance in developing and implementing their Strategy. The EPA Liaisons are these organisations' single-point customer service representative at EPA. They provide information on new pesticides and other EPA activities, assist in developing the Strategy, and provide information on funding to support Strategy implementation.

The other major benefit of participation in the PESP program is public recognition by the EPA of the efforts of Partners and Supporters: "This recognition will be in the form of articles in PESP Update, PESP Progress Reports, and, if desired by the Partner/Supporter, press releases." It is anticipated that there might be a number of flow-on benefits from this positive publicity, including enhanced public perceptions of the organisation, greater constituent support, and employee morale. In turn, these may translate into commercial benefits as well. In addition, PESP participants are eligible to apply for seed funding "to support pest management projects that reduce pesticide risk".[27]

The Strategy is intended to be goal-oriented and to focus on measurable outcomes, and how to achieve them in the most cost-effective way possible. In particular, it consists of four discrete components: Strategic Approach, Activities, Progress, and Background Document. For example, the activities component is intended to list the efforts that each participant will make in the coming year

[27] Funding is accessed through an annual program of grants run by the National Foundation for IPM Education. Grants a small, at less than $50,000, and are intended for applied research and technology transfer. There are additional grants available to support state agencies to introduce pesticide reduction projects.

to reduce pesticide risk. The EPA reviews the sufficiency of these and provides feedback. As part of their annual PESP Strategies, members also report on their activities for the previous year.

Given that the PESP program, which began in 1994, has been underway for some time now, how successful has it been? At its inception, the USDA and the EPA put in place a highly ambitious goal for PESP and other related programs (we address some of these below). According to an EPA respondent: "At a congressional hearing on September 22, 1993, USDA, EPA, and FDA pledged to have 75 percent of the U.S. agricultural acreage under IPM by the year 2000 and to reduce the use of pesticides".[28]

Even a cursory examination of PESP reveals that it has fallen considerably short of achieving 75% IPM coverage. Although the precise proportion of committed acreage has not been calculated (see below), at the time of writing, PESP has just over 100 Partners and less than 30 Supporters. Even taking into account that many of the PESP Partners are representative organisations, and assuming that all of their membership base is committed to Integrated Pest Management, it is obvious that in a country as vast as the United States this can only represent a relatively minor proportion of total agricultural acreage. Indeed, almost all of the largest organisations have declined to join.

In the absence of comprehensive federal review of the continuing role of pesticides in United States agriculture (which may be forthcoming in the near future), and the role of IMP programs, it is illustrative to look at one state, that of California, which has a major agricultural sector. Despite the presence of programs such a PESP, and the advent of Integrated Pest Management, over the last decade or so, agricultural dependence on pesticides remains high. One recent report has documented this phenomenon:

> Analysis of state pesticide use data shows that between 1991 and 1998 more than 1.5 billion pounds of pesticides were applied in California. During this eight-year period, Californians significantly increased their reliance on pesticides, with reported use up 40%, an average increase of 7.2 million pounds per year… After a massive increase in pesticide use in the early to mid-1990s, newly released pesticide data show that the overall pattern is one of continued high use of pesticides, with most uses remaining at or near all-time highs…Between 1991 and 1998, the total pounds of pesticides used on Californian cropland increased 51%, from 129 million pounds of active ingredients 195 million pounds. During the same period, *the number of acres planted remained approximately constant* [emphasis added]. The result was a dramatic increase in pesticide intensity – pounds of active ingredient applied per acre – up 60%, from 14.4 to 23.0 pounds per acre between 1991 and 1998.[29]

The most recent Californian data, released by the Californian Department of Pesticide Regulation, suggests that the massive growth in pesticide use during the 1990s may have peaked.[30]

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[28] Nevertheless, despite this joint pledge, it was also claimed that: "Follow-up stakeholder meetings in 1994, allowed these agencies to refine their roles related to this commitment. … USDA assumed responsibility for having 75% of U.S. agricultural acreage under IPM. … EPA assumed responsibility for working with pesticide users to reduce pesticide use (subsequently interpreted to mean pesticide risk). The Pesticide Environmental Stewardship program (PESP), a voluntary public/private partnership to reduce pesticide risk, was born out of this commitment." What this dialogue indicates is that even though it can be claimed legitimately that PESP has at least a partial obligation to meet the 75% target, as is clearly articulated in early official PESP literature, the EPA is attempting, subtlety, to disassociate itself from this target. It is notable, for example, that no new post-2000 target for PESP has been put in its place. This response by the EPA is not surprising. Unquestionably, the 75% target was a highly ambitious, and arguably unrealistic, goal. In this respect, it may be that it was originally intended to be more aspirational than tangible.

[29] Kegley S, Orme S and Nuemeister L *Hooked on Poison: Pesticide Use in California, 1991-1998*, PANNA, US, 2000.

[30] In fact, from 1998 to 1999 there was small decline of some 11.7 million pounds. This represented the first reduction in over three years. Despite this encouraging, if somewhat tentative trend, overall pesticide use in Californian remains much higher than just a decade earlier. Department of Pesticide Regulation "DPR Reports Overall Pesticide Use Declined in 1999', www.cdpr.ca.gov/docs/pressrls/dprreport.htm, 15 May, 2001.

Nevertheless, extrapolating from the Californian experience, it is clear that, despite good intentions, initiatives such as PESP (and indeed corresponding federal and state programs such as those run by the USDA and the Californian Department of Pesticide Reduction respectively, see below) are losing the war against continued pesticide use. However, judged by more modest criteria, PESP can claim some significant successes including:

- The New England Vegetable and Berry Growers Association holds a series of winter meetings to educate their growers about the latest Integrated Pest Management practices.

- The Gerber Products Company has developed a pheromone alternative that halves pesticide use in peach production.

- The National Potato Council and General Mills have developed a program of Integrated Pest Management for potatoes, including a detailed checklist to benchmark their progress against other growers.

- The Gempler's Inc farm suppliers has developed a Integrated Pest Management newsletter and almanac for its customers.

- The Cranberry Institute has support Integrated Pest Management practices through the dvelopment of an agreed risk management strategy and grower manuals.

- The Lodi-Woodbridge Winegrape Commission has developed a self-assessment system that addresses all aspects of growing wine grapes, including pest management.

- The United States Canola Association is developing a pest management strategy that emphasises environmentally sound practices.

This list could go on to cover the entire PESP membership base. Two things are striking about the types of activities that are addressed under PESP partnerships: (i) the lack of a uniform approach to the introduction of Integrated Pest Management. Each participant, or rather participant organisation, appears to be adopting its on particular version and implementation methodology of Integrated Pest Management (in contrast to the more generic, systems based approaches to environmental improvement such as the ISO 14001[31]); and (ii) there is an obvious absence of independent third party verification. In fact, the PESP guidelines make no reference to the use of independent verification. This raises a number of concerns. It is at odds with the overall trend in environmental improvement processes towards independent certification to provide the necessary credibility that communities, consumers, and other stakeholders demand. For example, in the area of forestry certification, the American Forests and Paper Association has recently modified its Sustainable Forestry Initiative self-regulatory program to include third party audits. It denies participants the opportunity to receive valuable feedback on their progress, and suggestions for improvement. And, related to the above point, it makes it difficult to monitor progress across different participants and participant sectors.

[31] Under ISO 14001, there is a core set of requirements that must be conformed to in order to achieve certification. Even though these are inevitably adapted to individual circumstances, the same ISO 14001 provisions apply to vastly different sectors, and different sized organisations. This is not to suggest necessarily that the more flexible and ad hoc approach adopted under PESP is not justified (indeed, a degree of this is essential to accommodate vastly different agricultural circumstances), but it could be argued that there is a danger that some resources will be wasted on each sector "reinventing the wheel". It also makes it potentially more difficult to make comparisons between progress under different Integrated Pest Management schemes.

What then are the future prospects for PESP? If it continues along its current trajectory it is unlikely to have a dramatic impact on a reduction in pesticide use in the agricultural sector. According to a recent report:

> The primary reasons for continued high use of pesticides are structural causes such as economic factors, marketing standards, and institutional support for present practices. There are many costs associated with transitioning that are major economic deterrents to change. In addition, the fact that pesticide users do not have to pay for environmental and health damage caused by their use of pesticides provides no incentive for farmers to reduce use. Pest management practices could change, but not without institutional support for research into alternatives and extension outreach to growers. At present, pesticide-intensive farm practices receive extensive support, including, but not limited to free agricultural advice and subsidized research into chemical solutions. Funding for ecologically based pest management research and extension support to help growers incorporate these methods into their farming practices is miniscule relative to that for conventional methods of farming.[32]

Faced with these daunting obstacles, PESP has a number of clear deficiencies. First, it is not sufficient in size and resources to make a significant impact on total agricultural pesticide use. Second, in order to attract a much greater percentage of agricultural participants, it requires substantially more attractive incentives. At present, these appear vague and somewhat less than tangible. There is no certification system, no use of logos, and no clear financial incentive (apart from the possible receipt of a seed funding). Third, there needs to be much greater face-to-face contact with growers, in the form of extension officers, to provide practical, on the ground experience. Fourth, there has been no great success at recruiting commercial interests to place greater pressure along the supply chain for Integrated Pest Management practices. The majority of Supporter participants, who might conceivably perform such a role, are fact government or research bodies that are not active in the market place. Fifth, and finally, the absence of independent verification is a serious impediment to widespread credibility. Unless these deficiencies are adequately addressed and overcome, it is difficult to imagine PESP reaching its full potential as pesticide reduction partnership program.

While a large number of other USDA initiatives purport to be environmental partnerships, the word "partnership" is used largely for rhetorical purposes. Since the large majority of these (such as the National IPM Plan) lack the essential element of reciprocity and do not fit within the definition of such partnerships set out in Chapter Two, for present purposes we do not explore them further[33].

Public voluntary programs: An evaluation

As with other types of voluntary approach, the design of such initiatives will have a strong bearing on their potential to achieve their goals. The target is pre-set by government, which may lack sufficient knowledge to set a viable yet ambitious target, rather than one which can be achieved by 'business as usual'. Government may also be tempted to lower the target to attract greater levels of participation, and may be vulnerable to regulatory capture. Or it may set goals that are very vague in order to attract participants from a diffuse range of industry types.

Krarup's research revealed that not only is an ambitious environmental target essential, but that to ensure such a target, an open and transparent process (involving NGOs and parliament) is crucial to overcome problems of regulatory capture and the lack of benefits associated with third party

[32] Kegley S, Orme S and Nuemeister L *Hooked on Poison: Pesticide Use in California, 1991-1998,* PANNA, US, 2000.
[33] There are some exceptions, such as the Wetlands Reserve Program, whereby farmers are given clear benefits/incentives in return for protecting , restoring and enhancing wetlands on their property.

participation.[34] Adequate data on performance and achievement will also be essential, as will credible monitoring mechanisms (for example through a third party auditor) since, without these, it will be difficult to estimate whether targets have been achieved, and companies may be tempted to gain the public relations benefits of participation without making the concomitant commitments to environmental improvement. The absence of sanctions under public voluntary programs provides firms with a particularly strong temptation to default and free-ride. The OECD has summed up their limitations as follows:

> … in the absence of regulatory threat: lacking an incentive to abate above and beyond existing regulations, firms' prime motive to participate [is] either the existence of "no regret" (profitable) pollution abatement actions or to benefit from public recognition. In general, such motives will not take firms very far in their environmental improvements, as pollution abatement would soon become costly business.[35]

Nevertheless, from a government agency's point of view, the low transactions costs involved in developing public voluntary programs (since target setting is unilateral) and of maintaining them (since monitoring and enforcement are rarely involved) makes them an attractively low-resource based-option. Even if their contribution to higher environmental standards is only a very modest their use may be justified in cost benefit terms. From an industry perspective, such agreements are non-threatening since they only target "no regrets" actions, and provide high flexibility on the means of achieving the targets. From a government view, there are low monitoring and enforcement requirements although it has rightly been pointed out that these may be off-set by the extra costs of providing technical assistance and other information tools to participating companies".[36]

The most important benefits of such programs may be their "soft" effects. In particular, they serve as "information-intensive policy arrangements with a high potential for generating important soft effects through the diffusion of information"[37] on environmental improvement techniques. Not least such programs "commonly include technical assistance, decision-support too, best practice guidelines, evaluation tools, and training sessions, thus improving the level of knowledge in the participating companies. Besides, they frequently exhibit a function of "signalling" via the use of a logo … or promotional supports. They thus improve public recognition of efforts for greening business strategy. In turn, such reputation gains provide industry with long-term incentives to commit to environmentally friendly trajectories".[38]

To conclude, the level of direct success of public voluntary programs in terms of improving environmental performance is difficult to measure and is likely to be at best, modest. Nevertheless, governments which lack the political, financial or technical capacity to impose effective direct regulation on business, may be tempted to continue their use, and, beyond short term political expediency, this may be justifiable in public policy terms, on the basis of what may be considerable 'soft effect' benefits, the extent of which it is almost impossible to detect and demonstrate.

The challenge of making such programs work in agriculture is more substantial than in many industry sectors, because of the large number of smaller enterprises who are unlikely to be sufficiently attracted by the reputation advantages offered. This is compounded by the prevalence of a range of cultural attitudes that may undermine partnership approaches. These include a resistance to external inspection, even if this is primarily in the form of positive assistance, and a suspicion of governmental motivations. Only if incentives for partnership participation are carefully connected to

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[34] Krarup S "Can Voluntary Approaches be Environmentally Effective and Economically Efficient?" Cava (Concerned Action on Voluntary Approaches), International Policy Workshop on the Use of Voluntary Approaches, Brussels, 1 Feb, 2001, p 77.
[35] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p 132.
[36] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p 132
[37] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p 132
[38] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p 124.

broader commercial and regulatory advantages (eg through a government endorsed environmental label, retail purchasing preferences, regulatory incentives or considerable technical or other support) are they likely to attract a substantial number of participants.

This ability to provide such incentives and to obtain a positive response however, will vary greatly according to the characteristics of particular agricultural sub-sectors. That is, what works will need to be sector specific. To take the issues of commercial incentive, for example, the exposure of individual growers to market preferences is quite variable. In the case of the wine industry, individual growers (and wineries) are actively involved in the marketing process and are familiar with the demands and preferences of export markets. In contrast, those more commodity based agricultural sectors that lack brand distinctions are likely to be less engaged. This may be further compounded by the presence of "single desk" export sales. In this case, growers may be entirely removed from exposure to market sensibilities. Other sector characteristics are relevant too. Those operating in a more cooperative structure may be more inclined to adopt environmental systems that apply to the industry as whole as a function of their "community of shared fate". Their prospects are best where they have a history of cooperation and peer benchmarking and the presence of recalcitrants has the potential to undermine the image of the industry as whole.

Negotiated agreements

Negotiated agreements represent by far the most popular form of partnership, having been developed as part of an explicit attempt by industry sectors, practitioners and policy-makers to improve environmental policy outcomes without overburdening industry or putting it at a competitive disadvantage. Such agreements involve specific commitments to environmental protection elaborated through bargaining between industry and a public authority. Most commonly, they are entered into by an industry association and government against a backdrop of threatened legislation: the tacit bargain being that if the industry will commit to reach given environmental outcomes through its own initiatives, government will hold off on legislation it would otherwise contemplate enacting to address the problem.

The push to develop negotiated environmental agreements, dates from the early to mid 1990s. A number of national governments, and increasingly the European Commission, have sought to promote such agreements, mainly in the industrial context. The belief has been that they can nurture a pro-active attitude to the environment on the part of industry, provide tailor made solutions and allow for a quicker and smoother achievement of objectives. Most such agreements have been in areas of waste and air management, climate change, ozone depletion and water pollution. There have been relatively few such agreements in the agricultural sector.[39]

In Europe, the vast majority of such agreements, have been reached at a collective level and are not binding on individual enterprises, with potential sanctions also being confined to the collective level. It is these agreements which are the principal focus of the present section. They are related but quite distinct are from the sorts of legally binding agreements made between individual enterprises and a government agency, whereby government offers regulatory flexibility in exchange for 'beyond compliance' environmental performance, and whereby the individual enterprise would risk individual liability or eviction from the agreement for breach. The latter type of agreements are becoming increasingly popular in North America, and have a number of major differences to the European voluntary collectivist approach. Not least, they are integrated with, and form a part of, the conventional command and control regulatory system, rather than providing an alternative to it. The regulatory flexibility initiatives of the previous Clinton-Gore Administration, such as Project XL, are the clearest example of this approach.

[39] For examples, see *Co-operative approaches to sustainable agriculture* OECD, Paris, 1997.

The Dutch environmental covenants (see Box 3) represent an unusual hybrid, since these agreements both address collective and sector wide environmental issues *and* are legally binding on individual companies through the permit system, and are thus intimately linked to mainstream command and control. Rather than playing an ancillary or supporting role (as is the case with many European collective agreements) they are a key component of Dutch environmental policy. For all these reasons, they defy formal classification.

Box 3 – The Dutch model of Environmental Covenants

Background and compliance problem

The public law approach to pollution control using penal and administrative law sanctions, was proving increasingly ineffective. Despite a steady flow of national (and EC) legislation, in most fields of the environment there was no evidence of dramatic changes for the better as a consequence. There was a growing awareness that there might be a better road to take: coming to terms with polluters by concluding long-term contracts for the reduction of toxic discharges

The compliance innovation

The Dutch negotiated agreements (known as covenants) form a key component of Dutch environmental policy. They set stringent quantitative pollution abatement targets for over 200 substances, meant to bring the national economy towards sustainability, and premised on the basis that such targets can only be reached if industry accepts a greater share of responsibility in the development and implementation of pollution abatement measures.

Covenants have the status of contracts in civil law. There are two agreements. The first, a declaration of intent, is signed by the government and a branch (ie industry) association. This contract has no legal value, but it serves as a framework for the second type of contract, namely a series of agreements between the government and individual firms willing to join the covenant scheme. These individual contracts may imply firms' liability in a civil court.

The covenants are also tightly linked to the permit system, which defines detailed emission standards for each individual site to be able to operate. Covenants are linked to this system, as their pollution abatement targets are eventually integrated into the permit requirements. Individual monitoring and sanctioning of firms in the covenant system is executed via the permit system. Firms whose company environmental plans (which indicate their environmental targets, measures for reaching them and proposed time frames) are repeatedly rejected by the permit authorities will be subject to stricter requirements.

The results

As different industries have entered into covenants at different times, success can only be measured for specific sectors, and in relation to the older agreements. The covenant with the chemical industry is instructive because it is one of the pioneering agreements, and is intended to serve as a model for later agreements. The covenant is considered a success by the Dutch Ministry of The Environment. Firstly, the participation rate of chemical firms in the agreement is 91%. Secondly, the permit authorities evaluated and agreed to 108 of the 114 plans submitted. Thirdly, the great majority of pollution abatement targets are expected to be met without difficulty. Nevertheless, the targets for 14 out of 62 substances covered by the covenant will be difficult to reach due to the lack of adequate abatement technology.

Source: abridged and modified from *Voluntary Approaches to Environmental Policy: An Assessment*, OECD, 1999, Box 12.

From a public policy perspective, the attractions of negotiated agreements include the promised capacity to achieve better environmental outcomes at less cost to both government (which may avoid or reduce the costs of standard development and monitoring) and business, by providing business with the flexibility to use its expertise to develop its own solutions to environmental problems. It is assumed that business will have far superior knowledge to government as to how to achieve any given outcome at least cost and that it should be facilitated to do so. However, as we will see, the crucial question is whether industry will be motivated to do so under a voluntary agreement, or whether better outcomes could be achieved with very much the same flexibility via other means such as the imposition of performance standards or economic instruments.

From industry's point of view, the most important motivations for entering such agreements are "to prevent government intervention by other instruments (regulation or charges) that are deemed to be more damaging to their interest or in order to build up a positive relationship with certain stakeholders (consumers, associations, environmental NGOs, insurance companies, trade unions etc), thus indirectly avoiding damaging action of those organisations to their interests".[40] Put differently, industry's concerns will relate to avoiding regulatory and other costs, gaining competitive advantage, protecting or increasing sales, enhancing public image and reflecting internal values.[41] Thus industry and government have somewhat different goals (unless there is a happy coincidence between governments goals and industry's profit goals, in which case, industry, if fully rational, would be pursuing those goals even in the absence of any negotiated agreement[42]).

This tension between the goals of government and industry raises a number of challenges for policymakers which are revealed by the experience of the first generation of negotiated agreements (primarily in industrial sectors). First, to the extent that the agreement would commit industry to doing something it would not otherwise choose to do (ie spend money on environmental improvements which do not otherwise enhance profits) then the agreement must provide sufficient incentives to provide it with a net gain. Such incentives might include reputation enhancement (eg bestowing the status of a 'green firm', for example through an green logo), facilitating a price premium or expansion of market share, or the provision of regulatory concessions. The latter is likely to be by far the strongest incentive to join, and a substantial number of agreements have involved implicit or explicit bargains of this nature. For example, the Federated Association of German Industry in 1995 agreed to propose a reduction of carbon dioxide emissions by up to 20% by 2005, in exchange for which the federal government "announced the withdrawal of plans to introduce a waste heat ordinance and promised an exemption from a possible energy tax".[43]

Second, since industry would prefer to obtain whatever benefits are available under the program at as little cost as possible, it is likely to negotiate hard to minimise its commitments. Most commonly, this implies negotiating for as low a performance target as possible, and ideally one that can be met as a result of improvements taking place already, without necessitating any additional action or expenditure. For example, under the German carbon dioxide agreement discussed above, Jochem and Eichhammer suggest that the target was so modest that 80% of German industry had already achieved it at the time it was announced.[44] The likelihood of such an outcome is increased by the

[40] Baeke S, De Clercq M and Matthijs F "The Nature of Voluntary Approaches: Empirical Evidence and Patterns" CAVA Working Paper, 99/08/03, 1999, p 6.
[41] See Stratos and Pollution Probe, *Reinforcing the Business Case for Environmental Voluntary Initiatives*, Report Submitted to Environmental Canada, May, 2000.
[42] On the complexities of, and limitations of "win-win" outcomes, see Reinhardt F *Down to Earth*, Harvard Business School Press, 2000.
[43] Ramesolhl S and Kristof K "A Socio-economic analysis of energy related voluntary agreements in Germany-transactions costs and innovations" CAVA Working Paper, CERNA, Paris, 1999.
[44] Jochem E and Eichhammer W "Voluntary agreements as an instrument to substitute regulating and economic instruments? Lessons from the German Voluntary Agreement on CO2 Reduction" Paper presented at the conference on "Economic and Law of Voluntary Approaches to Environmental Policy", 1996, organised by REEM and CERNA, Venice, Nov 18-19, 1996, cited in Covery F and Leveque F "Applying Voluntary Approaches-Some Insights from Research" CAVA Conference, Brussels, Feb, 2001.

asymmetry of information that characterises many government-industry interactions, with industry knowing far more about what is technologically possible and economically practicable than government. Of course (in relation to the first point above) enterprises which may be able to satisfy the terms of the agreement at little or no cost (for example, targets under some energy efficiency agreements only imply 'no regrets' actions) may need fewer incentives to participate.

Third, where the costs of participation are substantial but the firm has sufficient incentive to join, it may seek to gain the benefits of participation without bearing the costs. That is, it may default, and hope to free-ride by gaining the reputation benefits and regulatory concessions consequent on participation without discharging its responsibilities under the agreement. Another form of free-riding may take place in heterogeneous industry sectors, where some firms see reputation advantages from gaining a green image but others do not, and the latter may simply decline to enter into a collective agreement, raising problems (depending on the design of the agreement) as to whether voluntarism really is a viable alternative to regulation for the entire industry sector. Both these scenarios are likely to play out quite frequently because, as Higley et al point out: "industries are profit driven creatures. Pollution abatement is often expensive, and the *most* cost effective option for the firm is very often to abate less".[45]

Fourth, these tensions generate risks of regulatory capture, whereby regulators, by virtue of a too close association with industry (and the closed-door nature of many negotiated agreements), or in consequence of informal inducements (such as the promise of future employment in the regulated industry) acquiesce in the negotiation of targets and other conditions that are unduly favourable to industry and contrary to the public interest. Negotiated agreements are particularly fertile ground for regulatory capture because, as Ayres and Braithwaite point out: "the very conditions that foster the evolution of cooperation are also the conditions that promote the evolution of capture and indeed corruption".[46] The result may be that regulators accept weak targets, possibly no higher than would be achieved under a "business as usual" scenario.

These problems revealed by the experience of negotiated agreements in industrial sectors, should make policy-makers cautious of potential pitfalls when seeking to apply the same model to the agricultural sector. Unfortunately, we have only very limited empirical experience of the extent to which, and the ways in which, these problems play out in agriculture. There are some case studies on which we can draw, including our own empirical work, which will assist us in identifying the circumstances in which this type of partnership is likely to work best, and how they might best be designed. However since most of these partnerships are in their early stages of development, formal evaluation of their success of failure, would be premature.

Vegetable growers and the Victorian EPA

Like an increasing number of agricultural sectors across Australia, including the beef, cotton and horticulture industries, the vegetable growers of Victoria have determined to develop a strategy for improved environmental performance. What distinguishes the Victorian Vegetable Growers Association's (VVGA) approach is that they are attempting to achieve this in "partnership" with the Environment Protection Authority. The following account provides a summary of our case study of this partnership, conducted in collaboration with the Victorian Environmental Protection Authority.[47]

[45] Higley C J, Convery F and Leveque F "Voluntary Approaches: An Introduction" CAVA (Concerned Action on Voluntary Approaches), International Policy Workshop on the Use of Voluntary Approaches, Brussels, 1 Feb, 2001, p 10

[46] Ayres I and Braithwaite J *Responsive Regulation*, OUP, Oxford, 1992, p 55.

[47] In contributing this case study we have benefited from our own partnership with the Victorian Environment Protection Agency, who under the auspices of a Commonwealth Strategic Partnership with Industry Grant, facilitated our study of this industry. The full report will be included in our forthcoming book on Reconfiguring Environmental Regulation.

The vegetable growers had a number of reasons for seeking a partnership with the EPA, the most compelling of which are identified below:

- *community pressure:* In Victoria, community pressure has arisen because of the close proximity of many vegetable growers to urban fringes and the increasing concern of residents and others about some of the growers environmental practices. A conservation action group has become the vehicle through which concerns have been raised (eg about polluting run-off and pesticide use) and the influence of this group is now such as to represent a threat to the growers long term viability on the urban fringes;

- *international and domestic trends:* On the international front, the growers are well aware of dramatic changes in purchasing policy being introduced by major supermarket chains, a vitally important commercial market for vegetable growers. On the domestic front, industry representatives had become aware of moves within other agricultural sectors to introduce environmental management codes of practice. A major influence, in this regard, was the Best Management Practice initiative of the Australian cotton industry; and

- *the impact of existing regulations:* While this factor has been relatively unimportant in the past, industry representatives point to inappropriate environmental regulations being a substantial potential threat to the industry *in the future*, with a recent report addressing the issue of spray drift being highlighted as a prime example.

There are a variety of possible responses to these challenges, raising the question: why choose a partnership with the EPA rather than some other option? In essence, the answer is to provide credibility. The industry fears that if it were to proceed with environmental improvements, such as the implementation of industry-based environmental management system, *in the absence of substantial EPA engagement* then others, including the supermarkets and the wider community, might not believe its claims to be achieving sufficiently high environmental standards. A previous negative experience with the implementation of quality assurance standards (where the industry failed to take the initiative and had standards imposed on it by the supermarket chains) has also galvanised the industry to take the initiative in the case of the environment.[48]

From the perspective of the EPA, this partnership also has attractions; through a cleaner production partnership the vegetable growers may be persuaded to improve their environmental performance to a level that is greater than that achievable through traditional regulatory approaches alone. There will be additional benefits if this improvement can be made self-sustaining and progressively increases over time. It also hoped that the industry's efforts will act as an example for other sectors to aspire to and hopefully emulate.

Recognising the potential for the industry and the government regulator to achieve reciprocal benefits from such a partnership, both sides set out to develop its specific terms, through the development and implementation of an environment improvement plan (EIP)[49], with an emphasis on cleaner production. The purported aims of the plan are: to better understand the real impacts of market gardens on the environment; to increase grower awareness of their environmental responsibilities; to provide a venue for growers to demonstrate good environmental performance; to reduce compliance costs; and to satisfy regulators and the community that the vegetable industry is environmentally aware and responsible. The environmental improvement plan began with a pilot phase, involving four key elements: a pollution audit; an awareness program and management audit; environmental

[48] Notably absent from the list of industry motivations was the possibility of generating a financial gain. Rather, the overwhelming motivation was to improve both the image and the reality of the industry's environmental performance, in the face of public pressure, potential consumer demand and anticipated supply-chain pressure.
[49] An environment improvement plan is set of targets for reducing the environmental impact of a specific industry or company, and negotiated in consultation with external stakeholders. See Victorian EPA publication 394.

management guidelines; and a training program. The guidelines act as a form of self-audit, and are designed to be highly practical and easily understood so as to gain the maximum chance of uptake by the majority of growers. In return (in addition to providing its credibility) the principal EPA contribution was a modest financial one, intended to facilitate the development of the EIP and its various components.

Future challenges

Although the partnership which is being developed between the vegetable growers and the EPA has the potential to provide mutual benefits, and for this reason is attractive to both partners, its success is by no means reassured. While it is far too early to evaluate the results of this partnership. it is possible to identify a number of serious obstacles will need to be overcome it the partnership goals are to be fully realised.

First, incentives will be necessary to ensure that a substantial proportion of vegetable growers actually adopt the environmental guidelines for good management practice particularly since the large majority of growers see no financial advantage in doing so. Ideally, this might involve subsidies, the provision of technical advice via extension services, and assistance in conducting audits. More realistically, given serious resource constraints, it might involve positive publicity to promote industry achievements or the use of cleaner production awards and green logo recognition for those who adopt formal and independently accredited environmental management systems. Some of these initiatives might also assist in the generation of financial rewards for industry participants, a motivator that was notably absent to date from the experience of vegetable growers. Consideration will need to be given at a later stage to the possibility that such guidelines should subsequently become an industry code of practice (compliance with which would more than satisfy all regulatory requirements).[50]

Second, voluntary measures and incentives work best when they are underpinned by credible regulation and enforcement for those who are unwilling to participate voluntarily. However, with only one regulator assigned, part time, to the vegetable growing industry, and little capacity to allocate additional resources, the prospects for direct regulatory intervention look bleak. Yet, even with these resource constraints there are opportunities, through the use of administrative notices, and on-the-spot fines to generate the perception of a credible regulatory presence as part of a broader policy mix, capable of dealing with both leaders and laggards.

Third, since the vegetable growers do not have a reputation for administrative sophistication and diligent record keeping, means must be found to tailor the proposed environmental management system to their needs and capabilities. This implies environmental management guidelines that are highly practically orientated, avoid excessive paperwork and target “good” rather than necessarily “best” practice. This could be achieved, without holding back the legitimate aspirations of committed industry leaders, with a two-tiered EMS approach. The first tier, targeted at the vast majority of growers, would be a very simple set of core management practices. There would be minimal paperwork, and the system should be self-reinforcing based on a simple “check list” approach. That is, rather than requiring comprehensive record keeping, owner/operators would only be required to tick a series of boxes on the completion of each core activity (in effect, a simplified self-audit). The second tier, targeting more sophisticated operations, would be a more conventional EMS approach. This could, for example, be based on ISO 14001 and be subject to external certification to provide greater credibility. Over time, preferably on a voluntary basis, vegetable growers could progress from the first to the second tier, provided appropriate incentives were provided.[51]

[50] note the Queensland Farmers Federation and the Queensland Fruit and Vegetable Growers have both released codes of practice to Queensland farmers

[51] For this approach to yield the best results, however, there would need to be a reason for vegetable growers to aspire to the more sophisticated EMS model. As indicated above, one incentive might be that an environmental logo be reserved exclusively for those in the second tier. A second incentive might the provision of additional

Fourth, As noted above, arguably the key driver of this initiative has been community pressure. A key concern for the vegetable grower industry, therefore, is community acceptance of their efforts, which could be gained in part by having broader stakeholder representation in the management of the industry's EMS program – something which is strikingly absent in its present form. Also notably absent from negotiations so far is any national environmental group, with an interest in, and capacity to provide its endorsement of the vegetable growers initiative and lend its credibility to any new logo or marketing effort. We explore the role of such industry-NGO partnerships in Chapter Four below.

Finally, a judicious combination of carrots and sticks is likely to achieve the best results. Those who are willing to undertake the proposed self-audit and send the results to the regulator will be a low inspectoral priority, which means in practical terms that they will not be subject to routine inspection. Those who go the further step to adopt a formal, albeit simplified EMS, will be given a logo and public relations benefits and will also, over time, gain an commercial advantage to the extent that larger wholesalers, supermarkets, or even consumers who recognise the logo, give them preference. On the other hand, those who take neither of these steps will receive notification from the EPA that, if their environmental practices are found wanting, they will be subject to formal regulatory action.

Harnessing supply chain pressure

One of the crucial problems confronting the program, and the VVGA in particular, having developed a set of best practice environmental management guidelines, is how to extend their adoption beyond a relative small band of committed industry "leaders". Not surprisingly, such leaders tend to be the larger, more sophisticated vegetable grower operations. A further handicap is that the VVGA membership is only approximately 25% of the total vegetable grower industry. Consequently, its normal avenues for distributing information will clearly not reach the entire industry sector. The danger is that, without some additional policy mechanism, the VVGA will have difficulty in expanding the program beyond a select few industry leaders.

One potentially promising mechanism for greatly extending the adoption of environmental management systems across the entire vegetable grower industry might be to employ a third party "regulatory surrogate" in the form of supply-chain pressure by the supermarket industry. The latter has the necessary leverage, in the form of commercial power, and close working relationship with the industry, as demonstrated in the area of quality assurance and food safety, to greatly enhance the use of environmental management systems amongst vegetable growers.[52] The question is whether either the industry or the large supermarkets have sufficient interest in the latter taking on this role, or whether the supermarkets can be induced to do so.

There would be mutual gains for the VVGA and the supermarkets in such a strategy. From the industry association perspective, pressure for an EMS or other form of environmental assurance from the supermarket industry is very likely in the medium to longer term and it is far better to take the initiative and become an active partner in this process rather than risk, as in the case of QA, standards being imposed upon it. From the perspective of the supermarkets, it is apparent from the international

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training for those vegetable growers wishing to make the transition. A third, and more interventionist step, would be for the imposition of a defined time limit for tier one vegetable growers – for example, they might be given three years to use the simpler environmental management guidelines, after which their continued participation in the program would be contingent upon them adopting the more formal, second tier EMS. A further strategy, that is particularly relevant to the issue of ever increasing obligations, would be to integrate the environmental management guidelines with quality assurance systems. This would have the dual benefit of reducing excessive paperwork, and improving the uptake by working from a point of familiarity.

[52] For example, in the UK, Tesco runs its own assurance scheme, Nature's Choice, which "includes guidelines on chemical inputs, energy and water efficiency, worker health and safety, wildlife and landscape conservation. At least 95% of Tesco's fresh produce sourced in the UK is now certified under the scheme and the standards are being introduced to suppliers worldwide", *Tomorrow*, Sept/Oct, 2000, p 23.

consumer experience that demand for "clean and green" produce is increasing, and that those who position themselves to demonstrably supply it, will gain a competitive advantage.

In addition to a regulatory surrogate "stick", a supplementary "carrot" to widespread participation would be to focus on the financial benefits that could accrue to individual vegetable growers. In this regard, noting the degree of scepticism evident in the industry, the lure of internal financial efficiency gains from cleaner production practices is unlikely to prove sufficient. A more powerful signal might be the use of an environmental logo, conferred by the VVGA, and endorsed by the EPA, enabling vegetable growers to capture a greater market share of existing markets, access to new markets and/or a price premium. The rapid growth in demand for "organic" fruit and vegetables is instructive in this instance.[53] The use of logos would obviously need to be coordinated with its use to achieve other policy ends, such as the earlier suggestion for it to act as inducement for growers to progress from streamlined to more comprehensive EMSs.

Conclusion

If the vegetable growers partnership is to prosper rather than merely survive, then further measures will be necessary. Not least, EPA must be prepared to contribute not just financially but also in substance, efforts must be made to harness the supply chain pressure which the supermarkets can provide (an issue dealt with more fully in Chapter Five) and the community must be empowered to become an active participant in the process and outcomes of achieving cleaner production. It is only by harnessing these pressures, by nurturing cleaner production initiatives through an industry partnership and by providing an underpinning of regulation for worst performers who do not respond, that regulators can achieve a long term improvement in industry standards. The result is that the best chances of a successful partnership in this agricultural sector involve multiple party, multiple instrument arrangements. We return to such arrangements in Chapter Six.

Rice growers and the New South Wales EPA

Another example of negotiated environmental partnerships between industry and government is provided by the rice growers and the New South Wales EPA. This particular agreement addresses the use and subsequent run off of herbicides used for rice production into irrigated water ways.

The Australian rice industry is not a particularly heavy user of chemical pesticides, comparatively speaking. However, they do apply "molinate" early in the growing cycle to prevent rice competitors from gaining a foothold. The subsequent use of herbicides is minimised by having the rice beds under a layer of water that restricts further weed growth. The amount and impact of herbicides, and other chemicals used, can be further minimised by its direct application to the water in the rice beds, as opposed to spraying from the air. The former strategy also minimises herbicide spray drift. But whichever method is used, it leads to chemical residues in waterways beyond the farm-gate.

In the Murray Darling Basin, the major region for rice growing in Australia, water released from rice beds re-enters the canal system for re-use further downstream. This can lead to an accumulation and concentration of water borne pesticides downstream. The herbicide residues can also, depending on the particular location, re-enter natural river systems. From a New South Wales EPA (the responsible regulatory agency) perspective, no distinction is made between artificial and natural waterways, and pesticide residues are monitored and maximum discharge levels enforced equally in either location (water pollution regulations administered by the EPA are covered by the *Protection of the Environment Operations Act*).

The release of chemical residues, including molinate, became a contentious issue during the mid 1990s, when water quality testing by the NSW EPA revealed a much higher level of excessive

[53] Moynihan R "Organics a go-go", *Australian Financial Review*, 1 Nov, 2000.

chemical contaminant incidences than was previously thought to be the case, galvanised the NSW EPA into action. However, the EPA confronted a dilemma. It could simply follow a traditional regulatory path and seek to legally enforce the water quality standards with the regulatory tools at its disposal, namely inspections, followed by improvement notices and fines for specific breaches. This however might prove to be a significant drain on inspectoral resources, and due to the geographical remoteness of the rice growing industry, might be difficult to effectively enforce. In addition, it might not have the desired effect in bringing about a change in grower attitudes to pesticide use – on the contrary, it risked the build up of regulatory resistance amongst rice growers who were culturally resistant to regulatory oversight.

Instead, the NSW EPA and the Rice Growers Association (RGA) jointly agreed to develop and introduce voluntary controls for the use and subsequent release of water borne herbicides by rice growers. In return, the NSW EPA would not seek to enforce its regulatory controls. In effect, a government agency and an industry body had negotiated an agreement that has all the hallmarks of a genuine environmental partnership. First, there is a clearly defined environmental improvement outcome, namely the reduction of herbicide residues in waterways. Second, there is a clearly defined responsibility on the part of industry, namely that rice growers will withhold paddy water containing these residues for a defined period. Third, there is a clearly defined reciprocal benefit bestowed upon industry by government, namely the avoidance of the imposition of EPA regulatory inspections and sanctions.

Unlike many of the environmental partnerships case studies described elsewhere in this report, which entail managements systems, best practices, and assurance schemes covering a wide range of environmental issues, the NSW EPA/RGA agreement is very highly focussed both in terms of the range of environmental issues it addresses and the responses required of industry. In short, the rice growers are required to retain rice paddy water immediately following the application of herbicide application for a minimum defined period to allow for the breakdown of chemical residues *before* the paddy water can be allowed to re-enter irrigation canals. The minimum defined holding period has been progressively increased over time.

This phased, voluntary approach adopted by the NSW EPA and the RGA has received strong support from rice growers, and reportedly, has been successful in achieving widespread application. Arguably, one of the major reasons for this success is its very simplicity and clarity. Rice growers know exactly where they stand, what is required of them, and what the benefits are. This is obviously a good start to effective environmental partnership formation and operation. But were there any other factors that contributed to its success? We discuss three other key elements below.

Cooperative structure

The rice industry, as a result of its cooperative ownership structure and vertical integration, is one of the most organised agricultural sectors in Australia. This characteristic, although not the only relevant industry factor[54], is conducive to the formation of environmental partnerships because it allows the industry to approach, negotiate and work with potential partners with a united and coherent voice. It also facilitates the exchange of information with individual farmers and provides greater confidence that they will act upon this information. The cooperative structure has led to the rice growers adopting a “socialistic” outlook, which strives to kept individual rice growers up to date with relevant technical and policy developments. This has helped, for example, with the introduction of modified herbicide use practices.

[54] For example, having a high profile, or a topical environmental issue, could also act to unite an industry through “a community of shared fate”.

Arguably, the structure of the rice industry, with its cooperative ownership and vertical integration, means that it involves a community of shared fate: misconduct of an individual grower will likely have adverse consequences for the industry as a whole. Because of this, considerable peer pressure can be bought to bear to avoid environmentally irresponsible actions of a few rice growers that could reflect badly on the entire industry. In such circumstances, there is a strong incentive for each rice grower to maintain industry wide standards, in this case the withholding of paddy water after herbicide application.

Californian precedent

The Australian rice growers maintain strong links with their counterparts, the Californian rice industry. This is a function of similar growing conditions and cultural synergies. Regular contact is made between the two industry groups, including the sharing of technical and farm practice information. This information exchange, however, also extends to the consideration of environmental issues. In this respect, from the perspective of the Australian industry, the Californians are considered to be more environmentally progressive. The reason for this, it is argued, is the much closer proximity of Californian rice growers to suburban populations. This means they not only have to take into account the impact of their activities on the health of these populations, but that their relative geographical proximity subjects them to broader environmental concerns of urban populations. These factors have led, for example, to much stricter controls being placed on the practice of "stubble burning" (whereby residual woody rice stems are burnt prior to new crops being planted) in order to reduce air pollution, and to agreements with conservation groups to provide wetlands for migratory birds (see Chapter Four below).

In the case of reductions in pesticide run-off, the Californian rice growers had already introduced restrictions on the release of paddy water following the application of herbicide sprays. Indeed, this had occurred some several years before the Australian example. The Californian approach was also based on a voluntary agreement with their relevant regulatory authority. Given the history, prior to the advent of their partnership approach, the Australian rice industry sent a delegation to California to examine their experiences. It was in large part this visit that both inspired the industry to go down the voluntary route, and provided the necessary reassurance that it was technically and economically feasible.

The threat of legislation

A fundamental requirement of negotiated environmental partnerships between government and industry bodies is the existence of a less palatable alternative, that can be applied by the government in the event of a failure to reach agreement. In the case of the NSW EPA/RGA partnership, the industry was well aware that the EPA had at it disposal significant regulatory controls, and that it would be more than willing to employ them if agreement could not be achieved. This had the effect of bringing the industry to the negotiating table, and providing them with a clear incentive (in the form of regulatory relief) to develop an acceptable voluntary agreement. It also provides an ongoing incentive for individual rice growers to conform to their pesticide management obligations.[55]

Negotiated agreements: An evaluation

It will be apparent from the above, that negotiated partnerships between industry and government could potentially be beset by a variety of difficulties. This raises the question of how such agreements can be best designed to overcome or at least to mitigate such problems and what lessons can be learned from existing agreements.

[55] The advent of national air pollution standards provides another threat/opportunity for the rice industry in relation to the practice of stubble burning and the consequent thick clouds of smoke generated from this practice.

Our conclusions are somewhat tentative because unfortunately, the empirical literature on negotiated partnerships between industry and government is very limited. Many existing agreements (such as the quite substantial number of such agreements in the industrial sector in Europe, and Landcare in Australia) nor only lack clear targets, but also have inadequate reporting requirements and deadlines, making evaluation of their success extremely difficult. Indeed, one of the few things upon which almost all analysts of voluntary agreements seem to agree is that far too little attention has so far been given to evaluating either their economic or environmental benefits.[56] Nevertheless, based on this limited evidence available, we seek to address below the most important success and design factors

Assessing "first generation" instruments

Preliminary assessments of the value of first generation voluntary agreements are mixed. In some countries, and in some particular contexts, voluntary agreements have demonstrated their value, as the Japanese experience[57] and the record of the hybrid Dutch covenants illustrate (and it may be no coincidence that the cultures of these countries are particularly conducive to voluntary approaches). But initial reports of a number of other 'successes' have been heavily criticised.

Harrison, for example, argues that first reports of environmental benefits of many voluntary programs relative to reference years almost certainly exaggerate program effectiveness, since some fraction of improvements typically would be attributable to market incentives in the absence of the voluntary program. Moreover, "since participation is voluntary, claims of benefit beyond 'business as usual' can be viewed with less confidence since firms may be selectively signing on only to do what they would have done anyway".[58] Another general survey of voluntary agreements has also concluded that many of the first generation of negotiated agreements have not been markedly successful.[59] Even the claim that negotiated agreements tend to reduce administrative burden is not confirmed by existing empirical evidence or analysis.[60]

There may be a variety of reasons for the very modest success of many of the first generation of voluntary agreements, including: the central role of industry in the target-setting process, the scope for free-riding, the uncertainty over regulatory threats, non-enforceable commitments, poor monitoring and lack of transparency.[61]

Success criteria

In turn, the manifest deficiencies in the design of first generation instruments suggest a number of lessons about how to design such agreements better in the future. For example, the OECD has

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[56] Davies T and Mazurek J *Industry Incentives for Environmental Improvement: Evaluation of US Federal Initiatives*, Washington DC, Global Environment Management Initiative, 1997; National Research Council, Fostering Industry-Initiated Environmental Protection Efforts (Washington: National Academy Press, 1997; Beardsley D *Incentives for Environmental Improvement: An Assessment of Selected Innovative Programs in the States and Europe*, Washington, DC, Global Environmental Management Initiative, 1996; European Environment Agency Environmental Agreements; Harrison K "Voluntarism and Environmental Governance" in *Governing the Environment*, E Parson (ed) forthcoming, Chapter 5; *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000.

[57] Tsutsumi R "The Nature of Voluntary Agreements in Japan" *CAVA Working Paper* No: 99/10/8

[58] Harrison K "Voluntarism and Environmental Governance" in Governing the Environment EA Parson (eds) forthcoming.

[59] See generally, Gibson R, *Voluntary Approaches, the New Politics of corporate Greening*, Broadview Press, Ontario, 2000.

[60] One key feature is that they transfer administrative tasks to industry (ie to firms and /or trade associations) This leads in general to lower administrative and compliance costs through more flexible and less demanding reporting and monitoring tasks. But also, they generate new types of administrative and compliance costs ie transaction and bargaining costs entailed by the need for consensus. *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p 131.

[61] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p 131.

identified a number of "success" criteria that if followed, may achieve more positive results. These are as follows.[62]

- *clearly defined targets*: the targets should be transparent and clearly-defined. Moreover, the setting of interim objectives is crucial since they permit all the parties to identify difficulties arising during implementation at an early stage. Government should take the initiative in target setting, obtaining information from a variety of sources, such as benchmarking;

- *characterisation of a business-as-usual scenario:* before setting the targets, estimates of a business-as-usual trend - what the emission levels or other target variables are likely to be, given natural technical progress within the industry in question – should be established in order to provide a baseline scenario;

- *credible regulatory threats*; made at the negotiation stage, a threat of regulation by public authorities provides companies with incentives to go beyond the business-as-usual trend: "when the agency has a stick waiting in the wings, industry is more likely to accept the carrot. That is, the existence of a regulatory threat as an alternative to an agreement, promotes voluntary action by industry[63];

- *credible and reliable monitoring:* provisions for monitoring and reporting are essential for keeping track of performance improvements. They constitute the key for avoiding failure to reach targets. Monitoring should be made at both the company level and the sector level in the case of collective VAs. In certain contexts, monitoring by independent organisations may be used;

- *third party participation:* involving third parties in the process of setting the VA objectives and in its performance monitoring increases the credibility of VAs. More generally, environmental performance should be made public and transparent. It provides industry with additional incentives to respect their commitments;

- *penalties for non compliance:* sanctions for non-complying firms should be set. This can be achieved by either making binding commitments or linkages between VAs commitments and regulatory requirements (eg the integration of VAs requirements into operating permits). "without legal accountability, industry cannot realistically be expected to follow through on their promises when conflicts arise" , (see the Danish energy agreements, which involve non-complying firms forfeiting their tax rebate);

- *information oriented provisions:* in order to maximise the informational soft effects of VAs, support for activities in technical assistance, technical workshops, edition of best practice guides, etc should be promoted; and

- *provisions reducing the risk of competition distortions:* in the case of collective VAs, safeguards against adverse effects on competition could be provided by notification of new VAs to anti-trust authorities.

The scope for agricultural industry-government partnerships in Australia

There have so far been relatively few government-industry partnerships in Australian agriculture. Why is this the case? Has the potential for such partnerships not been fully exploited, or are there too

[62] This summary is taken from *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, pp 134-135; and Covery F and Leveque F "Applying Voluntary Approaches- Some Insights from Research" CAVA Workshop, Brussels, Feb, 2001.

[63] See Segerson K and Miceli T "Voluntary Environmental Agreements; Good or Bad News for Environmental Protection?" *Journal of Environmental Economics and Management*, vol 38, 1998, pp 158-175.

many impediments to their development, with the result that the scope for their introduction is very limited? The truth lies somewhere between these two extremes. That is, there is indeed considerable potential to develop such partnerships, but only if they are carefully designed and only in a limited range of circumstances, which we seek to specify below.

There is considerable resonance between the factors we identified as important in our own case studies, and analysis of voluntary agreements in Europe. The European evidence suggests that four factors as crucial to the success of industry-government agreements: (i) the degree of mutual respect and trust between the authorities and the target group (made easier in the case of the rice and vegetable growers by the co-operative approach taken by the EPA) (ii) whether real alternative policies, such as regulation, can be pursued in the absence of an agreement (for the vegetable growers, the fear of future legislation in relation to pesticides, for the rice growers, the imposition of existing legislation); (iii) the 'accessibility' of the target group, based on factors such as its homogeneity, the number of players, or the existence of a strong representative body able to negotiate on behalf of the group (a considerable challenge with the vegetable growers since only a minority belonged to the industry association), and (iv) the existence of environmental competitive advantages in the target sector (for the vegetable growers, secure access to the large supermarket chains and market advantages from 'clean and green' produce).[64]
Our own research also serves to emphasise the crucial importance of two other issues. First, in the political context of Australian agriculture, not all of the above factors are of equal significance. On the contrary, a credible threat of regulation, of 'bargaining in the shadow of the law' will be of paramount importance to the success of many such partnerships. And yet it is the factor likely most commonly to be lacking. As we pointed out in Chapter Two, traditional forms of regulation have only been rarely applied in the circumstances of Australian agriculture. A traditional antipathy to regulation in the rural sector, strong and successful lobbying by farmers' groups, and recognition of the difficulties of actually enforcing such legislation, have combined to make such regulation a politically unattractive option. We emphasise this point here, because where such credible threats of regulation are lacking, it will be essential that the agricultural partner is given some other compelling reason to enter the partnership.

This might take the form of supply chain pressure (dealt with more fully in terms of industry-industry partnerships below) or other market advantages. But as we will see, where these are the most important motivations for entering a partnership, the most important partners are likely to be environmental groups (who provide the greatest credibility) or industry partners such as supermarkets who provide the greatest industrial muscle). In which case, the partnership will be of a very different nature with government playing, at best, a facilitative or minor role in a broader multi-party arrangement.

This leads directly into our second point, again illustrated most clearly by our case study of the Victorian vegetable growers, namely that it will sometimes be necessary to design partnerships which involve a broader combination of partners (in this case, supply chain pressure via the supermarket chains, and community participation) and a combination of instruments (in this case an underpinning of government regulation to provide incentives to join, to create a level playing field and to punish recalcitrants). As we argue in Chapter Six, it is often these broader, multi-party, multi-instrument partnerships, which have the greatest chance of success.

[64] De Clercq M, Seyad A, Suck A and Ameels B A *Comparative Study of Environmental Negotiated Agreements*, NEAPOL, http://www.fetew.rug.ac.be/neapol

Chapter Four – Industry and environmental NGO partnerships

A still evolving environmental partnership model is the "green alliance" between an agricultural sector or an individual enterprise, and one or more environmental NGOs. Such alliances involve collaboration between business and environmental groups to pursue mutually beneficial goals. Most commonly, business seeks to obtain the political goodwill and credibility which NGOs bring to the partnership – benefits which may translate into risk reduction, decreased costs or increased revenue. In exchange, environmental groups will expect a commitment to improved environmental practices on the part of their business partner (see Box 4).

Although some agricultural producers and groups may be uncomfortable with the notion of working with a major environmental organisations, few, if any, other options can provide the same advantages in terms of environmental credibility. This is because the public, while highly sceptical of business and government as sources of information, still trusts environmental organisations. Business-environment group partnerships harness this credibility to lend legitimacy to business claims about its achievements. For example, an environmental organisation might bestow an environmental logo that would appear on approved agricultural produce, or they might participate in a joint environmental marketing program for an entire agricultural sector, in exchange for specified and measurable environmental improvements. Since consumers (and export markets) express a preference for "green" produce (although it has not been demonstrated that they are willing to pay a price premium for doing so) such environmental group endorsement, provided it is recognised in the market place, may be a particularly valuable asset, which may assist the sales of agricultural produce, either in terms of greater market share, access to new markets or conceivably, price premiums.

In addition, such partnerships may provide some political benefits, assisting an agricultural sector in arguing its case during the development of future government policy, and increasing the 'social and environmental capital' of the sector. This is becoming increasingly important to the extent that "companies must have established trust and relationships with local stakeholders to allow them to efficiently operate without negative interference by the local and broader stakeholders."[65] Partnerships enable business to be "seen to be responding to community concern" and thereby increase community trust. There may also be benefit to the extent that investment markets increasingly reward environmentally responsible organisations. Developing a working relationship with a major environmental organisation may also provide an agricultural sector with a fresh perspective in terms of how it might address environmental problems. Such organisations may be able to draw on a reservoir of expertise, for example relating to issues such as integrated pest management practices, that may not be familiar to various agricultural sectors. More broadly, this could facilitate the implementation of innovative and cost effective environmental solutions.

The early examples of green alliances were predominantly in the industrial sector. Of these, perhaps the best known was the partnership between McDonald's USA and the Environmental Defense Fund. McDonald's, having come under sustained criticism from NGOs for their lack of environmental commitment, committed itself to replace styrofoam packaging with paper packaging in all stores. In return, EDF provided its endorsement of this arrangement thereby enhancing McDonald's environmental credentials. More recently, this model has been expanded and applied far beyond the industrial sector. For example, an agreement between Mitsubishi Motor Sales and the Rain Forest Action Network has stopped boycotts at the company's dealerships and has opened the door to creating an option (a forest protection carbon offset) that will differentiate Mitsubishi products in a competitive marketplace. And a WWF partnership with Unilever has sought to create economic incentives within the seafood industry for sustainable fishing, through the launching of the Marine

[65] Greenall D and Rovere D *Engaging Stakeholders and Business-NGO Partnerships in Developing Countries*, Centre for Innovation and Corporate Responsibility, Canada, 1999, p 4.

Stewardship Council (itself modelled on the success of the Forest Stewardship Council, see Box 5 below).

Box 4 – Business and NGO engagement

Drivers of business engagement with NGOs

Markets.
NGO credibility with public on issues and priorities.
Need for external challenge.
Cross-fertilisation of thinking
Greater efficiency in resource allocation.
Desire to fend off negative public confrontations.
Desire to engage stakeholders.

Drivers of NGO engagement with business

Growing interest in markets.
Disenchantment with government as provider of solutions.
Need for more resources, eg funding , technical and management expertise.
Credibility of business with government.
Cross-fertilisation of thinking.
Access to supply chains.
Greater leverage.

Source: Elkington J and Fennell S "The Shifting Nature of NGO-Business Relations", *Greener Management International*, Winter, 1998, p 50.

While still a minority, mutually beneficial collaborations between industry and environmental groups have also begun to develop in the agricultural sector. In the remainder of this section, we provide a number of representative examples, both internationally, and from Australia, of what such partnerships might involve. From these studies and from the broader analytical and empirical literature, we then derive broader propositions concerning the circumstances in which such partnerships can most beneficially be formed, their major commercial and environmental benefits, and the design factors which will influence their success. We begin by describing in Box 5 below the sponsorship partnership between Banrock Station and Wetland Care Australia.

Box 5 – Banrock Station wines and Wetland Care Australia

Banrock Station is a commercial enterprise owned by BRL Hardy Wines, and Wetland Care is a private, non-profit environmental organisation (which is the trading name of Ducks Unlimited Pty Ltd) that is dedicated to wetlands protection. Their environmental partnership takes the form of a sponsorship arrangement whereby a certain percentage of the profits from the sale of Banrock Station wines is given to Wetland Care Australia (and Landcare) to fund wetland rehabilitation activities. To date, some $440,000 in sponsorship money has been generated within Australia.

The wetlands sponsorship program has been extended beyond Australian borders to support a number of wetlands initiatives around the world. For example, there is environmental sponsorship agreement with the Finnish Branch of WWF. In each of these international cases, sponsorship funds are from sales of Banrock Station wines in the same country. That is, Banrock Station utilises local sales to support local environmental organisations working in the wetlands area. This provides a more immediate connection between local consumers and the benefits of Banrock Station wines.

The principal benefit to Banrock is the marketing advantages of participating in good environmental works. This comes about in several ways:

- there is point of sale benefit in that a number of the Banrock Station wines labels have the Wetlands Care Australia logo on them (or in some cases a bottle neck tie);
- there is agreed text that can be used at point of sale or in magazine articles and advertisements;
- there is a broader marketing benefit from media publicity, for example joint press releases (with Wetland Care Australia) and newspaper articles;
- Banrock Station has received environmental awards for its work; and
- there is the more nebulous, but nevertheless significant, "word of mouth" promotion that comes from their environmental credentials.

A Banrock Station representative stated that the sponsorship program had not resulted in a price premium for their wines but that the marketing benefits had translated into a greater market share, including in sensitive export destinations. How did the Banrock Station initiative come about? There were two main reason. First, there was support at senior levels of BRL Hardy management to make some progress on environmental issues. Second, Wetland Care Australia had already conducted the rehabilitation work on Banrock Estate and presented a detailed sponsorship proposal to BRL Hardy management.

The Banrock Station sponsorship arrangement provides Wetland Care Australia with over 90% of its total private funding, and this represents approximately 10% of its total revenue. Attempts to replicate the Banrock Station partnership have not yet met with much success:
Why was Wetland Care Australia able to get sponsorship from BRL Hardy, but no one else? According to one respondent, it was because "we were there from the beginning. They already knew who we were and the work we did to protect wetlands. The fact that we were on the ground was critical in making the relationship work."

The Californian Rice Industry, Ducks Unlimited and the California Wildfowl Association

The California rice industry has often been characterised as an environmental villain, consuming vast amounts of water, which was desperately needed for other purposes, particularly during droughts. The industry also burned thousands of tons of post harvest straw, causing major air pollution, and was a heavy user of pesticides. This, together with the loss of natural habitat, decimated the bird population of the local area. Battles with local environmentalists raged throughout the 1980s and the general reputation of the industry suffered considerably. The general public also began to demand change and the rice growers found their allocation of scarce water to be threatened by other prospective users. More recently, they feared the introduction of new, tougher environmental legislation which might threaten their economic viability.

Against this backdrop, rather than merely resist such pressures and fight environmental reform, the California Rice Industry Association adopted a much more innovative and proactive position. First, they recognised potential common ground with some major environmental NGOs: Ducks Unlimited and the California Wildfowl Association, and arguably also with the Sierra Club, and they set out to build political alliances with these groups. In particular, they sought to demonstrate the potential value of the rice fields as a sanctuary and breeding ground for birds. They showed that by flooding a significant proportion of the rice fields after the crop had been harvested, they could create an environmentally valuable artificial wetlands. As a result, the Rice Growers were able to develop an alliance with the first two of these influential environmental groups. This in turn helped them to resist pressure to reduce their water allocation and redistribute it to users in Southern California and elsewhere.

The turning point was a series of sometimes heated meetings between the industry and environmental groups during the early 1990s. It was at these meetings that the two sides discovered that in many respects, they had similar goals: water and soil conservation, water and air quality improvement, and wildlife habitat creation.[66] Out of these meetings, and this perception, evolved the Ricelands Habitat Partnership (RHP), an alliance between the California Rice Industry Association, the Nature Conservancy, Ducks Unlimited, and the California Waterfowl Association. This alliance aimed at a win-win-win situation from which the rice farmers, the environment, and society in general, all benefited:

> Innovations allowed farmers to sustain the bird population while ameliorating legal and image problems. When new clean air legislation mandated significant reductions in field burning by the year 2000, the RHP proposed winter flooding of rice fields to comply with the new law and save wildfowl. It convinced the US Bureau of Reclamation to supply necessary water from rivers overburdened with winter rain and mountain run-off, with the farmers returning excess during the dry season.[67]

Each year, the industry now floods between 150 and 200,000 acres of Sacramento valley rice fields (about 30% of California's rice growing area) after harvest. This fulfils a number of purposes. First, it creates seasonal wetlands that enable millions of wildfowl to breed, (described as 'a bed and breakfast for ducks and other migratory wildfowl') and also serves to replenish groundwater, and improve land fertility. Second, it allows the rice stubble to decompose naturally in a semi aerobic environment that the wetlands created (assisted by the use of heavy grade rollers to push the straw back into the soil), avoiding the necessity for burning and thereby substantially ameliorating to air pollution.

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[66] Hartman C and Stafford E "Crafting 'Entrepreneurial' Value Chain Strategies through Green Alliances" Business Horizons, March-April, 1998, p 62.

[67] Hartman C and Stafford E "Crafting 'Entrepreneurial' Value Chain Strategies through Green Alliances" Business Horizons, March-April, 1998, p 62.

A further environmental initiative has been to collect, bale and sell the rice straw as building and related material. The industry is working with government and others to devise means to make this an economically viable proposition, for example by developing markets for such material. Environmental groups have been supportive where the industry has sought government financial support to achieve these goals. Government also provides a modest tax credit for the purchase of rice straw.

The industry is also developing best management practices to reduce pesticide use. Such practices include the use of buffer zones, aerial spraying only in specified conditions, and in prescribed areas, regular monitoring of pesticide levels in drains, and a withholding period for specific chemicals (eg molinate) before it is released from the rice fields. According to industry representatives, this initiative has brought about a substantial drop in pesticide levels in drains, and has been achieved with the very substantial cooperation of the industry itself. As one representative told us: "we know how to fight politically, so this program only succeeds with the compliance and support of the industry, and we are smart enough to know it's good for us". Considerable efforts have been made to make this initiative work, including water holding periods in the field, massive infrastructure to provide the technical capacity to achieve this (eg pumps and a conveyance system to allow the water to move in a closed system).

Since the initiative has mainstream industry support, free riders are resented and identified by fellow growers. As one of our interviewees put it: "our growers know its important to keep to the holding periods, the guy next door will turn you in because it damages him". Those identified in this manner are likely to be "nailed" though regulatory intervention and fines. That is, while government regulators are comfortable in a day to day sense for the industry to police itself, they intervene to the extent that free-riders cannot be curbed by the industry association acting in isolation.

Since these are not "win-win" situations, the industry acknowledges that these environmental measures were taken reluctantly and only as a pragmatic response to external pressure. It is acknowledged that where the regulator is weak and there is no other external pressure, the most likely response would be to resist change. However, where there is an increasingly strong environmental movement, and a regulator with teeth, then a rational and proactive approach has been for the industry to seek a compromise solution that will sufficiently protect its economic interest, while making significant efforts to accommodate to the expectations of the regulator and the community. In essence the industry takes a proactive approach to protect itself from further intrusive regulation which might well threaten both its autonomy and its economic viability.

As a bottom line, it is regulation itself (as in the case of burning off, air quality and Air Resources Board controls) or the threat of regulation (for example with respect to herbicide use) that is the most powerful inducement to the industry to negotiate credible environmental partnerships, either with the government or with environmental groups or with both. It is bargaining "in the shadow of the law" that has achieved the best results. There is no evidence, at least from this case study, to suggest that in the absence of demonstrably "win-win" outcomes, or such external pressure, a major industry association would enter environmental partnerships committing itself to substantial expenditure and environmental improvement.

Notwithstanding the element of political expediency in such partnerships (commonly described as 'enlightened self-interest' and the outcome of a 'dynamic tension'), they may produce gains not only for the industry itself (as in the extent to which it can generate markets for rice stubble and ward off the threat of a reduced water allocation) but also for the public and the environment (as when greater pesticide reductions are achieved with the cooperation of the industry than through purely external controls, when stubble is decomposed or reused rather than burned, and as when flooding produces artificial wetlands).

The Californian Rice Growing Industry is also regarded as an "ice-breaker" and a model that other industry sectors might choose to follow in terms of developing more innovative, and partnership-based approaches to resolving environmental problems.

Box 6 – The Forest Stewardship Council

Paper and timber products are very widely used for a diverse range of purposes by almost all consumers in developed countries. Continuing access to these products, as well as broader eco-services, is dependent upon the sustainability of the world's forests, which are increasingly under threat. One way to ensure that there is a future for the world's forests, would be to only buy products that come from sources where sustainable forest practices are used. But how can you tell which forest a piece of paper or wood comes from? How do you know if the product has come from a forest that has been destructively clear-cut or managed in a sustainable way to ensure the health of our planet? What is needed is a way to identify timber and paper products that come from well-managed sources. Certifying forests is one solution.

To support such an initiative, the Forest Stewardship Council (FSC) was established by representatives from environmental organisations (most prominent being WWF), foresters, timber traders, indigenous peoples' organisations, community forest associations and forest product certification institutions. As an independent body, FSC accredits forest certification programs. Such certification involves third party auditing of the quality of forest management against performance standards, a 'chain of custody' and a label enabling the consumer to identify the certified product. It encompasses a wide range of environmental, social, and economic issues to encourage sustainable forest management worldwide.

This initiative has also led to the formation of Forest and Trade Networks (formerly known as Buyers' Groups) - partnerships between environmental groups and industry, whose members are committed to purchasing forest products from well-managed forests and to supporting independent certification. More than 600 companies now make up this growing global network in 18 countries worldwide. As the demand for greater social and environmental accountability increases in today's marketplace, WWF and the FSC hope that these enlightened companies and others who are interested in joining the Network, will gain both competitive edge and increased market share whilst helping to conserve forests.

Source: United Nations Global Compact http://www.unglobalcompact.org/

Mothers and Others, apple growers and CORE Values Northeast

Mothers and Others is a non-profit consumer advocacy and environmental NGO that aims to bring about reductions in the use of pesticides, in particular, by exploiting the "the collective marketplace power of mothers, among others, on choices that are healthy, safe and environmental sound for the families and communities".[68] Mothers and Others was formed in 1989 with funding and support from the Natural Resources Defence Council. Since then, it has been active in supporting legislative reforms for food safety, for example, the Food Quality Protection Act in 1996. Its most significant activities, however, are directed at the use of consumer power to influence primary producers up the supply chain. According to their promotional literature:

[68] http/www.mothers.org/mission.html, 15 May, 2001.

> Mother and Others leads the effort to open supermarket shelves to foods and other products that are safe and sustainably produced, demonstrating the effective power of focussed consumer demands.[69]

A concrete example of this role is provided by the CORE Values Notheast program. In essence, this is an environmental partnership between Mothers and Others and the apple farmers in the Northeast region of the United States "to create a supportive market environment for farm products that are locally grown and ecologically responsible." CORE stands for "Communities Organized in Respect for the Environment", and was "assembled under the leadership of regional apple growers with applied expertise in ecologically-based crop management and the consumer education organisation, Mother and Others". CORE representatives include scientists, agricultural extension officers, government agricultural officials, apple distributors, marketing specialists, and retailers, as well as the growers themselves.

The program, which began in 1995, emphasises the use of Integrated Pest Management practices on apple farms. It is recognised that in the Northeast's wet climate, organic production methods are not viable. Instead, the program promotes the use of a mixture of natural and synthetic pesticides that "try to have the least impact possible on natural systems".[70] The CORE Values Northeast program has a number of specific goals and objectives. These are to:

- improve market opportunity for local, ecologically-grown apples;
- increase orchard acreage under ecological management in the Northeast;
- develop a model knowledge-based certification program to accredit Northeast apple growers utilising biointensive Integrated Pest Management production methods on their farms;
- establish a supportive market environment for certified fruit;
- identify and seek to address market barriers that could impeded expansion of the Core Values Northeast program and limit supply of quality fruit grown according to environmental standards; and
- create greater consumer awareness of the benefits of local, environmentally grown foods.

In order for apple growers to become partners in the CORE Values Northeast program, they must achieve certification under a set of standardised benchmarks for Integrated Pest Management. These include a commitment to: train farm managers in environmental and safety practices; develop best practice methods for "site, rootstocks, cultivar and planting system for new orchards"; minimise groundwater pollution, especially of nitrates; use mechanical methods to minimise weeds over herbicides; minimise spray drift; and allow at least one scheduled visit by representatives of the partnership program to educate growers about environmentally preferred practices. In addition, participating growers must agree to keep detailed records of their practices that are available upon request to a third party inspector.

Participation in the CORE Values Northeast program is overseen by a Certification Committee which outlines, in particular, a set of guidelines for a Farm Plan to achieve Integrated Pest Management. All Farm Plans are gathered by the Certification Committee, reviewed for completeness and provided to an inspector for verification. The inspector also reviews all farm plans; makes pre-arranged inspections of the farms which have applied for certification; and submits final reports to the Certification Committee. More recently, the CORE Values Northeast program has outsourced the management of the certification program, including requirements for grower participation and farm

[69] http//www.mothers.org/mission.html, 15 May, 2001.
[70] www.corevalues.org/consumers/organic.html, 15 May, 2001.

inspections, which will be managed by the IMP Institute of North America (this is a non-profit organisation that recognises and rewards goods and service providers that practice Integrated Pest Management).[71]

Given the often small size of apple grower operations in the Northeast, the introduction of Integrated Pest Management practices is a major commitment on their part. What, then, are the incentives for apple grower participation? These are twofold. First and foremost, is the opportunity to access markets for environmentally sound apples. In a economically marginal industry, any commercial advantage may be attractive. According to one apple grower:

> We have to get closer to the consumer if we want to stay in the business. I thought the Mothers and Others policy statements [for CORE Values Northeast] were well done, and I was impressed with the depth of knowledge they had acquired. Producers and consumers should be getting together. We need a consumer advocacy group that can be a catalyst for bridging that gap.[72]

But how is that gap bridged? On the supply side, this is done through the introduction of an eco-label for apples certified under the CORE Values Northeast program. According to official literature:

> … an eco-label provides an important vehicle to educate consumers about environmental improvements being applied in food production and creates an option for consumers, enabling them to apply socially held values to purchasing decisions. In so doing, eco-labelling becomes an important part of a larger effort to strengthen alternative economies that support local producers, sustainable agriculture and regional economies.

But simply supplying an eco-label for growers may in and of itself not be enough: it is also necessary to create a demand. It is in this respect that CORE Values Northeast program is highly innovative. In short, it is not just partnership between Mothers and Others and apple growers, it is also a partnership with apples purchasers:

> This model eco-labeling program brings together Northeast farmers and consumers as partners in defining ecologically responsible agriculture - through the certification of regional farmers utilizing bio-intensive Integrated Pest Management (IPM) production methods. Our primary goal is to build public awareness of and demand for local, ecologically-grown apples through consumer-centered media and market-based education strategies.[73]

One particularly effective example of this capacity to generate consumer interest is through a partnership between Mothers and Others and Manhattan public schools. There are over 160 public schools in the Manhattan district. As of Fall 1998, all of these schools agreed to serve "exclusively local, ecologically grown apples from the Northeast region." In one fell swoop, Mothers and Others had captured a significant market share for apples grown under its CORE Values Northeast program.

The second incentive for grower participation is a confirmation and recognition of existing and/future efforts to farm apples in an environmentally sustainable manner. Many of the partner apple growers in the CORE Values Northeast program have a personal commitment to environmental improvement. Although "some farmers are further along the path than others", many "were … trying to do the best we can in our specific situation".[74] As noted above, the grower representatives in the CORE Values Northeast program have an "active commitment towards maintaining a healthy agricultural base and a sound environment in the Northeast".[75]

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[71] www.impminstitute.org/newsletter_archive.htm, 15 May, 2001.
[72] www.corevalures.org/concusmers/profile_clarke.html, 15 May, 2001.
[73] www.corevalures.org/concusmers/profile_clarke.html, 15 May, 2001.
[74] www.corevalures.org/concusmers/profile_clarke.html, 15 May, 2001.
[75] www.lymanorchards.com/cvn.htm, 15 May, 2001.

Has the CORE Values Northeast program been successful? The Northeast apple growing region is second only to Washington State in terms of overall annual production. In particular, approximately 42 million bushels of apples were grown and harvested in 2000r. Of this, the CORE Values Northeast program represents approximately 800,000 bushels produced by some 24 individual apple growers. Clearly, then, the program is a relatively minor component of total apple production in the region. However, against this it must be recognised that the program's scale itself is relatively modest, with limited financial and institutional support.

The success of the CORE Values Northeast program can be judged in two ways. First, in terms of its capacity to generate markets for those partner apple grower with a existing or at least potential interest in ecological apple production. In this regard, the program has undoubtably been a success. In addition to the exclusive sale of their produce to Manhattan public schools cited above, apples sold under the CORE Values Notheast program are sold through several retail outlets, including D'Agostino's in New York City, King's Supermarket, Bread & Circus and numerous natural food stores, co-operative stores, and markets throughout the Northeast.

This focus on Northeast outlets is a key component of the program, that is, the promotion of local produce. Just as the CORE Values Northeast program itself is locally run and operated, so to are its primary markets. This local bias is emphasised in promotional literature surrounding the program:

> When you pick CVN apples, you are getting more than great tasting, nutritious fruit for your family. You are making a responsible choice in favour of a strong, local, ecologically-based agriculture. You are supporting growers and their families whose homes and farms are within a few hundred miles or less of where you live and work, and whose farm practices help protect your family's drinking water, open space and air quality. … Keeping a local agriculture vibrant is good for the whole region, not only to maintain our scenic landscapes and quality of life, but also to help keep our local economy thriving.

We address the issues of "regional branding" in Box 7 below.

A second measure of success is the extent to which the CORE Values Northeast program has been able to convert or convince more mainstream apples growers to adopt their Integrated Pest Management practices and subsequent eco-label. In this respect, the program has been less successful. Even taking into account its very limited resources, the fact that it has not been able to extend its apple grower partnership base by any significant proportion is a serious limitation of the program. In fact, the total number of participant growers has not increased, and quite probably decreased, in the last few years. This raises the possibility that the program may be largely preaching to the converted.

Mothers and Others intends to replicate the Core Values Notheast program in a number of different regions, and across a number of different product lines. For example, work has begun on a national organic cotton fibre project. However, the challenge for the CORE Values Northeast program remains to generate much greater consumer interest in their Integrated Pest Management eco-label. According to a recent report:

> a major task is to increase consumer recognition of IPM, reported at less than 20% vs more than 80% for organic.

A critical factor in this regard, will be the ability to pressure retail outlets to exercise a purchasing preference of certified product. Box 6 above, provides a dramatic illustration of the potential role of retailers in supporting environmentally certified produce in the case of the Forest Stewardship Council.

Box 7 – Regional branding

Regional branding is one route available for exploitation by environmental partnerships between environmental NGOs and agricultural sectors with a particular regional focus. Micheal Dimock, the Founder and President of *Sunflower Strategies*, a private firm that specialises in regional branding and eco-labelling in the United States, suggests that this can assist in the formation of successful community-industry partnerships with wider consumer appeal. His key points include:

- Consumers do not understand the value of food – there is a need to develop and implement strategies to add value.
- Regional identity is one of the few authentic differences between products.
- Product differentiation base on regional branding works.
- Time is on our side – as arable land is lost, population grows, the value of food increases.
- Cooperation is essential – firm-firm, government-firm, government-firm-community.
- Regional branding is not easy – it takes time, flexibility, cooperation, capital and belief by producers in their own values.
- The need is to know your target market – knowledge, speed, together with connectivity and alliances are important.
- Each niche seeks its own qualities built around regional branding and/or eco-labelling.
- Eco-labelling is designed to capture consumers concerned by personal and planetary health by confirming – o packaging or point of purchase – that earth friendly production practices were used. Organic labelling is a sub-set.
- Biologically Integrated Farming Systems is also part of the eco-labelling agenda. Its goal is to confirm a sustainable approach with a large reductio of inputs – involves soil building, bio-control for pests, elimination of hard materials – toxins and carcinogens, efficient water use.

Sources: AFFA/BRS Seminar: Sustainable Agriculture and Regional Branding – recent international experience and market trends, August 2000; and R Brown “Regional Branding – some new perspectives, 2000.

Other partnerships for Integrated Pest Management and sustainable agriculture

Lori Ann Thrupp has conducted a series of case studies, in both developed and developing countries, on environmental partnerships between farming groups and NGOs (and often scientists and government or inter-government institutions) to replace chemical-intensive farming methods with alternative agro-ecological approaches[76]. The nine collaborative sustainable agriculture initiatives studied all focussed on implementing ecologically oriented integrated pest management (IPM).[77] Through this approach, all the projects significantly:

- reduced agrochemical inputs and costs, as well as health risks;
- regulated pests and diseases at acceptable levels;
- maintained or increased yields, contributing to productivity and food security;
- increased 'health' of the farming system (eg soil quality and resilience); and
- spread the benefits widely and/or empowered communities.

It is also important to note that over the medium to long term, IPM has proved to be more profitable than the conventional approach, although farmers sometimes bear transition costs for the first one or two years.

But what induced groups who had been traditionally hostile to each other to work together, to overcome their turf battles and philosophical differences? Four factors are suggested. First, all those involved saw that the conventional approaches to technology development had often failed to bring about positive change. Second, public demand and environmental consciousness had changed. Third, farmers had a growing desire to overcome the problems of agro-chemical dependency. Forth, many project participants realised the need to pool resources and capacities due to scarce resources.

Thrupp demonstrates how:

> Forging interactive connections among research institutions, extension services, non-governmental organisations and farmers has proven to be a very effective way to develop and spread alternative agricultural practices, and a viable alternative to the conventional top-down approach to technology transfer … New knowledge and skills, cost-sharing, and functional complementarities all make it easier to carry out on-farm research, field demonstrations, education and training sessions, outreach and other activities. Moreover, the linkages foster an interdisciplinary approach that is critical to sustainable agriculture. And communication grows among NGOs, farmers, researchers and other groups as they work together.[78]

However, a number of obstacles to the success of such partnerships are identified, not least being the contradictory messages sent out by chemical companies and the vested interests of agri-chemical supply agents. National government policies too, can prove an obstacle. Overall, the nine case studies suggested a number of constraints which will need to be overcome if the opportunities such partnerships provide are to be fully realised. In particular, seven factors were identified as central to the success of future IPM initiatives. These are:

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[76] Thrupp L A *New Partnerships for Sustainable Agriculture World Resources Institute*, Washington DC, 1996.
[77] Defined as the use of biological and other natural and cultural methods for pest control 'within an ecological framework'. It uses chemicals only as a last resort.
[78] Thrupp L A *New Partnerships for Sustainable Agriculture World Resources Institute*, Washington DC, 1996, pp 14-17.

- *Apply basic agro-ecological principles: diversity, flexibility, synergy*. These factors were identified as basic ingredients for sustainable production in all nine case studies. Multiple actors need to work harder on applying these principles in agriculture by adapting specific methods to local conditions.

- *Strengthen exchange among groups working on sustainable agriculture partnerships*. Groups working on innovative agro-ecological practices need more opportunities to exchange insights and experiences. Increasing communication among practitioners to spread knowledge is essential.

- *Change policies and institutional operations to overcome constraints and support partnerships*. Crucial policy changes are: dismantle incentives for chemical-based farming; develop national government policy commitment to support and implement agro-ecological approaches to agriculture; develop new incentives policies such as monetary incentives or awards; strengthen environmental laws and enforcement; and establish clear modes of citizen participation for decision-making on agricultural practices and policies to protect public interests.

- *Ensure changes in agrochemical industry practices*. Thrupp argues that the marketing activities and approaches of agro-chemical companies must be overhauled to respond to demands of growing numbers of farmers, consumers, and institutions who desire sustainable alternatives to chemicals. In particular there is a need to eliminate sales commissions, cease misleading advertising and maker sure of proper information on labels and instructions.

- *Broader dissemination of information on effective partnerships for sustainable agriculture*. Information should be broadened to include systematic assessment of the economic and social results of ecologically based crop management, as well as particular methods used to achieve these results.

- *Gain donor support and state and local backing to sustain agro-ecological efforts*. Sustained funding is needed for partnerships and collaborative learning in integrated pest management and sustainable agriculture.

- *Strengthen local empowerment, equitable opportunities, and education for agro-ecological approaches*. Sustainable agriculture approaches will not develop or last unless communities and organisations themselves continue to develop through education and learning. More local initiatives and organising by farmer groups and communities are key. In addition, state institutions need to develop educational programs and curricula on sustainable agriculture.

Box 8 – Landcare: The power of political partnerships

Landcare is a multi-party partnership which, for present purposes, involves three crucial characteristics. First, at its genesis, Landcare was a partnership between the agricultural industry and an NGO: the National Farmers Federation (NFF) and the Australian Conservation Foundation (ACF) jointly promoted the idea and subsequently obtained Commonwealth support and funding.[79] Second, Commonwealth, State and Territory Governments all play a cooperate role in the preparation of Landcare plans. Third, individual Landcare plans are developed and implemented at the local community level via partnerships between landholders, community groups, NGOs and local governments.

In this chapter only the first of these partnerships is relevant: the path-breaking partnership that formed between the NFF and the ACF. In many respects, the farming community have traditionally been seen by many as at opposite ends of the political spectrum. Indeed it may be argued that it was a history of unresolved conflict that eventually led to the effort to forge common ground. Ultimately, the NFF and ACF recognised that not only was the introduction of more sustainable land practices in both their long term interests, but significantly, without a united lobbying effort it would not be possible to generate political support and State and Commonwealth levels.

This is not the place for an extended treatment of Landcare, which has already developed its own very considerable literature.[80] However, we mention Landcare here because it illustrates a role for NGO-industry partnerships which is less apparent from our other case studies, namely the potential power of such partnerships to influence the political process. As one commentator has pointed out:

In the late 1980s [NFF and ACF] recognised the power of fledging community landcare movement, and put aside their different emphases in relation to managing the landscape. They persuaded the federal government of the day to accept a national responsibility for bringing cohesion to natural resource management in Australia and to embrace the landcare movement as the major delivery mechanism. … such a 'coalition' was vital a decade ago and remains so today. …It has meant that farmers and environmentalists have been able to talk to each other and work together – at least on landcare-related issues. Without their united lobbying, the political bi-partisanship at the federal and state levels would have been impossible, and without that there would have been non continuing or worthwhile federal or state government financial support.[81]

Thus the partnership between the ACF and the NFF in helping to create and continue the landcare movement is very different from the other NGO-industry partnerships addressed in this chapter, because it was and is an essentially a political partnership.

Note: since the political partnership between the ACF and NFF in the establishment of Landcare, these two organisation have continued to cooperative in range of other areas. The most prominent recent example is the recently announced "Repairing the Country" strategy. According to official literature: "More than ten years after they initiated the 'Decade of Landcare', the Australian Conservation Foundation (ACF) and the National Farmers' Federation (NFF) have again joined forces in recognition that this challenge is now bigger than ever. … For the first time, ACF and NFF have attempted to quantify the investment required to make this vision possible".[82]

[79] See Kirner J *Landcare: Its Origins.* Paper presented to the Landcare Conference, Melbourne, 2-5 March, 2000.

[80] See for example the various papers delivered at the National Landcare Conference in 2000, at http://www.landcare.vic.gov.au/conf/landcare2000/papers1.htm

[81] Lloyd B *Landcare – The critical role of the community,* A paper presented to the International Landcare 2000 Conference, Melbourne, March, 2000, http://www.nre.vic.gov.au/conf/landcare2000/pdf's/Lloyd%20Bruce.pdf

[82] ACF/NFF, A National Scenario for Strategic Investment, www.nff.org.au/rtc/5point.htm, 28 May, 2001.

Southcorp Limited and the Australian Conservation Foundation

In July 2000, Southcorp Limited (a major Australian wine producer) and the Australian Conservation Foundation (ACF) launched an environmental "alliance" to fight rising salinity in Australia. This is the first time the ACF, arguably Australia's most influential environmental NGO, has entered a formal alliance with an individual corporate entity (although as noted above, the ACF has partnered with the National Farmers Federation, in the formation of Landcare and the Repairing the Country policy program). According to the ACF President, Mr Peter Garret:

> As a top-50 blue chip company, Southcorp is in a powerful position to influence corporate, industry and government sectors to take strategic and urgent action to fight salinity. This alliance is especially remarkable because it will involve hands-on participation form both organisations. … both organisations are determined to ensure that this is an effective and credible partnership; a partnership with integrity.

According to the company:

> Southcorp's commitment to the ACF reflects the importance of business taking an active role in the community, to ensure that the society, culture and environment in which we work and live are properly valued, protected and sustained for future generations. Under the partnership, Southcorp will support the ACF in its conduct of research and the development of programs to change behaviour in relation to land use and water management.

The novelty of this arrangement raises important questions: what does the partnership (or alliance as ACF and Southcorp describe it) entail, how did it come about, and what are the longer term implications?

We begin by describing the terms of the partnership. Although the general objective is to raise the profile of agricultural sustainability, the central focus is on addressing rising salinity. For this purpose, Southcorp has agreed to use its corporate standing and its financial resources in two principal ways. First, it will use its leadership position to impress on government and business sectors the magnitude of the salinity crisis. To this end it has formed a "Business Leaders Roundtable", chaired by the CEO of Southcorp, to "look at ways of leveraging private sector funds for mutual obligation in the environmental arena". In order to progress this issues, a consultant has been hired to prepare a plan of action. Second, it will fund two full-time positions within the ACF to run the latter's national salinity program, encompassing both political advocacy and practical implementation roles.

In return, the ACF has agreed to promote Southcorp's efforts and name in relation to the program. Although this commitment is loosely defined, it has a number of possible elements, including: joint press releases using ACF and Southcorp logos; promotion of Southcorp's initiative through a variety of public fora; and assisting Southcorp in developing its environmental policies and programs. ACF is quick to reject suggestions that this might imply some sort of sponsorship arrangement, emphasising instead the reciprocal nature of responsibilities implying an alliance, (or in our terms, partnership) and the importance of the exchange of information and expertise.[83]

One tangible outcome of the ACF/Southcorp alliance is the so-called "ecovine" initiative. Briefly, this is an extension of a broader campaign to educate grape growers about their environmental responsibilities. In particular, the ecovine initiative aims to integrate environmental improvement actions on single properties with broader catchment and/or regional level strategies. It also

[83] To this end, ACF representatives have access to, and regularly visit, Southcorp vineyards and wineries to facilitate the exchange of ideas on how best to go about environmental improvement. According to one ACF respondent: "we visit vineyards and talk to the people managing them. We are able to discuss their problems and plans, and future directions [in environmental management]".

contemplates the use of supply chain pressure by Southcorp to make sure that all of their suppliers meet minimum standards of performance. The development of Southcorp's ecovine initiative has been tendered out to a consultant, with the ACF and Southcorp jointly preparing its terms of reference, and, as anticipated, the management of its implementation.

Unlike some other partnership arrangements between environmental NGOs and agricultural enterprises, such as those involving WWF and Wetland Care Australia, the ACF/Southcorp alliance does not provide specific product endorsement (eg an ACF logo on Southcorp wine labels). Rather, the ACF describes its endorsement as applying to the Southcorp business as a whole, not Southcorp product lines. It may be that, given Southcorp's bias towards exports (at least in relation to its wine products) that an ACF logo may have limited appeal in any case. For example, we described in Box 5, how Banrock Station wines linked their environmental sponsorship to local wetland organisations specific to each of their export destinations. In any case, the marketing division of Southcorp has expressed no interest in the use of green labelling to date.

We have emphasised that successful environmental partnerships usually involve not only reciprocal obligations (described above) but also mutual gains. In this particular case, Southcorp respondents identified a number of potential benefits which had led them to initiate discussions with ACF to establish the alliance. In essence, their view was that the wine industry is distinctive in that not only is it product destined very largely for international markets, but consumers are particularly discriminating as to the source and content of the product. Wine consumers tend to come from a higher socio-economic bracket, and to seek out wines with particular characteristics (including region, variety, company and particular attributes). This is in part, why wine companies place great attention to wine bottle labels and the information contained therein. This consumer concern with the origin of wines increasingly extends to environmental characteristics, especially in the case of key Northern European export markets. In short, wine companies have the opportunity to market, and ultimately benefit commercially, through the fostering of a "clean and green" image – and an alliance with a major environmental group will enhance the credibility of such claims.
In this context, it is no coincidence that in recent years a number of companies involved in the Australian wine industry have been at the forefront of efforts to demonstrably improve environmental performance. These include, for example,:

- The Banrock Station sponsorship initiative with Wetland Care Australia and Landcare Australia (under the auspices of their corporate owner, BRL Hardy);

- The decision by smaller wineries in Victoria to enter a cleaner production partnership with the Victorian EPA (described above);

- The recently announced partnership between South Australian EPA and Yalumba wines to formalise a program of environmental improvement;

- A number of initiatives of the medium sized wine producer, Henchke, in South Australia to adopt sustainable agricultural practices, including a commitment to zero tree clearing on their properties;

- The development and introduction of the "Viticare Initiative" by the Cooperative Research Centre on Viticulture, essentially involving the introduction of environmental management systems for grape growing, fostered through Viticare Member Groups and on-farm trials; and

- The introduction by Southcorp (in parallel to its ACF alliance) of a comprehensive Southcorp Environmental Management System (SEMS) into the company's daily operations, "to deliver superior value through the performance of its people and the achievement of world's best practice in workplace safety and environmentally responsible operations".

According to one of our respondents:

> The wine companies are trying to out compete each other in the environmental field. In effect, it has become a race to the top. … We expect that this industry will be among the first in Australian agriculture to move beyond simply environmental management systems to embrace environmental performance standards.

Certainly, Southcorp openly acknowledges that it did not initiate the alliance arrangement for purely altruistic reasons. As one respondent noted:

> We are promoting what we are doing. Our intention is to get a good PR profile.

It may appear somewhat odd, then, that Southcorp thus far has resisted the ideal of environmental labelling of wine products. This is particularly the case given its strong export bias, and the fact that international markets/consumers are unlikely to be aware of its positive public relations in Australia. Possible (and not necessarily mutually exclusive) explanations for this are threefold. First, Southcorp may be more driven to pursue its environmental agenda as a result of the prospect of onerous environmental regulations in Australia, rather than export market potential. It thus may see the alliance as a way of influencing, or forestalling future regulatory obligations. Second, it may see the alliance, and the ecovine initiative in particular, as a means of meeting any future purchasing requirements by European retailers, such as the Tesco Nature's Choice program. And third, it may simply be that the marketing division of Southcorp, unlike other parts of the organisation, is slow to recognise and exploit the full benefits of the ACF alliance.

Turning to the benefits to the ACF, our respondents suggested that, apart from the chance to obtain a significant injection of funds into their national salinity program, the primary attraction of the alliance was the opportunity to greatly enhance its voice in the business sphere and to add weight to its policy campaigns with government. According to one ACF respondent:

> They [Southcorp] add strength to our campaigning that we didn't have. There voice is substantially different to ours, and from our political allies. They provide greater access to media outlets and business circles. When the Southcorp logo is on our salinity press releases, more people sit up and take notice. This has definitely had a positive impact on our campaigning.

Also implicit in such commercial/NGO environmental partnerships is a recognition that lobbying efforts of political parties can only achieve so much. In particular, not only do governments in many cases lack the will to tackle serious and pervasive environmental degradation, but they also may lack the necessary resources. In this respect, its is arguable the environmental NGOs have no choice other than to seek future alliances with the corporate sector.

However, the formation of such a novel alliance with a commercial entity also involves potential risks to the ACF. In particular, such an arrangement might undermine the capacity, either real or perceived, of an environmental NGO to act as uncompromising advocate for the environment. This is may be described as a variation on the regulatory capture thesis whereby regulatory authorities/inspectors begin to identify and sympathy with the plight of regulatory entities to the extent that they discount or overlook breaches of environmental regulations. For example, might such an arrangement incline an NGO to hesitate in criticising, or at least tone down its criticism of, their commercial partners? This has led some commentators to highlight concerns about the formation of such relationships, including for example Mike Steketee in a recent article:

> Sceptics call it greenwash – companies exchanging money for environmental credibility. Others say it simply is the best way to achieve change in the modern corporate economy. Either way, it has brought together people who previously was each other only across enemy lines, such as at protests outside company headquarters. But the growing relationship between green groups and business has divided the environmental movement.[84]

This issue is not purely of academic concern. In December 2000, the ACF had to confront head-on a potential conflict of interest in its Southcorp alliance when Southcorp was targeted for prosecution by the South Australian Environmental Protection Authority for offences relating to a pollution incident in the North Para River in March of that year. This was less than six months after the ACF and Southcorp, to some considerable fanfare, announced publicly their alliance. It should be emphasised that the ACF was quick to recognise the possible conflict and responded in an emphatic and decisive fashion, issuing a press release urging prosecution in such cases, and quashing any perceptions of compromise. It should also be emphasised that Southcorp fully supported the ACF's response in this instance.

The broader point however, is that as environmental NGOs move progressively into the business world through the formation of alliances, sponsorships and partnerships it is inevitable that such conflicts of interest will arise. This is not a reason in an of itself to resist this trend, provided the overall benefits exceed the risks/costs, but it does serve to emphasise the need for a clear definition of responsibilities and expected responses on the part of all participants in the event of such incidents arising. To this end, the ACF has begun work on an "engagement protocol" to govern its future dealings and arrangements with the private sector.

Information based initiatives

Although they fall outside the mainstream of the environmental partnerships we have been examining (lacking the sort of market opportunities or reciprocal benefits identified elsewhere) it is important to remember the important role that can be played by information, support, extension and facilitation, and that these roles need not be provided exclusively by government agencies. Indeed, other sources of information may be trusted more, and have greater impact than government (although as we will see, government funding can also be important to the success of such initiatives).

In the United Kingdom the LEAF initiative - Linking Environment and Farming is an exemplar of this model. LEAF is a UK charitable organisation which is at the forefront of developing and promoting Integrated Crop Management (ICM) to the farming industry and the wider public. Proponents of ICM claim that it is an excellent way of combining care for the environment with practical and profitable methods of food production. In particular:

- LEAF sets up Demonstration farms throughout the UK to show how ICM techniques can successfully be put into practice. Visits to these farms are encouraged from a wide range of interest groups.

- LEAF encourages farmers to take up ICM through the LEAF Audit and provides further guidelines on which farm practices to chose and which to avoid when working towards an integrated farm management system (it should be noted that, in this respect, some Australian initiatives have exceeded their United Kingdom counterpart. For example, the Australian Cotton Industry has adopted an arguably more sophisticated audit system which utilises a pool of accredited and fully independent auditors).

[84] Steketee M "Of the gold and greens" *The Weekend Australian*, 7 April 2001.

- LEAF shows how farmers can maintain optimum yields, produce wholesome food at reasonable cost and take effective measures to protect the environment while maintaining profit[85].

In Australia, in terms of innovative partnerships of this nature, over and beyond some components of Landcare itself, arguably the Land Management Society is the most distinguished example. The Land Management Society is a voluntary, environmental organisation formed in the early 1980s by a group of farmers and other interested parties seeking to facilitate the introduction of sustainable and environmentally responsible farming practices in Western Australia. As an incorporated, but non-profit organisation, it is eligible to receive tax deductable donations and government community funding from sources such as Landcare and the Natural Heritage Trust. It draws its membership from a diverse group of individuals, including, obviously, farmers, but also industry, research and academic fields. According to their official literature, their "vision" is "to achieve sustainable rural productivity, community vitality and stewardship of the environment", and their mission is "to actively foster innovative, integrated land management systems and practices."

To this end, the Land Management Society is engaged a number of projects, the majority of which have been funded by government sources. These include: first, the LMS Farm Monitoring Program, second, farmer education, and third, Integrated Whole Farm Planning.

First, the LMS Farm Monitoring Program (funded by Landcare) provides farmers with a "Kit" and handbook that enables them to "verify the impact of both current and new farm management practices upon the natural resources of the farm ecosystem". Briefly, the Kit is based on annual (in most cases) measurements of a series of indicators that determine the environmental health of a property (or catchment/region) – indicators include climatic events, water tables, soil erosion, salinity, ground cover, earth worms, and compaction. Armed with this information, the land manager is then a position to effectively ascertain overall environmental trends and then modify their practices accordingly to minimise environmental degradation. According to one LMS representative, other environmental management systems in agriculture pay:

Very little attention to objective measures of how agricultural practice impact on the ecosystem. The Land Management Society [approach] was unique in this respect. It is important that our program of tracking impacts will be embraced by any future national standard that includes an annual audit of "Whole Farm Management".[86]

Under current arrangements, implementation of the Kit program is based on farmer self-assessment. However, it is anticipated that "annual verification will enable inclusion within Environmental Management Systems certification".[87] In this respect, it is claimed that the Kit program provides farmers with the necessary tools to adopt more integrated approach to effective environmental management, and importantly, to allow insightful comparison with other farms.

Second farmer education acts in support of their Kit program. In particular, the Land Management Society provides a series of farmer education initiatives to assist its widespread adoption. These are: one day, on-farm workshops addressing the Kit itself, soils and hydrology to assist in farm eco-system monitoring and management; regular tours of demonstration farms that have implemented such practices; and a number of supporting publications, including a bi-annual journal for members, a LMS News broadsheet, and a "Monitoring Bulletin" for participating farmers.

Third, Integrated Whole Farm Planning is a program based on the environmental management practices of one prominent farmer, Ron Watkins. Sixty farms in the south west region of Western Australia are implementing this system, with the support and participation of the Land Management

[85] *Integrated Farm Management: The Way Forward in Agriculture*, LEAF, undated.
[86] Chambers D National Environmental Management Workshop, 1999, http://www.lmsinfo.com/ems%20workshop.pdf
[87] *On Farm Monitoring Kit*, LMS, http://www.lmsinfo.com/lmspics.htm

Society (of which Ron Watkins is President). This approach is based on the creation and nurturing of on-farm ecosystems, and an integration of this with productive farming activities. A key aspect of this is the control of water to avoid salination and a diversification and rotation of farm activities to minimise negative environmental impacts. The objective is a truly sustainable farm system.

The activities of the Land Management Society, whilst displaying some of the characteristics of an environmental partnership between an environmental organisation and individual farmers, are difficult to categorise precisely. Certainly there is cooperation between farmers and an environmental NGO, a focus on environmental improvement, and provisions for monitoring and self-assessment. From a environmental partnership perspective, however, what is lacking is a clear set of reciprocal rights and responsibilities. Farmer participation is purely voluntary, and they are not obliged to meet pre-determined benchmarks, be they process or performance orientated. For example, the farm management Kit does not contain any environmental targets. There is also no provision for external assessment. On the other side of the ledger, beyond the implicit benefits of adopting improved environmental management practices, the incentives for participation are limited. For example, there is no logo or certification provided that could be used for marketing purposes, no price premium afforded to farm produce, no guarantee of access to new or existing markets, no ongoing subsidy for implementation programs, and no improvement in regulatory arrangements.

It is important to recognise that these observations are not intended to be a criticism of the Land Management Society programs, merely a reflection of their ability to fit into a environmental partnership conceptual framework. It may be determined that a partnership approach is not suited to an essentially education driven environmental organisation. If they were, however, to go down the environmental partnership route, what strategies might they employ to successfully achieve this? This would necessarily be a two pronged approach. First, the responsibilities of participating farmers would need to be more clearly defined. The farm monitoring Kit could form the basis of this, but could be usefully supplemented by specifying a core set of environmental management practices, based on the practices and concepts of Ron Watkin's integrated whole farm management approach. This should have the capacity to be benchmarked and accredited, preferably by an off-farm source. This could be the Land Management Society itself, a peer review system or independent, third party auditors.

Second, participating farmers could be provided with some form of official recognition that they can use to market and promote their produce, and ideally, achieve a greater financial return. This could be progressed in a number of ways. For example, the Land Management Society could bestow its own environmental logo and/or certification for individual farmers. Alternatively, it could focus on a specific locality where participants are concentrated, such as the south west of Western Australia, to produce regional branding (see following Chapters). It may also seek an alliance with some other form of certification system, such as recognition under ISO 14001. It may seek an alliance with another institution, such as the World Wide Fund for Nature, or international supermarket chains (such as Sainsbury's or Tesco), to support and endorse its program. Or it could seek government endorsement, for example, from Agwest. In all cases, the intention would be to capitalise on the very unique and worthwhile ecology based approach of the Land Management Society to provide participating farmers with a more direct and obvious benefit.

In fact, the Land Management Society has *recognised* that a new approach is required to continue and hopefully expand its program activities. In part, this has arisen because of a shortage of future external funding from sources such as Landcare and the Natural Heritage Trust. To this end, the Land Management Society is in the process of negotiating a merger with the Kondinin farming group. This is the oldest and largest independent agricultural research organisation in Australia.[88] It is a farmer owned and directed organisation that has existed for 45 years, and has over 17,000 farmer members. It has no political or government ties. To date, however, the Kondinin group has not had a strong focus on environmental management practices on farms. The merger is thus intended to complement

[88] http://www.kondinin.com.au/membership/

and extend its activities, and hopefully place the farm monitoring Kit on a more commercial footing. Even in this new guise, there would nothing to prevent the Kondinin group from seeking a partnership approach to its implementation, and arguably, with its greater resources and membership base would be in a much stronger position to both provide the necessary expertise, but also to negotiate a favourable outcome with, for example, a third party alliance such as an international environmental NGO or supermarket chain (domestic or international).

Lessons from existing partnerships

The above case studies, and the broader empirical evidence we have referred to, suggest that there are indeed opportunities for strategic partnerships between agricultural enterprises or sectors and environmental NGOs. From the industry side, there is increasing recognition that environmental efforts are more credible and better received by external stakeholders as a result of partnerships with environmental organisations.[89] As has been pointed out: "an environmental group as an ally can champion a firm's entrepreneurial strategies fortifying its links throughout society and among institutions that provide resources critical to corporate survival and performance.[90] With the emergence of enterprise or sector reputation and environmental performance as a significant factor capable of influencing consumer purchasing decisions, and the increasing environmental sensitivity of some export markets, this legitimation function has taken on ever increasing importance. Most commonly, such alliances serve to recognise and reward farmers who produce food in an environmentally responsible way, particularly where they provide independent third party endorsement and verification of environmental claims.

In appropriate circumstances business-environmental NGO partnerships may create competitive advantage by facilitating entry into new markets, higher market share and/or better retention of customers (as with the Mothers and Others and the Forest Stewardship Council partnerships). Business may also become entrepreneurial "by innovating and implementing ecologically sustainable practices in to the stream of value chain activities that produce, market, and reclaim their products"[91] (as with the Integrated Pest Management initiatives and the California rice growers). Such partnerships may also involve important 'softer' benefits in terms of confidence building, the sharing of information, and the raising of environmental awareness (as with the Landcare, IPM, Land Management Society and LEAF initiatives). Finally, they may lend political credibility to the industry's case, thereby pre-empting more intrusive and costly government regulation (as with the Californian rice growers), or generate political support at state and/or federal level (as with Landcare).

Thus "green alliances" can demonstrably play a positive role in improving environmental performance and providing competitive and other advantages to participants in appropriate circumstances. But opportunities for such alliances certainly do not arise across the board, nor are they a panacea for export oriented business. And since developing partnerships involves considerable transactions costs, not least being the time involved, such opportunities need to be carefully identified and targeted. Substantial resources can be wasted investing in prospective partnerships in circumstances where these are unlikely to flourish. So what re the circumstances in which such partnerships are most likely to flourish, and the relevant "success factors"?

[89] from "New Business Partners: Emerging Trends in Leadership Company Relationships with Environmental Organisations" *Business for Social Responsibility*, San Francisco, 1998.
[90] "New Business Partners: Emerging Trends in Leadership Company Relationships with Environmental Organizations" *Business for Social Responsibility*, San Francisco, 1998.
[91] Hartman C and Stafford E "Crafting 'Entrepreneurial' Value Chain Strategies through Green Alliances", *Business Horizons*, March-April, 1998, p 63.

Successful partnerships between business and NGOs are largely confined to win-win opportunities (where both parties believe they will be better off as a result of entering the partnership).[92] There is insufficient incentive for either party to participate unless they believe this to be the case, given the substantial transactions costs involved in developing such partnerships. Illustrations of such win-win opportunities are provided in a number of our case studies: circumstances where making environmental improvements that are endorsed by environmental groups, makes good business sense. For example, the Californian rice growers partnership:

> … helped farmers rescue waterfowl and improve soil and air quality. Strategically, it enabled farmers to meet pollution laws and achieve sustainability by closing the rice industry's resource loop. Socially, it enhanced the environmental image of the rice industry among legislators, consumers and the surrounding community. Joining technology with nature resolved a post-harvesting disposal problem by transforming discarded straw into enriched soil. Converting wastes into valuable inputs reduced supply needs and liability costs. In sum, the alliance revolutionized the California rice industry, transforming technology and post-use processing for strategic benefit.[93]

Equally important to the success of a partnership will be the degree of power imbalance between the partners. Unless the environmental partner has significant countervailing power, so that both partners are to some extent dependent upon each other, the partnership is unlikely to flourish.[94] This is also illustrated by the Californian rice growers study, where the most powerful inducement for the growers to enter into the partnership was the fear that if they did not do so, draconian legislation might be imposed upon them. Thus the power of the relevant NGOs to reduce the risk of such regulation was in itself an influential countervailing force. This example also illustrates the point that it may be the fear of a worse alternative that creates sufficient self interest on the business side for them to view the potential partnership in win-win terms.

On other occasions, it is the "carrot" of better market performance rather than the "stick" of threatened regulation, that it the main inducement for industry to participate in such partnerships. Many of the best opportunities for green alliances come when they promise to open up market opportunities for green products, and are principally concerned with environmental group endorsement of existing or new products, which in turn may provide improvements in products or product sales. Examples of such partnerships include the Forest Stewardship Council and the Mothers and Others initiatives. Sometimes too, such partnerships lead to the introduction of new technologies which in turn can create economic gains. For example, once the rice farmers adopted field flooding, the demand for tractor drawn rollers and field preparation services opened new business opportunities. This environmental initiative also prompted efforts to find alternative uses for straw: in fibre board, in straw-bale houses, and the conversion of straw into ethanol to meet California's demand for reduced-emission fuels.

However, even if there are sufficient mutual benefits to make the partnership seem worthwhile, it may still not eventuate, given a history of mistrust, and sometimes conflict, between the would-be partners. Achieving such win-win outcomes is not always easy, given the very different aspirations of the parties: concerns with profit and market growth on the one side and anti-consumerism and conservation on the other.[95] Existing studies suggest that a number of factors contribute to the

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[92] Many studies now demonstrate that the market rewards and recognises superior environmental performance. For example, the Alliance for Environmental Innovation reviewed more than 70 academic studies and concluded that the majority confirm that companies that outperform their peers in environmental terms also have stronger economic performance.

[93] Hartman C and Stafford E "Crafting 'Entrepreneurial' Value Chain Strategies through Green Alliances", *Business Horizons*, March-April, 1998, p 63.

[94] See Murphy D and Coleman G "Thinking Partners: Business, NGOs and the Partnership Concept" in Bendell J (ed) *Terms of Endearment: Business, NGOs and Sustainable Development*, Greenleaf, 2000, p 213.

[95] Hartman C and Stafford E "Crafting 'Entrepreneurial' Value Chain Strategies through Green Alliances" *Business Horizons*, March-April, 1998, p 63.

success of business- environmental group partnerships.[96] The most significant are: shared or reinforcing goals; trust; respect; clarity about the desired outcomes of the partnership; and access to the skills and resources needed to adequately support mutually agreed upon activities. It will also be important to allow ample time to build relationships: "starting early, before a crisis becomes the reason for the interaction, allows a company to avoid risk, and more importantly, to open a dialogue and establish trust and respect with the environmental organisation leaders".[97]

Drawing on the empirical evidence it has been suggested that the principal success factors in the case of industry-environmental NGO partnerships are as follows[98]:

- *early engagement*: a failure to engage in the beginning of the project can engender mistrust and require expensive repair work later on;
- *identification of the correct key stakeholders*: failure to identify the key stakeholders central to the process means risking project development with the wrong people;
- *development of trust*: developing understanding of one another and trust is the foundation for cooperation;
- *flexibility*: flexible relations are crucial because 'we won't get the equation right straight away'. It is important to reach agreement that as time progresses changes will be necessary and mechanisms should be built in for improvement;
- *open sharing of information*: having access to as much local information as possible is vital to achieving both trust and maximising the advantages of partnership. This includes access to data and research resources;
- *having appropriate time frames to converse*: a lack of adequate time for dialogue (particularly at the outset) often means that an adequate level of trust is not established;
- *building realistic expectations*: there must be agreement on what the respective obligations and goals are or much time and resources will be expended "managing expectations";
- *having "buy-in"*: buy-in results from the building of trust and other factors above, combined with mutual agreement on energy and resources to be spent on achieving project goals;
- *meaningful indicators*: indicators must be useful and relevant to the key stakeholders. In some cases, different indicators will be needed for each key stakeholder group; and
- *reporting of results and accountability*: what is measured by the indicators needs to be reported to the relevant stakeholders. Openness and transparency is critical to maintaining trust and making decisions on continued plans of action.

Additional success factors may apply to particular types of industry-environmental NGO partnerships. For example, produce endorsement partnerships raise their own particular problems as can be illustrated by the supermarket chain Loblaws' collaboration with the Canadian NGO, Pollution Probe. This involved Loblaws seeking to seize a new market opportunity- the growing green consumer market- through an endorsement of certain of its product lines by an independent,

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[96] from *New Business Partners: Emerging Trends in Leadership Company Relationships with Environmental Organizations,* Business for Social Responsibility, San Francisco, 1998.
[97] *New Business Partners: Emerging Trends in Leadership Company Relationships with Environmental Organizations,* Business for Social Responsibility, San Francisco, 1998.
[98] Greenall D and Rovere D *Engaging Stakeholders and Business-NGO Partnerships in Developing Countries*, Centre for Innovation and Corporate Responsibility, Canada, 1999, pp 11-12.

well known, and reputable environmental group. However, although this strategy was successful for Loblaws, the fact that the deal involved a direct financial payment to Pollution Probe, caused controversy and cast doubt on the independence of its assessment, and indeed caused serious damage to Pollution Probe's reputation and considerable internal strife. From this one may seek to draw a number of lessons concerning how this particular type of industry-NGO partnership should be designed[99] (Box 8 below).

Two final points. First, even in circumstances where such partnerships are likely to flourish, they may still bring about a new set of problems. This occurred in the Californian rice industry because: "although the RHP's flooding of rice fields improved air quality, it brought about new challenges as well. Farmers found it more difficult to plant crops or rework the soil. Local fisheries were threatened, and field burning was needed every few years to control for crop diseases".[100] But this is simply an example of the need for adaptive learning and to recognise the dynamic nature of the situation. This problem too, was resolved by a co-operative approach - one which was much easier to embrace once the initial partnership had developed and a repository of goodwill had been established. In this case, the RHP "worked with the legislature to implement a "pollution permit' program to allow some field burning to accommodate these needs. Farmers who don't burn are allocated 'burn credits' which can be exchanged with other farmers who find it necessary to burn (subject to air quality restrictions of course). This is an effective stop-gap measure that will suffice until field burning is completely prohibited by law and alternative initiatives for addressing fisheries and crop diseases are developed".[101]

Second, it must be cautioned that in some circumstances, there are such fundamental value differences between environmental groups and industry that these are unlikely to be bridged, or a partnership formed. For example, in the case of the Australian rice industry, partnerships with green groups (particularly those operating nationally which have broader market recognition) could provide much needed external credibility to any environmental initiative adopted by the rice industry. However, as we have suggested in our case study, the most significant hurdle to the development of such partnerships may be a fundamental rejection, on the part of the proposed partner environmental organisation, to the notion of irrigated agriculture in the Murray Darling Basin. In other words, it would be difficult for an environmental group to endorse an environmental management plan adopted by an industry whose very existence (in that area and environmental context) is deemed to be environmentally objectionable. Similarly, a wilderness protection organisation might decline to endorse the sustainable logging practices used in native forests. Although they may recognise the benefits of this over previous, unsustainable practices, they remain inherently opposed to *any* logging of native forests.

Box 9: Lessons for green product endorsement

- *Criteria must be established* – transparent, standardised evaluation mechanisms must be used to determine which products meet the criteria for green products.

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[99] By way of contrast, the model adopted by the UK Soil Association has been considerably more successful and parallels in many ways the FSC and Mothers and Others initiatives described earlier. The Soil Association seeks to "promote sustainable relationships between soil, plants, animals, people and the biosphere in order to produce safe, healthy food and other related products while protecting and enhancing the environment. The organic farming Symbol Scheme is administered by a wholly-owned subsidiary company of the soil association. Its roles include the setting of standards for organic agriculture, food processing and manufacturing. It is also responsible for inspection and certifying, promoting the organic market using its symbol brand and offering information and advice. Murphy D and Bendell J *In the Company of Partners*, Policy Press, UK, 1997, p 180.

[100] Hartman C and Stafford E "Crafting 'Entrepreneurial' Value Chain Strategies through Green Alliances" *Business Horizons*, March-April, 1998, p 69.

[101] Hartman C and Stafford E "Crafting 'Entrepreneurial' Value Chain Strategies through Green Alliances" *Business Horizons*, March-April, 1998, p 69.

- *Independent testing is crucial* – any consumer product that is touted as being better for the environment must have evidence to back the claim which should be made available to the public.

- *Endorsement for money is unacceptable* – payment per endorsement can compromise the independence of the endorsing body.

- *Corporations must be accountable for green claims* – there need to be sound guidelines for manufacturers' use of environmental claims and funding for a professional eco-labelling body.

- *Endorsements should not be restricted to particular companies* – an environmental group should not commit itself to endorsing the products of only one company; instead the endorsement process should be open to all companies that wish to be assessed.

Sources: Gallon G "The Green Product Endorsement Controversy: Lessons from the Pollution Probe/Loblaws Experience", *Alternatives* Vol 18 , No 3, pp 17-25, and Murphy D and Bendell J *In the Company of Partners*, 1997, p 182.

Chapter Five – Industry and industry partnerships

The orthodox view is that it is the farmer who is the most appropriate target for official policies to protect land use and the agricultural environment. This is because it is assumed that the farmer is largely an independent decision-maker, and the person upon whom legislation or other government policies can have the greatest impact. However, this view is an increasingly erroneous one.[102] As a growing body of literature demonstrates, there are now a multiplicity of other groups involved in the chain of agri-food production, and/or as stakeholders who influence the decision-making process at farm level, including decisions on resource use and environmental practices. These include input suppliers, large agri-food corporations, retail chains (including large and highly influential supermarket chains), and financial institutions such as banks, investment and accounting firms, as well as various government and quasi-government bodies.

For example, it has been pointed out that "production contracts between farmers and agribusiness corporations introduce the corporations as significant third parties who make a major contribution to farm decision-making"[103] and "place the contractor, the agribusiness corporation, at the centre of social relations and communications about farmer behaviour, specifying the skills and knowledge farmers should have to produce standardised crops and animals".[104] Under such contracts, the crops to be grown, the pesticide, fertiliser and irrigation regimes and much besides, will all be specified in very considerable detail. Similarly, it may be a bank, the provider of finance, not the individual farmer, which makes the ultimate decisions on stocking rates, based on ensuring recovery of the former's capital outlay rather than on the long term capacity of the land (although at this is point in the Australian context such scenarios may be more speculative than actual).[105] Or processing companies may insist on the use of heavier equipment on land, irrespective of the greater environmental damage it may cause, and irrespective of whether the weather conditions are appropriate for its use.

All of this is cause for concern insofar as the traditional focus of the powerful agri-business corporations and indeed of most others in the supply chain, has been on production efficiencies, often to the detriment of environmental considerations.[106] However, the increasing power and influence of various players in the supply chain also opens up opportunities for new environment protection

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[102] This argument is made eloquently in Rickson R, Burch D and Sanders R "Managing Land and Water Resources in the Corporate Complex of Modern Agriculture" TASA Conference Proceedings, Brisbane 1998, in Alexander M, Harding S, Harrison P, Kendall G, Skrbis Z and Western J (eds) *Refashioning Sociology: Responses to a New World Order*, QUT Press, Brisbane, 1998.

[103] Rickson R, Burch D and Sanders R "Managing Land and Water Resources in the Corporate Complex of Modern Agriculture" TASA Conference Proceedings, Brisbane 1998, in Alexander M, Harding S, Harrison P, Kendall G, Skrbis Z and Western J (eds) *Refashioning Sociology: Responses to a New World Order*, QUT Press, Brisbane, 1998.

[104] Rickson R and Burch D "Contract Farming I Organisational Agriculture: The Effects upon Farmers and the Environment" in Burch, D RicksonR and Lawrence, G (eds) *Globalization and Agri-Food Restructuring: Perspectives from the Australasia Region*, Avebury, Aldershot, 1996, p 178.

[105] Clark R *Drought Management in the Gogango Area: Beef Producers' Experiences and Perspectives*, unpublished, Department of Primary Industries, Rockhampton, August, 1994, cited in Rickson R, Burch D and Sanders R "Managing Land and Water Resources in the Corporate Complex of Modern Agriculture" TASA Conference Proceedings, Brisbane 1998, in Alexander M, Harding S, Harrison P, Kendall G, Skrbis Z and Western J (eds) *Refashioning Sociology: Responses to a New World Order*, QUT Press, Brisbane, 1998.

[106] Nowak P "Implementation of Soil and Water Conservation Programs" Department of Rural Sociology, University of Wisconsin, Madison, Wisconsin, 1991, cited in Rickson R, Burch D and Sanders R "Managing Land and Water Resources in the Corporate Complex of Modern Agriculture" TASA Conference Proceedings, Brisbane 1998, in Alexander M, Harding S, Harrison P, Kendall G, Skrbis Z and Western J (eds) *Refashioning Sociology: Responses to a New World Order*, QUT Press, Brisbane, 1998.

strategies. For as environmental groups are learning, it is often easier to target and influence large, reputation sensitive corporations, than a myriad of small farmers.[107]

Large retailers of agricultural produce are in a particularly powerful position to exert their influence up the supply chain, especially now that supermarket chains commonly contract direct with growers to ensure supply continuity. Supermarkets throughout the world wield enormous commercial power and are increasingly using their market leverage to influence their suppliers. They are also particularly susceptible to pressure from consumers and environmental groups to improve their environmental performance. In the case of food safety, consumer concerns has already led many supermarkets to require farmers to apply stringent quality management. As consumers become more environmentally conscious (and as environmental groups play on the connections between food safety and environmental protection) it is only a short step to extending similar requirements to environmental performance. Indeed, supermarkets in Europe, particularly in the United Kingdom, are already providing environmentally preferred food products, and in the future it may be increasingly difficult to penetrate these markets without being able to demonstrate environmental as well as quality control processes.

These developments create considerable potential for environmental partnerships not only between industry and environmental groups (described in Chapter Four above) but also for industry-industry partnerships, most commonly within the supply chain.[108] A number of such partnerships have already been established internationally. For example:

- *The Beech Nut company*, a North American manufacturer of baby foods, employs a rigorous Pesticide Residue Control Program to limit the use of pesticides "from seed to shelf." Contracts with growers are based on compliance with agreed environmental standards (produce is subject to independent verification).

- *The Pesticide Action Network* and *the Patagonia company* have an agreement whereby the former provides advice on alternative cotton growing techniques, which are then communicated to suppliers upstream.

- *The Processed Tomato Foundation* involves a partnership between tomato growers and processors which addresses food and environmental safety issues to "guarantee that the tomato industry maintains flexibility in crop protection alternatives, including the promotion of integrated pest management".[109]

- *The Campbell Soup company* has a long established agreement with its growers to reduce chemical input, and has far exceeded its original goal of reducing pesticide application by its

[107] Equally, it is arguable that government policy should also "focus on the responsibility of these corporations (as well as that of the farmer), and perhaps specify the contributions that might be expected of large corporations" Rickson R, Burch D and Sanders R "Managing Land and Water Resources in the Corporate Complex of Modern Agriculture" TASA Conference Proceedings, Brisbane 1998, in Alexander M, Harding S, Harrison P, Kendall G, Skrbis Z and Western J (eds) *Refashioning Sociology: Responses to a New World Order*, QUT Press, Brisbane, 1998.

[108] There is such considerable disparity of power in the supply chain that to describe all supply-chain agreements that it would be inaccurate to characterise such "partnerships" as entirely voluntary in nature. Nevertheless, many such arrangements are collaborative, and involve important reciprocal obligations: often the large company provides technical advice or other support even if it does not reward the grower with higher prices. Often growers reduce resource use and increase profit through practices such as integrated pest management. As such, these arrangements do fall within our definition of environmental partnerships.

[109] Cited in Rickson R, Burch D and Sanders R "Managing Land and Water Resources in the Corporate Complex of Modern Agriculture" TASA Conference Proceedings, Brisbane 1998, in Alexander M, Harding S, Harrison P, Kendall G, Skrbis Z and Western J (eds) *Refashioning Sociology: Responses to a New World Order*, QUT Press, Brisbane, 1998.

growers by 50%. In some locations farmers have been able to achieve significant profit improvements by reducing input costs.[110]

- *The Forest Stewardship Council* (described in Chapter Four) involves not only a partnership between industry and NGOs, but also supply chain partnerships between retailers and forest product companies or intermediaries and/or NGOs.[111]

We examine a number of such partnerships in more detail below in order to gain insight as to the circumstances in which they might best be applied within Australian agriculture and what design features are likely to be most important to their success.

[110] Gunningham N and Grabosky P *Smart Regulation*: *Designing Environmental Policy*, Clarendon Press, Oxford, 1998, p 338.

[111] This is because that at least initially, the Forest Stewardship Council as not driven by consumer demands. In order, therefore, to garner an effective commercial incentives is was necessary for, first, NGOs to form a partnership with the retailers to create this demand (this occurred in the form of "buyers groups"), and second, for retailers to form partnerships with forest product companies to supply this demand. In short, retailers were the necessary linchpin that got the Forest Stewardship Council scheme up and running.

Box 10: Export markets, agricultural produce and environmental quality

Some 85% of Australian agricultural produce is exported. Many of those export markets are becoming increasingly environmentally conscious. Domestically, the Australian public is also becoming more environmentally concerned, and over the medium term, this is likely to translate into increasing political and perhaps even regulatory demands, on Australian agriculture to improve its environmental performance. A number of recent indicators confirm these trends. For example:

- recent research has demonstrated that: "customers and consumers of land-based products are increasingly interested not only in the quality of products but also in the quality of the underlying production systems … important trends in consumer preferences for environmental management and product quality include: increasing demand for quality which incorporates aspects of food safety, nutritional value, freshness and convenience … traceability is increasingly demanded by retailers and/or government regulation"[112];

- an AgWA and RIRDC study found that: "consumer demand, in the highly differentiated food markets of Europe, Asia and North America, is increasing for food and agricultural products that are perceived to be healthy and to have low impacts on the environment. A willingness to pay a premium for such product is apparent where products carry a verifiable assurance they are safe, nutritious and produced using systems with limited impact on the environment"[113] (although other studies identify market share rather than a price premium as the most likely benefit);

- a consultancy report commissioned by RIRDC found that affluent markets are increasingly: "demanding products produced from environmentally friendly or sustainable systems. There are likely to be long term economic advantages from developing the capacity to assure increasingly demanding markets that products and production processes are consistent with Ecologically Sustainable Development Principles"[114]; and

- it has been asserted that "the market in Europe for 'green' produce is so strong that certain buyers will only buy pome fruits grown under Integrated Pest Management-type program called integrated Fruit Production. In Japan, there are growing concerns about health and food safety, with increasing attention focused on the safety of imported foods, especially fresh produce and grains from the US. At the same time, organically grown foods…are gaining in popularity. In Canada, a survey sponsored by the Grocery Products Manufacturers of Canada found that 80 percent of respondents were willing to pay more for environmentally safe products".[115]

[112] "The Role of On-Farm Quality Assurance and Environmental Management Systems in Achieving Sustainable Agriculture and Sustainable Land Management Outcomes" MAF Policy Technical Paper 98/2 July, 1999, MAF, New Zealand.
[113] McCoy S and Parleviliet G *The Export Market Potential for Clean and Organic Agricultural Products*, RIRDC, 1998; and Ag WA Perth, cited in Alexandra and Associates "Environmental Management Systems for Australian Agriculture: Issues and Opportunities", *Proceedings of National Workshop on Environmental Management Systems in Agriculture*, RIRDC, May, 1999.
[114] Alexandra and Associates "Environmental Management Systems for Australian Agriculture: Issues and Opportunities", *Proceedings of National Workshop on Environmental Management Systems in Agriculture*, RIRDC, May, 1999.
[115] Lefferts L and Heinicke M "Green Food Labels: Emerging Opportunities for Environmental Awareness and Market Development", http://www.pmac/lisalef.htm

Tasmanian onion growers and Tesco's Nature's Choice

The partnership between the Tasmanian onion industry and the UK supermarket retailer, Tesco, provides numerous insights relating to the development, maintenance, and in some respects, failure, of supply-chain partnerships between farmers and commercial third parties. It also has particular importance because the Tasmanian onion industry is the first (and indeed at the time of writing, seemingly the *only*) agricultural group in Australia to have entered into a commercial arrangement with an international supermarket chain to supply environmentally preferred produce. As such, this partnership is a pioneering one from which Australian agriculture can learn and ultimately benefit, because such partnerships will undoubtedly proliferate in the future. It also tells a particularly complex story with numerous twists and turns. For all these reasons and necessarily simplified version is provided below.

The Context

In a little over a decade and a half, onion growing has emerged from a relatively minor farming enterprise to become the second most valuable agricultural crop in Tasmania, worth an estimated $30 million per year to the Tasmanian economy. Most of this expansion has been the result of exports. European supermarkets in particular, have been a profitable market for Tasmanian onions because they complement and compensate for the off season of onion growing in the Northern Hemisphere.

In the past, achieving high standards of environmental performance has not been a priority for Tasmanian onion growers. Local environmental laws are neither onerous nor rigorously enforced. Nor have onion growers had any other incentive to improve their environmental performance since to do so may involve significant up-front costs. In any event, most growers are not well equipped to deal with environmental issues since they are relatively small, unsophisticated operations with a low level of management and technical expertise.

However, all this might change, in large part because of the shifting preferences of European consumers and the response of some of the biggest European supermarket chains. A sea change occurred in 1992, when Tesco, a world leader in establishing environmentally preferred product lines (and who represent about 10% of the Tasmanian industry's market, including their most profitable produce) introduced its Nature's Choice product line and began to implement it as a mandatory purchasing requirement for all its domestic suppliers of fruit and vegetables. Three years later that requirement was extended to all international suppliers.

Nature's Choice is a certification process that aims to establish a minimum level of environmental performance along the supply chain: from growers, through packers and wholesalers, to the final retail outlet, namely Tesco itself. This minimum level of performance is determined by adherence to the Nature's Choice overarching principles. These are: responsible use of pesticides; responsible use of fertilisers and manure; pollution prevention; protection of human health; efficient use of energy, water and other natural resources; recycling; and wildlife conservation and enhancement. Under each of these principles are 20 "checkpoints" used to determine whether compliance has been achieved.[116] The Nature's Choice rating process may be conducted (either directly or an sub-contractual basis) by intermediary entities along the Tesco supply chain. In practice Tesco has effectively out-sourced the administration and verification of Nature's Choice to its vegetable packers (G's Fresh Vegetables), who act as the key intermediary in auditing the program.[117]

[116] These checkpoints tend to be far more prescriptive and specific than the more aspirational, overarching principles. For example, they include adherence to relevant government environmental regulations, specifications for chemical handling and storage, the use of a number of codes of practice, and provision for record keeping.

[117] This means that the Nature's Choice program does not demand the use of independent, third party auditors, although it does not rule it out.

Following Tesco's decision to expand Nature's Choice to its international suppliers, directives were sent out to the Tasmanian onion industry to implement the program if they wanted to maintain export sales to Tesco. To this end, Nature's Choice manuals were made available from Tesco's United Kingdom based onion packers. Beyond this, however, little if any practical and face to face guidance was provided on how to actually implement Nature's Choice on the ground.

Perhaps not surprisingly, the Nature's Choice program was not warmly embraced by the Tasmanian onion industry. To many it represented a new and somewhat daunting prospect. Nature's Choice was seen as complex, time consuming and potential costly. Further, the "mind set" of the industry was not receptive to notions of environmental sustainability being incorporated into conventional commercial relationships and farming practices. Nevertheless, during the 1998/99 growing season, the major Tasmanian onion packer and wholesaler, Field Fresh, which was the only player capable of coordinating the whole industry, decided to introduce a Nature's Choice field trial for onion growers. As we will see, Field Fresh came to play a crucial role, acting both as a commercial bridge from the individual grower to the supermarket retailers and as a facilitator and coordinator of improved environmental performance by individual growers.

Field Fresh felt it was making good progress with its field trial but found that this view was not shared by the United Kingdom packers (the key intermediary to whom Tesco's had entrusted verification of Nature's Choice). On a routine visit to Tasmania, they visited some of the "hand-picked" growers who were participating in the trial, and identified a number of practices that constituted serious breaches of the Nature's Choice program. This resulted in Tesco giving Field Fresh (and by inference, its onion grower suppliers) an ultimatum: improve the environmental performance of the Tasmanian onion industry (through the adoption of Nature's Choice) by the next growing season, or all commercial links with Tesco would be terminated.

To refuse would not only result in the loss of a most profitable and significant market, but would also threaten other lucrative North European markets. Moreover, successfully adopting Nature's Choice would also result in the development of environmental practices which could subsequently be exploited as a marketing advantage in other export destinations, such as Japan, where two major supermarkets had already indicated they were interested in environmental certified onions. For all these reasons, Field Fresh determined to make a major effort to introduce Nature's Choice amongst its onion grower contractors.

To this end they created a project team to visit Tesco's Nature's Choice operations in the United Kingdom to gain first hand experience. They discovered that very limited practical or ongoing support is provided by Tesco to assist suppliers to implement Nature's Choice, that the United Kingdom onion packers/importers have a crucial role in administering Nature's Choice, that each of the major packers/importers had considerable discretion in precisely how they interpreted the Nature's Choice requirements, that the United Kingdom onion farms were very different from their Tasmanian counterparts in several key respects, and that the United Kingdom onion growers were subject to far more comprehensive, onerous and strongly enforced environmental regulations at both local and national levels.

Accordingly, the Tasmanian project team concluded that it would not be possible to simply graft the United Kingdom Nature's Choice experience onto the Tasmanian situation. Instead, it would have to be adapted to reflect the relationship between Field Fresh and its contract growers, the different circumstances of Tasmanian onion growers, and the particularities of the Tasmanian environmental legislative framework. Field Fresh also determined that the credibility of their Nature's Choice program would be enhanced by the use of ostensibly independent auditors (even though these would not be recognised by Tesco's). An implementation strategy was devised comprising three parts. First, the development of a series of training modules, second, a team of extension officers to provide on-the-ground assistance to growers, and third, a group of independent consultants, to visit growers and

to conduct compliance audits and risk assessments. The Tasmanian and Federal Governments provided considerable resources in support of this process, both in terms of finance and expertise.

Implementation

Although Field Fresh had formulated a strategy for the introduction and implementation of Nature's Choice amongst the Tasmanian onion growing fraternity, ultimate success still depended on the reception it received amongst the growers themselves. The growers were notified of Tesco's decision to terminate all purchasing contracts unless Nature's Choice certification was achieved, and invited to attend a Nature's Choice information seminar, They were also provided with an important additional reason for gaining Program certification: a price premium set at $5 per tonne of onions above the standard price (with a penalty of $5 per tonne for those who did not participate). Field Fresh also undertook to pay the costs of audits. Training, extension officer and external consultant support, and review workshops were also in place to support the certification process.

Yet this ambitious and comprehensive approach to certification (which resulted in participation by 76 of the 103 Tasmanian growers, 65 of whom passed a local audit) turned out to be of no avail. Tesco's United Kingdom based packer/supplier, G's Fresh Vegetables, announced that the onion growers would not receive approval under the Nature's Choice program and that certification could therefore not take place. The timing and nature of this decision had an initially devastating impact on the morale of the entire proportion of the industry that had been involved in the implementation program, particularly as it appeared to come as a complete surprise. Its adverse consequences were compounded by a subsequent and substantial drop in onion demand in international export markets. Only eight or so of the 76 original grower participants continued with the Nature's Choice program into the next season, although four new ones joined.

Two reasons were given by G's Fresh Vegetables for refusing certification. First, growers had not demonstrated a sufficiently high level of commitment to the spirit and intent of Nature's Choice, and had been primarily motivated by the threat of contract losses, and the price premium, without displaying a genuine concern for environmental improvement. Second, Nature's Choice certification could not be achieved within a twelve month period but only after a second successful audit over two growing seasons. Although this second reason was a plausible one, our Tasmanian respondents pointed out that this was the first time that they had been informed of this clause.

Some respondents speculated that the real reason for the decision might have been to limit purchases in anticipation of a serious downturn in consumer demand. However, in retrospect, many in the industry now concede that it had not achieved a sufficiently high degree of environmental performance to merit certification: As one respondent put it: "we got [the growers] over the line, but didn't generate long term changes." Another pointed out that: "the Field Fresh officers really helped the growers, but when they stopped, the farmers standards fell." Finally, one noted that: "although some [growers] really believed [Nature's Choice] provided a tangible symbol of their worthwhile efforts, other did it just for the money".

In the short term at least, the partnership has been a failure, but one from which a number of lessons can be learned, including the following:

- the very short time-frame for the introduction of the program, substantially increased the chances of failure. It resulted in "information overload" and an incapacity of some growers to come to terms with what was required of them;

- many, if not all those who passed the local audit, did so on the basis of, to some extent, future intent rather than existing practice. This diminished the credibility of the audit results (which in any event, were not binding on Tesco's or its packer/supplier;

- Nature's Choice standards are based on guidelines developed by the Ministry of Agriculture, Fisheries and Forestry in the United Kingdom. The circumstances of Australian farming is often very different that which exists the United Kingdom, and *both* partners need to accommodate to this;

- leadership matters: one major influence on the attitude of growers to Nature's Choice the approach of Field Fresh management, which changed dramatically when a new Managing Director replaced the original head who had spearheaded the Tasmanian certification initiative;

- the very large majority of the onion growers were operating mixed farming enterprises, with onion growing sometimes representing a relatively minor proportion of their total farm activities. And yet the Nature's Choice program made little allowance of this fact: the required environmental improvements had to apply to their entire operations, not just the onion growing component program[118]; and

- the uniform reaction of respondents to integrating Nature's Choice with the ISO 14001 environmental management system, was one of ambivalence. Most considered that it would have limited marketing potential, that it contained excessive paperwork commitments, and was unsuited to the situation of most small growers' management structures.

In the long term, it is by no means clear that the Nature's Choice partnership should be viewed as a failure. Despite the setbacks, most respondents agreed that it had been a valuable learning experience for not only the onion industry, but for the agricultural sectors across Tasmania as a whole. As one respondent reported: "Other exporters have said that the international reputation of Tasmania has improved as a result of the Nature's Choice experience".

Ultimately, 12 onion growers (some new, some existing) have proceeded with the Nature's Choice program, and have demonstrated a profound commitment to genuine environmental improvement. Evidence of this is provided by the fact that a recent inspection tour by United Kingdom based packers/importers concluded that not only had they more than met the Nature's Choice standards, but that they had done it in such a comprehensive fashion that they intended using them as a demonstration model for United Kingdom growers.

Beyond the immediate confines of the onion growers, the Tasmanian Department of Primary Industries, Water and Environment, along with many of the ancillary agricultural representatives, have expressed a strong commitment to the development and introduction of a State-wide environmental certification system and eco-label for agricultural produce. This will draw heavily on the both the content and experiences of the onion growers' Nature's Choice implementation program. For this to be successful, however, it will require the direct involvement of the private sector. As one respondent commented: "it will have to be market led, otherwise it will fizzle out. Grower must be forced by commercial realities to comply".

Conclusions

The lessons of the Tasmanian onion experience are pertinent to many other Australia agricultural sectors exporting into Northern European markets. Key findings are that:

- the key driver of this type of partnership is the commercial catalyst: the market power of large supermarket chains (not governments) and the massive imbalance of power between such retailers and vegetable growers;

[118] Given this situation, it seemed logical to approach Tasmanian based packers/exporters working with other non-onion crops for their support, if not direct involvement. And yet, when Field Fresh approached other relevant organisations, no such engagement was forthcoming.

- nevertheless there is still a significant role for government, both in removing obstructions to the evolution of such partnerships (eg antiquated legislation which is incompatible with some of the program's requirements) and in supporting the certification process with expertise and finance;

- although the fear of being excluded from a significant export market was an important driver, so also was the price premium offered to growers to participate;

- such partnerships involve a major investment of time and money and should not be entered into lightly. It will be crucial to agree upon all the key terms in advance of entering the partnership, to avoid a repetition of the experience of the onion growers;

- a key role is played not just by the retailer but also by the European based packers/importers who may act as the effective gatekeeper and judge of whether a grower meets the requirements of the program;

- a key role may be played by the local packer/exporter: Field Fresh acted both as a commercial bridge from the individual grower to the retailers and their packers/importers and as a facilitator and coordinator of improved environmental performance by individual growers;

- the environmental partnership between the local packers/ exporters and the onion growers was crucial in overcoming the latter's conservatism, skepticism and lack of environmental management skills, as well as in providing the technical assistance to enable growers to achieve Nature's Choice certification;

- the development of integrated pest management strategies that enhance Tasmania's clean green image will also aid in maintaining market share; and

- overall many growers considered that the Nature's Choice process had not only raised their awareness of environmental and ancillary quality management issues, but led to tangible improvements on the ground.

Sainsbury's and vegetable suppliers

Tesco is not the only United Kingdom supermarket chain that is committed to the formation of environmental partnerships along the supply chain in order to able offer their customers environmentally preferred products lines (although they are the largest, and arguably, the first). A traditional rival of Tesco, but one that pitches itself at a higher socio-economic customer profile, is Sainsbury's, which serves 9 million customers a week in 392 stores in the United Kingdom, selling over 23,000 product lines with own brand accounting for about 40% of lines. In the fresh produce area, they work with over 200 suppliers in more than 40 countries who supply over 450 fruit, vegetable and salad lines. They currently have a 20% share of the fresh produce market in the United Kingdom.

Sainsbury's has been active in developing brands in particular market niches. In fact, over 2,000 new in-house brands are launched each year – a trend that is expected to accelerate due to their higher profit generating potential (this is because of the removal of branded manufacturers from the supply chain, and their associated costs, and because Sainsbury's is less beholden to the product placement demands of externally branded products). This is also a reflection of a shift consumer interest, (at least in terms of Sainsbury's market profile) from purely price driven concerns to a focus on the intrinsic qualities of food and, significantly, the production process itself. According to one Sainsbury's representative: "the greatest risk to our business is a loss of consumer confidence in our products. … Customers demand to know where it has come from, how it was produced, and what is in it." Consumer sensitivity has been further raised by a series of food scares and scandals, including

BSE and the outbreak of foot and mouth disease in the UK, and fuelled by NGO anti-pesticide campaigns (including a FOE campaign targeted at Sainsbury's).

By recognising the importance of customers' food safety and environmental concerns, Sainsbury's has sought to gain a competitive advantage through the introduction of new Sainsbury's product lines that focus on environmental and/or health qualities. Organic produce, in particular, has assumed an increasingly large share of its fresh produce sales, and is the fastest growing market segment in fresh produce in the United Kingdom.

In successfully introducing, and effectively exploiting, such in-house product lines,[119] a key issue for Sainsbury's is how to convince consumers that their purported benefits, be they environmental or otherwise, are credible and reliable. They typical Sainsbury's customer in the case of environmental product lines, is financially secure, highly educated, sceptical of unsubstantiated claims, and requires considerable reassurance as to a product's merits. The need for Sainsbury's to satisfy such sensitivities is made all the more pertinent by the fact that these consumers represent the most highly profitable (if fickle) sales category. As one representative stated: "[they are] most likely to switch behaviour. 15% of these customers represent 40% of our profits."

How has Sainsbury's gone about generating credibility for its environmental product lines? Following the BSE crisis, there was a dramatic increase in the number of farm assurance schemes. Briefly, with a focus on food safety, such schemes employ a process of certification or verification along the supply chain to ensure that commercial parties, most particularly farmers, are acting in accordance with a set of predetermined, minimum standards of management practice. Sainsbury's (along with other major United Kingdom supermarkets, most notably Tesco – described above) also recognised the potential for an environmental certification system using the elements of various environmental standards. Importantly, Sainsbury's extended this concept to generate new in-house branded product lines, and to develop a "Partnerships in Produce" scheme between the retailer and farmers, with five focal points: the elimination of genetically modified food from in house product lines; the introduction of bio-degradable packaging; protecting farm biodiversity; reduced pesticide use; and socially responsible sourcing of produce.

If we take one of these initiatives, pesticide use, how are these aspirations transformed into practical improvements on the ground? The basic tool for doing this Integrated Crop Management. This is defined as a combination of responsible crop production practices which balance the economic production of crops with measures which conserve and enhance the environment. Sainsbury's has produced a policy or guideline on Integrated Crop Management which issued to all suppliers worldwide, and more recently, a more detailed account of best practice in the form of crop protocols. This has considerable similarities with environmental management systems such as ISO 14001. Farmers are required to prepare an action plan, to specify pesticide reductions, to accurately record pesticide use, and to submit to external and independent audits.

As Sainsbury's have recognised, external verification, in the form of audits, is essential to provide added assurance that crops are really grown in a way which complies with the protocol and addresses customer concerns. As a Sainsbury's representative put it: "there is a need for traceability". According to one commentator "this verification needs to be credible to public scrutiny and carried out in a way which is clearly independent from the food industry".[120] Currently, Sainsbury's has

[119] And Sainsbury's is now the market leader in organic produce. One way Sainsbury's has effectively tapped into this market is through the introduction of "organic shops within shops". In other words, there is a clear physical segregation between organic produce and all other Sainsbury's product lines (whether in-house or externally branded). This way consumers can be more confident that everything within the organic shop is genuine. The marketing of organic produce has been extended to the packaging. All organic produce is now sold in recycled and/or biodegradable packaging – even the packaging glue is biodegradable.

[120] Finlayson I "EMS and Fresh Produce", *Environmental Management Systems in Agriculture: Proceedings of a National Workshop*, RIRDC, May, 1999.

developed relevant self-assessment documents, and appointed independent verifiers: this is "similar to our experiences with EMS [environmental management systems], when independent verification starts, substantial changes start to happen".[121] In keeping with this comparability, Sainsbury's has moved to include a range of environmental issues under their independent audit system: "[It] covers all aspects of the environment, including biodiversity".

From the perspective of this report, the key question is how does the Sainsbury's process of verification, in this case addressing a reduction in pesticide use and other environmental issues, accord with the notion of environmental partnership? In order to answer this question, it is important to note that the entire agricultural supply chain in the United Kingdom (as elsewhere around the world) is undergoing a process of rationalisation. According to a Sainsbury's representative, there are:

> Too many growers, and there is downward price pressure. [This has led] Sainsbury's to take on strategic suppliers [at the same time as] reducing the overall number of suppliers.

The notion of strategic suppliers fits neatly with Sainsbury's Partnership in Produce programs. In short, the emphasis is on developing a very close working relationship with a preferred groups of suppliers with the aim of improving productivity, quality and supply security. Although Sainsbury's claims to "pay no premium" for environmental preferred produce, for those getting on their preferred list of suppliers, there can be several advantages. As a Sainsbury's representative noted:

> Partnerships [between suppliers and retailers] were previously only paid lip-service. True partnerships require a sharing of data. Sainsbury's provides a long term strategic commitment [to its partner suppliers]. This includes implementing business plans, developing specific product lines, motivation, the establishment of targets, and ensuring compliance. After all, we have a mutual self-interest in succeeding.

According to Sainsbury's, this partnership approach is a "two way street". That is, suppliers are expected to contribute to the betterment of all parties: "Partnership will lead to proactive suppliers. They need to innovate to meet customer demands". One likely impact of this partnership/strategic suppliers approach will be an emphasis on regional alliances, in particular local regions. This will include consumer recognition of not just the quality and production practices, but also the regional source. According to a Sainsbury's representative: "there will be more and more tie-ups with local suppliers. Regional logos may sit alongside other Sainsbury's [product lines]".

Perhaps somewhat paradoxically, whilst ostensibly pursuing partnership arrangements with farmers and particular farming regions, Sainsbury's has simultaneously been steadily outsourcing the day to day administration of its environmental audit program to a select group of major wholesalers/packers. We described above how, in the case of Tesco's Nature's Choice program, this has occurred. Precisely the same processes are at work in the case of Sainsbury's. As one representative recently noted: "we are outsourcing the supply controls, and cutting down the number of contracts".

This raises, *inter alia,* two important observations. First, there is an inexorable trend towards the concentration of the supply chain into a small number of mega-wholesalers/packers that links virtually all farmers with a relatively small number of major supermarket chains. These suppliers are able to wield enormous commercial power over upstream growers, and in many cases, actually own the growing operations. As such, it is they that are in a position to effectively enforce environmental quality standards. We noted above in the case of Tesco's Nature's Choice program how it was the importer/packer G's Fresh Vegetables that dictated the success or failure of environmental improvement efforts of the Tasmanian onion growers. This is a trend that supermarkets such as Tesco

[121] Finlayson I "EMS and Fresh Produce", *Environmental Management Systems in Agriculture: Proceedings of a National Workshop*, RIRDC, May, 1999.

and Sainsbury's are now actively supporting as they seek to reduce their operating costs and streamline their commercial relationships.

Second, and following on from the first observation, given there is an increasingly small pool of wholesalers/packers, it is inevitable that the same group of wholesaler/packers will be administering a range of environmental assurance programs for their respective supermarket purchasers. For example, G's Fresh Vegetables is involved in the administration of both Tesco's Nature's Choice program and Sainsbury's Integrated Crop Management initiative. The obvious question, then, in the interests of simplicity and consistency, is why have not the supermarkets and the major wholesalers/packers sought to harmonise the respective environmental assurance schemes? The short answer is that they have begun to go down this path, and indeed, traversed some considerable distance.

In this context, Finlayson has noted the "the danger of duplication of standards by different retailers in the UK caused the development of the "Assured Produce Partnership" - involving seven retailers, the NFU [National Farmers Union] and growers. This group has produced crop protocols for all the major crops in the UK".[122] According to a Sainsbury's representative: "in this regard] retailers are already ahead of government regulations and standards." More recently, attempts to harmonise environmental certification standards within the United Kingdom have been overtaken by the formation of European retailer harmonisation process, EUREPGAP (to which Sainsbury's is committed). This development is described below in Box 11.

[122] Finlayson I "EMS and Fresh Produce", *Environmental Management Systems in Agriculture: Proceedings of a National Workshop*, RIRDC, May, 1999.

Box 11 – EUREP: Draft protocol on good agricultural practice

EUREP (Euro-Retailer Produce Working Group) is made of up of the leading European food retailers, including Tesco, Safeways, Sainsbury's, GB, Continent, Delhaize, ICA Hanlarna, KF, Albert Heijn, MARTINAVARRO, APO and Promodes. The purpose of EUREP is to raise standards for the production of fresh fruit and vegetables. In November 1997, they EUREP members agreed on the first draft protocol for Good Agricultural Practice (GAP). This represented the first towards integrated production, and a harmonisation of production standards.

In 1999, the first official version of the EUREPGAP Protocol dated August 7th, 1999 was subject to consultation with growers, produce marketing organisations, verification bodies, agrochemical companies, farmers organisations and scientific institutions. All comments were considered and many of them were included in the new official GAP Version 2000.

The EUREPGAP Protocol sets out a framework for Good Agricultural Practice (GAP) on farms which defines essential elements for the development of best-practice for the global production of combinable crops. It defines the minimum standards acceptable to the leading retail groups in Europe, however, standards for some individual retailers and those adopted by some growers may exceed those described.

Accordingly, EUREP members recognise the significant progress already made by many growers, grower groups, grower organisations, local schemes and national schemes in developing and implementing best-practice agricultural systems with the aim of minimising adverse impact on the environment. They also encourage further work to improve growers capability in this area, and in this respect the GAP framework, which defines the key elements of current agricultural best-practice, is intended to be used as a benchmark to assess current practice, and provide guidance for further development.

The EUREPGAP Protocol is focussed on environmental improvement in agricultural production. GAP is a means of incorporating Integrated Crop Management practices within the framework of commercial agricultural production. Adoption of this is regarded by EUREP members as essential for the long term improvement and sustainability of agricultural production. EUREP also supports the principles and encourages the use of HACCP (Hazard Analysis Critical Control Points). According to the EUREPGAP Protocol, it is essential that all organisations in the food production chain accept their share of the tasks and responsibilities to ensure the GAP is fully implemented and supported. If consumer confidence is to be maintained, such standards of good agricultural practice must be adopted, and examples of poor practice must be eliminated from the industry.

To this end, the EUREPGAP Protocol lists a number of environmental requirements for grower which cover the production process, including: record keeping and independent verification; varieties; site history and management; soil management; nitrate and phosphate levels in ground water; irrigation; crop protection (pesticides); harvesting; waste and pollution management, recycling and reuse; worker health, safety and welfare; and other environmental issues.

According to one participant in the EUREPGAP process, Willem Hoffmans, quality manager at Albert Heijn (part of the Dutch Ahold group): "EUREP's approach to raising the production standards for fresh produce in a partnership with our growers … is the only feasible way towards a safe and viable future". Despite such lofty claims, the EUREP approach is not immune to criticism. One article reports that "the program has come in from criticisms as being designed by supermarkets for their sole benefit, without due consideration of the implications for suppliers".[123]

Source: http://www.ehi.org/arbeitskreise/seiten/eurep-ak-eurep.htm; and http://www.eurep.org/download/EUREPGAP_CC/EUREPGAP-CC-V-0-3a_150101-KM.doc.pdf

[123] Fox T "Supermarket Squeeze" *Tomorrow*, September/October, 2000, pp 24,

Box 12 – Unilever and the Victorian tomato industry

In all of the commercial environmental partnerships described above, retailers have assumed a crucial and direct role in the creation and implementation. However, another type of commercial environmental partnership that does not necessarily include direct retailer input is provided by the engagement of large, multinational food processing companies. One example of this approach is provided by Unilever and the Victorian tomato industry.

Since the mid 1990s, Unilever has been consulting experts and engaging with suppliers, customers, consumers and business partners around the world to find a sustainable way forward for agriculture. To this end, they have began a practical extension of this effort into the tomato industry of Australia. Although in its early stages of implementation, the intention is to devise a sustainable production system in partnership with growers in the Victorian tomato industry that:

- produces crops with high yields and nutritional quality to meeting existing and future need while keeping resource inputs as low as possible;
- ensures that any adverse effects on soil fertility, water and air quality and biodiversity from agricultural activities are minimised and positive contributions are made were possible;
- optimises the use of renewable resources while minimising the use of non-renewable resources; and
- enables neighbouring communities to protect and improve their well-being and environments.

Many of the current practices associated with processing tomato production are believed to fall short of the requirements for sustainability. Environmental problems are of increasing concern both from the point of view of preserving the natural resource base used for production and with the broader issues of biodiversity, public health and pollution.

The project proposal consists of a two phase investigation. Phase 1 consist of a pilot trial which is being funded by Unilever. Phase 2 consists of infield monitoring, to which Unilever is actively seeking funding partners. This project is part of a world-wide effort by Unilever to generate practical and beneficial answers to the environmental concerns related to the food supply value chain.

Source: *Growing for the Future*, Sustainable Agriculture Project Processing Tomatoes – Australia, July 2000.

Sustain Coleambally

All the industry to industry environmental partnership we have discussed above are based on supply chain relationships, spanning from retailers to growers/producers. This, however, is not the only possible industry to industry model. The experiences of the irrigation authority and the rice growers of the Coleambally region provide an interesting and local variation on this theme.

"Sustain Coleambally" is the name given to an environmental partnership between, the local irrigation company, Coleambally Irrigation Limited, and the rice growing industry serviced by this irrigator, that has culminated in certification for the Coleambally region under the ISO 14001 EMS. In fact, Coleambally is the irrigator in Australia to be obtain independent certification for the implementation of an ISO 14001 EMS.

What is the essence of the Sustain Coleambally environmental partnership? As we have noted elsewhere, environmental partnerships entail reciprocal rights and responsibilities. Although these have not been detailed within a formal partnership agreement for Sustain Coleambally, it is possible to identify what they are.

Coleambally Irrigation Limited, are principally responsible for providing a comprehensive education program to their agricultural customers (which are almost exclusively rice growers). This program is to improve both environmental and economic outcomes. Specifically, they provide 12 education modules, including whole farm planning, understanding watertables and salinity, water quality management and management of remnant vegetation. Importantly, Coleambally Irrigation Limited subsidises the cost of participation in the education program for farmers. Coleambally Irrigation also provides funding for environmental research for the region, and maintains a structural adjustment program to ease the burden of change on farmers.

In recognition of the fact that individual farmer participation in the Sustain Coleambally initiative is voluntary, a comprehensive range of incentives is being funded by Coleambally Irrigation to facilitate widespread engagement. Incentives include a 50 per cent subsidy of the costs of completing a whole farm plan (up to $5,000), the full cost of completing a land management survey, subsidised property management plans, a 65 per cent subsidy for the costs of adopting on-farm water recycling systems, and a 50 per cent subsidy for the cost of installing on-farm water storage systems. Collectively, these subsidies are substantial.

In return, participating farmers are obliged to meet certain environmental commitments. These include:

- *to adopt whole farm planning* – this is designed to integrate a range of farm management issues, including financial, topography, environmental, natural resources, stock, crops etc. Significantly, from the perspective of rice growing, it is also intended to incorporate EM31 surveys to reduce irrigated water leakage into the sub soil system.

- *to adopt alternative farming systems* – this aims to encourage farming of less water dependent crops in farm locations that have been deemed unsuitable for rice production because of the presence of excessively leaky soils. Crop diversification can also assist in stabilising farm incomes;

- *to improve water recycling and on-farm storage* – this includes the installation of 8 ML recycling systems and on farm storage systems to improve water use efficiency and to help reduce pesticide and nutrient run-off;

- *to improve pesticide and nutrient management* – combined with recycling and on-farm storage this aims to reduce pesticide and nutrient run-off through better on-farm chemical management including appropriate choices of pesticides, better application timing, and using appropriate chemical application rates; and

- *to minimise land degradation from higher watertables* – this includes the planting of perennial vegetation, replacing annual pasture with perennial pasture, managing soil acidity, managing saline lands and groundwater pumping.

Not content to simply introduce environmental goals, Sustain Coleambally has quantifiable performance targets by which its overall success can be judged. These include: 100% of farmers completing whole farm plans and land management surveys in five years; 50% of farmers completing the 12 module education program within five years; water recycling used in 90% of the irrigated are within six years; and a number of area targets for perennial vegetation within ten years. An annual environmental report details progress towards these targets. Significantly, continued government funding for the program is contingent upon the achievement of such targets.

There are also a number of commitments under Sustain Coleambally relating to the protection biological diversity in the region, including the preservation of existing wetlands, fencing of remnant vegetation on farms, a plan to cover 6% of the region with vegetation (well above the 2% to 4% prior to European farming) and to provide linking wildlife corridors between significant remnant vegetation stands.

Under Sustain Coleambally, which is an evolving partnership, participating farmers are expected to be eligible to receive certification at three levels of environmental performance:

- *Green card* – reflecting compliance with basic LWMP requirements

- *Blue card* – reflecting the completion and external certification of on-farm quality assurance.

- *Gold card* – reflecting the completion and external certification of on farm quality assurance *and* EMS.

The intention is that this ranking system would translate into an environmental label for produce from the Coleambally region. Ensuring that downstream customers are convinced of the credibility of the labels is the challenge confronting Sustain Coleambally. In order to address this, it is anticipated that gold card labels would require independent verification.

Apart from improved environmental outcomes, what are the benefits of the environmental partnership arrangement to each of the participants? In fact, some of these are discrete, whilst some are shared. The first benefit, which applies to the region as whole, is certification under the ISO 14001 EMS. This has been sought as a means to distinguish Coleambally from their surrounding regions, and for positive public relations to flow both their produce and their practices (although ISO 14001 cannot be used in advertising).

Second, it is intended that by demonstrating strong environmental credentials this will translate into a more credible voice in the political arena. In particular, irrigated regions in the Murray Darling Basin are facing increasing calls to limit their consumption of water in order to limit rising salinity and to increase environmental flows of the Murray Darling river system. It is hoped that a better environmental track record will provide the Coleambally region with a greater capacity to address such concerns. According to the CEO of Coleambally Irrigation, Mark Bramston:

> It gives us confidence in addressing irrigation critics with a message that irrigators have much in common with environmentalists and are working towards an environmental management system.

Individual farmers, too, are acutely aware of the growing political pressures to reduce irrigated water consumption. According to one rice grower:

> Some reject the thrust of the changes that have been introduced, as it changes the bottom line. What is driving the farmers, then? We are aware of the pressure from external groups. We would all like to use less water, but not at the expense of economic viability. Water is the one issue everyone talks about.

Third, all irrigation companies in New South Wales, as a condition of the licence, are obliged to develop a Land and Water Management Plan (LWMP). Failure to do so, and to receive subsequently State Government endorsement for its content, leads ultimately to a removal of their licence to operate. Sustain Coleambally is, in effect, based on a LWMP. In this regard, Sustain Coleambally may also be viewed as a means of avoiding future, potentially onerous government environmental regulations.

Fourth, financial benefits may occur within the region, for example through the avoidance of costly environmental damage, or on individual farms, for example through improvements in productivity. These include, minimising the spread of high watertables and soil salinity; decreasing the extent and duration of waterlogging; improving farm productivity; and improving water quality and thereby minimising the downstream impact of irrigation.

Fifth, and importantly, Sustain Coleambally is intended to generate commercial benefits for participating farmers, and the region as a whole, through a the greater marketing advantages of clean and green produce. However, it must be acknowledged that at this point in time, predating the implementation of a Sustain Coleambally environmental label, these are purely speculative. It also remains to be seen if the major international markets for Australian rice, which include Asian as well as sophisticated North European consumers, will be prepared to pay a price premium for clean and green rice. It possible, however, that environmental labelling for Coleambally produce will translate in to access into new, more environmentally sensitive markets.

There are a range of environmental issues confronting rice growers, and other irrigated agricultural sectors in Murray Darling Basin. In this respect, Coleambally is far from unique. And yet it is the only region to achieve ISO 14001 certification. The question arises, then, how has the Coleambally Irrigation managed to transform the implementation of LWMP into a much more ambitious and sophisticated environmental partnership than those of surrounding irrigation regions, all of which are also required to put in place LWMPs? Arguably, there are three factors that have contributed to this outcome.

Community participation

A key aspect of Sustain Coleambally environment initiative that has contributed to its success has been its high degree of community ownership and participation. This is evident in a number of ways. There is provision for ongoing community representation through two formal committees. The first, the Community Environmental Committee:

Is made up of local community members, with the appropriate assistance, will provide Coleambally Irrigation with ongoing advice and direction regarding the development and refinement of the option through the life of the plan. They will be responsible for assessing the progress of various funded projects being conducted and the overall progress of the implementation phase of the Plan. It will be their role to identify the needs of the community with regard to implementing the Plan, as well as maintaining the community's ownership of the Plan.

According to one respondent:

> The Community Environmental Committee is an elected group, and part of its function is to form relationships with external stakeholders, including local greens and peak bodies too. It has an ongoing dialogue with the Nature Conservation Council's consulting economist.

The second is the Irrigated Community Representative Committee which is made up of mainly rice growers, and aims to give an industry perspective. In addition to these formal committees, one community group, in particular, has been influential in terms of the content and direction of Coleambally's environmental program. This is the Coleambally Community Action Group. Initially developed to provide a local farmer perspective on irrigation issues, particularly efforts to increase environmental flows, it has also been actively supportive of the LWMP and Sustain Coleambally.

Homogeneity

A related reason for the strong community camaraderie that is evident in the Coleambally region is the fact that it is very homogenous: over 90% of the farmers engage in rice growing (although this does not preclude other agricultural pursuits as only one third of a farm can be devoted to rice at any one time), and not surprisingly therefore, rice accounts for the vast majority of the economic output of the region. One respondent pointed out that:

> Coleambally is a tightly knit community, and farms are roughly on an equal scale. It is an area dominated be relatively few types of farming activities. In fact, as far as I am aware, there are only rice farms.

This also means that not only are there are common set of environmental concerns, but that practical environmental management solutions are likely to be equally similar. Further, the negotiation process of environmental objectives is likely to be far smoother than if there were a range of potentially competing industry interests at stake. Finally, the marketing and commercial aspects of Coleambally's environmental management program will be more easily focussed and more economical with a limited range of agricultural products.

Leadership

One of the major differences between the progress of Coleambally's LWMP and that of other regions, is the leadership role taken by Coleambally Irrigation in the pursuit of environmental improvement. Significantly, this extends beyond a commitment to external change, to encompass a fundamental re-orientation of organisational structure and decision making processes:

> … we must build an effective relationship with our farmer shareholders and provide them with the necessary tools and education to build these standards into the farm. To this CICL has restructured the business to focus on customer service at a farm level. All our environmental staff operate at the farm level, and we have the largest percentage of staff working on the environment of any Irrigation Corporation of Australia.

In contrast, one respondent claimed that: "Other irrigators are still focussed on the operational aspects of being an irrigation company. Coleambally doesn't see itself as an irrigator".

Conclusion

The Sustain Coleambally initiative provides a number of important lessons for other agricultural sectors in Australia contemplating environmental partnership arrangements, particularly those in irrigated regions. First, it is possible to build an environmental partnership between a regional irrigator and local farmers. This may provide an attractive alternative form many farmers as it has the potential to overcome traditional attitudinal reservations about external involvement. Second, it provides an aspirational example of how the basic LWMP model can be expanded into something far more sophisticated and environmentally ambitious than that which has been adopted by the vast

majority of other regions in the Murray Darling Basin. And third, it demonstrates how predominantly locally based institutions/parties, including local environmental NGOs, can effectively work together to promote regional branding. Of course, the Sustain Coleambally initiative is far from complete, and far from perfect. The greatest challenge lies in translating the impressive early improvements in environmental management into genuine commercial improvements.

Box 13 – The role of banks and other financial institutions

Banks and other financial institutions are in a position to exercise considerable influence over their clients' behaviour through their role as institutional investors, lenders and providers of insurance. Although they may not directly enter into environmental partnerships with agricultural sectors, they may providing additional incentives for the formation of such arrangements by rewarding the participants. We review, briefly, below this potential.

Ethical institutional investors

The last two decades has seen the emergence of specialised ethical investment funds, first in North America and Europe, and more recently in Australia. Beyond the ethical imperatives behind environmentally responsible investment, there may be sound financial incentives. Environmental performance is increasingly regarded as an indicator of business health, and good environmental management reflects good management in general. To the extent that this perception is shared by financial markets (and there is increasing evidence that it is), pressure on companies to improve corporate environmental citizenship will be that much greater. There is also the desire to avoid businesses that may face costs associated with environmental liability. Ethical institutional investors want to avoid companies and industries with poor environmental reputations, and/or to specialise in environmentally reputable companies. This provides an opportunity for those agricultural sectors participating in environmental partnerships to attract additional investment.

Lending institutions

Lenders have a consistent record as effective regulators of business behaviour - particularly given the central role they play in the economy. Many now recognise the risk to their own commercial well-being posed by questionable environmental practices on the part of a borrower. Beyond the lender's obvious interest in the commercial viability of the borrower, banks may be concerned about the environmental risks posed by any assets which they might hold as security for a loan. In the event of foreclosure, banks could end up owning a liability rather than an asset.[124] Canadian banks have begun to require detailed information from prospective commercial borrowers regarding all aspects of the latter's environmental exposure.[125] More broadly, a group of international banks, working with UNEP, has produced the Statement by Banks on Environment and Sustainable Development, which urges banks to: "...expect, as part of our normal business practices, that our customers comply with all applicable local, national and international environmental regulations [and] will seek for business relations with suppliers and subcontractors who follow similarly high environmental standards."[126] Involvement by individual farmers in an environmental partnership may eventually make them a more attractive proposition for lending institutions, or at least reduce some the perceived environmental risks, and ultimately, has the potential to result in reduced lending rates.

Insurance Institutions

Provided it is possible to create a viable market, environmental insurance is a powerful driver of environmental partnerships. Just as lending institutions may become sensitive to the environmental performance of their borrowers, so might insurers have strong incentives to exercise an

[124] For a comprehensive attempt to examine how financial markets can support the goals of eco-efficiency and sustainable development, see Schmidheiny S and Zorraquin F *Financing Change: The Financial Community, Eco-Efficiency and Sustainable Development*, MIT Press, 1996.
[125] *Coming Clean: Corporate environmental reporting* , Deloitte Touche Tohmatsu International, London, 1993, p 40.
[126] *Advisory Committee on Banking and the Environment* , UNEP, Nairobi, 2.2, 1992, p 1.

Box 13 continued – The role of banks and other financial institutions

environmental preference over their policyholders.[127] The availability of insurance, and the cost of insurance premiums, may begin to reflect a prospective policyholder's environmental record. In many cases, insurers now subject their policy holders to scrutiny beyond that which government authorities can bring to bear, and may hold their policyholders to standards well in excess of that which regulators are in a position to require. With poor environmental performers paying higher insurance premiums, the insurance market provides incentives for responsible corporate conduct, and disincentives for non-compliance.[128] Again, under such a scenario, environmental partnerships could play an important role demonstrating that individual farmers meet the demands of insurers.

Source: Gunningham N and Grabosky P *Smart Regulation*: *Designing Environmental Policy*, Clarendon Press, Oxford, 1998.

Lessons from existing partnerships

Some of the greatest opportunities to influence environmental on-farm practices, arise in industry-industry supply chain partnerships. Such partnerships most commonly involve the insistence by the down stream partner (commonly a large retailer) that its upstream partner (usually the primary producer) adopt certain practices (such as integrated pest management), and perhaps achieve specified environmental outcomes (maximum specified pesticide residue). The down stream partner may provide advice, assistance and perhaps audits to facilitate their doing so. Unusually, this particular partnership depends for its success, upon the considerable *imbalance* of power between the two partners, with the large retailer often capable of dictating terms to the grower who may have few alternatives in terms of where to sell the crop.

Insisting on higher environmental standards may increase the cost of production with the result that such partnerships are unlikely to arise spontaneously. The main drivers for their creation are pressure from environmental NGOs, changing consumer preferences, or both.

An example of the former is the establishment of buyers groups as part of the evolution of the Forest Stewardship Council (above Box 6). Concerted action by environmental groups generated greater consumer consciousness about the sourcing of timber products, but far more important, served to place pressure on some of the main suppliers of such products, in particular the major Do It Yourself (DIY) stores. For example, Friends of the Earth in the UK campaigned in the forecourts of DIY stores, accusing them of contributing to unsustainable logging practices and the destruction of the world's rainforests. In an attempt to protect, or even enhance, market share, some of these stores formed a Buyers' Group which agreed to purchase timber only from certified sources and imposed pressure on their own suppliers to achieve this result.

In the case of foodstuffs, the main driver for change has been the changing preferences of consumers although these too are influenced by the consciousness-raising activities of environmental groups. In particular, consumers have become increasingly concerned about food safety (an issue fuelled by a number of major food scandals in Europe such as mad cow disease). This concern has spilled over, in some cases, to related environmental issues such as the health hazards relating to pesticide residues. There is also emerging, at least in some countries, an increasing concern to purchase produce perceived to be clean and green.

[127] The insurance industry has another reason to be sensitive to environmental considerations. It has been suggested that an increase in the frequency of natural disasters in recent years, specifically catastrophic storms, has resulted from climate change. Global warming may produce financial ruin. Sparkes R *The Ethical Investor*, Harper Collins, London, 1995, p 99.

[128] Katzman M *Chemical Catastrophes: Regulating environmental risks through pollution insurance*, Richard Irwin, Homewood, IL, 1985.

We have argued that reputation sensitive large corporations, particularly those who deal directly with the public, such as large retailers, are very vulnerable to these pressures and have sought to respond to them. Supermarkets have become especially sensitive to the need to demonstrate their environmental credentials. The very large British supermarket chain, Sainsbury's, plans to have approximately 50% of its fresh food environmentally certified in the near future. This approach is being replicated by Tesco, and many other European Supermarkets and is likely to gain greater momentum with the activities of EUREP GAP.

The importance of large supermarket chains in dictating the environmental practices of their suppliers cannot be underestimated, particularly in Australia's principal export markets. More than half recorded grocery sales in countries like Singapore, Hong Kong, South Korea, Japan, Malaysia and the Philippines are supermarket sales. The global trend is towards greater concentration and the expansion of regional chains globally, to the extent that many experts predict that "less than 10 chains will control the majority of modern food retail shelf space within five years, across all global markets where access is possible".[129] These large retailers can gain important commercial benefits (especially market share) by agreeing to purchase and promote environmentally "superior" produce. And they can best guarantee a supply of such produce by developing partnerships with their agricultural suppliers, under which they insist that those suppliers meet specified environmental standards.

Of course, such partnerships are unlikely to develop across the board. The greatest prospects are in areas where products are supplied directly to the consumer, where it is possible to differentiate between what is being supplied by different retailers, and where the consumer particularly cares about the environmental (and more particularly the related health) credentials of what is supplied. It is much easier, for example, to develop such partnerships in relation to highly emotive issues such as rainforest timber, or food products which are purchased directly by the consumer, than in relation to market pulp (an undifferentiated commodity) . Where the marketing chain is long and complex, then the difficulties of reaching back to influence practices on farm may be substantial.

Where there is particular sensitivity about health and safety issues relating to the product (eg where food safety and environmental issues can be credibly linked) then again, large retailers have a much greater interest in developing such partnerships. High value added products for a premium market represent a particularly strong prospect for such partnerships. For example, quality wine (but not cask wine) presents particularly good opportunities for marketing a "clean and green image". Sometimes wine producers will improve their environmental practices to meet the anticipated needs of the large supermarkets who take a substantial amount of their production (as Southcorp well knows[130]). It should also be noted however, that a partnership model is not the only vehicle through which to guarantee or expand market share (as Banrock wines has demonstrated).

Many large and sophisticated environmental groups internationally (not least, Greenpeace and WWF) have recognised that often far more can be achieved by seeking to harness the power of consumers and markets, than can be achieved by lobbying for increased government action. Such efforts are likely to increase in the future. For example the Forest Stewardship Council model has been modified and expanded in the form of the Marine Stewardship Council, and the potential to expand this approach to a number of other industry sectors, including parts of agriculture, is being actively explored by WWF in particular. With these developments will come both the pressures and opportunities for further industry-industry supply chain partnerships within agriculture.

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[129] Kennedy J "The Australian Dairy Industry- An Important Contributor to Recovery in Exports to the Asian Market" Y2K Dairy Conference, July, 2000.

[130] See Pearce G "Southcorp Wines and Environmental Management", *Environmental Management Systems in Agriculture: Proceedings of a National Workshop*, RIRDC, May, 1999.

While many of these may develop irrespective of government involvement (indeed it was frustration with government failure that led to the evolution of the Forest Stewardship Council) there is still a potential role for government, and for NGOs in terms of certification and providing the credibility which unsubstantiated industry environmental claims lack. Indeed, some form of independent certification or certification will be essential to ensure that clean and green produce does indeed gain an increased market share. We have explored in Chapter Four the potential role of NGOs in this regard, the risks which may beset their partnerships with retailers, and how these might be overcome and their independence and integrity maintained.

Here we note that government is already moving in this direction in relation to Australia's all important Asian markets. Supermarket to Asia (STA) is developing marketing approaches for differentiating Australian food on the basis that it is produced in the clean Australian environment, and "is encouraging farmers and the food industry to build regular market presence based on non-price factors that fit under the 'clean and green umbrella' with claims backed by certification that attests to these 'clean and green' factors".[131] The development of eco-labelling will be an important means of providing verification and credibility to 'clean and green' claims, and STA has begin work on the development of such an eco-label for Australian farm produce.

As its Executive Director has pointed out: "the challenge for Australia remains one of finding valid points of difference to enable building of markets for our food products which can to some extent insulate us from the base commodity trade. Developments in the international food markets favour building of these non-price factors".[132] In particular, this initiative is consulting with buyers and consumers about what quality and environmental factors are important, and working with Australian suppliers to meet these expectations and supply appropriate evidence of good quality and environmental practices in food production.

In practice then, the success of industry-industry supply chain partnerships is inextricably linked to the behaviour of consumers, environmental groups and of government, since the first two are the principal drivers of such partnerships, and NGOs, government, or both, are likely to play major roles in providing independent certification of, and credibility to, such partnerships. Alternately, such a role could be played by an entirely independent certification body. This is what happens, with considerable success, in the case of organic produce. Here, the many certification organisations throughout the world all seek certification from IFOAM-the International Federation of Organic Agricultural Movements, thereby facilitating access by organic products to international markets.

In summary, the major attraction of industry to industry environmental partnerships, and supply-chain partnerships in particular, is their capacity to inject a palpable commercial incentive into the environmental improvement process in agriculture. There are few other mechanisms, even including government regulation, that have the capacity to galvanise farmer participation than the prospect of losing or gaining market share, and the opportunity for product premiums. We saw the power of such incentives in the case of Tasmanian onion growers where the presence of a $10 a tonne price differential dramatically increased projected participation rates in Tesco's *Nature's Choice* program, and how the removal of such an incentive led to a major drop in participation in the following year. This is an important consideration if environmental partnerships are to be extended from a core of environmentally committed farmers to embrace much more mainstream and numerous farming operations.

The capacity of supply chain partnerships to influence farm management behaviour is particularly relevant given that a large part of the agriculture sector is comprised of numerous small producers, who would otherwise pose formidable problems of surveillance for regulatory authorities. In particular, if institutions of control can be forged from within the commercial sphere, their potential

[131] "Environmental Management Systems in Agriculture: Current Issues - Future Directions", Issue 4, RIRDC, NSW Agriculture, August, 2000, p 3.
[132] Kennedy J "Food-Maintaining Export Momentum" Outlook 2000 Conference, Canberra, March, 2000.

impact will be greater. Consequently, commercial influences in furtherance of sustainable agriculture appear destined to play an increasingly important role in the regulatory process. As consumer demand for environmentally preferable produce increases, upstream institutions will not only strive to meet that demand, but will market their produce and services in a manner designed to increase that demand. Moreover, one can expect to see more large institutions exercise upstream influence on growers. Commercial drivers of sustainable agriculture have already begun to rival, indeed in some cases, to surpass, regulatory interventions.

This does not, however, abrogate the responsibility of government agencies in bringing about environmental improvements in agriculture. There are, for example, two important roles governments can play. First, the state may use its influence to foster or enhance those commercial influences which contribute most constructively to agro-environmental performance. As we have seen, governments can preserve the integrity of markets by ensuring that markets are informed, and that deceptive practices are identified and punished. It can also provide technical assistance to producers, and providing resources for public interest third parties to contribute constructively to policy.

Second, where non-state institutions fail to deliver, it is the job of government to provide a safety net, particularly where there are threshold effects and environmental harm is irreversible. The resources of governments are not unlimited. For this reason, they should be marshalled with care. One should look first to market solutions. Where these do not emerge, governments can seek to stimulate them. Where these efforts are unsuccessful, incentives targeted directly at producers may be required. Should the above still fail to deliver preferred outcomes, a degree of coercive intervention will be required. The role of the state is necessary, but by no means sufficient.[133]

[133] See Chapter 3, Gunningham N and Grabosky P *Smart Regulation*: *Designing Environmental Policy*, Clarendon Press, Oxford, 1998.

Chapter Six – Multi-party environmental partnerships

For heuristic purposes, it has been useful to treat partnerships as bipartite arrangements of the types identified in the three preceding chapters. However, in practice, multi-party partnerships are quite common, and a number of our case studies have involved precisely this type of arrangement. In each of these, the additional partners brought something to the partnership which would have been seriously lacking if it had remained bipartite.

For example, in the case of Thrupp's studies of integrated pest management (described above), the addition of government to an existing partnership between farmers and NGOs, was important because it was only government that could:

- remove incentives and subsidies for pesticides;
- tighten and enforce regulations on the import and use of pesticides;
- provide public funds and political support for IPM programs; and
- broaden the base of stakeholders, farmer groups and NGOs in policy decisions concerning plant protection, pesticide laws and production issues.

In the case of the Victorian vegetable growers (described above) it was suggested that its successful future functioning was dependent upon two additions to the initial government-industry partnership. The first was to include the supermarket industry in the role of third party "regulatory surrogate", capable of applying supply chain pressure to the growers to improve their environmental performance via its insistence on the use of an environmental management. The second was to involve the community as an additional partner. This would have benefits to the industry (in terms of gaining community acceptance and greater credibility) and to the Environment Protection Agency (because of the community's capacity to compensate for the inability of the EPA effectively oversee the partnership and curb free-riders). An underpinning of government regulation would also enhance the value of the partnership by discouraging free-riders and creating a level playing field.

In the case of the partnership between the California rice growers and environmental groups, it was government pressure and the fear of government regulation, that provided the impetus for the development of the partnership. And at a later stage, government directly involved itself in the partnership, providing financial incentives for the industry's efforts to find more environmentally benign ways to deal with some of its environmental problems, and endorsing the industry's efforts at self-regulation while retaining a regulatory presence to curb free-riders. Neither of these roles were capable of being fulfilled by the environment groups involved.

In the case of the Forest Stewardship Council and the certification and labelling of sustainably managed timber, it was the presence of a third party, in the form of buyers groups (namely timber wholesalers and retailers), that provided the necessary commercial impetus to get the scheme up and running. Without their input, it is unlikely that a purely bipartite environmental partnership between environmental NGOs and forest growers and operators would have been successful: there would not have been sufficient incentive to entice producers to meet the required certification principles and criteria.

In the case of the Tasmanian onion growers and Tesco, two additional parties played pivotal roles: the United Kingdom based importers/packers in acting as the gatekeepers and effective accreditors of the Nature's Choice program; and the Tasmanian packers/exporters in acting as the commercial bridge from the individual grower to the retailers and their packers/importers and as a facilitator and

coordinator of improved environmental performance by individual growers, without which they would have been incapable of gaining certification. The State, and to a lesser extent, Commonwealth, Governments also partnered the process by providing initial seed capital and considerable expertise to the policy development process.

In the case of the Australian rice growers in the Coleambally region (and LWMPs more generally), what was ostensibly an industry to industry partnership, also included a significant role for local community groups. Indeed, in the case of Sustain Coleambally, community groups formally participated through a Community Environmental Committee. Far from being paid just "lip service", community representatives have been instrumental in establishing the strategic imperatives of the Sustain Coleambally initiative, in assessing the progress of individual programs, and monitoring its overall success. More than that, community participation has contributed greatly to a sense of joint community ownership and thus also contributed to greater rates of participation, and higher levels of commitment, amongst rice growers themselves.

Many of the points made in the preceding paragraphs can be graphically illustrated though the example of the Wisconsin potato farmers' journey towards Integrated Pest Management (IPM).[134]

The importance of multiple parties: The Wisconsin potato growers and WWF

For some years, the Wisconsin Potato and Vegetable Growers Association (WPVGA) has been concerned to reduce the use of broad-spectrum, high risk pesticides. There are a variety of reasons for this. Economically, the Wisconsin potato industry has been under considerable economic threat, exacerbated by a substantial increases in pest management costs. By 1996 the Wisconsin potato growers did not recover production costs. There were also compelling reasons of health for reducing pesticide use: high levels of pesticide spraying are associated with serious health problems for rural community residents, farmers and their families. Finally, reducing pesticide use would improve the purity of the region's shallow ground water and enhance the quality of wildlife habitat and diversity of species sharing the agricultural landscape.[135]

IPM addressed all of these issues. Its particular attraction for the potato farmers is: "its capacity to expand profit margins by avoiding unnecessary pesticide applications and reducing pest pressure through a variety of means, some of which entail little or no cost".[136] Means of achieving this included cropping systems which enabled less pesticide use while still achieving acceptable levels of control, the success of border sprays or partial field applications, cultural practices that reduce Colorado beetle survival and movement from field to field, the introduction of an effective, affordable and safer insecticide for Colorado potato beetle control, and innovative applications of global positioning systems and precision farming techniques to identify variability in pest pressure, enabling spot sprays and more effectively timed applications to achieve maximum efficiency with minimum applied product. Located in terms of our previous discussion, smart use of IPM achieved win-win outcomes whereby both farmers (financially) and the environment, benefited. (Significantly, in areas such as plant disease control, where no win-win solutions were available, very little was achieved.)

[134] According to a consultant for the WPVGA, IPM "is a science and knowledge-driven approach to managing biological interactions and growth cycles in farm fields. Pests are managed as one component within farming systems , drawing on an array of tactics and tools to keep populations below damaging levels. Pesticides play a role, but do not bear the full burden of managing pests.

[135] Benbrook, *Attainment of 1997 Industry-Wide Pesticide Risk Reduction Goals*, Technical Report to WWF and WPVGA, unpublished.

[136] Benbrook, *Attainment of 1997 Industry-Wide Pesticide Risk Reduction Goals*, Technical Report to WWF and WPVGA, unpublished.

The Partnership with WWF

The Wisconsin Potato Project began not as a partnership but as an initiative solely by the potato growers, but as it matured, so the need for broader involvement and an environmental partnership became apparent. WPVGA did not need a partner to develop IMP but it did need some means of marketing the environmental advantages of low residue Wisconsin potatoes, and help in developing a premium market for environmentally friendly potatoes. Enter the World Wildlife Fund (WWF), an international and high profile environmental NGO whose panda logo and reputation could potentially provide considerable public relations, marketing and credibility advantages to WPVGA. In particular, the potato growers hoped the partnership with WWF would:

- Document progress in the adoption of bio-intensive IPM and reduction in reliance on high-risk pesticides.
- Quantify public health and environmental gains achieved as a result of industry-wide commitment to IPM.
- Gain recognition for Wisconsin potato products, especially in quality conscious markets.
- Support policy reform and public and private investments needed to enhance the effectiveness and lower the cost of bio-intensive IPM.[137]

For WWF, the partnership also held considerable attractions. For some time, WWF had been concerned to lessen reliance on pesticides and had identified IPM as the surest way to achieve this objective. Through the project WWF hoped to demonstrate:

- the value of setting measurable pesticide use, risk, and IPM adoption goals, and ways to do so;
- how monitoring and rewarding progress toward concrete goals can build the momentum needed to overcome technical and marketplace hurdles;
- a cooperative model for partnerships involving environmental and commodity groups committed to common goals; and
- analytical tools and policy innovations that will help achieve national IPM, food safety and environmental quality goals.[138]

Ultimately the WPVGA hoped to use the WWF panda logo on their bags of potatoes, thereby gaining a marketing edge, and increasing consumer demand. What WWF offered- its "Gift to the Earth" award - did have public relations and marketing advantages for the potato growers, but not ones as substantial as they had hoped for.

The potential for a tripartite partnership: what happened to the regulators?

The Wisconsin Department of Natural Resources, the principal government regulator, has in recent times, developed considerable interest and expertise in developing alternatives to traditional forms of regulation. Unsurprisingly, it has taken a considerable interest in the potato growers initiative. However, no partnership has so far emerged, notwithstanding the potential for the regulator on the one side to offer the benefits, (both financial and public relations) of regulatory flexibility, in return for environmental improvements which the growers are already well on the way to achieving.

[137] http://www.pmac.net/wwfwpvga/actvties.htm
[138] http://www.pmac.net/wwfwpvga/actvties.htm

This is disappointing to the regulators. It can, however, be readily understood in terms of history: the regulators of the previous decades had demonstrated a rigid, uncompromising approach to regulation and (in the growers eyes) had demanded unnecessarily costly and unreasonable action. This memory lingers on, giving rise to mutual suspicion which at this stage at least, has not been fully overcome. One positive role of regulators in the potato growers initiative can however be identified: an additional driver of IPM was the fact that the EPA is moving towards the implementation of the Food Quality Protection Act (FQPA) which will require a more proactive approach to food quality issues. In this sense, the IPM Project can be seen, at least in part, as an initiative which took place at least in part, motivated by and "in the shadow of the law".

The role of commercial third parties: lenders as communicators and facilitators

The Central Wisconsin Farm Credit Service was a key player in the project, educating Farm Credit lenders and loan officers about the economic advantages of IPM to the industry and to individual growers. Initially, growers feared that they would lose loans from bankers fearful of potential crop losses from growers using less pesticides, and so the attitude of lenders was seen as a potential barrier to the success of the project. Gradually however, this role was reversed and "lenders came to view IPM as a positive form of risk-taking".

How the project succeeded

Three tools underpinned the success of the project. First, *risk reduction goals* were set. Specifically, the WWF-WPVGA Memorandum of Understanding spells out preliminary pesticide use and risk reduction goals for crop seasons 1997, 1999 and 2001. Two criteria were agreed upon in terms of these goals. Pesticides defined as causing an acute risk were to be reduced by 25% in 1997, by 50% by 1999 and to be phased out by end of crop season 2001, *and* pesticides defined as causing chronic risk. The latter had their reduction targets set at less ambitious levels (15% reduction) because of lack of evidence of human exposure in Wisconsin to their active ingredients, and because residues of these products are rarely found in fresh or processed potato products or drinking water.

Second, sophisticated mechanisms were put in place for *measuring progress*. An index of pesticide toxicity levels was developed, encompassing the ecological, environmental, and human health risks, including a "toxicity factor value" for each pesticide active ingredient. These composite values allow comparisons across active ingredients on a pound for pound basis. Third, and finally, key *indicators of progress* were developed. These included the 11 active ingredients of chemicals subject to reduction goals, industry-wide toxicity units, and toxicity units per Planted Acre.

The early results from the project demonstrate a quite striking level of success. In the first two years on the average acre planted, Wisconsin Potato farmers were able to:

- reduce per acre toxicity units 25% across the 11 pesticides subject to the acute and chronic risk reduction goals (more than meeting the first year reduction goal);
- decrease insecticide toxicity units by 61%; and
- achieve a 20% reduction in the toxicity units across all herbicides, insecticides and fungicides.

According to one assessment of the program, the Wisconsin growers' accomplishment is all the more remarkable in that it contrasts sharply with national trends: "Wisconsin reduced use of high-risk insecticides by over 60% in a year when national insecticide toxicity units per acre went up 6%. toxicity units associated with all herbicides, insecticides and fungicides applied in Wisconsin fell 20 percent between 1995 and 1997, but rose 16% nationwide" As WWF put it: "Toxic pesticide use has been dramatically cut on Wisconsin potato farms through a unique collaboration between environmentalists and farmers designed to protect human health, improve wildlife habitat, and help

develop a premium market for environmentally friendly potatoes".[139] WWF also pointed to evidence that farmers who use fewer pesticides significantly increase their profit margins.

Would ISO 14001 help?

Although the initial phase of the Wisconsin IPM project has achieved very impressive results in the absence of ISO 14001 or indeed of any other formalised environmental management system, there would appear to be considerable benefits in incorporating ISO 14001 certification within the next stage of the project.

The success of the Wisconsin project depends upon either reducing the internal costs of production, or increasing demand and revenue for IPM potatoes. Adopting an EMS, and arguably ISO in particular, could make a substantial contribution on both these fronts. In terms of reducing production costs, the evidence shows that a management system approach can lead to considerable and continuous improvement in both economic and environmental performance. This includes reduced waste, improved understanding of procedures, decreased costs and in the future (to the extent that export markets are important) overcoming a potential trade barrier.

Equally important, a certified management system (eg ISO 14001) can provide the sort of guarantee than third parties require in order to be reassured that claims about reduced pesticide use and improved environmental performance are indeed correct. These third parties include not only consumers (who are only likely to express a preference for IPM potatoes if there is some independent means of distinguishing these from other potatoes) and bulk purchasers who may see attractions either in reducing their liability risk or in presenting a green image. As such ISO certification might help to promote the benefits of and increase demand for potatoes grown by project members. However, it must be emphasised that ISO does not permit the fact of certification to be included on product labels.

ISO 14001 environmental management systems standard might be used as the key mechanism to ensure compliance with the standards agreed between the Growers Association and their NGO partner. ISO 14001 independent auditors might be used to confirm that growers meet the IPM targets set by the Growers Association and WWF, and to enhance public confidence by ensuring that growers are reviewed by independent auditors in an operationally verifiable process.

The advantages of ISO 14001 were put more broadly by a senior member of the Department of Natural Resources as follows: "ISO 14000 represents a holistic tool [for] improving the entire eco-system. It also enables improvement in unregulated aspects of environmental protection. It leads us away from "command and control" and towards market based and community based incentive system to protect the environment, not only mitigate losses".[140]

Significantly, the WPVGA are indeed looking to develop their partnership program into a more sophisticated environmental management system, eligible for ISO 14001 certification. This would entail addressing a wider range of environmental issues, in addition to pesticide management, such as water management, air quality, soot and diesel particulates, fuel and energy consumption, and spills and groundwater contamination.

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[139] *Wisconsin Potato Growers Cut Toxic Pesticide Use by 25 Percent,* Press Release, WWF, 15 June, 1998.
[140] Smoller, Wharton Business School Seminar, 1997.

Box 14 – Multi-party political coalitions: The Conservation Trust

In April of 2000, the New South Wales (NSW) Parliament passed legislation creating the NSW Conservation Trust, a statutory body charged with preserving high conservation value land on private property. The Conservation Trust operates as a revolving fund, with initial funding of $2 million, $1 million from each of the NSW and Commonwealth Governments.[141] The concept and operation of the NSW Conservation Trust are not original, nor is the purported "environmental partnership" (if such it be) between the landholder and the Conservation Trust itself, distinctive. Rather, it is the coalition of different institutional interests that led to its formation, ongoing management and administration, that provides broader lessons.

According to one respondent: "A number of groups had been interested in the introduction of measures to protect high conservation private property [but] even though the government had accepted the idea in principle … nothing seemed to be happening". At this point a fortuitous turn of events brought together a previously divergent and potentially antagonistic range of interests. A farmer, who happened to be a member of the NSW Farmers Federation, contacted the World Wide Fund for Nature to explore the possibility of introducing voluntary conservation measures for private land. As a result of this contact, a group of interested parties was formed including representatives from the World Wide Fund for Nature, the NSW Farmers' Association, the NSW Nature Conservation Council and Greening Australia. What the participants found, was that although they represented very different interests, there was a remarkable degree of unanimity on the necessary components of a conservation program for private property.

After they had agreed on a preferred policy approach, draft legislation was prepared by the Environmental Defenders Office and presented to the NSW Government for their consideration. While the proponents met with a degree of wariness from some sections of the bureaucracy, this was overcome largely as a result of their united front and commitment. Having garnered government support for the introduction of legislation to form the Conservation Trust, the partnership between the various organisations has extended into its ongoing operation, with its broad membership reflected on Conservation Trust's Board of Directors.

The broader lesson from the success of this multi-party environmental partnership is this: with some form of catalyst to start the process, and with a common focus, participants from very different ideological positions, were able achieve a political objective that none of them alone would have had the capacity to do.

[141] The way the Conservation Trust works is by placing a legally binding covenant over private property that protects it as a conservation zone in perpetuity. Private land can be obtained for this purpose in one of three ways: (i) a farmer/land owner can voluntary agree to have all or part of their land placed under covenant, but maintain ownership of the land. In this case, the legal costs for conversion are borne by the Conservation Trust, but the land owner is not compensated for the loss of development potential; (ii) the Conservation Trust purchases property for conservation, arranges the legally binding covenant, and then on-sells the newly protected property to a sympathetic buyer. The proceeds of the sale are then returned to the Conservation Trust's revolving fund; and (iii) a farmer/land owner donates all or part of their land to the Conservation Trust, which then places the legally binding covenant over it, and then on-sells it to a sympathetic buyer.

Lessons regarding multi-party partnerships

As many of our case studies have demonstrated, partnerships involving multiple partners can often achieve more than can be achieved in bi-partite arrangements. This is usually because one or more additional partners, can provide valuable, and sometimes essential attributes that the initial two partners lack, thereby enriching the partnership, compensating for its initial weaknesses, bring together players with complementary skills and powers, increasing its political leverage and increasing the overall effectiveness of the partnership.

However, notwithstanding the benefits which multi-party partnerships can provide, such arrangements also bring with them substantial costs, which in some circumstances, can outweigh their benefits. At the very least, each additional partner will increase the transactions costs and complexity of the partnership, and also the risk of disharmony and the breakdown of the entire arrangement. For these reasons it will not always be rational to seek to include additional partners. Take the case of government-industry partnerships.
On the one hand, there are well known and readily identifiable benefits in including third parties in the process of developing and overseeing such agreements: "an open, transparent negotiating process can reduce the possibility of regulatory capture and lessen the harmful effects of excluding third parties. When negotiating positions are open and known to the general public, opportunities for capture decrease significantly. Agency officials are forced to be more accountable to the public and to other third party interest groups. Furthermore the information that third parties bring to the negotiations may inform the decision making process, expand the scope of the debate, and lead to a better outcome.[142]

On the other hand, the exclusion of third parties and the lack of an open, transparent process may substantially speed up the progress of such partnerships. It is these features of many of the early voluntary agreements which served to lower transactions costs and provided for great flexibility and the avoidance of conflict between the industry and the regulator, which industry seeks. Again, the more onerous the monitoring and enforcement provisions, the higher transactions costs will be. Thus the decision whether to involve third parties (and greater monitoring and transparency) involves a trade off. This is summed up by Higley, Covery and Leveque as follows:

> voluntary approaches can be flexible, and therefore cost effective way of developing environmental policy, but this advantage comes at the expense of public participation and ultimately, environmental effectiveness. Conversely, if invested with the proper procedural safeguards, voluntary approaches can be an effective policy instrument for achieving ambitious environmental goals, but this effectiveness comes at the expense of flexibility.[143]

And in some cases, the attempt to include environmental NGOs has resulted in a breakdown of negotiations entirely, because there is insufficient common ground between the NGO at one extreme and the industry at the other.

The appropriate resolution of this tension will vary with the circumstances of the particular case, making generalisation difficult. Nevertheless, in broad terms, it is clear that:

- partnership combinations that are essentially duplicative should be avoided (as when the new partner would bring no essential new dimension to the partnership);

[142] Krarup S "Can Voluntary Approaches be Environmentally Effective and Economically Efficient?" Cava (Concerned Action on Voluntary Approaches), International Policy Workshop on the Use of Voluntary Approaches, Brussels, 1 Feb, 2001, p 72.
[143] Higley C J, Convery F and Leveque F "Voluntary Approaches: An Introduction" CAVA (Concerned Action on Voluntary Approaches), International Policy Workshop on the Use of Voluntary Approaches, Brussels, 1 Feb, 2001, p 11.

- partnership combinations that impose a high degree of complexity are likely to be counterproductive (as when they impose so many requirements on the primary producer as to be impractical to achieve);

- the partnership should involve the minimum number of partners necessary to achieve the partnership goals (while recognising that exclusion of important stakeholders is unlikely to achieve these goals);

- in multiple-party partnerships, efforts must be made to *ease* the burden of individual farmers, for example, by providing additional training and expertise, and by integrating new with existing approaches (eg EMS with existing QA requirements); and

- where additional parties are contemplated, there may be virtues in introducing new partners sequentially, (the old adage that you must learn to "crawl before you can walk" applies in this case).

Notwithstanding the additional transactions costs which multiple rather than bi-partite partnerships involve, there is commonly a case for developing them. In a striking number of our case studies, such partnerships had already developed, or were manifestly needed for the future success of the existing bi-partite partnership. While this will not always be the case, and while the strictures above must be respected, the role for multi-party partnerships is likely to be a substantial one.

Chapter Seven – Creating successful environmental partnerships

There has been an almost exponential growth of environmental partnerships worldwide, but of these, only a small proportion has been in agriculture. Only very limited evaluation has been conducted as to what sorts of agricultural partnerships succeed and in what sorts of circumstances. This may be in part, because many partnerships have only recently been introduced, and it is too early to judge their success. The diverse and disparate nature of environmental partnerships in agriculture has also worked against comparative analysis. Moreover: 'agriculture's effects on the environment tend to be difficult to measure, or the causal relationships between activities and effects are difficult to measure, or the relationships may be understood but the activities themselves are difficult to observe".[144]

Notwithstanding these difficulties, in this chapter, we seek to evaluate the role of such partnerships, and to describe the relevant factors behind the success or otherwise of their operation. In so doing, we focus on those internal and external conditions that are most likely to generate a fertile environment within which partnerships can grow and prosper. The basis for this evaluation is the broader international literature on environmental partnerships generally, our own evaluations of particular agricultural partnerships internationally, and our own empirical work and case studies.

Success factors

From the above, the following factors have been identified as the most conducive to the development of successful partnerships.

A coincidence between public and private profit

Partnerships have the greatest chance of success if they are accompanied by corresponding gains in productivity and profitability, or by some form of market advantage for the industry partner. For example, more effective and selective use of pesticides may reduce inputs costs, or it may earn the product a 'green' logo bestowed by an NGO and access to new markets. This is commonly referred to as "win-win": a "win" for the environment, and a "win" for productivity and/or profitability.

The greatest challenge is that protecting the environment commonly (albeit certainly not invariably) imposes significant costs on agricultural producers, particularly in the short term. Because the private sector is profit-driven, it is only rational to invest in such environment protection initiatives to the extent that the anticipated benefit of so doing outweighs the costs. We have indicated a variety of situations where this may be the case.

Partnerships are only likely to eventuate in win-lose situations (ie where the environment would be better off but the industry partner stands to make an economic loss) when there is a sufficiently strong external threat (eg of direct government regulation) as to make a partnership approach a more attractive option. Our California rice growers study provides a classic example of such a situation.

An additional challenge arises in situations where there are immediate costs involved in pursuing an environmental partnership that only promises long-term benefits. In this circumstance, the partnership is less likely to be pursued by the agricultural industry partner without some external incentive, such as short-term government support. Even in these circumstances, it often requires imagination and innovation to generate successful outcomes. The price incentive offered by the packer/exporter in the case of the Tasmanian onion growers, described above in Chapter Five, is one such example.

[144] *Co-operative approaches to Sustainable Agriculture*, OECD, Paris, 1997, p 19.

The prospect of mutual gain for both/all partners

Experience suggests that: "no one enters into a partnership if they have nothing to gain from it' or if one side bears all the responsibility.[145] Rather, all parties must be satisfied that there will be a sharing responsibilities, benefits, profits and gains, and each will insist that the gains it anticipates, will outweigh any disadvantages involved- a requirement closely related to the previous point above. The main exception to this is supply chain partnerships where, as indicated below, the disparity of power between retailer and grower is usually so great that the grower has little choice but to participate. As one respondent put it: "when McDonald's say jump, their suppliers ask how high?".

A focus on local issues with readily monitored results

As the OECD has suggested, such partnerships are likely to be most effective "when they are locally important, where the cost of remedial action is low, and where individual behaviour or outcomes can be readily observed".[146] It is suggested that they will face greater difficulties in dealing with issues that: transcend the boundaries of the local community or the current generation; and require performance that is difficult to monitor at an individual level. This is demonstrably the case with Landcare and with a number of international initiatives to achieve more sustainable agriculture through community-based organisations.

Exposure to green markets

A prominent feature of a substantial number of successful environmental partnerships is that they involve an industry partner whose products seek to compete on green markets. The Mothers and Others partnership for example, takes advantage of the fact that consumers in the North East of the United States have a strong preference for apples and pears with minimal pesticide residues. Consequently, orchard growers participating in the partnership program have a strong incentive to make their environmental partnership work. Green markets are not necessarily limited to the preferences of final consumers, with, for example, food processors in some cases favouring the purchase on low pesticide residue inputs, as is the case in the Wisconsin potato market. In the case of the Forest Stewardship Council, it is retailers in the form of buyers groups, who have been the key influence in the supply chain in favour of sustainably produced timber.

Companies which trade off their public image

Some companies and/or industries have a high public profile that in turn is crucial to their commercial success. For example, large retailers, that deal directly with the public, are strongly motivated by pressures to maintain and enhance their corporate image. This may provide a strong incentive to highlight their green credentials (as the Forest Stewardship Council bears out, and the increasing interest taken in clean and green produce by a number of international supermarket chains) a process to which environmental partnerships are ideally suited to contribute. High public exposure may arise from a range of factors, including as mentioned above, direct dealings with the public, simply being a very large company with a high profile, and very sensitive environmental operations. These were all factors behind the partnership of McDonalds and the Environmental Defense Fund in the United States. Our Tesco and Sainsbury's case studies also amply bear out this point.

Disparities in power along the supply chain

[145] Greenall D and Rovere D *Engaging Stakeholders and Business-NGO Partnerships in Developing Countries*, Centre for Innovation and Corporate Responsibility, Canada, 1999, p 8.
[146] *Co-operative approaches to Sustainable Agriculture*, OECD, Paris, 1997, p 24.

Where large commercial enterprises have a high degree of market control over both their upstream suppliers and downstream buyers, they may chose to exploit this power to influence their environmental behaviour. Their interest in doing so is primarily commercial: the risk of being tarnished by the poor environmental performance of one's close associates. If pressure is brought to bear in a highly coercive fashion it may not be considered a bone fide partnership. However, it some cases supply chain partners can play a more positive mentoring role. For example, under Responsible Care, large chemical companies assist their suppliers to implement accredited environmental management systems. Our case studies of the Victorian vegetable growers and of the Tasmanian onion industry amply support all of the above, as do a number of other supply chain partnerships cited in Chapter Five.

The burning deck: getting partnerships off the ground

It is rare for environmental partnerships to arise spontaneously. Individuals and groups are usually reluctant to let go of their traditional ways of doing things. They are only prepared to put energy and resources into developing a new partnerships, if they see a compelling need to do so. Usually, but not always, the impetus comes from some crisis or other external event, that is so compelling as to shake the players free from their customary behaviour: most of us are only prepared to jump when we are convinced the deck is burning. In the case of the Australian meat industry, for example, the rejection of Australian beef by the United States because of its too-high pesticide content, and the fear of losing export markets, was one such event. In the case of the American nuclear power industry it was the Three Mile Island partial meltdown, and in the case of the chemical industry, the Bhopal chemical explosion. As one study pointed out:

> it takes a special kind of crisis – one multiple groups acknowledge as affecting their core interests – to forge lasting, cooperative relationships among public and private actors. It is not enough that governments, businesses or NGOs believe there is a crisis affecting their individual interests. Only when other groups recognise that the crisis also impairs their ability to achieve their individual goals does a basis for significant cooperation exist. Collective action to fulfil complimentary individual needs – which cannot be met alone – is the rock on which public-private partnerships are built.[147]

And yet the best time to engage in environmental partnerships is before the crisis hits - because afterwards it may be too late to repair all the damage, and some commercial opportunities may have been lost forever. Once you sell tainted produce on an export market, it is very hard to recover either your reputation or the market. That is, the best time to form environmental partnerships is when there are commercial opportunities both to protect the environment and to improve the bottom line, where both partners will benefit from the arrangement, and prior to the irreversible damage often associated with a crisis. But what will give farmers and rural industry the impetus to take that first step? Here, perceptions are as important as reality, and what is crucial is persuading rural industry in particular, to change its spots. We address this issue further below under "implications for government".

Leveraging commercial third parties

Retailers, wholesalers or indeed any large commercial buyer, may initiate the formation of environmental partnerships. The opportunity for this role arises generally out of their dominant market position, and their strategically important position between upstream suppliers and final consumers. For example, in Australia, supermarket retailing is dominated by two national chains, who have a majority share of fresh fruit and vegetable sales. This provides them with considerable influence over their suppliers, in this case, market gardeners. Apart from the potential to apply coercive pressure over their suppliers, larger retailers are equally in a position to provide assistance and technical expertise to upstream suppliers in order for them to improve environmental

[147] Gentry B and Fernandez L "Evolving Public-Private Partnerships: General Themes and Urban Water Examples", Yale/UNDP Program on Public-Private Partnerships for the Urban Environment, 1997, p 2.

performance. In this way, they may be in an ideal position to sponsor the formation of environmental partnerships.

The key question is whether they will see a commercial advantage in doing so, as our case studies demonstrate. Here NGOs can play a crucial role in exerting pressure, and persuading them that this is indeed the case. Greenpeace and Friends of the Earth, for example, have been highly successful in sensitising European consumers to unsustainable forestry practices and the logging of old growth forests. Out of this emerged (with the WWF initiative) the Forest Stewardship Council (FSC) and the role of "buyers groups" who have committed themselves to only buy certified FSC timber.

Going for "no deal"

Finally, while we have tried to identify the circumstances in which partnerships will work best, it is important to emphasise that there are others where they will be particularly inappropriate. In essence, there will remain a range of situations which lack the sorts of characteristics identified above, and where "no deal" will be a preferable outcome to a partnership which will almost certainly fail meet the expectations of at least one of the major stakeholders.

For example, some issues are inherently contentious, and lack win-win characteristics. In such circumstances, as Poncelet has argued, then "environmental partnerships have the effect of repressing rather than promoting serious environmental debate in society"[148] and serve mainly to protect the status quo. In such circumstances, too, an attempt to generate environmental partnerships will de-legitimate conflictual approaches to environmental action and place environmental organisations at greater risk of co-option and domination by more powerful business and government actors. For these reasons, our general conclusion is that they should only be used as one among a number of possible policy tools to promote sustainable agriculture and will work much better in some circumstances than in others.

Key design features

While the circumstances identified above may be the most fertile in which partnerships can grow, experience suggests that they must also be structured in ways which maximise their chance of success. Here, a number of features can be identified as of particular importance.[149]

Adequate incentives for participation

Experience in related areas such as alternative compliance mechanisms and regulatory flexibility initiatives, suggests that one of the most common reasons why many such initiatives fail to get off the ground is the lack of sufficient incentives for one of the parties to participate. One potential role for government, in the case of at least some types of partnership, is to provide clearly specified rewards for good performance. Moffet and Bregha,[150] distilling the empirical experience from the very closely related area of voluntary environmental agreements, suggest the following incentives for participation should be considered: legislative exemption from regulatory requirements; recognition through awards, publicity and sanctioned use of a logo; technical assistance; link to other government programs providing privileged access to R&D export promotion, regional and infrastructure development etc; financial incentives such as grants, more rapid depreciation of equipment, tax

[148] Poncelet E " 'A kiss here and a kiss there': Conflict and Collaboration in Environmental Partnerships", *Environmental Management*, forthcoming. See also Poncelet E "In search of the 'win-win': possibilities and limitations of multi-stakeholder environmental partnerships" Greening of Industry Conference, Best Paper Proceedings, 1999.

[149] Points (ii)-(iv) of the following discussion rely substantially on Gunningham N and Rees J "Industry Self-Regulation: An Institutional Perspective", *Law & Policy*, Vol 19, No 4, 1997.

[150] Moffet J and Bregha F "An Overview of Issues with Respect to Voluntary Environmental Agreements" CAVA Working Paper No 98/11/3, 1999.

credits, and reduced fees; reduced transaction costs as a result of less duplicative reporting requirements, and quicker or combined permitting. Negative incentives would include: threat of government intervention; economic instruments; adverse publicity; consumer pressure; and legal liability. Of all of the above, the credible threat of government regulation unless adequate voluntary (eg partnership-based) action is taken, is by far the most powerful.

Environmental targets

Not all partnerships involve clearly defined targets, and some demonstrably successful partnerships have had much vaguer, aspirational goals. Landcare, for example, might appear to fit into the latter group. Many Canadian pollution prevention memoranda of understanding and some agreements negotiated in European countries also fall into this category. The case for such generalised agreements is often that concrete targets are impossible to achieve in the early stages and that it is better for both parties to feel their way, rather than resisting (and perhaps refusing to enter) an agreement which might commit them to non-attainable targets, or ones which, in retrospect, it is uneconomic to achieve. Far better, in these circumstances, to at least begin with good faith obligations of a general nature and an agreement to cooperate in broad terms to achieve them (or even to adopt broader, more qualitative goals). Indeed, in some circumstances, highly detailed and specific targets may actually handicap the evolution of environmental partnerships as environmental circumstances, and the technological ability of industry to adapt to these circumstances, change.

However, in the case of mature partnerships, and those capable of lending themselves to specific quantifiable targets, the adoption of such targets is highly desirable. Without them, there is the risk that the partnership may become vacuous, degenerate into "greenwash", and lose credibility. Since the essence of partnership is an exchange involving mutual gains, the absence of commitment by one partner to a particular target which the other regards as central, can threaten the entire basis of the partnership. In contrast, the establishment of negotiated targets in advance (perhaps in a memorandum of understanding signed by the partners) ensures that both sides have agreement and that a subsequent dispute will not arise from differing expectations. This also enhances credibility and public trust, which is dependent upon the performance of the parties and the achievement of the environmental goals specified. Accordingly, mature partnerships should be performance-based with specified goals, measurable objectives and milestones.[151]

It is also important to specify the consequences of not meeting performance objectives. As the New Directions Group have argued:

> although participation in an environmental partnership is voluntary, once joined a participant must commit to meeting the performance requirements of the initiative. This is facilitated by ensuring that the benefits of meeting program objectives and the consequences of failing to do so are clearly evident to those enrolling … [voluntary non regulatory initiative] is likely to be most successful when the benefits of meeting performance objectives are clear to all participants and recognition for leaders and for those making substantial improvements in their performance is encouraged. While the consequences of non-performance will vary depending on the environmental problem being addressed, mechanisms should be in place to deal with those participants who fail to live up to their commitments … as their lack of performance affects the credibility of good performers.[152]

Accountability and transparency

Those who are held accountable under the partnership agreement know they must explain and justify any questionable actions. This tends to both discipline and constrain decision-making. But how can

[151] NIPR, *New Directions*

[152] Criteria and Principles for the Use of Voluntary or Non-Regulatory Initiatives to Achieve Environmental Policy Objectives, New Directions Group, Canada, 1997, http://www.expertcanmore.net/pgriss/ndg.htm

accountability best be achieved? One of the principal mechanisms by which accountability can be fostered is transparency. Arguably the first step towards transparency is the public announcement of the principles and practices that the partners accept as a basis for evaluating and criticising their performance. When first promulgated these norms are often stated in very general terms, but can later be refined into detailed codes of management practice. The important point here is how a partner, by clarifying the standards it sets for itself, including performance indicators and implementation timetables, also provides more precisely defined measures for evaluating and criticising its performance. With increasing transparency, in short, accountability is more readily maintained.[153]

The next critical step towards achieving transparency is the development of an information system for collecting data on the progress of implementing the partnership agreement. The process usually divides into two parts: reporting and data collection, and collation and analysis of data. Reporting requirements usually adopt some form of self-reporting. An obvious problem this raises is why would an enterprise report information fully or accurately if it reflects poorly on its performance. And what about enterprises that are unwilling or unable to respond fully to often cumbersome reporting requirements? This brings us to verification and monitoring.

Monitoring and verification

The third and final step in achieving transparency - monitoring performance - also seems to be the most demanding and controversial. What makes it so are several thorny questions: How will the monitoring be structured? How will it be financed? Who will do the monitoring? This prompts a more general question. In view of all the effort, resources, and controversy surrounding the creation and maintenance of a monitoring system, what might motivate an industry partner to take such a step? At least part of the answer is that claims made by an industry partner may lack credibility. And from this credibility gap follows the need for some kind of independent confirmation of the industry's claims, by checking their accuracy, by monitoring the actual performance of partner companies, and so on. In other words, the environmental improvement targets set under the partnership agreement may require the incorporation of a workable set of performance indicators. Again, these may take the form of quantifiable or qualitative measurements. In either case, it is arguably that they should be determined in advance of the scheme's operation, preferably in conjunction with the target setting process.

But monitoring alone will not necessarily overcome the credibility gap, if the industry partner is still measuring its own performance. Independent verification may also be necessary. This is often painful. Opponents of verification highlight the risk independent audits pose to business autonomy, the confidentiality of trade secrets, as well as the danger that verification results could make them increasingly vulnerable to regulators, environmentalists, and litigation. Yet, despite these and other concerns, the development of an independent verification capability is often of fundamental importance to the long term viability of the partnership. Only then are community groups, NGOs, or even government agencies who are not themselves partners, likely to be convinced of the value of the arrangement. Suppliers and other commercial third parties will also want reassurance which can be provided, at least in part, by subjecting the arrangements to outside scrutiny. Certainly the verification process could be conducted in-house (eg by an "arms-length" audit team) but the closer the verifier is to the industry partner, the lower the credibility of their findings. Thus third party audits provide far greater reassurance to environmental partners and outsiders than internal audits.

Environmental partnerships which include independent verification have a greater chance of success for two reasons. First, it builds in credibility and community/consumer confidence that the environmental claims are actually being delivered. This is important if industry intends to obtain a financial benefit from its environmental activities, even if this is not their primary motivation. For example, the consumers of environmentally preferred products require reassurance of the product's

[153] See Gunningham N and Rees J "Industry Self-Regulation: An Institutional Perspective", *Law & Policy*, Vol 19, No 4, 1997.

bone fides. Independent verification is far more likely to provide this than in-house verification. Second, knowing that the results of the environmental improvement activities will be periodically subject to external assessment provides an ongoing incentive for companies to deliver on their commitments (which brings us back to accountability).

Encouraging continual improvement, flexibility and innovation

As the New Directions Group have argued, one of the attractions of voluntary instruments is the opportunity for flexibility and innovation in meeting environmental protection objectives that is not usually associated with regulatory compliance. The end result is of greater importance than the means of achieving it, provided that the means does not create another environmental problem. Well-designed agreements "should stimulate the development of creative approaches to solving environmental problems, which can have spin-off benefits in other areas and which can also provide competitive advantages to the developer. That creativity should be encouraged".[154] It is equally important that the momentum for improvement be maintained and that "partnerships to be reviewed on a regular basis to ensure that they continue to contribute to the achievement of the desired environmental protection outcome and that the goals of the program remain appropriate in light of experience, knowledge and changing public values".[155] It is for this reason that mechanisms to ensure continuous improvement should be incorporated, on which see more below.

[154] *Criteria and Principles for the Use of Voluntary or Non-Regulatory Initiatives to Achieve Environmental Policy Objectives*, New Directions Group, Canada, 1997, http://www.expertcanmore.net/pgriss/ndg.htm
[155] *Criteria and Principles for the Use of Voluntary or Non-Regulatory Initiatives to Achieve Environmental Policy Objectives*, New Directions Group, Canada, 1997, http://www.expertcanmore.net/pgriss/ndg.htm

Box 15 – Partnerships and environmental problem-solving

- *Partnerships that attempt to resolve deep-seated historical conflicts have limited, although positive, potential* – where disputes have reached deeply emotional positions on natural resource or environmental issues, mediation is often a more powerful tool than truly voluntary, co-operative activities.

- *Partnerships that share knowledge , complete joint research, or design 'blueprints for action' present the greatest 'win-win' opportunities* – when partnerships emerge out of a clear sense of opportunity and mutual interest, success I likely,. When participants enjoy working with their counterparts, chances for success further improve.

- *Partnerships are not likely to replace traditional regulatory processes, but rather complement and inform them* – undoubtedly, some stakeholders would like to reduce the power of legislators and regulators to set environmental priorities and implement programs. However, it is unlikely that regulation will be superseded by alternatives until these stakeholders can prove that they will use the power offered to them responsibly.

- *Partnerships require more than vision alone to be successful: They require leadership; and management skills* – since cooperative action is inherently more challenging than independent action, partnerships depend up[on the leadership and management skills of participants. Ample evidence of failure resulting from poor management suggests that management is not a trivial undertaking.

- *Organisations that participate in partnerships may gain advantages over their competitors that choose to work independently* – this hypothesis will require additional evaluation but it is not unreasonable to expect that organisations will better accomplish their goals if they continue to increase their effectiveness, enhance their influence, and build public support.

Source: Long F J and Arnold M B *The Power of Environmental Partnerships*, Dryden Press, US, 1994.

Partnerships and environmental management systems

There is a striking similarity between the substantial majority of the factors identified above, as key features of successful partnerships, and the central ingredients of environmental management systems. Such systems follow a defined sequence of steps which provide a structure for planning, implementation, reviewing and revising a system to address those parts of an enterprise's operations that can have an impact on the environment. In the case of ISO 14001, the further aim is to provide an international standard and a common (global) approach to environmental management and the measurement of environmental performance.

To meet the ISO 14001 standard, an enterprise must have a coherent framework for setting and reviewing environmental objectives, for assigning responsibility to achieve these objectives, and for regularly measuring progress towards them. It must also have appropriate management structures, employee training, and a system for responding to and correcting problems as they occur or are discovered. This implies documentation control, management system auditing, operational control, control of records, management policies, statistical techniques and corrective and preventive action.

However, while identifying environmental targets, performance monitoring, measuring and verification and continual improvement are all central to ISO 14001, third party audits and transparency (also identified above as key features of environmental partnerships) are not. These omissions have resulted in substantial criticism of the standard by NGOs and may well be addressed in the currently contemplated revisions of the standard. However there is nothing in ISO 14001 that precludes greater transparency and third party verification and these elements can readily be incorporated by those who wish to do so. External pressures (eg public opinion or pressure from trading partners) rather than ISO itself, will determine whether enterprises opt for such transparency of verification. If the experience of the quality standard ISO 9000 is repeated, then supply-chain pressure (as large companies, and multi-nationals in particular, require their suppliers to enter into contractual agreements committing themselves to and become certified to the standard) may prove the most important determinant of companies seeking external certification, while NGO and community pressure may lead to greater transparency.

To summarise: there are a number of key features of successful partnerships. Environmental management systems (including but not necessarily) ISO 14001, incorporate, or could readily incorporate, almost all of these features. As we have demonstrated through our case studies of the Victorian vegetable growers, the Wisconsin potato farmers and the Coleambally rice growers, environmental management systems may provide an valuable vehicle for delivering the environmental and economic objectives of environmental partnerships.

Certainly they are not the only means of achieving improvements and we have also seen that a range of partnerships to not include an EMS (and some important stakeholders, such as the Tasmanian onion growers, have serious reservations about such systems). But there is *some* evidence that EMSs can provide a valuable management tool, capable of enhancing an organisation's ability to attain, measure and monitor improvements, of delivering on its commitments (for example under a partnership) and of achieving substantially improved environmental performance.[156] If effectively implemented, such systems may be capable of reducing environmental impact, delivering cost savings, improving operational efficiency and opening up new markets.[157] They also provide an

[156] Only a very limited amount of empirical work has been done on the effectiveness of EMS and on ISO 14001 in particular. In the United States, the work of the Multi State Working Group is expected to provide an empirically informed evaluation but at the time of writing has not done so. The Group's database is available at www.eli.org/isopilots.htm. For a recent and pessimistic European evaluation see www.environmental-performance.org/analysis/index.php. Empirical work applying specifically to agriculture has not yet been reported.

[157] Tibor and Feldman *Implementing ISO 14000: A Practical, Comprehensive Guide to the ISO 14000 Environmental Management Standards*, McGraw-Hill, US, 1997.

objective basis for verifying a company's claims about its performance: a crucial consideration in international trade. Moreover, demonstrated adherence to ISO 14001 may also bring about improved community relations (insofar as information generated by ISO 14001 may be informative to local communities and enabling them to better judge the performance of ISO certified companies[158]) and improved risk management. Notwithstanding the risks of implementation failure and the limitations of ISO 14001[159], on balance there may be attractions in the adoption of an EMS as an integral part of some partnerships, although a fully informed assessment must await further empirical study.

For present purposes, three additional benefits of adopting an EMS, and perhaps ISO in particular, should be mentioned. First, ISO 14001 may become important, indeed essential as a vehicle for facilitating trade and removing trade barriers.[160] This can be most readily illustrated by the behaviour of some of our Asian neighbours (and competitors). In Japan, exporters have responded by embracing ISO 14001 as the key to competitive global positioning. As one writer pointed out:

Japanese exporters, caught out when the ISO 9000 quality standards were introduced in Europe ten years ago, were determined to lead the world in adopting the ISO 14001 environmental standard to ensure they would not be disadvantaged in important export markets. In this they have succeeded - more than 1,000 Japanese sites have achieved certification so far.[161]

A number of other governments in the region apparently also believe that ISO 14001 will become a "ticket for admission to global markets for their exporting firms".[162] Largely for this reason, the Taiwanese environmental agency is developing a five-year EMS promotion plan, the Indonesian environmental ministry views EMSs such as ISO 14001 as a means of supplementing weak and inconsistent enforcement of regulations, and the Ministry of Environment in South Korea is developing an Environmentally Friendly Companies initiative (with participants required to have an EMS and a number of other ingredients consistent with "ISO 14001 Plus").[163]

In contrast to the enthusiasm with which ISO 14001 has been greeted by a number of Asian countries, in Australia, take up of the standard – at least at certification level – has been described as "sluggish".[164] Only very slowly are Australian enterprises recognising the core role that environmental management systems can play in reassuring overseas customers of the enterprise's environmental credentials, and in enabling them to meet the increasingly stringent environmental expectations of international customers. Put differently, those who cannot demonstrate a commitment to sustainable environmental management may be excluded from some international markets by non-tariff trade barriers based on environmental issues.

A second potential benefit of adopting an EMS (though not necessarily ISO 14001) might be that of obtaining regulatory flexibility. If firms are given incentives by government to adopt a management systems approach (eg less frequent inspections, reduced licence fees, more flexibility in how they discharge regulatory responsibilities), then they will be facilitated in going "beyond compliance" with existing regulatory requirements. Victoria and Western Australia have already begun to adopt

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[158] Kleindorfer *Market-based Environmental Audits and Environmental Risks: Implementing ISO 14000*, The Wharton School, University of Pennsylvania, 1996.
[159] See Gunningham "Environmental Management Systems and Community Participation: Rethinking Chemical Industry Regulation", *UCLA Journal of Environmental Law*, 16(2), 1997/98.
[160] Kleindorfer *Market-based Environmental Audits and Environmental Risks: Implementing ISO 14000*, The Wharton School, University of Pennsylvania, 1996.
[161] Tanner "Asia's ISO Commitment", *Tomorrow*, Vol 1No 6, Nov-Dec, 1998.
[162] Krut and Gleckman *ISO 14001: A Missed Opportunity for Sustainable Global Industrial Development*, Earthscan Publications, London, 1998.
[163] Krut and Gleckman *ISO 14001: A Missed Opportunity for Sustainable Global Industrial Development* , Earthscan Publications, London, 1998.
[164] Regional Institute of Environmental Technology *ISO 14001 Implementation by World Wide Companies* (1998) http://www.riet.irg/research/iso-asian.htm and "EMS Certifications Still Slow", *Environment Business*, June, 1998.

precisely this approach in introducing "accredited licenses" and "best practice" licenses respectively. Both of these initiatives offer regulatory flexibility to firms which commit themselves to a series of measures including an EMS, meeting specified minimum criteria, a regular environmental audit, community dialogue and transparency.[165]

A third benefit may be in terms of satisfying the demands of others in the supply chain. For example, an important impact of the Japanese push for ISO certification will be through supply chain pressure, as many ISO certified companies have adopted ISO related procurement policies and plan to issue environmental guidelines to their suppliers, insisting that they too, perform to ISO related standards. Elsewhere, the British retailer B&Q is requiring its suppliers to have an environmental policy backed by an audit, and the Body Shop has a supplier certification program with ratings of zero to five stars. Supply chain pressure is growing and ISO 14001 certification may increasingly become a key means of satisfying the environmental requirements of supply-chain partners. Agriculture is unlikely to be exempt from this development.

In short, EMSs hold out the promise of not only of achieving substantial improvements which may be recognised by external stakeholders, but also of providing reassurance to customers and the supply chain generally. Their importance is growing to the extent that some reports have suggested that "quality systems that extend back inside the farm/orchard gate will increasingly be a necessary part of doing business in the international marketplace and are therefore a necessary requirement for sustainability. On farm QA/EMS have the potential to contribute to the achievement of sustainable agriculture/sustainable land management while minimising the regulatory burden on farmers/growers".[166]

Having said this, it must be acknowledged that EMS in agriculture is in its very early stages (and as a result very little empirical evidence is available). The research of Carruthers' suggests that this may be in part because EMS is a tool which is easier to adopt in large sophisticated organisations than in small unsophisticated ones, because the control of environmental issues is easier in the industrial than the agricultural context, and because it is difficult to see how such tools could be applied in agriculture without significant industry direction and support. Nevertheless she documents how a growing number of organisations are adopting an EMS, usually ISO 14001, with some apparent success.[167] However, she emphasises that "EMS implementation *must* deliver value to the farmers, whether through improved market access, production cost savings or through improved relationships with the community and regulators"[168] a point which applies equally to environmental partnerships involving agricultural producers.

Box 16 – The potential benefits of using EMS in Agriculture

- A capacity to measure environmental performance and impacts, and target responses.
- Reduced risk of environmental degradation and associated costs.

[165] In terms of regulatory reform, we advocate that regulators focus on a broader set of environmental management benchmarks than is currently envisaged under ISO 14001, including provision for auditing, planning, performance objectives, monitoring, verification, transparency and community participation. Such benchmarks should be introduced in conjunction with a comprehensive mix of incentives.

[166] *The Role of On-Farm Quality Assurance and Environmental Management Systems in Achieving Sustainable Agriculture and Sustainable Land Management Outcomes*, MAF Policy Technical Paper 98/2 July, 1999, MAF, New Zealand.

[167] Carruthers G "Australian Agriculture and Environmental Management Systems", a paper delivered to Multistate Working Group, Learning Together conference, San Diego, CA, June, 2000.

[168] Carruthers G "Australian Agriculture and Environmental Management Systems", a paper delivered to Multistate Working Group, Learning Together conference, San Diego, CA, June, 2000.

- Enhanced market prospects –improved market access, greater demand and possibly higher prices that reflect supply and demand.

- Capacity to compete with overseas producers and processors.

- Greater capacity to meet goals articulated in international agreements, environmental policies and plans.

- Greater respect for, and credibility of environmental claims- therefore greater confidence in industry's willingness to respond to public concerns.

- Increased ability to differentiate impacts of specific industries and individual producers operating within a region or catchment.

- A reduced reliance on voluntary measures and community education as primary environmental policy instruments.

- Innovative and cost-effective regulation, compliance and enforcement mechanisms.

Source: Alexandra and Associates Environmental Management Systems for Australian Agriculture: Issues and Opportunities, Proceedings of National Workshop on Environmental Management Systems in Agriculture, May 1999. RIRDC.

Implications for government

In the previous sections we have argued that environmental partnerships can play important roles in environmental protection. However, agricultural producers, NGOs and others, will not necessarily organise themselves into such partnerships, even when they might provide win-win outcomes. Conservatism, lack of awareness of the opportunities, and practical barriers such as the absence of mechanisms for offsetting risk, or lender resistance, may all militate against change. In the absence of external intervention, many of the potential opportunities for environmental partnerships may never be realised. Thus there is an essential policy role for government in encouraging, facilitating, rewarding and shaping such partnerships. That is, at the same time as the state is retreating from may of its traditional regulatory functions, numerous opportunities arise to forge creative new roles, harnessing private institutions and resources in furtherance of public policy. Thus, from a public policy perspective, one particularly important question is: what can government best do to influence and encourage such partnerships?

The main implications for government of environmental partnerships include the following:

- *Steering the boat rather than rowing* – government's traditional role has been that of intervening directly in the affairs of industry, for example by regulation (albeit much less so in the case of rural industry). In circumstances where the partnership model is likely to be successful, the role of government is likely to be a less intrusive one: facilitating, encouraging rather than directly intervening.

- *Kick-Starting environmental partnerships* – many partnerships will involve substantial start up costs and other initial barriers to their adoption. Government can play an important role in providing incentives sufficient to kick-start promising new partnership initiatives. Even if this involves money or other resources, the investment will be justified given that it will minimise the subsequent need for government intervention and resources, and may well achieve substantially better environmental and economic outcomes than traditional regulatory tools.

- *Providing incentives* – the precise incentives that government might provide to encourage environmental partnerships will vary widely with the circumstances but might include: a less attractive regulatory backdrop for those who do not wish to participate in partnerships; a legal underpinning to prevent free riding; the use of cross-compliance mechanisms; recognition through awards; publicity and sanctioned use of a logo; technical assistance; removal of perverse incentives; link to other government programs providing privileged access to R&D export promotion, regional and infrastructure development etc; financial incentives such as grants. Where government is a party it will also have a role in setting objectives, establishing a supportive policy and framework, and stipulating minimum design requirements.

- *Regulatory flexibility and EMSs* – if firms who commit themselves to a certified management systems based approach can largely be relied upon to self-regulate, (perhaps subject to performance standards and with some modest amount of regulatory and third party oversight), then more efficient and effective use can be made of regulatory resources, while facilitating far greater autonomy and flexibility for business.

- *Reducing risk* – one of the difficulties in developing partnerships is the risk involved in moving from one system of production (eg intensive pesticide use) to another (eg Integrated Pest Management). Government may have a short-term role in reducing these risks if the private insurance market fails to do so.

- *Information and assistance* – while the provision of advice and technical assistance does not in itself involve an environmental partnership if this is a unilateral act on the part of government, it can form one of the inducements to enter into such a partnership. There are a number of innovative models of how such advice and information might be delivered and what it might contain, such as the Farm*A*Syst approach.[169]

Beyond this, the benefits of environmental partnerships and the circumstances in which they can best be used depend substantially on the type of partnership involved.

Government and industry partnerships

In the case of partnerships between individual enterprises, or agricultural sectors, and government, one potential avenue lies in cleaner production partnerships or similar initiatives that address a broad range of environmental process and performance measures. The embryonic models being developed by the Victorian Environmental Protection Authority with the vegetable growers and the wine industry, amongst others, have considerable promise. Nevertheless, they are unlikely to be fully effective in their current form and we have suggested a number of ways in which they will need to be extended, both to include other stakeholders (eg the community and large retailers) and how it will be important to provide a credible regulatory underpinning.

Another potential avenue, as exemplified by the NSW EPA and the Australian rice growers, lies in using the threat (either implied or explicit) of mandatory regulation as a means of negotiating voluntary agreement to address a narrower and more specific range of environmental issues, with readily defined and measurable outcomes. It could be argued that the Greenhouse Challenge, is also an example of this approach, although not a very successful one (having been, at least until recently, negotiated in the context of impending nationally binding greenhouse reduction targets under an

[169] Farm*A*Syst is a partnership between government agencies and private business that enables farmers and others to prevent pollution using confidential environmental assessments. It helps farmers determine what risks--whether from livestock waste disposal, pesticide management or petroleum storage--could threaten their or their family's health and financial security. A system of fact-sheets and work-sheets is provided to enable farmers to identify the behaviours and practices that are creating those risks.
Source: www.wisc.edu/farmayst/

international protocol). Suitably designed, there is no reason why government-industry partnerships should not be extended to a broader range of industries. For example, attempts by government regulators in Wisconsin to establish such partnerships with the dairy industry and others should also be monitored closely.[170]

However, the major attraction of these partnerships to industry lies in the credibility which the EPA can bestow and which can they be used to reassure external markets, local communities, and regulators themselves. Accordingly, such partnerships have the greatest potential in industries that are under pressure from the public or who sell their produce to environmentally sensitive markets, or both. It is no coincidence that the vegetable growers and the wine industry confront both these pressures. Where neither are present, the prospects for this sort of partnership may be limited.

Even industries which do confront these sorts of pressures, and which have been proactive in seeking solutions, have not necessarily sought to do so by developing formal environmental partnerships. The cotton industry for example, have pursued other options, principally through self-regulation and the establishment of an industry code of practice. Although it should be noted that the cotton industry is pursuing a range of informal partnerships arrangement with *inter alia* research institutions, and has by no means rejected the partnership route. It may well be that basic commodity industries have far less interest in the partnership model than those selling high value added products, such as wine, which see a potential market advantage in distinguishing their product from that of their rivals based on a clean and green image, and which need to find a vehicle to lend external credibility and legitimacy to their environmental initiatives.

But even for these industries, environmental partnerships provide only one option. The organic food industry, for example, has successfully used an environmental label, bestowed by an independent third party certification agency which provides credibility and independence even in the absence of such a partnership. And some wine companies (notably Banrock in Australia) have sought to gain a market advantage on the basis of their environmental record, without any such partnership arrangement, and the Australian wine industry more generally, is positioning itself to protect market access through environmental labelling. In these circumstances, there may be no compelling need for agricultural enterprises to enter into a partnership with a government agency, although they may find additional benefits in doing so, as identified in both our wine and vegetable growers case studies.

One further form of industry-government partnership is viable, but only in the case of large agricultural producers such as would be required to obtain an environmental license. This is the form of regulatory flexibility partnership in which government insists on a minimum standard of environmental performance while allowing regulated entities to essentially contract around regulatory inefficiencies by devising their own implementation strategies, the Victorian accredited licensing and Western Australian best practice licensing regimes both offer this form of flexibility, coupled with licence fee reductions and public relations advantages to licencees prepared to implement environmental management systems, environmental improvement plans and other specified processes, including increased community dialogue.[171] In this and related ways[172] government can nurture the development of EMS's by providing incentives for their use.

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[170] A Wisconsin government official describes it thus: "A year ago, the Governor of Wisconsin announced the "Wisconsin Agricultural Stewardship Initiative." The purpose of WASI is to better tie together agriculture and research to better address environmental and profitability issues. It's modelled after the DeMarke farm in The Netherlands: basic research at the University of Wisconsin-Madison's College of Agriculture and Life Sciences (CALS); applied research at a demonstration farm, called the Pioneer Prairie Farm, at the Univ. of Wisconsin-Platteville; and, a series of twenty to thirty "Discovery Farms" around Wisconsin where the applied research is further demonstrated and available for research and communication. The initial emphasis will be on dairy issues, primarily nutrient (manure) management and water quality, which will give way over time to broader environmental and agricultural issues."

[171] See Gunningham N and Sinclair D "New Generation Environmental Policy: Environmental Management Systems and Regulatory Reform", *Melbourne University Law Review*, Vol 22, No 3, 1998, pp 592-616.

Government can also play a broader role, whilst not being a direct partner, in nurturing and facilitating the development and implementation of environmental partnerships. We witnessed, for example, the important role played by government officials in the creation of an environmental certification system for Tasmanian onion growers. This support was critical in providing necessary expertise and legitimacy to the process. It can also financially support other parties to participate in the environmental partnership process, in particular, through funding support for community conservation groups such as Landcare and Greening Australia. We noted above, how Greening Australia, for example, was an important participant in the establishment of the Conservation Trust in NSW.

Finally, government can assist in the development environmental labelling (se box 16 below) For example, the Californian Department of Food and Agriculture is seeking to gain funding and develop legislation that will create a state certified eco-label for biologically integrated farming systems. In Australia, government has substantial involvement through the Supermarket to Asia initiative. Governments can also support the integrity of labelling initiatives by ensuring the effective use of truth in advertising requirements such as in Part V Division 1 of the *Trade Practices Act* (Cth). However, none of these approaches, while important, are essentially partnership based.

[172] *The Role of On-Farm Quality Assurance and Environmental Management Systems in Achieving Sustainable Agriculture and Sustainable Land Management Outcomes*, MAF Policy Technical Paper 98/2 July, 1999, MAF, New Zealand.

Box 17 – The role of environmental labelling

Sometimes, either alone or in combination with an EMS, environmental labelling (which conveys information about the environmental impact of producing, processing, transporting, or using a food product) may be an effective way of communicating with, and reassuring, relevant markets.

There are a number of environmental success stories using green labelling (independent of any environmental partnership). One prominent example concerns organically grown products, where NASAA's efforts to establish and operated a certification and auditing system, and to develop and refine standards, labelling and research and development, have evolved almost entirely without government involvement - using contract law to provide a respected degree of assurance to growers consumers and traders.[173] The NASAA logo "is recognition within the market place that compliance is being maintained and the producer then uses that to their advantage -especially in the export markets".[174]

A labelling approach holds out the prospect of market recognition, and with it, competitive advantage and increased market share, and has been increasingly used in a number of other areas, beyond organics[175] since there is also room in the market for a less demanding standard (such as 'low pesticide use production system) provided the price is lower.[176] The use of environmental labelling of agricultural produce is likely to expand substantially in the future, including through "regional branding" . For example, as we have seen, the Sustain Coleambally initiative is currently examining the use of a label to brand food exports from the region: "the logo would symbolise the commitment to food safety, quality and environmental management of the region, and allow customers to preferentially purchase such commodities".

However, consumer awareness of an ecolabel may take years to develop, but that awareness of a label alone is not sufficient to generate a viable product premium – consumers must also understand and trust the label. For example, there is still some confusion at what an organic label implies. It is also difficult to educate consumers about eco labels based on management processes rather than performance outcomes.

In summary, "the conditions needed for ecolabeling to create incentives for producers to adopt innovative environmental technologies is that consumers value ecolabeled products more than conventional products, and that the difference in value is equal to or greater than the difference in marginal cost of producing the two types of products." Such conclusions may be more applicable to some products than others, but in any case, we simply cannot provide definitive answers at the present time.

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[173] Alexandra and Associates "Environmental Management Systems for Australian Agriculture: Issues and Opportunities", *Proceedings of National Workshop on Environmental Management Systems in Agriculture*, RIRDC, May, 1999. Note: NASAA Certification is a Total Quality Management system developed for organic produce. NASAA certification means that producer is inspected and approved by NASAA to advertise their produce as meeting the international standards for organic produce.

[174] Denham J "Organic Food Standards", *Proceedings of National Workshop on Environmental Management Systems in Agriculture*, RIRDC, May, 1999.

[175] It is also the case that: "Ecolabels used on agricultural products have been or are in the process of being developed by Stemilt's Responsible Choice Program in Washington, the Massachusetts-IPM Partners with Nature Program, the Core Values Program for apple farmers in the Northeast, Wegmans Food Store is using standards created by the New York-IPM Program, and California Clean Growers. the Stated goals of each program are basically the same: to produce high quality agricultural products in such a way that the environmental impact from farming on the surrounding ecosystem is minimized and economic competitiveness is maintained. Each program has developed its own set of standards for the products it labels or the goals it has set forth. in each case , these are designed to instruct growers in what they need to do to qualify for that particular label" Ravenswaay E O and Blend J *Using Ecolabeling to Encourage Adoption of Innovative Environmental Technologies in Agriculture*, http://www.pmac.net/varna.htm

[176] Ravenswaay E O and Blend J *Using Ecolabeling to Encourage Adoption of Innovative Environmental Technologies in Agriculture*, http://www.pmac.net/varna.htm

Industry and environmental NGO partnerships

Although we were able to identify a substantial number of such partnerships within the agricultural sector internationally, there are very few such partnerships in Australia. Certainly there are examples of cooperation at the policy/political level. Two prominent examples of this are Landcare (with the NFF and ACF) and the Conservation Trust in NSW (with WWF, NCC, NSW FA and Greening Australia), however these are not *operational* environmental partnerships of the type defined in this report. In this regard, a representative of WWF has noted, for example, that:

> Whilst independent third party certification [in particular, involving environmental NGOs] has been applied to other natural resource sectors (forestry and marine fisheries), to WWF's knowledge, there has not been any attempts to evaluate it within agriculture/pastoralism.

The fact that Australian consumers have expressed less interest in environmentally labelled produce than in a number of other developed countries is certainly part of the explanation. The Forest Stewardship Council for example, has been much more successful in gaining consumer recognition for sustainably sourced timber in parts of Europe and even in North America (with the support of larger timber retailers such as Home Depot), than it has so far in Australia. And while Australia has "quite stringent labelling requirements for exported organic foods, similar standards do not apply domestically. The introduction of ISO 14001/EMS labelling introduces another element into consumer decision making. It is fair to say that almost 99% of Australia's population have never heard of ISO 14001".[177] While consumer attitudes may be changing, it has been more difficult to gain a marketing advantage in Australia by claiming environmental credentials for a particular product, than in parts of North America and Europe.

Moreover, organised national environmental NGOs have not been very strong in Australia. Australia has a small population base, and has not been able to sustain environmental groups with the resources and sophistication of those in Europe or North America. There are less than a handful of nationally recognised environmental groups in Australia who could credibly offer their reputation to product endorsement. Some of these would not be prepared to do so, as a matter of principle (including Greenpeace). Nevertheless, a few national environmental organisations do have a history of working with agricultural groups, most notably the Australian Conservation Foundation and the National Conservation Council. While WWF is perhaps the group most philosophically disposed to go down the partnership path (and which internationally has done so with considerable success), it is not well resourced at the Australian level. Nevertheless it has recently initiated, and is actively exploring, an environmental partnership modelled on the FSC initiative:

> WWF is seeking agriculture and pastoral stakeholder participation in a project to evaluate whether independent, third party certification can be applied to the agriculture/pastoralism. The justification for this evaluation exercise stems from growing interest within the agricultural sectors and its stakeholders to develop tools to improve on-ground environmental performance and practices and to link these improvements with markets seeking produce with credible and verifiable environmental claims. … Australia's diversity of agricultural landscapes and produce and the pressing need to address unsustainable practices in many regions, make Australia an ideal location to evaluate whether independent third party certification can be applied to agriculture/pastoralism.

The relative weakness of Australia's environmental movement has also meant that, with few exceptions, there is relatively little pressure on agricultural enterprises to enter such partnerships. Yet the large majority of such partnerships internationally, emerged as a result of considerable criticism within the green movement about the environmental social or ethical credentials of the companies concerned- and "emerged in part as a result of… protest or threat of future protest.[178] Because

[177] Carruthers G "Australian Agriculture and Environmental Management Systems", a paper delivered to Multistate Working Group, Learning Together conference, San diego, CA, June, 2000.
[178] Murphy D and Benell J *In the Company of Partners*, p 216.

Australian green groups commonly lack the power to inflict similar reputation damage the incentive for agriculture to change is often insufficient (see further box 16 below). Nor, for similar reasons of scale and resources, are Australian NGOs in a position to provide the sort of expert technical assistance which has characterised some international NGO-industry partnerships (cf work of WWF with the retailers in UK advising on sustainable sources of timber). Finally, in some cases national groups may lack contacts and credibility in a particular area, or in may be ideologically opposed to the very presence of that industry (or of the industry in a particular area), believing it to be inherently unsustainable.

Nevertheless, there remains significant scope for NGO-industry partnerships in a number of forms. First and foremost they could play an important role in eco-labelling (se box 15 above). Although eco-labelling in itself need not involve a form of environmental partnership (and could be bestowed by an independent auditor or certifying organisation), such a partnership may strengthen the credibility and effectiveness of the eco-label. NGOs can act as third party intermediary between the consumer and industry, This gives the label greater credibility because environmental groups, particularly well known ones, have a high credibility ranking with consumers. The FSC provides one model of this, the Mothers and Others initiative, another.

A second partnership model would involve industry codes of practice, being developed and monitored jointly by industry and environmental groups. Self-regulatory initiatives such as codes of practice have a poor reputation, commonly being regarded by environmental groups, and to an extent by the general public, as mere symbolic shams designed to ward off direct intervention by government. While this characterisation may be unfair to a number of current initiatives, the perception that industry self-interest is likely to overwhelm independent standards and monitoring, is likely to remain. One way of gaining greater credibility is to develop, monitor and enforce such codes in collaboration with one or more relevant NGOs.

The chemical industry, whose Responsible Care self-regulatory initiative and codes of practice are by far the most sophisticated and developed worldwide, has finally come to this realisation. After putting years of effort into Responsible Care, only to find that public perceptions of the industry had improved very little, the industry began to ask why. One reason was a general distrust that the industry was "allowed to mark its own exam papers", and that its self-assessments were widely treated with scepticism by relevant stakeholders. As a results, some countries, led by Canada, have began to build third party assessment into the Responsible Care audits, with local community group representatives joining professional auditors in monitoring progress under the industry codes. Community participation in the development of such codes has been a feature in many jurisdictions, including Australia, for many years.[179] As codes of practice become increasingly important within Australian agriculture (noting in particular current initiatives in the cotton industry and of the Queensland vegetable growers) the potential for such partnerships has also grown.

A further model may be indicated by the recent partnership developed between Southcorp and the Australian Conservation Foundation, in which an alliance between a large corporation and a major environmental group, facilitates the latter in gaining resources and increasing the profile of a major environmental issue within the business community, while bestowing on the former, various public relations benefits for its improved environmental performance. As we also saw, such partnerships also have risks relating to the potential capture and co-option of the environmental group.

Box 18 – Prerequisites for industry and environmental organisation partnerships

[179] See generally, Gunningham N "Environment, Self-Regulation and the Chemical Industry: Assessing Responsible Care", *Law & Policy*, Vol 17, No 1, 1995, pp 57-109.

- Environmental issue is of high media profile and public concern, largely driven by environmental group campaigning.
- Perceived or actual failure of political, governmental, initiatives to achieve improvements relating to environmental problems.
- Failure of business initiatives to secure improvements relating to the environmental issue(s); and failure to convince the public of any benefits secured.
- Presence of a threat of organised anti-business protest if nothing is seen to be done to alleviate the environmental problem(s).
- Existence of a mainstream environmental group(s) with enough financing and commitment to form a partnership without receiving direct finance from business partners for this role.
- Adequate communication and understanding within the environmental movement to allow any partnership time to establish itself.
- Belief of business in the prudence of building formal relationships with environmental groups.
- Belief of the business in the benefits of improving company image for enhanced stakeholder relations.
- Presence of committed champions within both companies and environmental groups.
- Willingness to take a leap of faith and to accept the ambiguity inherent in ideas such as sustainable development and partnership.

Industry and industry and supply-chain partnerships

The prospects for this type of partnership are quite bright. Supply chain pressure is becoming increasingly important on a number of environmental issues. In some industrial sectors (including the motor and chemical industries), product stewardship or supplier commitments to adhere to environmental management system requirements prescribed by their larger trading partners, have become the norm. It will not be long before this is the case in relation to agricultural consumer products also. A growing number of supermarket chains are seeking independent certification of their suppliers for quality, food safety and environmental performance, some insist on an environmental management system, and supplier audits, (known as second party audits because it is the buyer who nominates the standard,. the process and the auditors). Indeed, such procedures are already a market requirement in some cases with market access being conditional upon certification.[180] As indicated above, the particular preferences of consumers, retailers and markets more generally, are all leading in this direction, and may well result in a convergence between labelling, EMS and supply chain partnerships.

As we have noted elsewhere in this report, the role of supermarkets such as Sainsbury's and Tesco in forming environmental partnerships along the supply chain, including growers, wholesalers, exporter and importers, is already well advanced. The EUREP GAP initiative will only enhance this trend. Given that the vast majority of Australian agricultural produce is destined for export, this will inevitably be subject to such requirements in an increasing number of export destinations.

[180] Spencer B "Certification and Auditing-Do You Really Need Them?", *Proceedings of National Workshop on Environmental Management Systems in Agriculture*, RIRDC, May, 1999.

One option available to farmers, and farmer groups, in this regard, is anticipate and obviate the imposition of external certification requirements by developing indigenous systems. The are several advantages to such a strategy. First, it may provide the industry with greater control and a greater capacity to tailer environmental practices to their particular needs and circumstances. Second, it may avoid unnecessary and potentially costly duplication by allowing the one system to be used for a number of different export destinations (as opposed to having numerous mutually exclusive systems imposed on them). And third, it opens the possibility of the industry creating and retaining its own regional or industry specific environmental label, as opposed to, for example, being subjected to an international retailers in-house label (Tesco's Nature's Choice is an example of this).

However, the key to the success of 'clean and green' claims by Australian agriculture is their credibility. Affluent markets not only increasingly demand quality, consistency and reliability from suppliers of goods and services, they are also demanding assurance and certification, which in turn needs to be internationally credible.[181] Such claims "need to be authenticated. Verification systems require 'chain of custody' or audit trails from paddock to plate to be credible, as well as rigorous and detailed systems setting targets and measuring environmental effects".[182] As a result, as Jason Alexandra has pointed out:

> Australian agricultural products must generate credible systems for managing their environmental effects, and for measuring and communicating their environmental performance, either as individual producers and processors, or within a regional or industry framework. Failing this, Australian agricultural industries risk the imposition of harsher regulation, being shut out of markets, missing opportunities, and conveying a negative public image – that of a sector with ongoing traditions of environmental exploitation and recklessness.[183]

To summarise, there are a number of compelling reasons to choose certification and auditing as a means of responding to the above consumer and market demands not least of which are:

- demonstrating a sufficient degree of self-regulation to act as an alternative process to government regulation;

- establishing the confidence of external stakeholders such as customers thereby providing market access, competitive advantage, brand image, recognition and community responsibility; and

- establishing the confidence of internal stakeholders such as owners, senior management and staff thereby improving staff satisfaction and relations and promoting a change to a more environmentally aware culture.[184]

If this indigenous certification strategy is to be acceptable, it is important that any indigenous certification schemes be both consistent with international benchmarks and credible. This can be best achieved by modelling internationally recognised environmental management systems, such as ISO 14001 or EUREP GAP, even if in a modified and/or simplified form, and seeking some form of external verification. Environmental NGOs are particularly apposite in this regard, however, this could also be achieved through government involvement and/or independent professional auditors.

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[181] *The Role of On-Farm Quality Assurance and Environmental Management Systems in Achieving Sustainable Agriculture and Sustainable Land Management Outcomes*, MAF Policy Technical Paper 98/2 July, 1999, MAF, New Zealand.

[182] Alexandra and Associates "Environmental Management Systems for Australian Agriculture: Issues and Opportunities", *Proceedings of National Workshop on Environmental Management Systems in Agriculture*, RIRDC, May, 1999.

[183] Alexandra and Associates "Environmental Management Systems for Australian Agriculture: Issues and Opportunities", *Proceedings of National Workshop on Environmental Management Systems in Agriculture*, RIRDC, May, 1999.

[184] Spencer B "Certification and Auditing-Do You Really Need Them?", *Proceedings of National Workshop on Environmental Management Systems in Agriculture*, RIRDC, May, 1999.

Although domestic supermarkets, namely Coles and Woolworths, have not been as active as their international counterparts in pursing supply chain environmental partnerships, preferring instead to emphasise quality assurance and food safety, they are unlikely to remain isolated from international trends in the medium term. It is conceivable, therefore, that the agricultural sector as a whole will be confronting a situation whereby the majority of markets, both international and domestic, will be employing supply chain environmental partnership.

Beyond supply chain environmental partnerships, another potentially attractive industry to industry model is provided by Sustain Coleambally, and in particular, the use of LWMP. As we have noted above, the privatisation of previously government owned and operated irrigators in NSW has occurred in tandem with requirements to meet minimum environmental performance standards through the vehicle of LWMP. This provides an ideal vehicle for private irrigators to form environmental partnerships with farmers. Already possessing a close working and commercial relationship, as evidenced by the Sustain Coleambally initiative, this provides ample opportunity for cooperation in environmental management systems, education and training and regional branding. It also has considerable capacity to be extended to a multi-partite environmental partnership through the involvement of locally-based environmental and community groups.

Difficulties setting up environmental partnerships

The prospects for successful environmental partnerships in Australian agriculture, however, should not be exaggerated. Box 17 below lists the most important criteria for the success of voluntary agreements such as partnerships. As will be apparent, many components of Australian agriculture face substantial obstacles in terms of the majority of these criteria.

Box 19 – Criteria for the use of collaborative agreements

Industry structure and capacity (the number of firms active in an industry sector, degree of competition and degree of concentration are important – the large the number of firms, the greater the competition and the lower the concentration, the more difficult it will be to negotiate and enforce a partnership.

Importance of dealing with firms with EMS-which demonstrate a willingness and readiness to assume greater self-management responsibilities.

At sector/sub-sector level representational body – is the industry ready to assume responsibility under a partnership – is there or can there be created, a broad based body capable of negotiating on behalf of industry participants and of helping ensure compliance with the industry side of the agreement.

Supportive policy context – there is a difficulty creating strong incentives of industry action without a supportive legislative or policy context.
Political culture – a high level of public environmental awareness and the existence of effective oversight mechanisms such as the media, NGOs and regulatory authorities can help create conditions conducive to success.

Source: Modified from Moffat and Bregha, An Overview of Issues with respect to Voluntary Environmental Agreements, CAVA Working Paper, no 98/11/3 Jan 1999.

A further obstacle to the development of environmental partnerships in Australian agriculture is that this sector is characterised by a small number of large producers and a large number of very small producers. The latter lack sophistication resources, economies of scale and knowledge about systematic ways to approach their operations and their environmental problems. It is no coincidence that the large majority of documented partnerships have taken place in large sophisticated

organisations in the industrial sector, and most commonly within those that already have well developed environmental management systems. The hurdles in developing such partnerships with small producers are considerably greater, although as we have seen, in the case of supply chain partnerships, they may be substantially overcome.

And just as the role of EMS in agriculture is taking on greater significance and slowly but inexorably growing, despite the obstacles, so too are there opportunities for environmental partnerships. However, since price premiums for 'clean and green' produce are rare, it is only when other rewards are available whether in the form of increased market access or market share, or plausibly in terms of public acclaim, ease of access to resources or other incentives, that they will become a credible proposition. Even here, farmer active engagement will be very important – if industry owns the partnership process its more credible - and they are always suspicious of government involvement because its also a potential regulator.

Conclusion

Beyond the specific policy prescriptions identified above, a number of broader points emerge from the various empirical studies and analyses conducted to date.[185] First, as we indicated earlier, in the case of government and industry environmental partnerships, there are well known and readily identifiable benefits in including third parties in the process of developing and overseeing such agreements, suggesting the value of multipartite partnerships over bipartite agreements. However, there is a difficult trade off to be made in that the exclusion of third parties and the lack of an open, transparent process may speed up negotiations between government and industry. It was these features of many of the early voluntary agreements which served to lower transactions costs and provided the greater flexibility and the avoidance of conflict between the industry and the regulator, which industry seeks. Yet the price of this flexibility may be the credibility which only transparency, accountability, independent monitoring, procedural safeguards and the direct involvement of environmental NGOs can provide.[186]

A second broad point is that environmental partnerships, like voluntary agreements more generally, are often best used when an environmental problem is in its early stages and it is premature to regulate it directly. For example, it has been pointed out[187] that agreements have been preferred to regulation in waste management because of the technological uncertainty that prevailed, and because public authorities needed close industry cooperation in order to define realistic objectives. In the case of agreements on climate change, a main reason for the use of agreements lies is their greater acceptance by industries compared with environmental taxes and/or tradeable permits. Governments use them as a lesser evil in terms of the distortion of competition in a context where no uniform means for the reduction of greenhouse gases have been defined on the international level yet.[188]

As the OECD has pointed out: "in this regard voluntary approaches can be regarded as a policy instrument with a transitional function, ie. to work until time is ripe for other regulations to come into force. They are particularly suitable for this role, since they are likely to generate soft effects and learning, and hence can help improve the future design of more traditional instruments."[189] This

[185] Of these the most influential include *Voluntary Approaches to Environmental Policy: An Assessment*, OECD, Paris, 2000, and Higley C J, Convery F and Leveque F "Voluntary Approaches: An Introduction" CAVA (Concerned Action on Voluntary Approaches), International Policy Workshop on the Use of Voluntary Approaches, Brussels, 1 Feb, 2001, p 11.
[186] Higley C J, Convery F and Leveque F "Voluntary Approaches: An Introduction" CAVA (Concerned Action on Voluntary Approaches), International Policy Workshop on the Use of Voluntary Approaches, Brussels, 1 Feb, 2001, p 11.
[187] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p134.
[188] Borkey P and Leveque F *Voluntary Approaches for Environmental Protection in the European Union*, OECD Working Paper, ENV/EPOC?Gee1 (98) 29, 1998, p 5.
[189] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p 134.

point is particularly pertinent to environmental partnerships in the agricultural sector, where many problems are not only complex and do not readily lend themselves to a conventional regulatory solution, but where such a solution would engender massive resistance and hostility from a sector which has been largely free from such intervention in the past (although there are an ever increasing number of exceptions[190]).

Third, as we have argued elsewhere[191] the weaknesses of voluntary environmental partnerships can often be compensated for, and their strengths, enhanced, by combining them with most, but not all, forms of command and control regulation.[192] While this point has only very limited application to agriculture for the reasons stated immediately above, it is nevertheless relevant to point out, as our vegetable growers case study demonstrates, that such combinations of instruments can work better than partnerships in isolation. For example, voluntary partnerships can be used to complement conventional regulation, by encouraging the use of environmental management systems or other management tools that facilitate meeting legal standards and achieving better environmental performance.

Conversely, "regulatory components provide voluntary approaches with safeguards against their main shortcomings, namely low expectations in their environmental targets, weak enforcement provisions, and the lack of credible and efficient monitoring and reporting requirements".[193] Alternatively, more conventional regulatory approaches may not be applied, rather they can be held suspended in the background, only to be brought to the fore in the event of partnership failure. This can greatly expedite the formation of environmental partnership. An example of this is provided by the NSW EPA and the curbing of pesticide releases by Australian rice growers.

Such an underpinning of government regulation may be particularly important in limiting free-riding behaviour. In the comparable area of voluntary agreements the experience is that sometimes this will include direct regulation, sometimes the threat of regulation which will be triggered automatically if certain voluntary targets are not met (the French and German agreements on packaging waste recycling are backed by decrees, specifying the regulations that would be in force in case of failure) and sometimes by combining partnerships with economic instruments.[194] Given the political unacceptability of regulation to the agricultural sector, we acknowledge that the capacity to utilise a regulatory underpinning to agricultural partnerships is extremely limited.

The OECD makes the broader point about voluntary agreements (VAs) more generally that: "if carefully designed and crafted into the policy mix, VAs can play a useful role in 'lubricating' this policy mix; increasing flexibility, paving the way for new regulations without a stringent and brutal implementation, inducing industry to develop innovative approaches. Filling enforcement deficits, participation of stakeholders, codes of conduct and guidelines, can all contribute to this 'lubricating' function".[195] However, much work remains to be done in terms of identifying the extent to which, and the mechanisms by which, voluntary approaches can be combined with other policy instruments to obtain efficient and effective outcomes.

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[190] For example, in 2000, the Queensland Fruit and Vegetable Growers formally acknowledged that they face increased regulatory control if they do not move to demonstrate responsible voluntary environmental stewardship. See *Environmental Management Systems in Agriculture. Current Issues: Future Directions*, Issue 4, Aug , 2000, p 2.

[191] See Chapter 6 of Gunningham N and Grabosky P *Smart Regulation*: *Designing Environmental Policy*, Clarendon Press, Oxford, 1998.

[192] See Chapter 6 of Gunningham N and Grabosky P *Smart Regulation*: *Designing Environmental Policy*, Clarendon Press, Oxford, 1998.

[193] *Voluntary Approaches to Environmental Policy: An Assessment*, OECD, 2000, p 11

[194] For example, the Danish Agreement on Industrial Energy Efficiency involved a policy mix combining voluntary agreements on reductions of carbon dioxide and sulphur dioxide with taxes and subsidies. Krarup S and Ramesohl S *Voluntary Agreements in Energy Policy- Implementation and Efficiency*, Final Report from the project: Voluntary Agreements-Implementation and Efficiency, AKF Forlaget, Copenhagen, 2000.

[195] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p133.

Fourth, environmental partnerships do seem to generate major positive "soft effects" such as collective learning, generation and diffusion of information, learning by doing and demonstration effects, increased stakeholder participation and consensus building, which the OECD points to as arguably "a key objective and virtue of many negotiated agreements".[196] Since many partnerships aim at increasing environmental awareness of the industry rather than short term environmental impacts, these learning and innovation effects should not be lightly dismissed. An example of this is provided by the Land Management society cited in Chapter Three, where their partnerships focussed on the provision of awareness, education and expertise rather than measurable and defined performance or process outcomes. Landcare is an another example of this where benefits relate to issues such as "landholders" appreciation of overall resource management, links with processors, producer boards and science organisations and the fact that "landholders involved … are now surer of themselves and where they stand in relation to sustainability issues".

Fifth, it is impossible to discount the personal dynamic. Most successful partnerships have involved individuals, and leaders in particular, committed to achieving their goals and to working co-operatively with the proposed partner, notwithstanding past divisions between them. They involve participants who take the time to build the necessary personal relationships and to work to achieve a relationship where both parties' needs are met. There are numerous examples cited above that highlight the importance of partnership leaders. These include the Managing Director of Field Fresh in the case of Tasmanian onion growers, the CEO of Coleambally Irrigation in the case of the Sustain Coleambally initiative, and the catalytic role played by one farmer in establishing the Conservation Trust of NSW. The evolution of Landcare also involved precisely these factors.

Finally, the evaluation of environmental partnerships requires a dynamic analysis: the second generation of such partnerships may be somewhat different from the first, and considerably more likely to provide public interest benefits. For example, in the closely related area of voluntary agreements, targets now tend to be set by government rather than by industry, government negotiators are much more sensitive to the risks of setting targets that merely reflect improvements that would happen anyway, and there is a movement towards linking negotiated agreements with other policy instruments, such as taxes or to complement rather than replace existing regulations. Greater efforts are also being make in terms of transparency and third party input. Whether these developments will justify the faith of advocates of the partnership approach, and whether the additional transactions costs of building in essential checks and balances, will render such instruments too costly, remains to be seen. But that question must be asked in the context of a comparison with the other available alternatives. In the light of the relatively modest success of most traditional mechanisms at least, the yardstick for comparison may not be that high.

[196] *Voluntary Approaches for Environmental Policy: An Assessment*, OECD, Paris, 2000, p131.

Appendix – Environmental Partnerships: Design Guidelines

What are the key factors that an agricultural sector or other potential institutional participants should consider when developing an environmental partnership? Although each and every environmental partnership arrangement will be necessarily tailored to the individual needs and circumstances of a particular sector, there are set of core guiding principles that can be used to inform policy makers and industry participants. These have been coalesced below in the form of a environmental partnership design guidelines.

1st Guideline

Determine whether there are fertile conditions for partnerships to grow. These include whether there is: a coincidence between public and private profit; the prospect of mutual gain for both/all partners; an exposure to green markets/companies which trade off their public image; and/or political/community pressures for environmental improvement.

2nd Guideline

Determine whether there are a range of potential institutional partners. Indicators of this could include whether there are disparities along the supply chain, with the potential for leveraging commercial third parties; the presence of relevant regulatory initiatives by government agencies, such as cleaner production programs; whether environmental organisations have targeted a pertinent environmental issue, or have in place industry cooperative programs.

3rd Guideline

Determine whether the industry is capable of presenting a united front for partnership negotiations. Key questions might include, whether there is a relevant industry association, and whether it has a strong enough membership base, whether the industry is highly integrated or relatively fractured, whether there are any industry leaders willing to push a proposal forward.

4th Guideline

Determine what type of environmental improvement program would best fit industry circumstances. Key issues might include, how broad the scope of environmental improvements should be, are their opportunities to focus on local issues with readily monitored results, whether a systems or performance orientated approach is to be preferred, whether the potential industry partners have any preconceived conditions or pre-existing environmental improvement programs.

5th Guideline

Determine whether there are adequate mechanisms to sustain both farmer participation and community credibility. Key issues might include importance: whether there are adequate incentives for participation; whether there are clear environmental targets; whether there is provision for adequate accountability and transparency; and whether there is encouragement for continual improvement, flexibility and innovation.