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Sustainability Certification

Practice and potential in Australian farm forestry

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Foreword

The certification (and labelling) of sustainably managed forestry enterprises is an international phenomenon that has captured an increasing share of forest product markets in developed countries. Until recently, Australia has remained largely immune from its impact. The growth of certification worldwide, however, has made it difficult for the domestic industry to maintain an isolationist stance. This assessment applies both to the traditional forestry industry and the emerging Australian farm forestry sector.

This report considers the relevance and implications of certification for farm forestry, with particular attention paid to the needs and circumstances of smaller farm foresters. In doing so, it provides a comprehensive review of the preferred strategies for the adoption of certification by the Australian farm forestry sector, and concludes with an analysis of potential policy options. The report also provides an overview of international certification developments and domestic farm forestry experiences. Apart from a literature review, information for the report was provided by field interviews with a wide range of farm forestry representatives and other relevant stakeholders.

This report was written prior to any formal move for forest certification in Australia (based on research completed in 2001); however, its approach is consistent with support by Australian Forest Growers and the rest of industry for the development of an Australian forestry standard. In August 2007 the Australian Forest Certification Scheme (including the Australian Forestry Standard) was launched, with endorsement under the international Programme for the Endorsement of Forest Certification schemes. Alternative schemes operating with the endorsement of the Forest Stewardship Council are also in operation in Australia. In this context, the report provides a useful background for certification for farm forestry, and its perception of future issues is still relevant.

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This report is an addition to RIRDC's diverse range of over 1800 research publications. It forms part of our Agroforestry and Farm Forestry R&D program, which aims to integrate sustainable and productive agroforestry within Australian farming systems. The JVAP, under this program, is managed by RIRDC.

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Executive Summary

What the report is about

This report examines options for the development of certification of sustainable farm forestry in Australia. Farm forestry is a relatively immature 'industry' that has still to establish a predictable and stable economic profile. It remains to be seen, in many cases, if, when and how harvested timber from farm forestry will be translated into a commercial benefit. Arguably, some policy mechanism is necessary to help farm forestry mature into both an economically vibrant and environmentally positive industry. In the view of many, that mechanism is 'certification' (or more precisely: the independent certification and labelling of timber as being derived from sustainably managed sources): the subject of this report.

Certification has the potential to enhance the profitability and/or marketability of farm forestry products, to increase access to international markets and market share and to facilitate environmental improvements. However, these benefits are by no means guaranteed, and there are many unresolved questions regarding how best to develop and implement certification, particularly in relation to smaller farm foresters. This report provides an analysis of these and other key questions relating to certification in farm forestry, and provides the information and analysis necessary to advance policy debate in this area. It is important to note that this report was based on research conducted in 2001, and finalised for publication in 2004. As such, there have been a number of policy developments in the forestry certification sphere that may have superseded some elements of the report. Nevertheless, many of its broad findings remain relevant (see also Crawford, H., 2006. 'A review of forest certification in Australia', FWPRDC Project No. PN05.1025).

Who is the report targeted at?

The report is targeted at the Australian farm forestry sector, forestry industry associations, public policy officials, academics and environmental organisations.

Background

Certification began in the early 1990s as a response to the (perceived) failure of existing government policies and industry self-regulation to arrest the continued degradation of the world's forests, and aimed to decrease the amount of timber coming from unsustainably managed forest. Certification is an attempt to link the environmental preferences of consumers with the sustainable management of forestry resources. This is achieved by providing a market or price signal along the forestry and forestry products supply chain with the intention of supporting those forestry owners and operators that have adopted sustainable management practices. Environmental organisations, government and industry increasingly perceive certification as having a significant role to play in the pursuit of sustainability.

The international certification landscape is evolving as more organisations join and more schemes are launched, with different 'ownership' structures. In the last decade, certification has been transformed from a relatively isolated phenomenon into a major, and increasingly mainstream, policy development. A number of international certification trends are evident, many of which may have significant repercussions for the Australian farm forestry sector. Currently, institutional arrangements for certification are in the developmental phase in Australia. There are no active certification schemes in place, and only a limited number of forestry operations have received, or are in the process of seeking, ISO 14001 certification. It is against this backdrop, and in response to the international growth of certification, that a range of institutional interests, including industry and government, have supported the development of an Australian Forestry Standard.

Aims/Objectives

The report aims is to assess the merits of a series of alternative certification policy options for the farm forestry sector, including for smaller farm foresters, such as commercial and environmental implications. In achieving this stated objective, the project addresses a number of important policy questions confronting certification in Australian farm forestry, and focuses on four key deliverables:

- the identification of the implications of certification for Australian farm forestry both now and into the future;
- the identification of whether certification is desirable, cost-effective and practical for the farm forestry sector, and how can it best deliver the purported environmental benefits, including the protection of biological diversity;
- the identification of how certification could be best exploited by farm foresters, including the preferred circumstances in which it might be employed, and the preconditions for its success, and the development of a workable model for stakeholder engagement; and
- the identification of how, and if, certification can be integrated with other policy developments affecting the farm forestry sector.

Methods used

The report is based principally on the findings of fieldwork with farm foresters and related stakeholders. This included at total of 81 interviews with farm foresters, Commonwealth and State Government officials, Regional Plantation Committee members, Greening Australia representatives, other environmental organisations, industry association members, industry consultants and academics/researchers. The fieldwork was supplemented by desktop research on international initiatives and experiences with certification and the circumstances of the Australian industry.

Results/Key findings

While certification is clearly here to stay, at least with respect to major forestry operations, its implications for farm forestry are far less clear. In theory at least, certification has several purported benefits for farm foresters in Australia. Given the immature stage of development and potentially unique circumstances of the Australian farm forestry sector, there is a strong case for an assessment of the role of certification *as it relates specifically to farm forestry and tailored specifically to the needs of that sub-sector*. The certification issue comes precisely at a time when the industry is at a crossroads. It is arguable that certification could be the catalyst, or at least greatly assist, the sector to achieve greater maturity through the adoption of more sophisticated management and marketing practices.

Important characteristics of farm forestry

Despite the absence of detailed information about the farm forestry sector in Australia, it is possible to identify several defining characteristics that impact on whether and how certification should be adopted. These include: the heterogeneity of the farm forestry sector; the wide geographical dispersion of smaller farm forestry holdings; the lack of information on appropriate sustainable forest management practices and principles; the limited resources (both financial and non-financial); and the greater potential for higher value-added products to be derived from farm forestry.

Drivers of certification in farm forestry

There are a variety of drivers of certification that may impact on farm forestry operations in Australia. These include the following: commercial pressure; government pressure, including through regulation; peer pressure, often formalised through an industry association; community pressure, including environmental organisations; and the future possibility of carbon trading and other environmental credits.

Does certification matter?

One policy option for the farm forestry sector is simply to ignore the certification debate and do nothing. However, there are a number (although at this point, not overwhelming) reasons for not adopting such an approach. First, the pressure for certification, far from dissipating in the future, is likely to grow. Second, certification offers some potential benefits to farm foresters, particularly those engaged in commercial activities. Third, taking an active stance on certification enhances the chances of shaping its application to the particular circumstances and needs of farm foresters.

Options and strategies for adoption

As evidenced by the proliferation of certification schemes worldwide, the best approach to certification in farm forestry is by no means obvious. Potential resolutions to issues surrounding the implementation of certification in the farm forestry sector are summarised below:

Who should own the scheme? The ownership models, whilst not ruling any out at this point, may be listed in an indicative order of preference, from least to most attractive: industry ownership – the potential lack of credibility is a major detraction of this approach; environmental ownership – the only realistic option in this regard is the Forest Stewardship Council scheme; and standards association ownership – this approach drew the most support from farm foresters themselves, and also is the approach underpinning the Australian Forestry Standard process.

Should the farm forestry sector develop its own certification scheme? It may be beyond the capacity of the Australian farm forestry sector, and ultimately duplicative, to attempt to 'reinvent the wheel' through the development of its own, unique certification system. A partial alternative would be to form a strategic alliance with another certification scheme and/or institutional grouping. Such an arrangement could provide it with significant exposure in international markets, greater credibility, and much needed expertise and resources.

Should the sector adopt a pre-existing forestry certification system? The strategy of adopting a pre-existing international scheme has potential benefits, however, despite the proliferation of certification schemes to date, it is likely that Pan European Forest Certification and the Forest Stewardship Council *are the only realistic candidates that could fulfil this role*. This poses a potentially uncomfortable dilemma for the Australian farm forestry sector because the latter is widely perceived to be beholden to environmental organisations, and the former may be too closely aligned with industry interests.

Should farm forestry support the Australian Forestry Standard? The farm forestry sector, through the Australian Forest Growers, has already committed itself to the process of developing an Australian Forestry Standard. If, however, the Australian Forestry Standard fails to deliver a certification standard, or produces one that attracts widespread criticism from national and/or international environmental organisations, then it may need to consider other certification options.

Should broader stakeholder representation be sought? It may be argued that broad stakeholder representation is an important pre-requisite for maintaining credibility for some, if not most, of these downstream constituencies. As a result, there is a strong case to be made for placing a high priority on broad stakeholder representation in the certification process.

What role, if any, should there be for commercial third parties? Although certification has the potential to deliver commercial benefits to farm foresters, international experience indicates that retailers play a crucial role in the success or otherwise of certification arrangements.

How can the heterogeneity of farm forestry be accommodated? A single certification scheme, rather than a variety of schemes, could be introduced. This should be sufficiently robust and flexible so as to accommodate the diversity of farm forestry operations.

Should the different motivations of farm foresters be accommodated? The inherent nature of certification, with its emphasis on market forces, means that those farm forestry applications with a commercial bent should be the primary focus of, and principal beneficiaries, of any scheme introduced.

Should certification be based on process or performance standards? The convergence of certification schemes internationally (at least in terms of their content), means that virtually all schemes can be expected to contain a mixture of performance and process standards at some time in the near future, if it is not already the case.

Should a 'streamlined' sustainable forest management system be used? In order for small farm foresters to take advantage of the benefits of certification, and yet overcome the difficulties associated with the implementation of a potentially complex and costly management system, a streamlined management package could be introduced.

Can carbon credits be accommodated? The problem is that certification and carbon trading are at quite different stages of policy development, with certification considerably more advanced. From an Australian farm forestry perspective, provision for the eventual accommodation of carbon and other environmental credits with a certification system would be a desirable outcome.

Will farmers become overwhelmed with different certification regimes? The introduction of any certification standards should be done in way which is cognisant of other management obligations and aims to, as far as possible, integrate any new management requirements with existing or planned one.

Should independent certifiers be used? Although there may be some financial attractions to using in-house certifiers, and potential synergies with other farm forestry certification initiatives, the overwhelming weight of international opinion is that independent third party certification is an essential requirement of a credible certification scheme.

How can certified timber be distinguished along the supply chain? Whichever certification scheme is supported and adopted by the farm forestry sector, a priority should be placed on ensuring adequate chain-of-custody arrangements are put in place.

Is group certification a viable option? As the cost of certification may be prohibitive for some smaller farm foresters, it may be attractive for any certification scheme adopted by the Australian farm forestry sector to make allowance for the possibility of group certification.

What sized management units should be certified? As with other possible innovations for certification in farm forestry, the use of larger management units has both advantages and disadvantages. In the case of smaller farm foresters, it is arguable that they have most to gain from an umbrella arrangement, given their likely more limited resources and expertise. A reasonable policy response, therefore, might be to allow the certification of larger management units on a voluntary basis.

Implications for relevant stakeholders

In the space of less than a decade, forest certification has evolved from a 'fringe' activity to the centre-stage of international forest policy. In its early years, certification had implications principally for large forest growers. However, in its maturing form, small growers are also likely to be profoundly affected by it. Yet our fieldwork demonstrates that, in Australia, beyond a few industry officials actively engaged in forestry policy circles, there is a high level of ignorance amongst farm foresters.

This has been predicated on the assumption that certification would remain principally a Western European and North American phenomenon, with potentially limited engagement of Asian markets. It may even be that Australian consumers and retailers will remain as uninterested in certification in the future as they have in the past. But certification is a dynamic, not a static phenomenon. For this reason, it would be unwise to assume that Australian forestry will remain untouched by certification issues, and a rational risk management strategy is to seek to come to terms with it. For although the threat to large growers is much more pressing than it is to small operations, in the longer term, small growers too, will feel the impact of international political and market forces which favour certification, and which have implications for *all* types of forestry.

Recommendations

It is beyond the purview of this report to recommend a specific certification scheme for Australian farm forestry. However, we draw two broad conclusions, and from this, address the range of policy options available. First, certification is an international phenomenon that is continuing to grow, both in terms of the volume of forests covered by it and the number of countries, forest companies, retailers and consumers who subscribe to it. Second, these are compelling reasons for the Australian farm forestry sector to, if not immediately embrace certification, then at least to actively engage in debate about its domestic application.

The large majority of international certification schemes are not viable options for the Australian forest industry or farm forestry in particular. The viability of domestic certification schemes is also limited. In short, there are only three genuinely viable certification models for application in the Australian farm forestry sector. In broad terms, these are: the Australian Forestry Standard; the Forest Stewardship Council; and an alliance between a domestic scheme and an existing international certification scheme.

Two potential scenarios will have a major influence on the development and implementation of certification in the Australian farm forestry sector: First, the Australian Forestry Standard *successfully* captures the support and participation of key international and domestic environmental organisations. Second, the Australian Forestry Standard *fails* to capture the support and participation of key international and domestic environmental organisations.

If the first scenario eventuates, then the decision as to the preferred certification model/ownership structure is straightforward. The farm forestry sector should simply and emphatically support introduction of the Australian Forestry Standard, and concentrate its efforts (as it is indeed currently doing) on ensuring that its particular needs and circumstances (highlighted above) are adequately addressed under any eventual Australian Forestry Standard certification regime.

In the case of the second scenario, however, the preferred policy strategy is more complex. In these circumstances, the fundamental *industry* basis for adopting certification – to gain market and commercial advantage – would be undermined, and the farm forestry sector might rationally explore the attractions of the other remaining certification options. In this circumstance, one option available to the farm forestry sector would be to simply adopt the Forest Stewardship Council model without modification or through the alliance of an industry scheme. Although in many ways this would be the simplest approach, and have the significant advantage of instant international recognition, our research indicates that there is a sufficiently strong undercurrent of industry opposition to ceding too much control of certification to environmental organisations as to render this option politically unattainable, certainly in terms of a collective farm forestry endorsement. There would be nothing, however, to stop individual farm foresters to go down this route (although it does presuppose the existence of an Australian Forest Stewardship Council working group to oversee this process).

Another, and preferred, policy strategy would be some form of strategic alliance. Assuming the logistical hurdles can be overcome, this could be either through a direct alliance between the farm forestry sector and the Forest Stewardship Council, or an alliance between the Australian Forestry Standard and Pan European Forestry Certification. Finally, it should be noted that each of these policy options are not necessarily mutually exclusive. For example, having adopted the Australian Forestry Standard as its preferred model, the industry (or other institutions) could still attempt some form of alliance or mutual with other, pre-existing international certification schemes. This, however, would not obviate the need to make an initial decision as to which policy path to pursue.

1. Introduction

In many Australian rural settings the physical landscape is changing, and changing rapidly (Dabkowski, 2000). In some cases, open pastures previously the domain of wandering livestock, and the odd "gum" tree or two, have been converted by a quiet revolution into regimented rows of fast-growing eucalypts. In other locations, regenerated native bush on private property has made a comeback, either through neglect or in some cases through active encouragement. In still other places, corridors of forest cris-cross farms to form an inter-connecting web of biological diversity between national parks or other protected areas.

This eclectic phenomenon is known collectively as "farm forestry", and its momentum has been accelerating through a combination of government policy, new attitudes and economic imperatives. Rural community groups are forming, often through Greening Australia or Landcare, to encourage and assist farmers to plant more trees. Farmers are increasingly attracted to both the extra income and the opportunities for improved land productivity provided by farm forestry and, in some cases, joint ventures with third parties. For example, tax deductions for investments in plantation timber have created an influx of funds from individual and institutional investors alike. Large pulp and paper multinationals are seeking alternative and reliable sources of pulp wood to supply future demand. And talk of carbon credits and greenhouse gas emissions trading for farm forestry is in the air.

As yet, however, farm forestry is an immature "industry" that has still to establish a predictable and stable economic profile. This is partly due to the variety of activities it encompasses, partly to the recent history of many plantations (but one form of farm forestry), and partly to the long-term investment cycles forestry harvesting for commercial production entails. Compared to many other agricultural crops (although not all), growing trees for profit is a commitment that in most cases spans years and decades, not seasons. It remains to be seen, in many cases, if, when and how harvested timber from farm forestry will be translated into a commercial benefit.

Economics, however, is only one side of the farm forestry equation. For both landowners and policy-makers alike, farm forestry is also an activity that is intimately linked with positive environmental outcomes. For example, farm forestry can help relieve the pressure of logging of native forests on public land, which is a highly contentious and high profile community concern. It can also mitigate some of the negative consequences of land clearing, such as soil erosion, salinisation and rising water tables, and help preserve remnant vegetation and biological diversity on private land. Further, it has the potential to reduce greenhouse gases in the atmosphere through the creation of carbon sinks. This is not to suggest that all aspects of farm forestry are necessarily environmentally positive. On the contrary, it may result in ecological mono-cultures, pesticide and fertiliser run-off, and unpredictable bush fire cycles. Nevertheless, on balance, the environmental positives of farm forestry substantially outweigh the negatives.

The net environmental positives associated with farm forestry, in conjunction with its potential economic attractions, suggest that it is an area with considerable potential to provide "win-win" outcomes, that is, providing both economic benefits to growers and downstream industries, and broader public interest benefits to the environment. However, if farm forestry is left to grow-up piecemeal, and in the absence of some long term strategy, then the extent to which either the economic or environmental benefits will be realised, remains unclear. Arguably, some further policy mechanism is necessary to help farm forestry mature into both an economically vibrant and environmentally positive industry. In the view of many, that mechanism is "certification" (or more precisely: the independent certification and labelling of timber as being derived from sustainably managed sources): the subject of this report.

As we shall see, certification has the potential to enhance the profitability and/or marketability of farm forestry products, to increase access to international markets and market share and to facilitate environmental improvements. However, these benefits are by no means guaranteed, and there are

many unresolved questions regarding how best to develop and implement certification, particularly in relation to smaller farm foresters. For example, to what extent should farm foresters actively seek its adoption, and by implication, exercise some degree of control over its design and implementation? What are the implications of adopting any particular scheme, and how can such a scheme best be implemented? What are the likely costs, who should bear them, and how can they be minimised? And above all, are the benefits of certification really as great as its proponents maintain, and do the benefits to be gained sufficiently justify the investment involved?

If, after addressing these questions, it is concluded that certification is indeed worth pursuing in the Australian farm forestry sector, then it remains to be resolved how it can and should be progressed. This report provides an analysis of these and other key questions relating to certification in farm forestry, and provides the information and analysis necessary to advance policy debate in this area.

Before addressing these broader questions, however, it is necessary to provide a context and some essential background information to the reader. In the remainder of this introduction, therefore, we describe:

- what certification involves;
- the genesis of certification;
- the current status of certification;
- the potential benefits of certification;
- the Australian response to certification; and
- the stance adopted by the Australian farm forestry sector.

We conclude the introduction by describing the underlying rationale and methodology used to derive our policy conclusions and recommendations.

What is certification?

In essence, certification is an attempt to link the environmental preferences of consumers with the sustainable management of forestry resources (see for example Viana *et al*, 1996; and Higman *et al*, 1999). This is achieved by providing a market or price signal along the forestry and forestry products supply chain with the intention of supporting those forestry owners and operators that have adopted sustainable management practices. To give practical effect to this aspiration, two distinct steps are required. First, to determine which forests are indeed sustainably managed, and second, and subsequently, to relay this information to the marketplace. From these seemingly simple steps, however, flows the necessity for a comprehensive supporting infrastructure.

Fundamentally, there is a need for a workable definition of sustainable forestry management which can be used as the underlying basis of certification. This goal alone has proved to be elusive, with much disagreement among policy experts. For example, different forest types, and different cultural settings, may both have a profound influence on what constitutes sustainable forestry management in a particular setting. As a result, although there have been numerous international and national processes established specifically to resolve the sustainable forestry management question, broad agreement on a uniform version has not been achieved. As Gordon (1996) notes:

> Although all statements of principles assume a stable and universal definition of ‘sustainable forestry management’ articulated so that it is observable independently of the observed application of the principles designed to achieve it, no such definition currently exists.

However, the lack of any agreed definition need not inhibit practical progress on sustainable forestry management certification. To employ a well-worn cliché, sustainable forestry management is “more of a journey than a destination”. What this means is that although there might not be agreement on a

final, idealised form of sustainable forestry management, the concept can nevertheless provide a catalyst for substantial improvements which can be made over many existing forestry practices. In terms of certification, it suggests that a flexible and pragmatic approach to implementing sustainable forestry management should be adopted: one, in particular, that recognises the evolutionary nature of the concept.

The effective application of certification also requires the existence of a pool of individuals or agencies that have the capacity to assess and, if appropriate, certify aspiring forester owners and operators. This raises a number of further questions. What should the status of these certifiers be? Should they be drawn from the ranks of environmental organisations, government forestry bureaucracies or industry associations? Is independent, third party certification desirable? How can the quality, reliability and replicability of certifiers be successfully maintained? It is the divergent responses to these potentially thorny issues that have given rise to a proliferation of different certification models internationally.

Finally, a credible certification program demands that certified timber is kept separate, or at least clearly distinguished, from non-certified timber along the entire supply chain. Consumers require assurance that the sustainable forestry management timber products they purchase are indeed from the sources claimed by the vendor. Many end-use commercial entities, such as retailers, local governments and specifiers therefore require independent proof of the origin of the forest products they are using. At a very basic level, this is achieved by the provision of a certification label. However, a sophisticated system of tracking certified products as they are transformed and sold along the supply chain may also be necessary to ensure a final product's sustainable forestry management *bona fides*, before a sustainable forestry management label is provided. This is commonly referred to as "chain of custody". The substance of this approach is outlined by Higman *et al* (1999):

> Wood from a certified forest usually passes through several stages of manufacture before reaching the end user. … the sawmill might well be handling both certified and uncertified logs. Therefore, the first stage in the chain-of-custody assessment is to ensure that these two sources are not mixed at the mill. To do this, the assessment team visits the mill and checks that certified and uncertified wood are always kept separate through a system of adequate segregation, identification and records.

In the case of log storage, for example, there may be requirements that: certified and non-certified logs are placed in separate storage areas and are clearly signposted; certified logs have their ends painted a distinctive colour; and the transportation documentation for all logs from certified forests is kept on file together with the location in the log yard.

In summary, certification entails three institutional/policy requirements:

- the development of a provisional and practical set of sustainable forestry management indicators and/or benchmarks by a standards setting body;
- the accreditation of certifiers to assess forestry practices according to these indicators and/or benchmarks, and if the operation passes, to confer certification; and
- the creation of a verification system to monitor downstream sales of certified timber and other forest products in conjunction with the provision of a sustainable forestry management label.

What is the genesis of certification?

Certification has had a relatively short history. It began in the early 1990s with the aim of reducing demand for timber from unsustainable sources. In particular, it was a response to the (perceived) failure of existing government policies and industry self-regulation to arrest the continued degradation of the world's forests. The chief instigators of this approach were environmental organisations, who believed that certification provided concerned consumers with a direct say in

forest sustainability issues and the power to impose an economic penalty on unsustainably produced timber by boycotting it in the marketplace. As such, certification was viewed as an effective way of circumventing reluctant government forestry agencies, which were thought to be too closely aligned to their industry "clients". One Canadian commentator recently highlighted the potential for certification to achieve this objective (Hoberg, 1999):

> Forest management practices traditionally have been regulated by governments …[However] the late 1990s have witnessed what may be the beginning of a revolution in the governance of Canadian forest products: the emergence of private certification organizations that, because of their market power, are starting to play a powerful role in Canadian forestry.
>
> The most dramatic evidence of this power was the June 1998 decision of industry giant MacMillan Bloedel to abandon its long-standing practice of clear-cutting in coastal British Columbia. In announcing the decision, company president Tom Stephens clearly credited the certification movement as an important motivation: "It reflects what our customers are telling us about the need for certified products, but equally important it reflects changing social values and new knowledge about forest ecology." By Spring 1999, two other BC companies had followed MacBlo's (sic) lead.

At the forefront of certification initiatives has been the World Wide Fund for Nature, which, together with a number of other organisations, established the Forest Stewardship Council, the first, and still the most well known, certification scheme internationally (Commonwealth of Australia, 1996). As a precursor to certification, the Forest Stewardship Council developed a set of sustainable forestry management principles and criteria. It then sought to implement these through the accreditation of "approved" independent certifiers. However, this was only the first step, and certification badly needed recognition from major supply chains if it was to become effective in influencing markets.

A key breakthrough, in this regard, came in 1991 the United Kingdom with the formation of the 95+ Buyers Group. This group of forest product retailers and wholesalers represented nearly 25% of the entire timber trade in the United Kingdom. In an agreement with the Forest Stewardship Council, they agreed to commit themselves to the buying and selling of Forest Stewardship Council-endorsed forest products. This was arguably the single most important event that led to a more mainstream acceptance of certification, or at least a recognition that it was a genuine force to be contended with.

The forest industry's response to certification initiatives was very largely negative. The entire concept of certification, and especially the central role of environmental organisations within it, were hotly contested by a number of industry representatives that were suspicious of ceding control of sustainable forestry management issues to what many considered to be hostile interests (Rametsteiner, 2000):

> … the ENGOs [environmental non-government organisations] claim to define the rules of forest management was not well received within the sector, and most of the resources were initially devoted to neglect the nuisance.

Consequently, a common reaction of industry was to downplay the significance of certification by, for example, claiming that there was very little consumer interest in sustainable forestry management timber or timber products. Indeed, as recently as 1997, a report commissioned by the (Australian) Standing Committee on Forestry (FORTECH, 1997), after canvassing mainly industry and bureaucratic views on certification, concluded that:

> There is already a solid framework in place for sustainable forest management. This provides a good base on which to build. Australia's forest management practices already rank highly in global terms. All growers interviewed (public and private) were committed to the principles of sustainable forestry management and continuous improvement. In this context there seems to be no need to rush into certification and labelling in order to demonstrate sustainable forest management objectives.

However, as we will see, such conclusions have proved to be premature, and may be substantially incorrect.

Certification today

Certification is increasingly perceived by environmental organisations, government and industry as having a significant role to play in the pursuit of sustainable forest management. According to Rametsteiner (2000):

> There is no question that forest certification has changed the fabric of the industry in most developed countries. Forest certification is on the agenda in environmental, economic and political arenas for almost a decade. This persistence is astonishing.

Three important and related developments have transformed the certification landscape in recent years (see for example Simula, 1999). First, as industry and government witnessed the gradual acceptance of sustainable forestry management timber by a significant proportion of European, and to a lesser extent, North American forest product retailers, they increasingly adopted a "if you can't beat them, join them" attitude. This led to the formation of numerous rival industry-based, or at least quasi-government, certification schemes. For example, the American Forest and Paper Association established its Sustainable Forestry Initiative, a self-regulatory approach to sustainable forestry management, and the Canadian Standards Association, in close cooperation with the domestic Canadian forest and paper industry, developed standards for a national certification scheme based on the International Standards Organisation's ISO 14001 environmental management system. Consequently, there is now a proliferation of certification schemes internationally, with industry, government and environmental schemes all jockeying for prominence. Arguably, some of these schemes have been conceived to weaken the hold of the Forest Stewardship Council or to confuse the market place with the introduction of multiple rival schemes.

Second, there have been increasing commitments of retailers and others to purchase sustainably managed and certified timber. For example, the largest hardware chain in the United States, Home Depot, joined a Forest Stewardship Council buyers group. This provides an illustration of the power of environmental organisations to impose certification on retailers (Ozanne and Vlosky, 2000):

> Partially because of their proactive work on forestry issues, HD [Home Depot] initially avoided heavy targeting from ENGOs [environmental non-government organisations]. However, in the mid 1990s, the forestry issue appeared to take a lower priority within HD and these was also a change in approach taken towards HD by the environmental community. HD became a target when the Rainforest Action Network (RAN) launched its old growth redwood campaign in early 1997, which had an objective or eliminating the use of old growth wood in home construction and repair. In October of 1997, demonstrations were held at 35 HD stores. In October of 1998, 75 stores saw demonstrations and in March 1999 the number climbed to 150. RAN coordinated a variety of other activities targeting HD. For instance, RAN placed a number of advertisements in the New York Times, among other publications, with the goal of drawing attention to HD's practices. In August of 1999, HD made a commitment to stop selling wood from endangered forests and move toward purchasing certified forest products. HD challenged it major competitors to make similar commitments and several have followed suit.

Such developments have focussed attention on one of the most obvious shortcomings of existing certification schemes: an acute lack of certified timber product. To date, only a very small minority of the global forests have been certified, under any of the schemes, the vast majority being in Sweden, where industry cooperated with the Forest Stewardship Council early on in the process. This shortage has led to a mad scramble by rival schemes to bring on stream as quickly as possible sustainable forestry management certified forest. In Canada, for example, many millions of hectares of forest is due to be certified in the very near future under the Canadian Standards Association scheme.

Third, the rapid expansion of the number of certification schemes, of the number of retailers willing to participate in them, and of the projected supply of certified timber, has led to widespread and mainstream acceptance of the role of certification. Even some of the most previously vocal critics, have shifted their position substantially in this regard. According to Rametsteiner (2000) "the business community needed about five years to recognise the new approach and take the ENGO initiative seriously". With the gathering momentum of certification, as Simula (1999) notes, "we have already passed the point of no return". An indication of the profound change in attitudes that has taken place is provided by Mr Warren Lang (1999), Executive Director of the National Association of Forest Industries, and a previous critic of certification, when he stated in that:

> The strong likelihood ... is that the industry will pursue the development of robust, reliable and internationally recognised tools for the certification of sustainable forestry management. The attractions of independent third party auditing are considerable, mainly because they hold the prospect of moving beyond the claim/counter claim model that has so far dominated the environmental debate.

What are the potential benefits to farm forestry?

While certification is clearly here to stay, at least with respect to major forestry operations, its implications for farm forestry are far less clear. In theory at least, certification has several purported benefits for farm foresters in Australia (see for example Bass, 1999). In particular, certification holds out the promise of providing win-win outcomes: commercial advantage, profitability and increased market share in conjunction with improved environmental sustainability. Whether, or to what extent these benefits will be achieved in practice, remains a difficult question to answer, not least because many of the benefits are difficult to quantify. Nevertheless, the question is an important one, which the industry cannot afford to ignore. As Hammond (1997) recently noted:

> If being "green" is the spin for business and government in the late 20th century, being "certified" will be the requirement for successful marketing as we enter the 21st century. Certification will be desired, if not required, for everything from government plans and structural lumber to rocking chairs and preserves from forest berries.

The major potential benefits of certification for farm forestry enterprises include:

Improved sustainable management practices

Although sustainable forest management is an elusive concept, and there is substantial disagreement as to how it can be best put into practice, the application of certification initiatives may help individual farm foresters to take concrete steps down the sustainability path, not only by providing a motivational spur, but also by providing a measure of practical guidance.

Improved environmental and social outcomes

The introduction of sustainable forestry management practices can be anticipated to translate into tangible environmental improvements. Such benefits might include the reduction of soil erosion, enhanced biological diversity values, reduced chemical run-off, improved water quality, reduced soil salinity and enhanced aesthetic values. In conjunction with the environmental benefits, there may also be associated social and cultural benefits such improved recreational values, protection of spiritual values, enhanced community pride, and greater employment opportunities.

Greater management and financial efficiency

Just as the experience of many manufacturers has demonstrated that the act of adopting environmental management systems (in a variety of forms) can lead to greater management and financial efficiencies across their businesses as a whole, so too might such benefits be translatable to the forestry sector. This is particularly pertinent to individual farm forestry enterprises where systematic management approaches are less likely to occur in the absence of certification.

Improved timber quality

The quality of trees on some farm forestry holdings may be sub-standard due to neglect, lack of resources and/or a lack of management acumen. By improving the overall management practices employed on such holdings, it may be that the average quality and consistency of the timber will improve in tandem with greater sustainability and environmental outcomes. This should provide a flow-on improvement in productivity.

Commercial benefits

The ultimate aim of certification, of course, is to attract the attention of consumers and to persuade them to exercise a purchasing preference for timber that is certified as being harvested from sustainably managed forests. This may result in greater commercial benefits flowing to certified forestry enterprises through either a greater market share (both within the forest products market, and against rival non-timber products) and/or the ability to charge a price premium (at least at the higher, value-added end of the forest products spectrum). According to the experience of one business (Poynton, 1999), the commercial benefits of certification can be very real indeed:

> Does forest certification make SFM more profitable? Put simply, the answer is – YES. If people want a real example, they need look no further than my own company's experience. ScanCom International is a Danish company that makes wooden outdoor furniture. We have operations in Viet Nam (sic), where we produce furniture using wood from natural forests … Consumers and environmental groups across Europe – our main market – are concerned about global forest loss. Because ScanCom's furniture is made from tropical wood, it is critical that our wood raw materials come from forests that are certified. This is the only way that we can prove that our operations are not adversely impacting on tropical forests. … The problem we face however is that there are extremely few natural tropical forests certified in the world. … Deramakot, which is certified under the Forest Stewardship Council (FSC) certification system, reported that it had received a significant premium above international prices – at a time when the Asian timber industry was seriously depressed – because European buyers pushed up prices at auction. ScanCom can confirm this because we purchase a lot of the timber. We need certified timber, but the certified forests that can grow it simply do not exist in Asia at this time. This represents a huge market opportunity for forest owners across Asia.

Access to markets

An increasing number of markets, or market niches, are beginning to demand higher environmental standards. Currently, these markets are predominantly international, and play on the environmental sensitivities of European (and to a lesser extent, North American) consumers in particular. It is possible that Australian forest growers may find themselves gradually locked out of such markets unless they also obtain equivalent forms of certification. In the not too distant future, Australian consumers, following these international leads, may also increasingly demand the presence of, and exercise a purchasing preference for, certified timber. Even the National Association of Forest Industries, whilst lamenting the influence of environmental groups, has recognised this potential (Lang, 2000):

> … the issue has the potential to damage the growing interest in our industry in oversees markets. The campaign once described by a straight-talking New Zealander as a "protection racket" is still bringing in converts, and some of who are either converted or thinking about it are telling our exporters to get FSC certified or else … This creates problems for a country whose industry is not large, but where high standards of forest management will need some form of accreditation if market access is to be preserved.

Warding off and/or anticipating future regulation

There is a longer term threat to the forestry industry as whole (including farm forestry) that governments, both in Australia and overseas, will respond to community and environmental pressure by enacting regulation to mandate particular environmental standards and practices. Internationally, this could take the form of formal or *de facto* trade standards (which have the potential to act as non-tariff trade barriers), and at a domestic level, conventional command and control environmental

regulation. To the extent that the adoption of a credible sustainable forestry management certification scheme is able to anticipate and/or pre-empt such regulatory impositions, it may be perceived as beneficial to the industry as a whole.

It should be noted that in a number of the potential benefits highlighted above are not directly attributable to certification, but rather to the ability to engender substantive improvements of sustainable forestry management on the ground. In this regard, it is clear that although certification is dependent on sustainable forestry management for its success, the reverse is not true.

The Australian response

In Australia, for most of the previous decade at least, there has been very little concrete response to international developments in certification, although they have been a continuing topic of discussion in policy circles.[1] The few individual examples of forestry certification include the adoption of the environmental management system ISO 14001 by a number of private forestry companies, although it should be noted (as we describe in more detail in Chapter 2) that, technically speaking, ISO 14001 is not a certification scheme. The vast majority of forestry operations in Australia therefore remain uncertified, and until very recently, with little apparent intention to change.

There are various possible explanations as to why this has been the case. Some in industry argued that it is because Australia has limited exports of timber products, that those products we do export are largely generic commodity products (that is, woodchips) as opposed to high value added niche products (that are more susceptible to consumer preferences), and that Australian consumers have shown little interest in purchasing certified timber products. Some also considered that our domestic sustainable forestry management process, such as the Regional Forest Agreements, are superior to most international developments and therefore Australia has little need of, and/or little to gain from, certification. Others held concerns about the capacity of certification to increase production costs, and the potential of these costs to flow down the supply chain and perversely increase the price attractiveness of less sustainable managed forest products to consumers.

However, such views may be difficult to sustain in the event of an increasing international shift towards certification. And the trend is getting closer to Australian shores. There is a growing list (recently approaching 20) of New Zealand forestry operations and related companies that have now committed to certification, with close to 700,000 hectares of forest involved. This includes larger pulp and paper companies, such as Weyerhauser and Fletcher Challenge Forests, as well as a number of smaller operators, mainly plantation companies, and saw mills. Interestingly, although roughly half of these have been accredited under ISO 14001, the other half have received, or are in the process of receiving, Forest Stewardship Council certification.

Given these developments, there is now a growing realisation among all stakeholders that the continued rejection of major international trends in certification could have negative repercussions for Australia at a number of different levels. Not least: our international forestry reputation could be compromised; the marketability of our forest products may be undermined; and the capacity to develop new, higher value-added and niche-market forest products may be handicapped.

In response to these growing pressures, the three major stakeholders, industry, environmental, and government, have all begun to advance the certification debate in Australia:

- a major industry group, the National Association for Forestry Industries, has reversed its previous opposition to certification, and now supports its introduction (but rejects certification being controlled by an environmental organisation);

[1] For example, Australia hosted the "International Conference on Certification and Labelling of Products from Sustainably Managed Forests" in Brisbane, in May, 1996.

- the World Wildlife Fund for Nature is seeking to introduce the Forest Stewardship Council certification label into Australia. For example, Forest Stewardship Council certified timber has been sold into the domestic market for the first time (Purcell, 1999). The timber is sourced from Papua New Guinea (and is part of a European Union financed project) and transformed into furniture products in Australia. Currently, there is only one importer of Forest Stewardship Council timber into Australia; and
- the range of institutional interests including industry (such as the National Association of Forest Industries) and the Commonwealth Government (in the form of Agriculture, Forestry and Fisheries – Australia) have recently initiated a process to develop an "Australian Forestry Standard" which would form the basis of a domestic certification scheme. The Australian Forestry Standard is being progressed by a steering committee of stakeholders and technical independent experts. The intention is to use the standard as basis for the development and implementation of a domestic certification scheme (Ministerial Council on Forestry, Fisheries and Aquaculture – Standing Committee on Forestry, Public Comment on Australian Forestry Standard, 2000). The Australian Forestry Standard is discussed in detail at Chapter Two.

It is unclear at this point, however, how each of these initiatives will progress, and in particular, whether or how they will accommodate the needs and circumstances of the farm forestry sector. There may also be further opportunities offered by certification in relation to farm forestry, which have so far been ignored or unrecognised in existing domestic developments.

Where does Australian farm forestry stand?

As a group, the needs and circumstances of smaller forestry owners and operators, including farm foresters, have not been a high priority in international certification initiatives to date. The greater economic power and political sophistication of larger industrial forestry enterprises have tended to dominate the industry side of the debate. For example, a recent European study (Thornber *et al*, 1999) noted that:

> The interests and values of those driving certification are reflected in the standards. Current standards reflect the interests of enterprises that concentrate on production forestry, where fibre production is the main objective of management. Forest enterprises that are not familiar with formal, documented management systems and concepts of inspection, but which nevertheless produce sustainable results through less formal checks and balances, are clearly at a disadvantage. This may reflect the latter's lack of representation in the processes of certification development. Community managed forests and farm forestry … do not fit well in to current [certification] systems.

The undesirability of such an outcome is compounded by the fact that both the potential benefits of certification and relevant implementation issues are likely to be quite distinct for farm forestry operations in general, and smaller, non-industrial farm forestry operations in particular. One clear point of divergence, for example, is the level of expertise and resources available to smaller farm foresters that can be devoted to implementing sustainable forestry management. These are likely to be much less than that of larger, industrial forestry operations more familiar with systematic approaches to environmental management.

Another potential difference is the commercial opportunities that certification might bring to farm foresters. For example, it is quite possible that the purported marketing advantages of certification would be more readily applicable to higher value-added, niche products from farm forestry, including plantation timber. In contrast, many larger forestry operations market more commodity based forest products from native forests, often as intermediary business inputs. The sale of woodchips for pulping is a case in point. Certification may have less relevance here.

Given the immature stage of development and potentially unique circumstances of the Australian farm forestry sector, there is a strong case for an assessment of the role of certification *as it relates specifically to farm forestry and tailored specifically to the needs of that sub-sector*. This would give the farm forestry industry, for the first time, an opportunity to play a significant and proactive role in the certification debate in Australia. The alternative may be to be essentially reactive to international developments, and indeed to developments within Australia, with the risk that its needs will not be met, important commercial opportunities will be foregone, and its fate will be determined by external and/or larger forestry interests.

The certification issue comes precisely at a time when the farm forestry sector is at a crossroads. It is confronted with the prospect of either ending up as an essentially disparate and non-cohesive industry grouping (with a few notable exceptions[2]) at the fringes of mainstream Australian forestry, or of becoming a much larger and more dynamic sector that has the potential to become a major source of timber and timber products for domestic and international markets. It is arguable that certification could be the catalyst, or at least greatly assist, it to grasp the latter opportunity through the adoption of more sophisticated management and marketing practices.

Rationale of report

The rationale of this report is to provide an independent analysis of previously unexplored dimensions of sustainable forestry management certification internationally, and its potential application in the Australian farm forestry context. The report's aim is to assess the merits of a series of alternative certification policy options for the farm forestry sector, including for smaller farm foresters, such as commercial and environmental implications. In achieving this stated objective, the project addresses a number of important policy questions confronting certification in Australian farm forestry, and focuses on four key deliverables:

- the identification of the implications of certification for Australian farm forestry both now and into the future. This includes an assessment of the implications of certification for commercial transactions and market share of farm forestry, and as a technique for protection of the natural resource base through the promotion of sustainable forestry management, including on smaller farm forestry operations;
- the identification of whether certification is desirable, cost-effective and practical for the farm forestry sector, and how can it best deliver the purported environmental benefits, including the protection of biological diversity. This includes an assessment of how certification can best be used to meet the needs and circumstances of smaller farm forestry operations, and how certification can best be used to achieve genuine and tangible environmental improvements;
- the identification of how certification could be best exploited by farm foresters, including the preferred circumstances in which it might be employed, and the preconditions for its success, and the development of a workable model for stakeholder engagement. This includes the strengths and weaknesses of alternative certification options, including whether certification should be conducted by independent third parties or a government/industry body, and how a certification scheme targeting farm forestry should be developed, promoted and administered; and
- the identification of how, and if, certification can be integrated with other policy developments affecting the farm forestry sector. This includes the relationship between certification and environmental management systems such as ISO 14001, Regional Forest Agreements, regional plantation programs, and the development of trading in carbon credits and the subsequent financing of carbon sinks.

[2] Principally, the larger, industrialised plantation operations.

In order to achieve these objectives, the report is progressed in four chapters. First, the report provides a comprehensive, but concise, review of the current state of play of certification both internationally and in the Australian context, and an analysis of likely future directions in the practice of certification (including moves towards comparability and equivalence).

Second, it assesses the particular ramifications of certification from the perspective of farm foresters, and whether there is a strong case for its adoption. This includes, necessarily, a brief description of the nature, extent and make-up of farm forestry in Australia. The central theme is how the environmental benefits of the farm forestry industry can be successfully harnessed via certification to advance its economic viability. This chapter includes an examination of the full range of external factors that might place pressure on farm foresters to go down the certification route, and how certification will impact on the many different types of farm forestry operations. It also evaluates the benefits to farm foresters participating in certification, and considers the links between certification and attempts to introduce a trading scheme for carbon credits.
Third, assuming that there is a compelling argument for the Australian farm forestry sector to pursue certification, the report provides a comprehensive analysis of the available options. The range of questions addressed is broad, and includes:

- is there a single preferred certification solution, or a range of equally preferred options, or particular options suited to particular farm forestry circumstances?;
- which certification schemes are most applicable?;
- how important is independent accreditation?;
- should the emphasis be on sustainable forestry management processes or outcomes?;
- is group certification a viable option?;
- can certification criteria and processes be streamlined for smaller growers?;
- should carbon credit verification and certification processes be aligned?;
- what role, if any, should there be for government in supporting certification?;
- what role, if any, should there be for environmental organisations?;
- what role, if any, should there be for commercial third parties?;
- what role, if any, should there be for industry associations?; and
- how should the development of an Australian Forestry Standard be accommodated?

Fourth, the report provides a series of policy recommendations designed to provide a basis for successful engagement by the Australian farm forestry in the debate and application of certification. These are intended to have a strong practical focus, rather than to be of mere theoretical interest, and to be of direct benefit to the intended audience of farm foresters.

Methodology

The report is based principally on the findings of fieldwork with farm foresters and related stakeholders, that is supported by desktop research on international initiatives and experiences with certification and the circumstances of the Australian industry. The principal form of stakeholder consultation was semi-structured interviews (a total of 81). It is this face-to-face approach which is most likely to yield insights into the potential effectiveness of certification arrangements, and importantly, implementation options. This included farm foresters (a total of 47 interviews) and other stakeholders (a total of 34 interviews), the latter including Commonwealth and State Government officials (9), Regional Plantation Committee members (6), Greening Australia representatives (3), environmental organisations (4), industry association members (3), industry consultants (3) and academics/researchers (6). Interviewed respondents were chosen deliberately to reflect different aspects of the certification issue, in a wide variety of farm forestry circumstances. A number of jurisdictions for respondent interviewees were chosen to provide opportunities for exploring the potential role of certification and labelling on the ground in the farm forestry sector. In particular, field interviews focused on the South East region of New South Wales, the South Coast region of Western Australia, northern Tasmania and parts of Victoria.

2. Certification: The State of Play

The international certification landscape is evolving as more organisations join in the process and more prospective schemes are launched. Over the past decade, certification has been transformed from a relatively isolated phenomenon into a major, and increasingly mainstream, policy development. In order to grasp the scope and significance of certification in its current forms, we describe it under the following headings: key stakeholders; prominent schemes; and recent trends.[3]

Key stakeholders

There are several distinct and readily identifiable "stakeholders" involved in the development and implementation of certification worldwide. Each of these groups has particular ideological and/or commercial biases that shape their responses to, or roles in, certification. Notably, government is only one of several different stakeholders. This reflects the historical nature of certification, which in large part, was developed in response to a perceived failure of government policy and actions. Key certification stakeholders are described below.

Environmental organisations

Certification is a phenomenon that has grown out of a frustration on the part of those both within and outside of the timber industry with existing policy approaches, namely regulation and government incentives, to generate the desired transformation from unsustainable to sustainable forestry management practices. In this regard, environmental organisations have been pivotal in bringing about the critical mass, both on the part of *buyers* of certified timber products, and *suppliers* of certified timber products, necessary to make certification a viable process. The World Wide Fund for Nature, in particular, has been a leading proponent of certification, and was instrumental in the formation of the Forest Stewardship Council, which to date operates one of the largest certification schemes internationally (this scheme is described in detail below).

It would be a mistake to conclude, however, that all environmental organisations are equally enthusiastic about the use of certification. Some are reluctant to embrace certification out of a distrust of market-based environmental policy instruments – their natural preference is for legislative and regulatory solutions. Others, and this includes some environmental organisations in Australia, oppose the application of certification to the logging of natural forests, which they reject on principle, and fear will be used as a means to justify its continuation (this is not likely to be an issue, however, with the use of certification by the vast majority of farm foresters).

Industry and industry organisations

As with environmental organisations, the forestry industry has not responded to certification in a totally uniform and predictable fashion. Some industry groups and individual companies have not only welcomed the advent of certification, but also become active participants in the process. For example, a number of companies have cooperated with the formation of the Forest Stewardship Council buyers group in the United Kingdom, and in Sweden, very large areas of private forestry operations have been certified under the Forest Stewardship Council. The response by other industry

[3] Some of this material has been drawn from two reports completed in conjunction with other authors: Kanowski, P, Sinclair, D and Freeman, B, *International Approaches to Forest Management Certification and Labelling of Forest Products: A Review*, Agriculture, Fisheries and Forestry – Australia, Commonwealth of Australia, 1999 *and* Kanowski, P, Sinclair, D, Freeman, B and Bass, S, *Establishing Equivalence and Comparability amongst Forest Management Certification Schemes – "Critical Elements" for the Assessment of Schemes*, Agriculture, Forestry and Fisheries – Australia, Commonwealth of Australia, 2000. The former can be accessed online at:
http://www.affa.gov.au/corporate_docs/publications/pdf/forestry/certification/cert_label_review.pdf, and the latter at:
http://www.affa.gov.au/corporate_docs/publications/pdf/forestry/certification/Critical%20Elements%20.pdf

groupings, particularly, in North America has been more adversarial towards certification schemes dominated, or perceived to be dominated, by environmental organisations. Here, the response has been to develop potentially rival certification schemes. Such schemes include, for example, the American Forest and Paper Association's Sustainable Forestry Initiative, which is industry owned and operated, and the Canadian Standards Association certification scheme, which was developed in close conjunction and with the support of the Canadian forestry industry (both of these schemes are discussed in more detail below). These industry schemes have tended to favour principles and criteria based on process environmental standards, as exemplified by the ISO 14001 environmental management system (again, this is discussed in detail below).

Although the larger forestry companies and industry organisations have been more vocal and dominant in the certification debate/phenomenon, they have not been the only active industry players. Recently, smaller foresters in Europe have responded to the growth of certification through the formation of the industry-based Pan European Forestry Certification scheme (discussed below). This scheme aims to overcome some of the real or perceived shortcomings of other schemes as they apply to the needs and circumstances of smaller foresters.

Commercial third parties

Commercial third parties include retailers and wholesalers of timber products, and they have unquestionably played a critical role in the growth and success of certification schemes to date. Even though certification purports to empower final consumers, the reality is that without the support of commercial third parties it is unlikely that it would have gained a sufficiently high profile to change purchasing patterns. Of course, consumers can only exercise a preference if there is a choice of products to begin with. It is not surprising, therefore, that certification has been most successful in jurisdictions with active commercial third party support. This is exemplified by the formation of the Forest Stewardship Council "buyers group" in the United Kingdom, which by some estimates controls 25% of the UK domestic timber market. This buyers group has articulated and enacted a certification-first purchasing policy.

Arguably, the involvement of commercial third parties has been the single most important development in the increasingly widespread acceptance of certification to date. Significantly, however, it has been pressure of environmental organisations which has spurred commercial third parties to support certification, not the demands of final consumers.

Standards organisations

International and domestic standards organisations have assumed significant roles in the development of certification. In the case of the former, the International Standards Organisation established the ISO 14001 environmental management system standard that, although it cannot be used itself as a product label, has provided the framework principles and criteria for most process-based certification schemes (ISO 14001 is discussed in more detail below). There are now moves to develop a forestry specific version of ISO 14001. In the case of the latter, domestic standards organisations provide an alternative certification administrator to environmental and industry organisations. For example, the Canadian Standards Association has assumed just such a role.

Independent auditors

Many if not most certification schemes require certification to be conferred by independent third parties. This necessitates the establishment of a pool of professional auditors who can be employed by individual foresters on a fee for service basis. Under this approach it is also necessary to establish a system of auditor quality assurance to maintain the integrity of the particular certification scheme. It is the role of the overall administrator of a certification scheme to provide official auditor status, through a system of accreditation, to independent commercial entities (although in theory they could also be non-commercial). This ensures that the administrator is always one step removed from the actual certification process, and is arguably more able to maintain its objectivity and integrity. For example, the Forest Stewardship Council has endorsed a number of organisations to independently

certify sustainable forest management according to its global principles and criteria. Certification schemes that do not employ independent auditors may rely on a system of self-assessment. This approach is used, for example, by the Sustainable Forestry Initiative.

Governments and government agencies

As with the other major interest groups, government involvement in certification has been varied. Government is arguably in a somewhat ambiguous and invidious position on the certification issue given certification's historical roots as a means of circumventing the perceived failures of government forestry policy. Despite this, some governments have chosen to directly sponsor the establishment of domestic certification schemes, most notably in South East Asia. In contrast, the United States government for example has been most reluctant to get involved in anything other than broad policy discussions. In between, some governments and their agencies have participated in the development of certification criteria and principles but stopped short of direct engagement. Another government role has been as a commercial third party. For example, some European local governments have instituted purchasing policies that favour certified products. Through multilateral and bilateral donor organisations, governments may also use foreign aid a means of promoting certification. For example, the World Bank and the World Wildlife Fund have formed the Nature Alliance for Forest Conservation and Sustainable Use with the intention of certifying sustainably managed forests in a range of developing countries.

Prominent schemes

One consequence of the growth of certification internationally is a proliferation of different schemes. This plurality is also reflected in the divergent "ownership" of individual schemes. For example, some schemes are driven largely by environmental organisations, although the most significant of these, the Forest Stewardship Council (as discussed in detail below), includes retailers and industry among its membership. Other schemes originate from national governments, while still others have non-government and industry organisations driving their implementation. Finally, some schemes engage a combination of these parties in a joint effort.

Apart from the divergent ownership structure of certification schemes, another point of differentiation is the type of standards employed in a scheme's criteria and principles. In relation to this issue, all the major certification schemes fall into one of two categories: those based predominantly on performance standards and those based predominantly on process standards.[4] We describe below prominent international certification schemes.

Forest Stewardship Council

The Forest Stewardship Council certification scheme is one of the largest in the world, whether assessed in terms of its market penetration, level of consumer awareness or area of forest coverage. It originated in the early 1990s in the United Kingdom essentially through the efforts of the then World Wide Fund for Nature which managed to obtain the support of a number of timber traders to preferentially purchase sustainably managed forest products which had been certified. A key driver in this respect was growing community disquiet over perceived unsustainable logging operations in tropical forests (the United Kingdom was and still is a major importer of tropical forest products). The cooperative arrangement between the World Wide Fund for Nature and timber traders led to the formation of the Forest Stewardship Council in 1993, with its headquarters based in Mexico. The Forest Stewardship Council received support from number of environmental and other organisations,

[4] Briefly, performance standards require a measurable environmental improvement. Performance standards stop short however of dictating *how* a particular improvement should be achieved. Performance standards provide a degree of certainty to environmental outcomes but may have limited impact on the overall environmental management practices of organisations. In contrast, process standards address procedures for achieving a desired result – these standards specify the processes to be adopted in sustainable forestry management. Process standards do not lend themselves to measurement, and as such cannot guarantee environmental improvements.

and became operational in 1995 with the accreditation of a number of independent certification entities.

Forest Stewardship Council certification is conferred on forestry operations (and their products) by the independent certification entities if they are found to comply with a set of predetermined sustainable forestry management principles and criteria (certification may also take place collectively through a process known as "group certification"). The recipient forester may then use the Forest Stewardship Council label on their products. After the initial certification, periodic follow-up is required in order for a forestry operation to maintain its certification status. In addition, a verification system along the entire supply chain, including processors, wholesalers and retailers, is put in place to ensure that certified timber is genuine. Timber traders may also acquire formal status if they agree to purchase only certified timber and timber products.

The principles and criteria developed by the Forest Stewardship Council are predominantly performance standards, although they do include some process standards. As the principles and criteria are global in nature, they must be translated into regional and/or country specific guidelines before certification can take place. There is preference for the formation of a domestic Forest Stewardship Council working group to identify and articulate appropriate principles and criteria for each country, which are then endorsed by headquarters in Mexico. For example, this process has been completed in Sweden and a number of other countries. However, this is not necessarily the case as areas of New Zealand have been certified under the Forest Stewardship Council without regional/country guidelines.

ISO 14001

ISO 14001 is an environmental management system developed by the International Standards Organisation in 1996 (Cascio *et al*, 1996). ISO 14001 (and its European equivalent, the Environmental Management and Audit Standard) provides a framework for organisations to identify, evaluate and manage their environmental risks, enabling them to take a systematic and integrated approach to environmental management. Under ISO 14001, organisations introduce policies, objectives, programs, measurement and assessment methodologies to achieve continuous environmental improvement. ISO 14001 has become an important policy tool for organisation management, and increasingly, is being viewed as a basic requirement of commercial relationships, particularly international trade.

ISO 14001 is not, however, a forestry certification scheme. It differs from forestry certification schemes described in this report in two critical ways. First, it cannot be used as a product standard or logo (in other words it is conferred on organisations, not their products). Second, it is inherently generic (meaning that it can apply to a range of sectors, not just forestry). Nevertheless, many forestry schemes, most notably those based on process standards and with high industry involvement, have used ISO 14001 as the basic foundation for their principles and criteria. Indeed, by obtaining certification under some such schemes it is possible to simultaneously receive ISO 14001 accreditation and certification under the forestry scheme. It is relevant, therefore, to consider in greater detail the characteristics of ISO 14001.

Like the phenomenon of certification generally, ISO 14001 is a voluntary standard that is still in its infancy. In broad terms, it requires organisations to acquire a greater appreciation of environmental issues through the setting of targets, monitoring of progress and continual review. In other words, it is a management system, not a prescribed outcome. This process focus entails documentation control, internal auditing, operational controls, record keeping, management policies, training, statistical techniques, and corrective and preventive action. Organisation adopting ISO 14001 may seek official accreditation through an independent audit process, but are not bound to do so.

The advantage of ISO 14001 is its ubiquity – the potential to deliver a single internationally recognised environmental management standard. It achieves this be adopting a "one size does *not* fit

all" approach, that maximises individual flexibility. As such, it includes a number of core elements without assuming there is any single best approach. Its strength, however, is inevitably also its weakness, with its inherent generality and abstract nature leaving open to accusations of lacking "bite". It remains a fact that it is possible to receive ISO 14001 accreditation without a measurable environmental improvement (the only performance standard contained in ISO 14001 is that all existing environmental legal obligations must be adhered to)[5].

A number of forestry enterprises have now sought and received ISO 14001 certification for their operations. The first company in the world to do this was the Nordic forestry firm, Korneas. Since then, several Canadian firms have followed suit. In Australia, also, various forestry companies have begun the process of implementing ISO 14001. One example of this is Bunnings in Western Australia. Other plantation companies are exploring the possibility of ISO 14001 accreditation. According to one company representative:

> We are looking at ISO 14001 accreditation, but it has to be reflected in the bottom line. Our intention is to market ISO 14001 certification to the investors. We are looking to use the standard ISO 14001, but it is being adapted to our own particular operations in conjunction with a consultant. We are looking at ISO 14001 certification for our entire operations, not just one or two individual plantations.

In the future, it may be that a modified form of ISO 14001 will be developed to meet the specific needs of forestry operations. For example, the ISO Technical Committee 207 has been discussing the possible development of a forest-sector specific standard since 1996. This has led to the publication ISO/TR 14061 (International Standards Organisation, 2002), an attempt to link environmental management system s with the principles and criteria developed under various sustainable forestry management policies and programs.

Canadian Standards Association

The Canadian Standards Association (2002) has developed a certification system that incorporates national standards for sustainable forestry. This scheme represents arguably the most substantial alternative to Forest Stewardship Council certification, although of course it is applicable in only a Canadian context. The principles and criteria used are based essentially on ISO 14001. They do, however, incorporate additional performance standards relevant to economic and social issues. The Canadian initiative also includes a number of innovations over the conventional ISO 14001 approach, including compulsory third party certification, measurable improvements, public input, and economic and social objectives. The scheme is, however, confined to forest certification and does not address chain-of-custody issues associated with individual products.

The Canadian Standards Association initiative began in 1994 with the strong support of the Canadian forest product industry and government forest agencies. In particular, it follows closely the form and content of sustainable forestry management principles developed by the Canadian Council of Forest Ministers. The certification scheme was developed in consultation with a wide range of stakeholders, including industry, technical experts, academics, non-governmental organisations and government bodies. To date, the area of certified forest under the Canadian Standards Association scheme is comparatively small, but large areas are anticipated to come on stream in the near future.

Sustainable Forestry Initiative

The Sustainable Forestry Initiative was established by the American Forest and Paper Association in 1994 (American Forest and Paper Association, 1998). It is essentially a set of industry-based guidelines, principles and performance measurements for the sustainable management of forests. Sustainability in this context is expressed in terms of both economic sustainability and the preservation

[5] However, they have the potential to bring about more profound, longer term and positive changes in environmental management than performance standards alone.

of non-economic values such as species habitat, biological diversity, soil, water and air quality, and visual aesthetics. The Sustainable Forestry Initiative is arguably the most ambitious and comprehensive attempt by the American industry to "self-regulate" environmental performance in the context of forestry management. In particular, the intention is to harness commercial relationships between enterprises. For example, pulp and paper companies are encouraged to exercise discrimination when purchasing timber from loggers to ensure that sustainable forestry management is supported along the supply chain.

As part of the Sustainable Forestry Initiative, members of the American Forest and Paper Association are required to contribute to an annual progress report that is available to the public, and is intended to provide transparency regarding the industry's sustainable management practices. As part of the annual report, a group of independent experts volunteer their time to validate this progress by reviewing the overall performance of member companies. The contribution of this group, which includes representatives from academia, conservation organisations, professional groups and government agencies, is included in the annual report.

It is important to recognise that the Sustainable Forestry Initiative program accredits the forest *operators*, not the forests themselves, and that it offers no labelling or chain of custody verification. In this respect, it is closer to ISO 14001 as a process standard, rather than the more performance orientated Forest Stewardship Council approach. This has led to some criticism that, in the absence of measurable environmental performance standards, the Sustainable Forestry Initiative falls short of other industry environmental initiatives (for example, the chemicals industry's relatively sophisticated Responsible Care program). Although the American Forest and Paper Association has the capacity to review individual environmental management plans, it is claimed that they do not have the ability to critically assess them on the basis of quantifiable outcomes. Even if they did find fault with an individual company, it is further claimed that they do not to have the power to regulate the activities of their members. In short, critics assert that it is largely up to individual enterprises to determine how they will respond and/or conform to the Sustainable Forestry Initiative guidelines.

In response to some of the perceived and/or potential policy differences between the Sustainable Forestry Initiative and the Forest Stewardship Council, representatives of The Home Depot Company, the Forest Stewardship Council United States Working group, and the Sustainable Forestry Initiative of the American Forest & Paper Association jointly requested that the Meridian Institute convene and facilitate a panel to produce a comparative analysis of the two programs. The panel consisted of ten carefully selected people with forestry expertise who examined the two programs as they existed on June 2001, across several subject areas, including origins, objectives, governance, standards, public involvement, accreditation, funding and the use of program logos and product labels. The report was released on October, 2001. Some of the key findings of the report were that (Meridian Institute, 2001):

- there are important philosophical differences relating to the origin, namely the degree of involvement by environmental organisations and industry respectively and there international versus domestic differences;
- they have different objectives, with Sustainable Forestry Initiative aiming to establish a minimum standard across the industry, and the Forest Stewardship Council aiming to reward the best environmental performers through market signals;
- there are differences in governance structure, with the Sustainable Forestry Initiative based administered by an industry group and the Forest Stewardship Council with a membership structure of several different groups, including industry, retailers and environmental organisations;
- there are differences in the degree of mandatory public involvement, with the Sustainable Forestry Initiative requiring less public disclosure (however those participants that engage in third party verification are required to release a summary of the findings);

- there are differences in the types of standards employed, with auditors given more scope to interpret and approve standards with conditions to be met under the Forest Stewardship Council, whereas Sustainable Forestry Initiative auditors have to adhere to strict guidelines; and
- there are differences in the role of third party auditors, with the involvement being mandatory under the Forest Stewardship Council, and voluntary under the Sustainable Forestry Initiative (however, for those participants wishing to acquire the newest version of the Sustainable Forestry Initiative logo, it is a requirement).

United Kingdom Woodland Assurance Scheme

The United Kingdom Woodland Assurance Scheme was established by the United Kingdom Forestry Commission in 1999, to target specifically small, non-industrial woodland owners (Forest Commission of Great Britain, 1999). The scheme was developed with broad participation of all sectors including industry, forest owners, non-governmental organisations, government and standards experts (it has the support of the Timber Growers Association, the World Wide Fund for Nature and the Forest Stewardship Council). It is a voluntary scheme that uses independent assessment of sustainable forest management practices. Individual or group certification is allowed.

An interesting feature of the United Kingdom Woodland Assurance Scheme is that it is designed to be compatible with both governmental national forestry standards *and* the Forest Stewardship Council's national standard for the United Kingdom. In particular, certification under the United Kingdom Woodland Assurance Scheme by an approved certifier automatically confers official Forest Stewardship Council certification status. This is the first time the Forest Stewardship Council has given explicit recognition to another certification scheme. The United Kingdom forest sector is now examining the potential to develop certification and labelling procedures based on the United Kingdom Woodland Assurance Scheme (as well as ISO 14001) as an alternative to the Forest Stewardship Council. It is argued that such an arrangement may be more attractive to some commercial timber organisations.

Pan European Forest Certification

The Pan European Forestry Certification (2000) is a scheme that is in reality a loose confederation of smaller national-based certification schemes in Europe. It is based on the Helsinki description of sustainable forestry management, and provides a framework to ensure consistency between a number of individual certification schemes that can then employ a common label that will be recognised throughout Europe. In effect, it is a form of mutual recognition. Some essential features of Pan European Forest Certification are that it is voluntary, requires independent third part audits, has limited involvement by environmental organisations and is largely consistent with the ISO 14001 model in that it de-emphasises performance standards.

A major incentive behind the formation of the Pan European Forest Certification scheme was a frustration on the part of many smaller European foresters that their needs and circumstances were not be adequately accommodated by the prevailing certification schemes, particular the Forest Stewardship Council scheme. There was a perception that such schemes were dominated by, and looking after the interests of, larger industrial foresters.

The scheme was launched in 1999, and to date, the only national scheme that has qualified under it is the Finnish Forest Certification Scheme (see below). However, further initiatives are expected as a number of industry associations across Europe have signed onto the scheme. There are plans also to expand the Pan European Forestry Certification beyond its European stronghold. For example, Canadian Standards Association International and the American Forest and Paper Association are members of the Pan European Forestry Certification council. Accordingly, "the PEFC [Pan European Forestry Certification] Council is not confining the scope of PEFC to Europe only. There is growing interest from certification schemes outside Europe in joining the PEFC process" (Pan European Forest Certification Council, 2002).

Finnish Forest Certification Scheme

The Finnish Forest Certification Scheme was initiated by the Finnish Central Union of Agricultural Producers and Forest Owners, the Finnish Forest Industries Federation, World Wide Fund for Nature-Finland and the Finnish Association for Nature Conservation in 1996. It is based on the European equivalent of ISO 14001, the Environmental Management and Audit Standard, and is recognised by the Pan European Forestry Certification scheme. However, it does use a combination of process and performance standards. It has a particular emphasis on non-industrial forestry, and is consistent with national Finnish ecological and socioeconomic priorities. It allows for individual and group certification of aligned areas. It is anticipated that 12 million hectares of forest will be certified under it.

There has been wide stakeholder input into the development of the Finnish Forest Certification Scheme, and it is supported by the Finnish Ministries for forestry, the environment and trade and industry. However, World Wide Fund for Nature-Finland and several other environmental groups have withdrawn their support and initiated a parallel standard-setting process using the Forest Stewardship Council framework. The situation has been further complicated following recognition of the Finnish Forest Certification Scheme in July 1999 by B&Q, a large hardware retail chain in Britain and a long-standing Forest Stewardship Council supporter.

Recent trends

A number of international certification trends are evident, many of which may have significant repercussions for the Australian farm forestry sector. These include:

Proliferation

As noted above there has been a proliferation in the number of certification schemes internationally. Much of this proliferation is the result of industry groups, or at least sections of industry, and some governments or at least government forestry agencies, fearing that they will lose control of the debate. Consequently, they have initiated their own rival schemes as a form of policy hedging. Governments, too, have become increasingly active in the formation of certification schemes. Table 1 below outlines the progress of certification in developed countries throughout the world, and illustrates this trend towards proliferation.

Table 1: The progress and policy framework of certification in developed countries, at time of writing[6]

Country	Policy framework
Australia	Limited progress during most of 1990s, but recently instituted the development of an Australian Forestry Standard based on National Forest Policy, Montreal Principles, ISO14001 and other international certification schemes.
Canada	Large areas coming on stream. Industry based standards developed to be compatible with Montreal Principles and ISO 14001 standards. Also seeking to develop regional standards consistent with FSC principles. Some FSC activity.
Finland	Early adopter with significant certified areas. Industry based standards finalised in line with Helsinki Principles and recognised by PEFC. Broadly compatible with FSC and may be integrated with ISO14001. Some application of FSC.
Germany	Mainly an importer. Domestic industry standards based on German forestry legislation and standards. FSC seeking market influence.

[6] Adapted from P Kanowski, D Sinclair and B Freeman, *International Approaches to Forest Management Certification and Labelling of Forest Products: A Review*, Department of Agriculture, Fisheries and Forestry – Australia, October 1999.

Table 1 (cont):

Country	Policy framework
The Netherlands	Major importer. Local standards consistent with the Helsinki Principles. Limited FSC areas. Government (through the Kerhout Foundation) has developed minimum requirements for certificates entering Dutch market with reference to ISO standards.
New Zealand	Focus on plantation timber. Industry standards expected to be WTO compatible. Some FSC certification.
Sweden	Most advanced in terms of area certified. FSC is the major scheme, but PEFC is increasing its share. Industry scheme is based on national legislation, Helsinki Principles and ISO14001 standards
UK	Mainly an importer. Domestic standards developed by consensus to be compatible with both UK National Standard and FSC UK National Standard.
USA	Dominant scheme is SFI: principles by AFPA following some member consultation, compatible with ISO14001. Significant area certified by FSC. Non-industrial operators use Green Tag, based loosely on procedures of FSC. State-based best management principles as minimum.

Area certified

As at January 2002, the amount of certified forests under the Forest Stewardship Council scheme was over 25 million hectares. To give an indication of the steady growth rate, in September 1999 a little over 17 million hectares of forest had been certified.

Despite the increasing amount of certified forest across the world the balance is still heavily towards forest in developed countries. For example, under Forest Stewardship Council the combined total of just two developed countries, the Sweden and the United States, accounts for approximately 60% of total FSC certified forest. The largest developing country participants are Poland, Bolivia, South Africa and Brazil. This points to another feature of the Forest Stewardship Council scheme: although it is widespread participation throughout the world, significant contributions (for example, greater than half a million hectares) are made by a limited number of countries (the above six plus the United Kingdom).

The Pan European Forestry Certification is roughly on par with the Forest Stewardship Council in terms of the total area of certified forest, however, it is arguably even more concentrated in its geographical dispersion than the Forest Stewardship Council. In fact, the subsidiary Finish Forest Certification System (which carries the Pan European Forestry Certification logo) is dominates the Pan European Forestry Certification in comparative terms. As of late 2000, “ten of Finland’s 13 Forestry Centre areas have received a forest certificate under the FFCS (Finnish Forest Certification System) system. These forest certificates issued by independent certification bodies cover over 19 million hectares of forest”. Other major contributors to the Pan European Forestry Certification scheme are Sweden and Norway.

The largest certification scheme, in terms of area certified, is the American Forest and Paper Association’s Sustainable Forestry Initiative. A review during 2001 found that this scheme covered some 38 million hectares of forest (engaging over 150 companies), however it should be noted that only a third of this was third party certified at the time of the review. It was anticipated that by the end of 2001, 32 million hectares would be certified, representing some 85% of the total area certified. The other major North American certification is the Canadian Standard Association’s Sustainable Forest Management initiative. The area of forest certified under this is still comparatively small, around 5 million hectares, but large areas are anticipated to come on stream in the near future.

The use of indigenous certification schemes in developing countries, including Brazil (CERFLOR), Indonesia (the Indonesian Labelling Institute) and Malaysia (the National Timber Certification Council), is still in the development stage and therefore has limited certified forests.

Northern bias

Despite the origins of certification in concerns about unsustainable logging of tropical forests, the vast majority of certifications to date have occurred in Europe and North America, irrespective of the particular scheme. Most of the well-advanced certification schemes, such as the Forest Stewardship Council, Canadian Standards Association, Sustainable Forestry Initiative and Finnish certification initiatives are predominantly focussed on industrialised countries. In contrast, certification initiatives in the south, for example, Brazil, Indonesia and Malaysia, are still largely in the early stages of development and yet to certify significant areas of forest.

Industrial

Another striking feature of the international experience of certification to date is the dominance of industrial forests. The majority of this is managed for solid wood rather than pulpwood production, though a significant proportion of the certified forests in Brazil and Sweden are managed for pulp production. Using the Forest Stewardship Council example, two thirds of the total area of its' certified forests have been in industrial forests. The next largest category of forest type is state-owned and run operations, accounting for 30% of the total certification area. This leaves non-industrial, non-state forestry enterprises, predominantly small-scale forestry, as a glaring omission from the certification experience to date.

Plantations

Until recently, forest certification in whatever guise largely ignored plantation forests. This was a consequence of the developmental evolution of certification that focussed on natural forest management. The principles and criteria of the various certification schemes have difficulty accommodating the different circumstances and environmental issues that arise in plantation forests. For example, issues of biological diversity and indigenous peoples are less relevant in many plantation situations. On the other hand, pesticide use and chemical run-off may be more prevalent. Significant progress has been made, however, for example in Brazil and New Zealand, in the development certification principles and processes for the certification of timber plantations. As a consequence, the area of certified plantation timber has began to increase.

Buyers groups

The influence of buyers groups, in exercising a preference for certified timber, has been instrumental in the education of consumers to purchase certified timber products. Although certification is intended to be market driven, with consumers sending a price signal up the supply chain to the finally reach forest operators, it unlikely that such a scenario will arise spontaneously in the absence of a concerted effort by buyers groups to educate their consumers. It is clear that where buyers groups have been most active, for example the United Kingdom, The Netherlands and Germany, certified timber products have acquired stronger market shares.

Market share

Markets for certified products are strongest in Western Europe and the United States. In contrast, certification has not gained any meaningful market share in Japan, or in the other principal Asian markets. The development of markets in Europe and North America has been led by "buyers groups". The most significant buyers group members are the retail home improvement chains; the largest of these in the United States, Home Depot, recently joined the domestic buyers group, the Certified Forest Products Council. The actual level of consumer demand for certified product remains a topic of considerable debate, but declining relevance given the momentum gathered by certification.

Comparability and equivalence

The proliferation of certification schemes internationally has given rise to a number of attempts to develop common standards and approaches. This is an essentially uncoordinated, organic process that is difficult to capture in a short description. However, specific examples provide a useful indication of the underlying process. These include: the Kerhout Foundation, which is an independent body established by The Netherlands government and industry groups in order to provide a single "hallmark" of sustainable timber products; the Pan European Certification Scheme which, as noted above, aims to recognise a number of individual and subsidiary certification schemes; the United Kingdom Forestry Certification Working Group which aims to "develop a comparative framework" for different certification schemes; and the United Kingdom Woodland Assurance Scheme which, while recognised by the Forest Stewardship Council, is also exploring recognition under the Pan European Certification Scheme. The net effect of these various processes is a gradual convergence of certification principles and criteria. This is exemplified by the following developments:

- until recently, it was possible to roughly divide certification scheme into those that were based on predominantly process-based criteria and guidelines and those that, at least partially, contained performance-based criteria and guidelines. This was because many of the industry-based schemes in particular were based on ISO14001 as their basic framework. ISO 14001, in its present form at least, contains no performance targets, apart from a requirement to conform to existing legislative obligations. Increasingly, however, process-based schemes are beginning to incorporate performance targets. For example, the Sustainable Forestry Initiative is evolving into a blend of performance and process standards. The major environmental based scheme, the Forest Stewardship Council, always contained a mixture of performance and process standards. There is a clear trend, therefore, towards greater use of performance standards;
- although a majority of certification schemes have employed the use of independent third party certifiers, some have advocated a form of self-assessment. Increasingly, however, independent third party certification has become the norm. Even the industry-based Sustainable Forestry Initiative, which was specifically designed to avoid external verification, has recently announced that it will accommodate independent third party certification. The exceptions to this trend are the schemes arising in some developing countries with a high degree of government involvement, where the independence of certifiers remains uncertain; and
- many certification schemes now involve a much broader range of stakeholders, including indigenous groups, environmental organisations, government and industry.

Box 1 below outlines recent moves towards comparability and equivalence.

Box 1: Criteria for comparability and equivalence proposed by different actors[7]

IPF[8] Certification concepts	**UK FCWG[9] C&I for credibility**	**CEPI[10] Principles for credibility**	**PEFC Endorsement of schemes**	**World Bank / WWF Forest Alliance**	**GFPP[11] Attributes to examine**
Accordance with relevant national legislation and international obligations	Certification standards compatible with national policy and regulations	National forestry standards should not conflict with national policy and regulations		Certification systems institutionally and politically adapted to local conditions	
Open access and non-discrimination in respect of all types of forests, forest owners, managers and operators	Certification system non-discriminatory between forests & owners	Certification system should accommodate all scales of forests and owners Voluntary participation	Appropriate geographic level for criteria development and application	Open access and non-discrimination between forests, owners and operators Equitable access to all countries	Geographic regions and ecological forest types covered. Accessibility to all parties seeking assessment. Voluntary or mandatory?

[7] Adapted from Kanowski, P, Sinclair, D, Freeman, B and Bass, S, *Establishing Equivalence and Comparability amongst Forest Management Certification Schemes – "Critical Elements" for the Assessment of Schemes,* Agriculture, Forestry and Fisheries – Australia, Commonwealth of Australia, 2000.

[8] Intergovernmental Panel on Forests, *Proposal for Action 133 (c): Report of the Ad Hoc Panel of Intergovernmental Panel on Forests*, 4th Session, New York, February 1997.

[9] Forest Certification Working Group, *Forest Certification Working Group launches mutual recognition comparative framework.* Media information, April 1999.

[10] Confederation of European Forest Industries: *Principles for ensuring a credible certification scheme.* Working document approved by CEPI Board.

[11] Global Forest Policy Project: *"Mutual recognition" among forest certification programs – primary components for evaluating similarities and differences.*

Credibility *Institutional arrangements*	Certification body is independent and competent	Independence and impartiality between forest owners and groups undertaking standard setting, certifier accreditation and dispute resolution	Nationally accredited bodies that have proven competence, required impartiality and adequate management systems to carry out forest management certification	Certification based on reliable and independent assessment, free from conflicts of interest Certification is credible to all major groups	Degree of independence Government role? Certification undertaken by 1st, 2nd or 3rd party? How are decisions made and by whom?
Accreditation	Certification body accredited at national level, using internationally accepted assessment methods	Accreditation bodies and 3rd party auditors should demonstrate competence through internationally accepted means	Requirements for auditing and certification procedures based on EN management system standards		How are certifiers accredited and by whom?
Consistency	Certification process should be repeatable	Usage by different auditors should lead to same results			
Product labelling	On-product certification claim should be based on independent 3rd party audit of CoC				Whether labelling is included
Transparency; **Non-deceptiveness**	Standards / frameworks should be clear and transparent	Certification process should be clear and transparent	Development of certification criteria should be transparent	Transparent, documented development process	Degree of transparency Degree of public credibility Whether appeals procedures exist

Cost-effectiveness	Certification should be cost effective and commercially viable	Certification cost bearable whatever size of forests, and should not make wood products non-competitive		Certification should be cost-effective	Costs and cost-effectiveness
Participation that seeks to involve all interested parties, including local communities	Standards / frameworks developed through open participatory and democratic process	Standards development accessible to all interested parties, influence balanced Scientific community should be involved	Forum created to which all relevant parties in process are invited to participate Consensus the objective, but not necessary	Establishment of consultative forum for participation of all interested parties to reach consensus decisions	How standards are set and decisions are made, and by whom Whether membership is exclusive or open, and is "balanced"
Sustainable forest management					
Performance standards	Performance standards compatible with internationally recognised SFM principles		Criteria applied must be compatible with Pan European criteria for SFM	Performance standards defined at national level compatible with generally accepted principles of SFM	Nature of standards: variety, scope, strength, aspects covered, and level of application
Process standards	Process standards compatible with internationally recognised management systems	Credible certification system should incorporate internationally recognised EMS		System should be goal-driven, with objective and measurable criteria	Nature of standards: variety, scope, strength, aspects covered, and level of application Whether CoC or LCA is included
Review processes	Standards / procedures should be adaptive and regularly revised	Standards / audits should be regularly assessed and revised	Criteria will be periodically reviewed in light of new knowledge	Periodic review of certification criteria	
Outcomes					Effectiveness in improving forest management

Domestic developments

Currently, institutional arrangements for certification are in their embryonic stages in Australia. There are no active certification schemes in place, and only a limited number of forestry operations have received, or are in the process of seeking, ISO 14001 certification. This may at least partly be due to the fact that Australia exports relatively small volumes of finished timber products: most are intermediate wood chips that are not highly visible to consumers abroad, and are shipped mainly to environmentally insensitive Asian markets.

On the retail front, Australian consumers have shown little interest in purchasing certified timber products (equally, however, they have been given little opportunity to express an interest). As indicated above, there is also an attitude prevalent among forest management that domestic forestry legislation and standards meet or exceed international benchmarks, which limits the perceived benefits of certification. Whilst most environmental organisations support the introduction of certification, some remain ambivalent about the prospect of certification, fearing that it will be used as a tool to justify the continued logging of native forests on public land.

It is against this backdrop, and in response to the international growth of certification, that a range of institutional interests (namely government, industry and standards organisations) have supported the development of an Australian Forestry Standard. The intention is to build on existing forestry policy and regulations, such as Regional Forest Agreements, in the development of set of process and performance standards that can form the basis of a national certification scheme.

A steering committee consisting of representatives from the Australian Council of Forestry Ministers, the National Association of Forest Industries, Plantations Australia, Australian Forest Growers, Australian Council of Environment Ministers and the Australian Council of Trade Unions has been established to oversee the establishment of the Australian Forestry Standard. According to the Chair of the Steering Committee (Ministerial Council on Forestry, Fisheries and Aquaculture, 2000):

> The issue of forest management certification is an important one for Australian exporters to address, particularly for exporters with an eye to the European and North American markets. It also provides an opportunity to develop an Australian benchmark for assessing forest management encompassing the environmental, economic and social aspects of forest management. This initiative is being sponsored by governments and forest owners and industries who have recognised the need for Australia to develop a credible response to demands for timber from certified forests. We are looking forward to working with scientists and community groups in an open and participatory process to develop the standard.

Official literature (up to 2002) about the Australian Forestry Standard describes the development process in Box 2 below.

Although the Australian Forestry Standard is still in the development phase, it is anticipated that it will be applicable, on a voluntary basis, to all forest types, operational settings and ownership structures. Further, it is expected that it will be "capable of independent third party verification and certification. The Standard will apply to management for the production of fibre and wood products from forests, and cover all relevant activities to the forest gate" (Drielsma, 2000).

In addition to the role of the steering committee, Standards Australia will audit the steering committee to ensure that it complies with relevant international guidelines that apply to the development of certification standards. It will also provide a final vetting of the eventual Australian Forestry Standard itself, including the resolution of any unresolved disputes, prior to its public release.

Box 2: An Australian Forestry Standard

Forest certification systems have been implemented in other countries, some of which are the traditional sources of imports of forest products to Australia. Buyer groups, largely comprising retailers committed to stocking timber from certified forests, have developed increasing profiles in Europe and North America. The successful implementation of an Australian Forestry Standard will provide Australian and overseas consumers with an independent assessment of claims about the sustainability of forest management in Australia. This will assist suppliers of wood from Australian forests that are assessed as being sustainably managed based on auditable forest management performance criteria, to maintain access to traditional markets for Australian timber and enter new markets that are demanding certification of sustainability.

Australian Ministerial Council on Forestry, Fisheries and Aquaculture, in partnership with the National Association of Forest Industries, Australian Forest Growers, and Plantation Timber, is sponsoring the development of an Australian Forestry Standard. This Standard is being developed to provide a basis for voluntary, independent third-party certification against auditable forest management performance criteria that support sustainable management of forests for wood production. It is intended that the Standard would be suitable for use in both native and planted forests regardless of tenure or scale of ownership. It is also intended that the Standard should provide a basis for third party auditing, either separately or in conjunction with the ISO 14001 Environmental Management System Standard.

How do we get to an Australian Forestry Standard?

The project to develop an Australian Forestry Standard will be managed by a Steering Committee and supported by a Technical Reference Committee representing a wide range of interests and expertise at a national level. The committees have been constituted to ensure a balance of views at each stage of the development of an Australian Forestry Standard. A Steering Committee of eight members was established in 1999 and meets regularly to guide and promote the development process through the Project Manager. A Technical Reference Committee with a targeted membership of nineteen to cover the main sectors interested in or proposing to utilise a Standard was established in October 2000. This committee also meets regularly, at about two monthly intervals, to progress the drafting of a Standard to its intermediate point of a Public Comment Draft and to its end point of an approved Final Standard.

An overview of the stages in the development of an Australian Forestry Standard

A number of stages will formulate the developmental process leading to an Australian Forestry Standard:

- An initial public consultation period was advertised in national and major metropolitan newspapers to alert all interested individuals and parties to the Standard's development. This initial public consultation period also provided an opportunity for preliminary comments to be registered for consideration at the very start of the Standard development process. A report on the public comments and Steering Committee response has been produced to assist in the initial consideration of the Standard.
- A draft framework of elements will be presented to the TRC together with the Summary of Public Submissions report as a basis for consideration of the Standard. It is proposed to follow the five-step process outlined below to progress to the Standard:
- Draft framework - to provide an agreed basis for the preparation of the preliminary draft.
- Preliminary draft - based on the framework agreed by the TRC
- Committee (TRC) draft(s) - incorporates decisions of the TRC;

- Public Comment draft - the TRC's recommendation for the Standard and made available to the public for their views and comments (2 months); and
- Final draft - all comments received on the public draft must be considered by the TRC as part of the process of finalising the Standard.
- Once the final draft has been approved by the TRC, as a result of the postal ballot, it will then be forwarded to the AFS Steering Committee who will seek endorsement of the Standard from the Ministerial Council on Forestry, Fisheries and Aquaculture (MCFFA).
- If endorsed by the MCFFA, the Australian Forestry Standard will then be forwarded to a Standards Policy Board who have been delegated the final approval powers for the Standard by the Council of Standards Australia. The SPB will approve the Standard after having confirmed that committee consensus has been achieved and that public consultation has occurred. The SPB will publish the Standard as well as handle any media enquiries.

Source: *An Australian Forestry Standard*, 2002, http://www.forestrystandard.org.au/aboutus.html

Once the Australian Forestry Standard has been completed (assuming that this is indeed the case), the Joint Accreditation System of Australia and New Zealand will be approached to provide accreditation of intended certifiers.

In an increasingly crowded international certification landscape, the development of an Australian Forestry Standard has a number of (related) challenges confronting it. Chief amongst these are:

- the need to ensure compatibility and/or equivalence with other major international certification schemes. Recent developments in the process of mutual recognition, as described above, are pertinent in this regard;
- the need to maximise retailer/consumer recognition, particularly in international markets. There is little point in developing an Australian Forestry Standard if ultimately it fails to capture the attention of commercial interests, even if it conforms to international norms. International market recognition in particular is made all the more difficult by the relatively diminutive stature of the Australian forest industry and the influx of potentially rival certification schemes; and
- the need to maintain credibility amongst consumers. A major danger, in this regard, is the potential absence of endorsement, or indeed active criticism, of the Australian Forestry Standard by environmental organisations. As described below, those consumers most likely to exercise a purchasing preference for certified timber and/or timber products have much greater confidence in certification schemes if they have been endorsed, or are run, by environmental organisations. There remains some significant doubt as to whether the Australian Forestry Standard, or at least its development process to date, is sufficiently supported by major environmental organisations as to engender credibility amongst consumers. Although the World Wide Fund for Nature and the Native Forest Council are participating in a technical group under the auspices of the Australian Forestry Standard Steering Committee, this may not necessarily translate into an unqualified endorsement. In the absence of such support, there remains the possibility of a rival certification scheme being operated in Australia by environmental organisations, and potentially, undermining the reputation of the Australian Forestry Standard, and/or environmental organisations attacking directly the credibility of the Australian Forestry Standard.

3. Certification and Australian Farm Forestry

What implications does the expansion of certification internationally have for the Australian farm forestry sector, and how should the sector respond to the certification phenomenon? Conversely, what implications does the nature of farm forestry in Australia, including small scale farm forestry, have for the application of certification? In order to address these critical questions it is necessary to first have a basic understanding of the nature, extent and make-up of farm forestry in Australia. Only then are we in a position to explore the implications for farm forestry of certification, and visa-versa. Consequently, this chapter is divided into three sections. First, we provide a brief description of farm forestry in Australia. Second, we explore how the particular characteristics of farm forestry may influence the applicability and attractiveness of certification. And third, we identify key issues that may act as drivers of certification in the Australian farm forestry sector.

What is farm forestry?

There is a difficulty in rigidly defining farm forestry in that it encompasses a very broad range of circumstances and practices (Guijt and Race,1998). For example, farm forestry may include “timber belts, alleys, woodlots and widespread tree plantings”. It may also include exotic trees, indigenous trees, the latter of which may consist of remnant vegetation, native regrowth or plantation. A further complication is the confusion between the terms “farm forestry” and “agroforestry”. In practice, however, there is likely to be significant overlap between definitions of agroforestry and farm forestry, for example, a booklet produced by the Australian Forest Growers association notes that “the terms ‘agroforestry’ and ‘farm forestry’ are used interchangeably to mean the commercially productive use of trees on farms as an integral part of the farming enterprise” (Australian Forest Growers).

Neither of these definitions, however, capture the full range of potential farm forestry endeavours. The former, for example, does not include the growing of trees, or the management of existing native vegetation, for non-commercial purposes. A further limitation of both definitions is that they imply that farm forestry must necessarily sit side be side with other more traditional agricultural pursuits. In fact, as expanded upon below, in some instances farm forestry may completely supplant existing agricultural activities on individual farms. For the purposes of this report, then, a more expansive notion of farm forestry and agroforestry is adopted which encompasses a much broader range of activities and motivations, that is:

> Farm forestry refers to the growth, management, and any subsequent harvesting, of trees or shrubs on smaller plots of privately owned or leased land for both conservation and/or commercial purposes. Farm forestry may fall into one of three individual categories:
>
> (i) dedicated forestry plantations on privately owned land (usually on farms, and which may consist of native or exotic species);
>
> (ii) mixed use farming that plantations with other more traditional agricultural pursuits, for example, livestock (this is commonly referred to as agroforestry, and again, may include plantations of native or exotic species); and
>
> (iii) native forest holdings on privately held land (which may include old growth forest or regenerated native forest).
>
> Farm forestry is to be distinguished from state owned, run or sanctioned forestry enterprises, and, although they both may occur on privately held land, also from large scale industrial plantations.

Farm forestry management structures

Just as there are several different forest types and agricultural settings that are accommodated by the range of farm forestry operations in Australia, so too are there are several different management structures. And as forestry management is at the core of certification concerns, this is an issue that warrants a fairly comprehensive description.

One type of farm forestry management structure is where individual farmers finance and undertake the initial plantings (most particularly in the case of plantations), the ongoing management (which could apply to plantations, regrowth or old growth forestry[12]) and any eventual harvesting. In short, the entire farm forestry operation is conducted in-house. Farm foresters in this category may have limited financial resources, and may also have limited management expertise, certainly in terms of the environmental management system approach required under the major international certification schemes. Not surprisingly, the majority of such operations tend to be fairly small in size, often as an adjunct to other agricultural pursuits.

Major restrictions of this type of management structure are the high up-front costs of establishing plantations, and the many years it takes to obtain an investment return (an exception in this regard is radiata pine for Christmas tree production, which can generate a commercial return in approximately three years). Consequently, some individual, commercially orientated farm foresters have sought and received support (financial, in-kind and/or technical) from agencies acting on behalf of government, such as Greening Australia and the Regional Plantation Committees. Even with such support, the financial hurdles are sufficiently high as to prevent commercial farm forestry, in most cases, assuming more than a supplementary or complementary role to more traditional agricultural pursuits. That is, it is less likely that a whole farm would be devoted to farm forestry activities.

An alternative approach for those farmers with sufficient financial resources at their disposal, but with limited forestry expertise, is to contract out aspects (or all) of the farm forestry enterprise to professional foresters.

The second commercial farm forestry model is where an individual farmer enters a contractual joint venture with an external commercial entity to grow plantation timber on their property (and this type of arrangement is, at the present time, exclusive to plantation forestry. In the future, the advent of carbon credits may extend the viability of such arrangements to regrowth and old growth forestry). The advantage of this type of arrangement is that it provides a means of overcoming both the high start-up costs of commercial plantations *and* the lengthy delays in securing a financial return. Depending on the exact nature of the joint venture[13], it can also overcome any lack of skills and experience in plantation forestry on the part of the farmer.

There are numerous individual permutations of the joint venture model. One major variable, for example, is the degree of ongoing management and decision making afforded to the individual farmer. In all joint venture arrangements, the initial planting component is out-sourced (the individual farmer does not have the necessary in-house capacity to compete either economically or technically with specialised plantation contractors). In some joint venture arrangements, however, farmers assume a fairly central forest management role after the initial planting phase has been

[12] The variable yield uniformity and quality of regrowth and old growth forests may require significant management input to make it commercially viable.

[13] There is a third commercial forestry model that arises from the use of certain types of joint ventures arrangements: having secured a joint venture plantation on one part of their property, a farmer may decide to invest in their own plantation somewhere else on their property, safe in the knowledge that that virtually guaranteed a future buyer (economies of scale dictate that the joint venture partner will harvest both plantations). In this example, the farmer can also draw on the skills and expertise gleaned from the joint venture arrangement. Several farm foresters have thus engaged in a mixture of joint venture and private plantations.

completed. This can include conducting such activities as thinning, watering, fertilising, fencing, and so on. One farm forester described it thus:

> Although I have entered into a joint venture, I haven't given up responsibility for my farm. In fact, I don't view it any differently than managing livestock – except that trees don't have to be chased on a motorbike. I make the management decisions. I even let my remaining cattle wander amongst the plantations; once the trees are above a certain size, that is.

The Japanese pulp and paper company Harris Daishowa is one example of a multinational that has entered joint venture arrangements with Australian farmers that entail management input from the farmer, and allow stock to graze amongst the plantations (once the trees have reached a certain height and consequently are unlikely to be damaged).

In other cases, ongoing involvement by the farmer is extremely limited. In this kind of arrangement, the farmer effectively leases their land to an external commercial entity and relinquishes full management responsibility. This type of arrangement may also be far less accommodating of other on-farm activities, as evidenced by one interview with a plantation company representative:

> We are a private company that specialises in Blue Gum farm forestry plantations by forming joint venture arrangements with individual farmers on the basis that they assume full initial and an ongoing management responsibility. We lease land from private farmers, from 100 hectares up. Once the lease is secured, there are two plantation rotations of 12 years, or one rotation of 18 years. In return, the farmer receives regular payment. Two stipulations are that the *whole of the farm space is devoted for plantation farm forestry* and that *no livestock is allowed to intermingle with the plantation trees*. We do all the management – the only thing the farmer has to look after is boundary fences.

The absence of farmer involvement in this example extends beyond the management phase to include the harvesting phase, with the company:

> … hiring all external contractors to do the work. [Under this arrangement] no share of the harvest proceeds accrue to the farmer. [Instead, the farmer receives an] annual rent per hectare, paid quarterly in advance, and CPI indexed.

In it is not difficult to understand that with the exclusion of all other agricultural activities, and no requirement for an ongoing management role, farmers entering into this type of joint venture arrangement invariably choose to reside in a location other than their farms.

The question arises as to whether plantation joint ventures constitute *small scale farm forestry* because even though each individual venture may be considered small scale, the industry partners are often anything but small scale, and may indeed be engaged in numerous joint ventures that collectively are very substantial. One way of delineating small scale farm forestry from larger operations would be on the basis of the degree of farmer management of the plantation. That is, joint venture plantations where the farmer has minimal or zero management responsibilities (as is the case in the Integrated Tree Cropping example noted above) may not be considered as small scale operations if that joint venture partner engages in number of such arrangements. In short, it could be argued that small scale farm forestry must not only be on relatively small individual lots, but that it must be more than just a totally subsidiary component of a much larger industrial forestry enterprise.

In this report, however, while recognising a degree or arbitrariness in all distinctions, we have chosen to adopt a more expansive view of small scale farm forestry so as to include all types of joint venture arrangements, irrespective of the degree of farmer management input. We do this for three reasons. First, in all joint venture arrangements individual farmers necessarily retain ownership of the land (as opposed to some forms of commercial plantations where the farmer sells, rather than leases, their land to a third party). Second, in some cases, individual farmers may also retain partial ownership of

the plantation timber after the final harvest. And third, joint ventures of all types are a major source of new investment in plantation forestry on farming land.
Whichever form of joint venture arrangement is entered into by the farmer, there is little doubt that the number and area of such plantations have the potential to grow rapidly in coming years. The growth in such plantations is driven by a combination of forces, including, on the one hand, multinational paper companies seeking a secure source of pulpwood, and on the other hand, domestic investors lured by attractive tax concessions. Box 3 below reproduces a recent article highlighting industry growth expectations, and the role of foreign investment.

Box 3: Plan to triple plantation sector by 2020

Drive the back roads to Ballarat, the Otways or Kilmore and you'll see them – blue-grey forests towering over grazing sheep or cattle – illustrating the expansion underway in the Australian plantation industry.

Over the next few years, 8000 hectares of the distinctly colored (sic) Tasmanian blue gum are being planted on farms dotted within a few hours' drive of Melbourne by a consortium of two Japanese companies and their Australian partner.

It's all part of an industry plan to triple the size of the plantation industry in Australia by 2020 from its present mass of 1.2 million hectares. That growth is likely to be driven by foreign investment, now dominated by American and Japanese corporations.

The blue gums shooting up on farms around Melbourne make up the Victorian Tree Farm Project – a consortium of the Japanese companies Mitsui Co and Nippon Paper, and the Australian timber operator Midway.

Farmers are paid to lease part of their land for 20 years, earning up to $160 a hectare a year indexed to inflation – more than they would earn growing wool or some alternative crop.

The project's size is not ground-breaking, but it represents the industry's trend towards hardwood plantations, and how the plantation industry is becoming enmeshed in traditional farming practices – offering cash strapped farmers and alternative income.

It also shows the innovative partnerships being formed by foreign companies to find sufficient land for a stake in the Australian timber industry.

Some industry figures have put the level of Japanese investment involving more than a dozen companies in the plantation industry in Australia at about 150,000 hectares, worth close to $500 million.

The level of American investment has leapt in recent years following the US investment giant John Hancock becoming part of consortium that bought the Victorian Government's timber plantation holdings in 1998, and the US timber giant RII Weyerhaeuser buying CSR's timber assets last year.

Mr Rob de Fegely, the executive vice-president of Jaakko Poyry, an international consultant on the forest industry, expects such foreign investment to continue growing rapidly.

He says Japanese investors are looking to expand their presence by about 100,000 hectares in the coming years, and US companies are "looking for a platform into the Asia-Pacific, and they see a lot of confidence and capacity to set up in Australia."

"Blue gum is restricted in the regions of Australia where it will grow," he said. "Australia probably looks pretty cheap for a lot of international investors. Overall, it's a good outlook for the industry and potentially very positive for parts of regional Australia".

The Japanese corporation Mitsui Australia is one of the biggest investors in the Australian plantation industry. Kimio Sato, the general manager of Mitsui Co Australia, says his company evaluated several countries to invest in hardwood plantations but believes Australia the best returns.

"Political stability in Australia is one of the major reasons, as well as the proximity from Japan, the climate and strong relationship with the people we do business with in this country," he said.

Greg McCormack, the chairman of Midway, a company originally formed by 14 Australian sawmilling companies to invest in the pulpwood industry, believes growing international demand will help boos plantation supply in Australia.

Mr de Fegely says if the rules and a sustainable accounting system can be established on carbon credit trading "possibly we could see a big increase in plantation investment in Australia".

Source: Dabkowski, S, Plan to triple plantation sector by 2020, *The Age*, 14 February 2000.

The precise nature of a farm forestry plantation joint venture may have profound implications for the application of certification, the most significant of which is: who should be the recipient of the certification? In the case of the farmer that retains an ongoing management role, it may be argued that they should be the relevant party receiving certification (at least partially, at any rate). However in the case of the farmer that has no ongoing management role, then it may be argued that the party receiving the certification should be the external commercial entity.

Another variable is the *nature* of the external commercial entities. There are two types of commercial entities currently operating in Australia. The first is a direct consumer of forest product, namely (international) pulp and paper companies. In this example, such companies are securing a future (and exclusive) source of pulpwood. The second is an intermediary organisation that intends to sell the harvested product onto the open market, in an as yet undetermined product category and market location. Again, this variable can have significant implications for the application of certification. The desirability of certification may well vary according to different market preferences and different product categories (this is discussed in detail below). For example, forest product destined for purchase by European consumers of furniture grade timber may well be more suited to certification than forest product sold to Japanese pulp and paper companies.

A further variable in joint venture arrangements is the type of payments schedule received by the farmer. In some cases this will consist entirely of regular (usually monthly) payments. For example, in the South Coast region of Western Australia, farmers can receive up to $300 per annum per hectare of land in high rainfall areas devoted to farm forestry (this compares favourably with the less than $100 per hectare generated by many other traditional agricultural pursuits – it is not surprising therefore to learn that joint ventures dominate farm forestry in this region). In other cases, farmers may negotiate a percentage of the final harvest value of the plantation timber. Again, the precise type of arrangement may have implications for the application of certification. It may be argued, for example, that farmers with a post-harvest financial interest will be more interested in ensuring quality management of the plantation *and* obtaining the highest harvest prices possible, both of which could well be assisted through certification.

What are the benefits of farm forestry?

Farm forestry is increasingly being seen by both policymakers and farmers themselves as a viable form of land management and as having the potential to become a substantial future source of timber in Australia. However, it would be a mistake to view the potential benefits of farm forestry in wholly commercial terms. Guijt and Race (1998), for example, point out that "although some landholders place a strong commercial focus on the tree plantings, in reality farm forestry in Australia aims for a diverse range of benefits". What might some of these benefits be? A recent article by Vanessa Elwell-Gavins of Greening Australia summarises the range of benefits of farm forestry as including:

- commercial returns from well managed trees grown purely for commercial purposes (farm forestry can provide timber *and* non-timber products including oils, seeds and nuts);
- enhanced productivity from other farm enterprises as a result of increased shelter for stock and crops and reduced natural resource management problems such as erosion and salinity;
- enhanced biological diversity, with improved habitat for native species;
- enhanced regional employment in local industries related to the establishment, management, harvesting and processing of trees and their timber and non-wood products;
- reduced farm expenditure, as landholders are able to use the tree products on their farm, such as timber for fencing, firewood and buildings; and
- integrated economic, social and environmental benefits, such as improved water quality, and high quality of farm life.

If we examine this list of potential benefits, it is clear that only some of them apply specifically to individual farm foresters, or at least, only in part. For example, the benefits of enhanced biological diversity and regional employment extend well beyond the farm gate. This highlights an important characteristic of farm forestry: not only is there a range of potential benefits, but there is a corresponding array of potential beneficiaries. The latter group may be characterised as farmers, industry and the broader community.

In terms of *farmers*, benefits additional to those highlighted above might include improved property values, greater diversity of income to compensate for cyclical fluctuations in commodity markets and visual and aesthetic benefits. In terms of *industry*, that is, intermediate consumers of forest products for further processing, their interests lie primarily in sourcing a reliable and quality product from farm foresters. In this regard, there are two specific (and related) benefits to industry. First, establishing an alternative source of timber in the future as traditional state-owned native forest becomes increasingly scarce, due to conservation policies and/or increased demand. Second, again, into the future, obviating the need to purchase and invest in plantations to guarantee timber supply. In terms of the broader *community*, farm forestry may bring greater opportunities for economic development, reduced political tension over environmental issues, less need for agricultural subsidies and the several environmental and conservation benefits noted above.

For those farm foresters interested in a commercial return, what type of product categories could they target? We describe these in Box 4 below.

Box 4: Commercial products derived from farm forestry

These include:

- pulp fibre – this is based on timber with a high pulp yield; light in colour; not too many defects; and a relatively straight trunk. Possible products include pulp for paper and composites (eg medium density fibreboard);
- small round log (1st thinning) – this is based on timber with a integrity; sapwood (to allow for preservation); a high pulp yield; a light colour; not too many defects; and a relatively straight trunk. Possible products include vineyard poles; trellis; and pulp for paper;
- medium round log (2nd thinning) – this is based on timber with durability; density and clean burning; a straight trunk; few defects and the ability to be preserved. Possible products include
- low grade saw log (not worth kiln drying) – this is based on timber over 45 centimetre diameter; four to six metres in length; a straight trunk; and few defects. Possible products include house framing; pallets; posts and poles; firewood; and pulp for paper;
- high grade saw log (kiln dried) – this is based on timber that is free of defects; attractive markings; distinctive; over 45 centimetres in diameter; four to six metres in length; and a straight trunk. Possible products include furniture; flooring; panels; and face grade veneer;
- engineering products – this is based on timber with strength; density; over 45 centimetres in diameter; four to six meters in length; and a straight trunk. Possible products include structural products, for example spans; tool handles; and laminated products; and
- non timber products – these include cut flowers and foliage; essential oils; honey; bush tucker; nuts; seed; perfume; medicines; tannins; brush fencing; craftwood; and feedstock for solid and liquid fuels.

Adapted from *Getting Started in Farm Forestry*, Australian Forest Growers, ISBN 0 9585701 1 6

One industry respondent pointed to a link between the size of a farm forestry operation, the type of commercial product yielded and the eventual commercial return when he stated that:

> … economies of scale will be determined by the nature of the product. This can be broken down into three categories [of farm forestry]:
>
> 1. large operations are needed for pulping, and have a low return per tree;
>
> 2. medium sized operations a suited for saw milling, and have a medium return per tree; and
>
> 3. small operations are best for generating high quality timber, which has a high return per tree.

Having described in general farm forestry in an Australian context, and its potential benefits, next we consider its relationship to the issue of certification.

What characteristics of farm forestry impact on certification?

As can be imagined, the scope of activities included under an expansive definition of farm forestry is large, as is their geographical dispersion. For these reasons, to date, it has been difficult to "get a handle" on the full extent of farm forestry operations, let alone any sophisticated database that ascribes different types of forestry practices. In recognition of this gap in our knowledge, Agriculture, Fisheries and Forestry - Australia, through the National Forestry Inventory program, has

initiated the National Farm Forestry Inventory. This is an ambitious project that, in its now completed first stage, has identified the "best way by which inventory data could be collected and collated with the farm forestry arena" (Agriculture, Fisheries and Forestry – Australia, 2000). The second stage, which is currently in progress, aims to "develop mechanisms for the collection of data by growers and begin collation, analysis and reporting of data at the regional, State and national level" (Agriculture, Fisheries and Forestry – Australia, 2000).

Despite the absence of such detailed information about the farm forestry sector in Australia, it is still possible to identify several defining characteristics which impact on whether and how certification should be adopted. These include:

- the heterogeneity of the farm forestry sector, which as articulated in the definition above, incorporates a variety of practices, trees and landscape types;
- the wide geographical dispersion of smaller farm forestry holdings, with many geographically isolated;
- the lack of information on appropriate sustainable forest management practices and principles;
- the limited resources (both financial and non-financial) available to individual landholders that might be devoted to the implementation of certification; and
- the greater potential for higher value-added products to be derived from farm forestry (in contrast to the mainly commodity-based nature of timber products from many state forest enterprises, for example).

We explore the various implications of each of these characteristics below.

Heterogeneity

The heterogeneity of the farm forestry sector may be divided into three constituent components. These are (i) altruistic; (ii) pragmatic; (iii) commercial. The implications for and of certification may be distinct for each component.

Altruistic farm forestry

Some farm foresters may be motivated by an intrinsic desire to improve or preserve the environmental circumstances of their landholdings. This might be through the planting or regrowth of native forest, or the preservation of remnant vegetation. Even the planting of exotic species can provide several environmental benefits, such as land stabilisation and carbon sequestration.

What implications does certification have for altruistic farm forestry? To the extent that altruistic farm foresters do not engage in commercial sales of their timber products, it could be argued that there is a limited role for certification to play in their operations. This is because certification, fundamentally, is a market based instrument. Those whose intention is other than to trade in the product for profit have less opportunity to be advantaged by it. It may also be that non-commercial farm foresters will be less willing or less able to afford the cost of both obtaining and implementing certification. Thus the purely altruistic category of farm forestry is likely to be least affected by the international advance of certification.

This is not to say that altruistic farm foresters may not obtain some benefit from certification. On the contrary, they may use the principles and criteria embodied in various certification schemes as a guide to their own operations, without necessarily seeking formal certification. Some indeed may be motivated to go that final step, not for commercial purposes, but as a means of demonstrating their environmental credentials to the wider community. One United States study of the attitudes of managers to certification (Hayward, and Vertinsky, 1999), for example, found that:

> Small forestland operations tend to seek certification to satisfy intrinsic needs, such as learning, achieving self-esteem though external validation, and fulfilling such societal values as meeting forest stewardship responsibilities.

However, certification is unlikely to be a powerful driver of altruistic farm foresters, and certainly far less so than for those motivated by commercial interests.

Pragmatic farm forestry

Some farm foresters may be motivated by essentially pragmatic interests. For example, some may be attracted to the potential farm forestry has to deliver substantive productivity gains to their operations. This might include windbreaks and shelter for stock, prevention of soil erosion or pest control. Thus the commercial benefits in this instance are a function of the impact of trees that are generally *in situ*, not from the sale of forest products (an exception is the on-farm use of forest products, such as for firewood or fencing). Of course, pragmatic motivations are not mutually exclusive to other environmental or direct commercial interests. Indeed, many farm foresters will have a mixture of motivations (this is discussed in detail below).

What implications does certification have for pragmatic farm foresters? As with altruistic farm forestry, pragmatic farm foresters are not specifically interested in forest product markets and are therefore unlikely to be immediate and direct beneficiaries of certification. Also like altruistic farm foresters, pragmatists may be interested in the management guidance provided by the various certification schemes, to the extent that it impacts favourably on other farm activities. In this regard, certification can be used as a means of ensuring that their practices are up to standard, and consequently, achieving the greatest gains in productivity possible. Pragmatic farm foresters are unlikely, however, to seek formal certification for this reason alone. Purely pragmatic farm forestry is therefore a category with limited direct interest in certification.

Commercial farm forestry

Some farm foresters may be motivated by the prospect of obtaining a commercial return from the harvest of timber and subsequent sale of forest products. In general, it is commercial farm forestry that is most likely to benefit from certification. Such farm foresters may gain, for example, easier access to new markets, an increased share of existing markets, or the ability to charge a price premium, by demonstrating through certification that their products come from sustainably managed sources. It is thus the existence of commercial markets for farm forestry products that provides the very means by which the benefits of certification can be successfully exploited.

As alluded to above, however, the motivation for farm foresters in seeking certification for each of the potential commercial product categories will vary. Although this will not necessarily mean that certification is more or less attractive in any one category, there may be a variation in the context in which certification is applicable. We describe below the implications as regards two major categories: pulpwood and saw log timber.

In the case of plantation earmarked for pulpwood, there is a growing number of farm foresters who are entering into joint venture arrangements with large pulp companies to satisfy future demand. As noted above, other farm foresters are growing commercial pulpwood plantations without the security of a joint venture arrangement, and still others are engaging in a mixture of both. In all cases, however, they will be selling a commercial timber product that is inherently generic, and sometimes on to an open market. This means that farm foresters supplying pulpwood *are likely to isolated from final consumers*, simply because it is more difficult to conceptualise and enact a robust chain of custody in this instance. In other words, consumers may have difficulty in tracing the source of pulpwood (or a subsequent paper product) back to a particular forestry operation, let alone determine its level of sustainability. This makes it more difficult for certified pulpwood to attract a price premium.

In the absence of final consumer engagement, the pressure for certification of farm forestry pulpwood must come from the pulp and paper companies themselves. This is unlikely, however, to occur spontaneously. Pulp and paper companies may be motivated, either in response to the political pressure exerted by environmental organisations, or to satisfy the purchasing preferences of buyers groups, to declare their pulp as being derived from sustainably managed sources. If this were the

case, they may be tempted to use only certified pulpwood as a demonstration of their environmental credentials, with the onus on them to ensure that their sources of pulpwood are indeed fully certified. This would apply irrespective of whether the pulpwood comes from joint ventures or not. Undermining the likelihood of such a scenario coming about is the fact that much of Australian pulpwood is destined for the Japanese pulp and paper industry, a sector and geographical region that has shown itself to be most reluctant to go down the certification road.

Although there has been little movement to date, there are some modest signals that at least some pulp and paper companies may in the future take responsibility for the origin, and therefore sustainability, of their pulpwood. For example, in the United States, the industry-based Sustainable Forestry Initiative encourages pulp and paper companies to develop a working relationship with their pulpwood suppliers to promote sustainability. Obviously, highly vertically integrated companies (that is, where the one company owns and operates an entire supply chain, from forestry to paper) are in the best position to ensure forestry sustainability. However, even those companies which accept pulpwood "dumped at their gates" now have the opportunity to institute arrangements which would confirm the degree of sustainable management of such externally sourced pulpwood, although there is little evidence to date of this being pursued.

In contrast to generic pulpwood, the environmental credentials of saw log timber are likely to be of considerable interest to commercial third parties, such as hardware retailers. They in turn, may exert considerable pressure on producers to demonstrate such credentials through certification. As we noted above, it is the formation of buyers groups by commercial third parties that has been arguably the major driver of certification internationally to date. In such circumstances, certification is used in conjunction with a system of chain of custody verification. This driver is likely to be more pertinent to those farm foresters choosing to generate quality saw log timber, a product that is attractive to buyers groups that favour certification.

The question arises, however, as to what extent existing international certification buyers groups are likely to impact on the Australian timber market? For farm foresters exporting their timber and timber products to European and North American markets, certification has the potential to become increasingly a *de facto* trade standard and therefore crucially important. For domestic sales, however, it is unclear what the future holds. It is possible that domestic certification buyers groups may arise, although a supply of domestic certified timber may be a necessary prerequisite. Consequently, commercially orientated farm foresters may take the view that the current absence of domestic buyers groups provides them with an opportunity to gain by being first movers, either through a greater market share, and/or preferably, a price premium. On the other hand, since it is by no means certain that the domestic market will embrace certification, a "wait and see" response is equally rational.

In the case of high value-added timber products, it is the final consumer who is most likely to influence positively the uptake of certification. High value-added timber products include items such a finely crafted furniture and interior decorations, where the visual characteristics of the timber are paramount. As such, they tend to be one-off or short-run items which attract a price premium. Their appeal to the final consumer comes from inherent qualities, such as the timber grade and the craftsmanship used. It is not difficult to imagine how sustainable forest management would fit comfortably as part of broader notions of quality. The high prices such items attract also makes it easier to absorb the costs of certification into the final product.

A mixture of motivations

The above categories of altruistic, pragmatic and commercial farm forestry are not necessarily mutually exclusive. In practice, many individual farm foresters have a mixture of altruistic, pragmatic and commercial motivations. An example of how different motivations for farm forestry are intertwined is provided by one farm forester:

> I grow trees to provide shelter to my stock, and act as a windbreak. I only grow indigenous species, essentially for environmental reasons. I don't like pine – they should be banned. I also thought there was more of a commercial future in hardwood. There is an anticipated world shortage of high rainfall timber, and gum offers a better potential to meet this demand. Plantings were first simply rows of trees, but the plan is to gradually spread them over the grazing land. The intention would be to select the better trees for logging, hopefully targeting high value-added, niche markets.

One Australian farm forester, Rowan Reid (1999), has encapsulated neatly the integration of various motivations:

> Forget the farm forestry definitions you've read. Farm forestry is really about farmers choosing to commit their resources to the development and management of forests for, among other things, commercial return. So, when it comes to spending time and money on the establishment of and maintenance of trees for land protection or shelter, it is not surprising that many farmers are asking whether farm forestry might be a means of getting a dollar return from these same trees. … Farm forestry might just make landcare a good financial investment for both the farmers and the Australian community. So, whether it is oil mallee plantations for salinity control, managed private native forests for biodiversity protection, belts of pruned sawlogs for shelter, or fodder trees grown in firebreaks, farmers are designing "win-win" farm forestry options for their own farms.

Reid also highlights the undesirable practical outcome of separating commercial and environmental benefits of growing trees on farms by pointing out that with farmers juggling many commitments, both financial and otherwise, it makes perfect sense to seek multiple benefits from farm forestry practices. He describes the success in the case of riparian buffer strips, where native (but not necessarily locally indigenous) species were planted to yield higher quality water, wildlife habitat and commercial timber on previously degraded land adjoining water ways. Reid concludes by referring to the importance of commercial incentives as a primary driver of farm forestry practices which are complementary to the community's aspirations for landcare.

One farm forester noted that rainfall patterns can have an important role in shaping the motivations for farm forestry activities, in particular, suggesting that:

> In high rainfall areas, economic motivations dominate, and in low rainfall areas environmental motivations dominate.

From a certification perspective, however, notwithstanding the potential mixture of motivations in practice, the overriding issue is that of commercialisation. The greater the degree of commercial intent on the part of the farm forester, the greater the relevance of certification. Equally, the degree of exposure to export markets, particularly in Europe, will also be an important consideration.

A heterogeneity of forest types

In addition to a heterogeneity of motivations for engaging in farm forestry operations, there is also a heterogeneity of forest types both *within* and *between* those forestry operations. Highly commercially orientated plantations, for example, tend to specialise either in one species of eucalypt hardwood such as shining gum or blue gum, or in the case of softwoods, the exotic radiata pine. In the case of small scale farm forestry, however, just as they are more likely to possess a mixture of motivations, so too are they more likely to grow a much wider variety of tree species, and forestry circumstances, including regrowth and old growth along with or instead of plantation forestry.

Geographical dispersion

The widespread geographical dispersion of farm forestry has a number of implications, both positive and negative, for the adoption of certification processes. On the positive side, certification offers those geographically isolated farmers, which have a commercial intent, a greater opportunity to

promote their products in remote markets. It may also be a means of accessing progressive and up-to-date management practices they might not otherwise be exposed to.

On the negative side, the costs of certification, given the potential for higher transport costs, may be more expensive in isolated regions. Further, it may be difficult to successfully organise cooperative "group certification" arrangements (a concept we discuss in detail below) among geographical isolated farms as a means of reducing those costs.

More importantly, however, geographical isolation can make farm forestry operations less commercially viable. For example, all of the pulpwood joint ventures with farm foresters that have arisen to date have been within relatively short distances of major pulping facilities. Unless a farm forestry operation is relatively accessible to such a facility, its commercially viability is undermined (this may not be as critical an issue for sawmill timber with the advent of small, mobile mills, however, transport costs will still be greater for geographically isolated farm foresters). As we noted earlier, it is the commercial aspect of farm forestry which has the most potential benefit from certification. So to the extent that geographical isolation compromises commercial potential, it may also lessen the attractiveness of certification.

Lack of sustainable forestry management expertise

A particular problem associated with the adoption of sustainable forestry management and certification in the farm forestry sector is the very limited resources and expertise available to many individual land-holders of smaller farm forestry operations. The consequences of this are twofold:

- many of the smaller land-holders are ignorant of international and national sustainable forestry management developments, such as the Montreal Principles; and
- even to the extent that such land-holders *are* aware of sustainable forestry management criteria and indicators, they lack the necessary expertise to implement them in their particular operations.

The exceptions to this scenario are those farmers that have entered into forestry joint ventures with private and/or public organisations, and in so doing, have been able to tap the considerable expertise of their partners. This expertise may include the implementation of sustainable forestry management principles and practices.

In our fieldwork, for example, we were not able to identify any farm foresters not participating in a joint venture that had in place a written environmental management plan for their operations. Although most acknowledged the desirability of such a practice, the common refrain was "I keep it all in my head". A systematic and comprehensive record of practices was even less evident. And yet, both of these practices are essential requirements of sustainable forestry management and continuous improvement. What does this mean for certification?

Three conclusions may be drawn from this. First, it is highly unlikely that many farm foresters, with the exception of those in joint ventures, would be eligible for certification in their current circumstances (irrespective of the model used). Second, this is an argument for the application of certification as a means of enhancing the practices of those farmers. Third, any certification scheme used in the farm forestry sector must be appropriately pitched at a simplified level if it is to have any chance of being adopted by a majority of farm foresters. These themes will be explored in more detail in Chapter Four.

In addition to limited information about sustainable forestry management, the issue of certification has also failed to register in the Australian farm forestry sector. This is despite the major international developments in certification highlighted above, and considerable debate by government forestry departments and industry associations about the merits or otherwise of certification. In fact, not one farm forester interviewed was aware of the issue of certification as it applied to sustainable forestry management. Many understood the concept of certification in a general sense, and cited cases

relevant to agriculture such as “cattle care” and food safety auditing, but were unaware of the forestry example.

Limited resources

Periodically, farming sectors in Australia confront tough economic times. This applies equally to those engaged in farm forestry. This means they may have less resources to devote to the introduction of farm forestry operations, and their subsequent sustainable management.

For example, one issue to emerge from interviews with a very wide range of farm foresters is the high up front costs of establishing forestry plantations. This can act as a powerful disincentive to the adoption of farm forestry, particularly commercially orientated plantations, even though in the longer term, management costs compare very favourably to other agricultural pursuits. Prices quoted varied from $1,000 to $1,500 per hectare (for full contractual services). This represents a substantial financial hurdle to most farmers/property holders, particularly given the long-term nature of the investment. There are three ways farmers can overcome these high up-front costs.

First, they can provide their own labour. This removes the requirement to pay external contractors, although they still need to purchase some products such as seedlings and fertiliser. The main limitations of farmers providing the labour are that it diverts them from other productive farm activities, and is not suited to larger farm forestry operations such as commercial plantations.

Second, they may rely on external sources of funding from government grants bodies. In most cases, this has been provided by Farm Forestry Programs and Natural Heritage Trust funding through various programs and agencies. Such programs are not fully subsidised, as individual farmers are required to provide some form of in-kind support, usually valued at 50% of the project. However, they do not require a cash input, thus overcoming the initial “lumpy” investment requirement.

Third, they may enter into joint venture arrangements, where the joint venture partner agrees to carry some or all of the initial investment burden in return for some or all of the mature “crop”. The two most prominent examples of joint ventures are private pulp companies and state government forestry departments. The precise arrangements of each joint venture are formalised in a contract. Some contracts may emphasise an annual “rent” accruing to the farmers, others may split the final harvest between farmer on the joint venture arrangement, and yet others may be a combination of both. Once they have participated in a farm forestry joint venture, farmers may then chose to initiate further plantings, without external support, but this is unlikely to occur without the joint venture impetus.

A related disincentive to that of the high-up front costs of farm forestry, essentially for those foresters engaged in commercially orientated operations, is the long-term investments cycle. Even the fastest growing Eucalypts, such as Shining Gums, take approximately 12 to 15 years to reach maturity. This is long time to wait for a return on an investment, and is therefore a high risk investment (as noted above, one being the growth of Christmas tree pines).

The net effect of the financial investment characteristics of farm forestry in combination with the marginal nature of many agricultural operations, means that the capacity to devote significant resources to sustainable forestry management and subsequent certification may be limited. Consequently, for certification to be a viable option for farm forestry, the cost of certification itself, and the management practices it entails, must be kept to a minimum. Of course, certification has the potential to deliver financial benefits to the farm forester, but these are likely to spread over the longer term.

Information

There is a substantial divide in the level of information about, and understanding of, the certification process between, on one hand, larger, industrial forestry enterprises and, on the other hand, smaller, farm foresters. This was evidenced in the interview process where very few managers/owners of

small, farm forestry operations were aware of the certification issue, and in the case of the few who were, this awareness lacked sophistication. In contrast, larger forestry enterprises, particularly those with an international reach, have been more actively engaged in the certification debate, and consequently, are more familiar with its technical and policy implications. The lack of awareness of certification on the part of small farm foresters was clearly articulated by one industry respondent when he stated that:

> Small growers don't have much of a perception about certification – they may have heard something, but don't know a lot. It's hard for them to conceptualise how certification actually works. What's it going to cost me? What's it going to give me? How will the practicalities of labelling occur? These are the kinds of questions they don't have the answers to.

This information divide is further exacerbated by the greater experience of larger, more sophisticated forestry enterprises with inspection and audit processes generally, and the intricacies of forest management and marketing specifically (Thornber, 1999).

Despite smaller farm foresters being at a general disadvantage when it comes to knowledge of the certification process, there have two potential information strengths. First, those farm foresters operating mixed farms may have considerable experience with certification and other quality control systems in a variety of alternative agricultural contexts. For example, Cattle Care is a sophisticated certification scheme designed to prevent the accumulation of chemical residues in cattle carcases. Those farm foresters with this kind of experience, although not familiar with forestry certification *per se*, demonstrated a high level of conceptual understanding and were more "comfortable" with the notion during interviews. For example, one respondent stated that:

> Forestry certification sounds pretty much the same as the audit and verification processes that are becoming standard practice on a modern farm. Whether you like it not, this is the way of the future, and the market demands it. We just have to respond to that. Personally, I think it is a good thing, and although I will complain about the cost as much as anyone else, reckon it will improve management practices.

Second, those farmers that have entered into joint venture arrangements with either plantation companies or pulp and paper companies are able, to a greater or lesser extent, to draw on the in-house management expertise of their joint venture partners. Most of these companies have extensive quality control experience, including with, for example, ISO 14001. For example, an blue gum plantation company active in Western Australia, ITC Timberlands Limited, intends to obtain ISO 14001 certification for its entire operations. It is unlikely that such farm forestry operations would be at a certification information disadvantage.

Value-added forestry products

Many farm foresters interviewed highlighted their intentions to derive higher value-added timber products from their operations. As we noted above, this includes low and high grade saw logs and engineered timber products. The attractions of this approach to commercial farm forestry is based on the belief that it will provide a far greater investment return, and obviate the need for clear felling (as may be required, for example, in supplying pulpwood). One prominent farm forester stated that:

> As far as I am concerned, this forestry project is about setting up my retirement. I am not interested in supplying the pulpwood market. The best way I can make money out of my trees is to sell each one individually, as a mature, high quality product. That way I can triple my income.

The value added option offers the farm forestry sector a key point of differentiation from larger government and private forestry operations, which have tended to emphasise or focus on less value added options, such as pulpwood. This perhaps explains partly why the latter groups have in the past been reluctant to pursue certification. This a situation that may not be sustainable, however, with a

number of respondents expressing concern about the long term market viability of pulp orientated blue gum plantations. One respondent, for example, claimed that:

> Some growers in this region have markets, and some don't. This is a cause for concern. At the moment, plantations are being driven purely by tax deductions. We need to explore different options, and value adding – some growers are looking at forming cooperatives to buy wood, others are looking at milling on site. But these still require development.

The potential emphasis on value adding provides the farm forestry sector with an opportunity to gain a distinctive market niche and in so doing, to gain through certification a marketing advantage for their timber products. As we noted above, the attractions of certification are far greater for higher value-added timber products, irrespective of whether these products are marketed either domestically or internationally. Consumers purchasing expensive furniture and other timber products are far more likely to ascribe value to the inherent quality of the timber used, which may include questions of sustainability.

Some in the farm forestry industry view the focus on pulpwood as a negative for the industry. For example, one respondent stated that:

> Certification for timber quality is being held back by pulpwood – they don't care about quality. But for saw logs, [we] need to ensure quality.

Two potential hurdles to value adding in the farm forestry sector are, first, questions over the quality of hardwood plantation timbers, and second, an absence of sophisticated market expertise. In terms of the first hurdle, several respondents raised concerns about the quality of eucalypt hardwoods as a high quality saw log timber. For example, one respondent stated that:

> Because there are so many blue plantations going to pulpwood – mostly going for chip-wood to the Japanese market – we want to increase the proportion going to sawmills for value added. But we don't know how good a hardwood it is. It requires careful drying. Now we are looking at other species for hardwood, mainly for saw milling where it is either sliced or peeled for veneer or radial sawn. We also, after starting at 1000 [trees] per hectare, have dropped that back to 800 [trees] per hectare.

Similar concerns were raised by other industry respondents about the quality of saw logs from the shining gum species popular in that region. In particular, it is claimed that some of the core fibres lack strength and there is a tendency for "hollows" to form, thus undermining it potential as anything other than a pulpwood product. Apart from specific concerns about the quality of blue gum and shining gum hardwoods, it is generally acknowledged by those in the industry that many farm forestry operations, particularly those run by smaller farm foresters without joint venture partners, that creating and maintaining quality trees is a common problem, thus undermining attempts to generate high value added forest products.

What is the relevance of certification to the increasing quality of farm forestry hardwood timber products? Whilst it might be only part of the solution, in addition to ensuring improved environmental outcomes, the discipline of instituting environmental management systems can have a positive influence on management practices generally, including those that are relevant to the quality of harvested timber. These might include, for example, appropriate thinning and pruning practices to reduce competition and overcrowding and to remove low quality specimens.

In terms of the second hurdle, although smaller farm foresters might have the appropriate timber products, and the interest, to target high value added product niches, they may lack necessary marketing skills. Some studies have concluded that, for example, community based forestry operations in developing countries are at a competitive disadvantage to larger, more sophisticated forestry enterprises when it comes to "hawking their wares" in international markets, even where there is demand for their products. For example, one small forestry enterprise in Mexico had

difficulty competing with larger enterprises due to deficient marketing and management expertise (Thornber, 1999). It has been reported that a concern about a potential lack of quality control "… was one of the reasons why UK retailers decided against sourcing tropical timber direct from certified community producers, and instead favoured larger and more reliable producers" (Thornber, 1999). It is possible that many smaller farm foresters in Australia may suffer a similar fate, particularly where there is limited or no external support from joint venture partners. Certification may assist such farm foresters overcoming their marketing disadvantage.

Drivers of certification in farm forestry

Having considered the characteristics of the farm forestry sector and its implications for the adoption of certification, we turn our attention to the variety of drivers of certification which may impact on farm forestry operations in Australia. The source of these pressures may be regulatory, commercial or political in origin.

Commercial pressure

There is a significant and growing demand from consumers of forest products, at least in some countries, for timber derived from sustainably managed forests. Certification and labelling provides one mechanism by which this demand can be satisfied. An authenticated product provides both consumers and retailers with confidence that the claims of sustainable forest management are legitimate and that the product did indeed come from such a source. We noted above, for example, how several buyers groups have been formed in Europe and North America with the express aim of purchasing independently certified timber, in order to gain a market edge by meeting consumer demand.

Presently, this commercial pressure is most evident in European Union countries where it is estimated that there is a significant unmet demand for certified products. For example, a survey of German consumers indicated that the overwhelming majority were prepared to purchase environmentally preferred products over other products if it was relatively easy to do so. One study by Ozanne and Smith (1998) of consumer attitudes towards certified wood product had the following findings:

> One consumer segment of approximately 25 million Americans had very positive attitudes towards certified forest products and indicated they would be likely to seek out such products. … In addition, this group would place the most trust in the certification claims made by an environmental organisation. An additional two segments, representing 56 million Americans, may be potential consumers of certified wood products.

Whether this consumer enthusiasm extends to them paying a price premium remains a moot point. However, some recent studies have found that consumers at least report a willingness to pay higher prices for certified timber. Some local governments in the United Kingdom have issued purchasing guidelines which allow for a 5 to 10 per cent price premium to be paid for certified timber products, while in Oregon, certified wood products are delivering a price premium in the order of 10 to 40 per cent in the construction of private homes. At present, however, these are relatively isolated examples and in the large majority of jurisdictions and circumstances there is little evidence of any price premium.

Nevertheless, there is evidence that certification may give rise to an enhanced market share and this in itself may be sufficient to motivate retailers and suppliers further up the forest product supply chain to exercise a preference in their purchasing policies for certified timber (as evidenced by the practices of buyers groups and major retailers such as Home Depot). Some retailers may also view forestry certification in a wider context of the "image" they wish to present to their consumers and the wider community. Taking an ethical stance on particular issues such as forest sustainability, which attract a substantial amount of consumer and activist attention, may be used by retailers as an

opportunity to engender a greener profile of their activities as a whole. Of course, retailers may also have a genuine desire to improve environmental outcomes.

Large retailers in particular, can wield enormous power over their upstream suppliers, as we have seen in the food agricultural sector. For example, in the area of food safety, it is common for supermarket chains to insist on their upstream producers and processors meeting relevant food safety standards (which in many ways is an equivalent process to sustainable forestry certification). Although the economic power of timber retailers pales in absolute terms when compared to supermarket chains, in relative terms they may possess similar levels of market power regarding forest products.

Government pressure

Another potential external driver of certification is the application, or in some cases, the threat of government environmental regulation of forestry management, and an insistence on specific management practices judged likely to achieve sustainability. There are several possible public policy related reasons why governments or government bodies may choose to promote certification.

In particular, government may view the certification/sustainable forest management approach as a means of overcoming or avoiding many of the problems associated with more traditional regulatory options, such as: difficulties in monitoring geographically diffuse and potential remote operations; incomplete knowledge of the workings and circumstance of regulated industries; excessive costs associated with monitoring, enforcement and prosecuting non-compliance; economic costs associated with inflexible and uniform standards; a build up of regulatory resistance on the part of the regulated community; and a lack of incentives for industry to achieve any environmental improvements greater than the statutory defined minimum.

Certification would be attractive if it offers the opportunity for government authorities to overcome at least some of these shortcomings, and for four specific reasons. First, certification and its emphasis on process standards may be used to foster environmental improvements over and above existing minimum standards. Second, because they place greater ownership with the land-holder, they may assist in overcoming regulatory resistance. Third, some of the costs associated with monitoring and enforcement may be transferred to the participating industry, thus freeing up scarce resources. And fourth, greater flexibility might allow participating firms to seek out the most cost-effective improvements.

Governments may also consider that the certification approach fits comfortably with the prevailing policy paradigm of smaller, smarter government, and an easing of restrictive and unproductive regulation. They may also view trade standards which favour certified forest products as a relatively painless way of gaining domestic kudos without have to face the potential electoral wrath of constituencies located in international jurisdictions.

Peer pressure

In some cases, peer pressure, often formalised through an industry association, acts as a major external driver of the certification process. The most obvious example of this is the Sustainable Forestry Initiative. As we noted above, this scheme has been introduced by a nationwide industry association in the United States and requires all members to conform to a set of industry guidelines for sustainable forest management. It is distinctive in its emphasis on self-regulation rather than independent accreditation.

In other industry sectors, such as the chemicals industry and the nuclear power industry, peer pressure can be a potent influence if there is a strong sense of a “community of shared fate” (Gunningham and Rees, 1997). What this means is that the commercial prospects of the many may be undermined by inappropriate actions of the few (or even just one) rogue elements. For example, in the case of the nuclear power industry, one serious reactor meltdown could result in the authorities

deciding to phase out the entire industry. In such circumstances, there is a strong incentive for each company to place pressure on its peers to maintain industry wide standards. To what extent this analysis applies to the forestry sector remains unclear, but it is at least credible that the highly visible environmentally irresponsible actions of a single forestry company (for example unconstrained clear felling of sensitive areas) could trigger a political reaction which would threaten direct government intervention in the practices of the entire industry.

There are further reasons why industry might support the formation of, or at least encourage its members to participate in (even if reluctantly), certification programs. Industry has long been a vocal critic of traditional government regulation. Obviously industry would support policy approaches that offer a reduction in compliance costs, greater flexibility and the potential for less government interference in its day to day activities. In this context, they may consider that the establishment of certification is an effective means of avoiding, or at least delaying, potentially more draconian direct regulation.

It is also possible that some in industry may view certification in a purely cynical light, as a means of projecting a "green" image without actually achieving any tangible benefits. In this regard, it is possible that some industry associations may choose to develop their own certification programs to serve these ends.

In Australia, the major industry organisation representing farm foresters is Australian Forest Growers. They have already begun the process of introducing another form of forestry certification, specifically addressing the quality of tree pruning. This has some potential overlap with sustainable forest management certification, and is described in Box 5 below.

Box 5: Pruning Standard Certification

Australian Forest Growers has introduced a certification system for plantation pruning standards. The standard is derived from an existing New Zealand system and is intended to improve grower management practices such that a higher quality timber product can be harvested. Specifically, the standard requires that plantations be pruned to a distance of two metres, with no more than 800 trees per hectare and that trunks be an average diameter of 20 centimetres.

The certification component of the pruning standard is based on three levels of audit. First, a farmer can self-audit their own operations. Second, neighbours can audit each other (or use another local auditor). And third, is the use of national Australian Forest Growers auditors. In all cases, there is supposed to be a record kept such that a particular auditor can be traced back to a particular plantation operation. National auditors have the option of conducting random spot-checks.

Could this pruning standard be the genesis of an Australian Forest Growers sustainable forest management certification scheme? Conceptually there are similarities between the two approaches, however, the latter is a potentially far more demanding and sophisticated system. To date, the pruning standard has been a mixed success, with only a minority of growers adopting it, and virtually all of these located on the Eastern Coast of Australia. Part of the problem is that there is an apparent lack of incentives on the part of growers to adopt the standard. It is claimed, for example, that it does not generate a direct price benefit. However, it may have broad quality marketing advantages. It is not obvious the auditing system introduced with the pruning standard would satisfy market demands for certification credibility. The question of possible Australian Forest Growers management of certification systems is addressed in Part IV below.

Source: Interview with the Vice President of Australian Forest Growers, April, 2000.

In addition to more formal industry associations, local networks between farmers may be, arguably, an even greater source of peer pressure to engage in forestry certification. This may not be an overt form of pressure, rather a more subtle "keeping up with the Jones" whereby farmers learn from each other's experiences, and eventually, adopt the farm forestry practices of the leaders. This process could be aided and abetted by government grant bodies and their recipient implementing organisations such as Greening Australia and the various regional plantation committees. Such groups hold regular regional farm forestry field days and information sessions, and this is a key source of information about relevant issues, including that of certification. In Western Australia, for example, there is considerable interest in plantation cooperatives, and this has coincided with small but growing awareness of certification and its potential benefits:

> People are starting to get more interested [in certification], and want a "stamp" to say that it is "farm grown" – there is real pressure to go towards plantation. Certification offers marketing advantages and the logical step is through a cooperative arrangement.

Despite this is latent enthusiasm for certification to be advanced through cooperative approaches, it was also emphasised that: "some farmers want to be involved with a cooperative and some definitely want go it alone."

Community pressure

Forestry operators, including those engaged in farm forestry, are not immune to the power of community opinion, or the particular views of environmental organisations as representatives of community opinion. Indeed, it is arguable that in the long term all private activities require the acquiescence of the community to continue their operations. This has been recognised, for example, by the chemical industry worldwide when contemplating their future sustainability in the face of a number of major disasters at chemical facilities, including Bhopal. This led to the adoption of the groundbreaking Responsible Care program by that industry (Gunningham, 1995).
Not surprisingly, environmental organisations have been amongst the strongest supporters of sustainable forest management certification, and certain organisations, most notably the World Wildlife Fund, have been active in developing certification schemes, including the widely recognised Forest Stewardship Council. It is interesting to note, however, that environmental organisations support for certification is not uniform, with some groups opposing it on the basis that it may be used to justify the continued exploitation of native forest.

The overriding reason why many environmental organisations promote the use of certification, is to generate environmental improvements in forestry management. Many environmental organisations are disillusioned with both the pace and degree of government environmental reform and recognise that many governments, far from pushing forward the boundaries of sustainable development, are actually going backwards. As such, many have come to view market based initiatives, such as certification, as providing greater and longer term opportunities for environmental improvement.

Carbon trading and other environmental credits

The emerging issue of climate change will potentially have implications for sustainable forest management certification. Under the Kyoto Protocol of the International Convention on Climate Change, there is an intention to create an international trading regime in carbon credits. Some preliminary work has taken place on establishing carbon trading mechanisms in Australia (Australian Greenhouse Office, 1999). For example, the NSW Government has previously announced its intention to implement a domestic version of carbon trading, and has explored the use of the Sydney Futures Exchange to provide a formal mechanism for the trade of carbon credits (the giant Tokyo Electric Power Company signed a $2.6 million plantation project with the New South Wales Department of State Forests).

Of course we must acknowledge that Australia is not currently a signatory to the Kyoto Protocol. Although not necessarily preventing domestic arrangements, this will have the likely effect of substantially delaying any trading mechanism. Nevertheless, the eventual introduction of carbon

trading would provide an incentive for companies (for example, power utilities seeking to offset their fossil fuel emissions) to finance tree planting to create carbon sinks (Australian Greenhouse Office, 1999). As privately owned (or leased) farming land is the most likely beneficiary of this development, this could result in a massive boost in farm forestry operations.

Of potentially more immediate concern to farm foresters are a range of other environmental issues embracing some for of trading mechanism through which forestry may generate credits. The most pertinent example of this is salinity credits. The continually encroachment of salinated land has forced institutions, including for example the Murray Darling Basin Commission, to contemplate the introduction of a tradeable salinity credits between individual land holdings. Under such a regime, farm forestry has the capacity to reduce water tables, a key cause of salinisation, and thereby obtain a salinity credit for the landowner. This could then be sold to other landowners that have a salinity debit. It is possible that such a trading concept could be extended to address other environmental issues, such as the preservation of remnant vegetation.

There is substantial synergy between the development of carbon trading, and other environmental trading systems, and the application of certification. Central to all is the issue of verification. Those organisations and institutions funding farm forestry for carbon or other environmental credits will have an interest in ensuring that the subsequent operations meet appropriate sustainable management standards. Certification provides a vehicle for achieving this. In addition, carbon/environmental trading necessarily requires a system of verification to ensure that carbon sinks (in the form of forests) or other environmental attribute (such as suppressing water tables) are genuine and long term. This opens up the prospect of an expanded forestry certification scheme to address forestry sustainability alongside carbon and other environmental credits. Importantly, no study in Australia, let alone internationally, has addressed these dual objectives.

The potential for carbon trading in particular is already having a direct impact on certain commercial farm forestry activities. For example, recent joint venture plantations with the NSW Forestry Department include provisions for allocating a percentage of the “carbon credit” to the individual farmer. The issue of carbon trading is increasingly becoming a hot topic among farm foresters generally. Our fieldwork revealed that many were under the impression that carbon trading would be a “gold mine” for farmers, although far less were clear on how this might take place. There was also little understanding as to when carbon credits might become a viable currency. According to one correspondent, for example “carbon credits are generating interest and confusion”.

Most farm foresters interviewed supported the introduction of carbon and other environmental credits and viewed them as an opportunity to enhance farm forestry. They also recognised the need for external verification (such as forestry carbon sinks), and the potential links this might have with certification.

Conclusion: Does certification matter to farm forestry?

In order to answer this question, it is useful to summarise some of the key findings to date. First, certification is a growing worldwide phenomenon that has now reached the stage where its continuing progress and policy importance is accepted as inevitable in mainstream forestry circles. Second, to date, Australia is one of a minority of developed countries that has resisted going down the certification road. Third, farm forestry is a growing sector in the Australian economy but small farm foresters have not figured prominently in certification debates to date. Fourth, there are particular characteristics of the Australian farm forestry sector which influence both the desirability of certification, and how it should be adopted. Fifth, a range of drivers are likely to increase pressure for certification internationally and in Australia. Sixth, developments in certification internationally to date have tended to ignore the particular circumstances of small-scale farm forestry enterprises.

One policy option for farm forestry is simply to ignore the certification debate and do nothing. However, there are number (although at this point, not overwhelming) reasons for not adopting such an approach. First, the pressure for certification, far from dissipating in the future, is likely to grow. In short, certification is not going to go away. Second, certification offers some potential benefits to farm foresters, particularly those engaged in commercial activities: improved management practices; higher productivity; greater access to markets (internationally and to a lesser extent, domestically); and higher value timber products. A key factor in this regard will be the final destination of Australian farm forestry products, and whether such markets are, or are likely to become, sensitive to certification. Third, taking an active stance on certification enhances the chances of shaping its application to the particular circumstances and needs of farm foresters, as opposed to having it imposed upon them at some later date, perhaps in a form that is inconsistent with their interests. In short, there may be a greater opportunity for farm foresters maintain at least partial control of their own destiny.

If it is indeed determined that the case for certification is sufficient to overcome possible negatives, such as costs and administration for farm foresters and hesitancy over engagement with environmental organisations, then the key policy issue becomes: precisely what positions and strategies *should* farm foresters adopt in relation to advancing the certification debate and eventually implementation? We address this in Chapter Four below.

4. Options and Strategies for Adoption

In this chapter we consider options and strategies for the adoption of certification in the Australian farm forestry sector, paying particular attention to the needs and circumstances of smaller farm foresters. As evidenced by the proliferation of certification schemes worldwide, however, the best approach to certification is by no means obvious. Is there a single preferred solution, a range of equally preferred options, or particular options suited to particular farm forestry circumstances? A failure to make the right choice may have serious long-term ramifications, resulting, for example, in Australian farm forestry products being rejected in some markets or by some consumers, or alternatively, by imposing unrealistic management burdens and excessive costs on participating farm foresters.

The issues surrounding the potential adoption of certification in the Australian farm forestry sector are addressed under following three headings:

- Ownership and participation.
- Structure and content.
- Implementation.

Ownership and participation

As noted in the introductory chapter, the certification of forestry (or forest products) has attracted considerable controversy both internationally and domestically. Nowhere is this more evident than in relation to the ownership of, and participation in, certification. Specifically, who has primary carriage of certification?, which stakeholders are able to contribute to and influence the development of certification?, and what stages of the certification process are open to external input? Not surprisingly, the resolution of these issues poses the most politically vexed hurdle for the Australian farm forestry sector and has the greatest potential, one way or the other, to antagonise different stakeholder groups.

Who should own the scheme?

Arguably, at least from a political perspective, the most significant issue to be resolved is the question of certification ownership. In other words, which institution should have overall administrative responsibility for certification, in particular, to determine the substance of certification requirements (including performance and process standards), to accredit the certification process (authorising professional certifiers to conduct audits of individual forestry enterprises), and to ensure standards are maintained (through for example, monitoring and review and chain of custody). Clearly, the institution which assumes ownership responsibility is in a powerful position to influence the direction and content of a certification scheme.

Another important aspect of the ownership question is who should bear the administrative costs of running the certification scheme (as distinct from costs borne by individual growers in the process of receiving certification). An indication of different funding structures is provided by the Forest Stewardship Council and the Sustainable Forestry Initiative.[14] In the case of the former, 85% of the funding is provided by private foundations, with the remainder coming from membership and accreditation fees. In the case of the latter, 82% of the funding comes from industry members, with the remainder coming from grants and revenues.

Based on the international experience of certification to date, four clear ownership models emerge. First, is the industry-based model, where an industry association effectively administers the scheme. Examples of this approach include the Sustainable Forestry Initiative and Pan European Forestry

[14] *Comparative Analysis of the Forest Stewardship Council and the Sustainable Forestry Initiative Certification Programs*, Meridian Institute, October 2001, http://www2.merid.org/comparison/

Certification. Certification in this instance has substantial parallels with industry self-regulation, with all the associated benefits and compromises that this brings (see for example Gunningham and Rees, 1997).

Second, is the environmental organisation model, the most obvious example of which is the Forestry Stewardship Council. It should be noted, of course, that Forestry Stewardship Council is not exclusively operated by representatives of environmental organisations, as it does have a significant industry and retail presence on its board. However, it clearly contains a far greater environmental organisational presence than the other certification ownership categories. The environmental model to certification is not confined to the forestry sector, with new initiatives appearing in fisheries, for example, with the formation of the Marine Stewardship Council (World Wide Fund for Nature, 2000).

Third, is the government model, whereby a national government either establishes and operates a certification body, or more likely, provides the funding for a notionally independent body specifically for the purpose of overseeing the certification process. Examples of this latter category are to be found in Malaysia and Indonesia. In the developed world, the Kerhout Foundation (although strictly speaking not a certification scheme) may be considered as part of this category, as it receives substantial financially backing from government.

Fourth, a standards organisation, usually pre-existing, assumes responsibility of administering certification. The most prominent example of this is the Canadian Standards Association. There may, in fact, be some overlap between the third and fourth categories, as some standards associations are at least partially dependent on national government funding (this includes, for example, Standards Australia). It is likely, based on current indications, that the proposed Australian Forestry Standard would fall into this category, with Standards Australia (the standards development body) endorsing the development of an Australian Forestry Standard (2002):

> To ensure that an Australian Forestry Standard is developed in accordance with accepted Australian and international practices, the Australian Forestry Standard Steering Committee has formally sought accreditation with Standards Australia as a Standards Development Organisation (SDO). In order to achieve an Australian Standard, the Steering Committee as an SDO, must be able to demonstrate a participatory process and a structure that gives transparency, balance and openness such that the outcome will be equivalent to those standards that are developed by Standards Australia.

From the perspective of Australian farm foresters, it is not obvious which particular ownership structure is the most desirable. In fact, this was one of the issues that generated the most divergent responses during discussions with industry representatives. Some farm foresters supported government involvement, while others were vehemently opposed to it. Some supported industry oversight, while others thought the industry was too disorganised. Some nominated Australian Forest Growers as the preferred industry organisation, others had not even heard of it, or thought it was too dominated by commercial interests outside of farm forestry and/or larger industrial style farm forestry. Some were very troubled at the thought of “greenies” controlling things, while others recounted positive experiences with more “moderate” environmentalists. The only one suggestion for an ownership structure that did not generate highly polarised responses was the administrative involvement of an independent standards organisation.

Obviously, there are pro and cons with each ownership/administrative approach. For example, industry ownership may give greater control, but assumes a reasonable level of sector organisation and integration, may undermine perceptions of the credibility and independence of the scheme, and may costs growers more in membership fees to cover administrative costs. Environmental organisation oversight has some benefits, not least its greater credibility in the market place and the broader community. It is highly likely, however, that environmental organisation involvement would result automatically in the Forestry Stewardship Council as the certification framework, as this is clearly their preferred option. This is not necessarily an inherently negative aspect, but, as highlighted above, it should be noted that many in the

broader forestry industry are ideologically opposed to the Forestry Stewardship Council, and its adoption could result in political friction (see below).

The government model has some of the negative attributes of industry schemes, principally a potential lack of credibility. However, it has the potential advantage of being the least costly option for industry. The use of an independent standards organisation, such as Standards Australia, is likely to be the least contentious of the four models, and would arguably be difficult to criticise for lacking in credibility and objectivity. A potentially thorny question is, however, who should pay for its development and administration as many of Standard Australia's activities occur on a cost recovery basis. If there is significant government funding support, however, this issue may not arise.

A common view amongst many farm foresters was that an overtly environmental perspective would not be conducive to accommodating the day-to-day realities of commercial operations. However, the majority of respondents did agree that environmental organisations should play some part in the certification management process "as long as it is only the moderate environmentalists". For example, one respondent stated that:

> … providing they were mainstream, responsible and sincere organisations, … would support environmental groups participating. [For example] there should be a role for greenies in a national accreditation body.

Whether environmental organisations would agree to participate in a certification scheme that they did not have primary carriage of is, however, a moot point. They may consider their objectives are best served by promoting the certification scheme that is most closely aligned with their political perspective, namely, the Forest Stewardship Council scheme. Although the international certification scene has been characterised by suspicion and rivalry between different schemes, recent/tentative moves towards mutual recognition, in particular the recognition of the United Kingdom's Woodland Assurance Scheme by the Forest Stewardship Council provides some hope however that a cooperative approach may ultimately prevail.

It may be possible to combine more than one ownership model, and thus compensate for their respective shortcomings, whilst simultaneously building on the respective strengths. For example, in the development of the Canadian Standards Association certification scheme, there was close involvement between the industry and the standards association. Once the scheme was up and running, however, the industry stepped back from administrative control. This provides a possible precedent for the Australian farm forestry sector, which could be active in the development of a certification scheme but employ a standards organisation, such as Standards Australia, to provide the necessary independence and credibility. Alternatively, a notionally independent certification body established with the financial and/or policy support of government could seek the engagement and/or imprimatur of an environmental organisation.

Potential resolution

Clearly, there is a need for some form of institutional ownership of certification in order to undertake day-to-day administrative tasks, to maintain standards with individual certifiers and to develop and refine relevant policies. However, taking the ownership question in isolation, it is only possible to rule out one of the four possible ownership structures at this stage: the government model. We can say this with confidence because the Commonwealth Government has effectively shown its hand in this regard by supporting the development of an Australian Forestry Standard that unambiguously places the administration of certification at arms length from government (in the form of the Standards Australia and the Joint Accreditation System of Australia and New Zealand). Unless this process completely breaks down, and the Commonwealth chooses to instead directly intervene, the government owned certification model is not an option.

Of the remaining three models, whilst not ruling any out at this point, we may however propose an indicative order of preference, from least to most attractive:

The industry model – the potential lack of credibility is a major detraction of this approach. It is also doubtful that the relevant industry association is in a position to assume an administrative role, nor is it obvious that the industry would have sufficient resources to fund the establishment of a new industry-based certification body.

The environmental organisation model – the only realistic option in this regard is the Forest Stewardship Council scheme. In order to employ this scheme, it would be necessary to establish a national working group to oversee its introduction. In fact, the Forest Stewardship Council (1998) is in the process of producing a comprehensive guide to the establishment of subservient national schemes, the "FSC National Initiatives Manual", which is a detailed step-by-step guide to certification implementation and ongoing management. A potential obstacle to this approach is the opposition amongst some farm foresters to the involvement of environmental organisations.

The standards association model – this approach drew the most support from farm foresters themselves, and also is the approach underpinning the Australian Forestry Standard process. It is also a model that has already been adopted in a country, Canada, with a not dissimilar political and cultural setting to Australia. Potential shortcomings of this approach, however, are that it may lack international recognition (and thus undermine its commercial value in export markets) and/or that it may be perceived by some as being too closely aligned with industry interests.

Taken in isolation, then, it is not obvious which of these three ownership structures would best suit the purposes of the Australian farm forestry sector, as there are strengths and weaknesses with each approach. To a large extent, a preferred ownership structure will be informed or dictated by the resolutions to other related policy questions. We examine these in more detail below.

Should the farm forestry sector develop its own certification scheme?

One potential policy response of Australian farm forestry to the certification question could be to develop its own, indigenous certification scheme. This would be one form of the industry certification model described above, and would be consistent with the proliferation of nationally based certification schemes. There also has been a precedent set in regard to separation of larger, industrial forestry interests from those of smaller, non-industrial forestry enterprises: the Pan European Forestry Certification scheme, and its subsidiary certification schemes, was to large extent created in order to protect the interests of the latter.

In many ways, the idea of an exclusively Australian farm forestry certification scheme is an attractive proposition, and one that should not be lightly dismissed. For example, it would give the farm forestry industry direct control over the nature of the certification adopted, and would allow it to be tailored to local circumstances and conditions. This is a pertinent issue given the dominance of the Northern Hemisphere in developing certification (for notwithstanding the origins of certification in concerns about unsustainable logging of tropical forests, the vast majority of certifications to date have occurred in Europe and North America), and the heavy emphasis on larger, industrial types of forestry enterprise. In short, there are serious risks that a Northern Hemisphere oriented standard might not only be inappropriate for Australian forests, but also to the smaller scale operations operating in much of the farm forestry sector.

As noted above, for example, under the Forest Stewardship Council scheme, which is the single largest certification scheme internationally, Europe and North America account for two thirds of the total area of certifications, with Sweden alone contributing around half (Forest Stewardship Council, 2000). Of the remaining one third of Forest Stewardship Council certifications, half have been in Central and South America, with only very limited certifications in Asia. Most other well advanced certification schemes, such as the Canadian Standards Association, Sustainable Forestry Initiative and Finnish certification initiatives are all located in Northern countries.

Another characteristic of international certification schemes to date, which could be of concern to Australian farm foresters, is their relative lack of involvement with plantation forestry. This can be explained by the origins of certification. Environmental organisations have concerns about the management of natural forests, and there are divergent views in the environmental organisations community about the relative merits of plantation forests. Certification initiatives to date focused principally on native forests. One consequence of this is that the principles and criteria of the various certification schemes have difficulty accommodating the different circumstances and environmental issues associated with plantation forests.[15]

A further advantage of an indigenous, industry controlled certification scheme would be the potential to give greater ownership of certification to the Australian farm forestry sector, or at least those that participate in its development. It is generally accepted in the wider environmental regulation literature that "ownership" can greatly enhance compliance (Gunningham, and Grabosky, 1999). It would also allow the sector to "cherry pick" the most successful and desirable elements of pre-existing international certification schemes, to compensate for their relative strengths and weakness (from the perspective of Australian farm forestry). It would also give the farm forestry sector a greater opportunity to distinguish itself in the market place, domestically at least, from native forestry on public land.

One example of an industry-based certification scheme is provided by the American Forest and Paper Association's Sustainable Forest Initiative, the details of which are described above. In essence, this is a form of industry self-regulation, although recently they have embraced the use of independent third parties to conduct their certification audits.

The New Zealand plantation industry provides an alternative industry certification model. It has already gone some considerable way down the path of establishing an indigenous certification scheme specific to plantation forestry (Griffiths, 2000). A key a feature of their approach, however, has been to involve environmental organisations during the development phase. Initially, they considered two certification options. First, the establishment of a New Zealand certification organisation, jointly managed by the industry and environmental organisations, and second, to establish a single certification platform for the industry (modelled on the United Kingdom Woodland Assurance scheme). The industry has now agreed on a multi-stakeholder process to develop a plantation certification standard for New Zealand. Significantly, it is intended that this standard will be compatible with that of the Forest Stewardship Council. This would give those plantation owners who desire it, the opportunity to use the Forest Stewardship Council logo – a potentially attractive proposition for those seeking greater access to international markets. The New Zealand industry anticipates that implementation of a plantation certification scheme will begin in 2002.

In Australia, the Australian Forest Growers is arguably the only body that is in a position to pursue a certification scheme specific to the farm forestry sector. According to the Vice President of Australian Forest Growers:

> Australian Forest Growers is considering a range of certification options. In particular, Australian Forest Growers has got the interest, desire and capability to devise and implement a certification system. However, it might need some extra resources. If it was a phased approach, then Australian Forest Growers could handle certification.

However, despite the considerable attractions highlighted above, there are two potentially significant problems associated with the development of an industry-based, indigenous farm forestry certification scheme. First, it assumes that the Australian farm forestry sector has the necessary

[15] In defiance of this trend, support for certification by some major plantation growers – notably Aracruz Cellulose in Brazil – and a recognition from within of some of the prevailing failings of certification, is now leading to an increasing rate of plantation certification. This is despite the concerns of some environmental organisations that plantation certification encourages clearing of native forest in developing countries.

resources and capacity to devote to the development of a standard, and the political cohesion to agree on a common format. As noted in the introduction, the farm forestry sector is currently characterised by a relatively low level of economic and institutional maturity, and by disparate and potentially antagonistic sub-sectors. For example, recent efforts by the Australian Forest Growers to institute a pruning standard with a certification component have only achieved mixed success (see below). Arguably, this experience does not bode well for industry level certification of the much more complex issue of sustainable forest management. In order for the Australian farm forestry sector to overcome its lack of organisation sophistication, it would almost certainly require an injection of external funds and expertise.

Second, in an increasingly crowded certification market place (internationally at least), there is a serious risk that yet another certification standard would go unrecognised and have minimal market impact. As noted above, the United Kingdom hardware retailer B&Q has already begun to react to this proliferation by benchmarking individual schemes against its own internal criteria. There is no guarantee that yet another certification scheme introduced by a relatively small Australian farm forestry sector would be viewed favourably internationally. Such a failure of recognition could undermine the very rationale of the certification approach, with its emphasis on consumer and retailer awareness and acceptance.

These hurdles may well prove too great to make the development of a uniquely Australian farm forestry certification standard viable. In any case, the convergence of many certification systems, and increasing moves towards the mutual recognition of different certification schemes, limits the scope to develop a truly unique scheme (in terms of the criteria and principles embodied in it).

Potential resolution

It may be beyond the capacity of the Australian farm forestry, and ultimately duplicative, to attempt to "reinvent the wheel" through the development of its own, unique certification system. And it is not clear that it would be advantageous to do so in any case, given the potential credibility and/or marketing problems of an overly parochial, industry run scheme.

However, the New Zealand plantation industry provides a pertinent example of how the Australian farm forestry sector could overcome these problems, and still retain at least partial ownership of a certification scheme. That is, it could form a strategic alliance with another certification scheme and/or institutional grouping. Such an arrangement could provide it with significant exposure in international markets, greater credibility, and much needed expertise and resources. Recent international moves towards comparability and equivalence should make this a reasonably straightforward process, at least from a technical perspective. The greatest challenges, however, are likely to be more political in a nature. We explore this issue in greater detail below.

Should the sector adopt a pre-existing forestry certification system?

One policy option for the Australian farm forestry sector is to adopt (or become a formal member of) a pre-existing certification system. The attraction of such an approach is that it could provide immediate recognition in some, if not most, international markets. This may be of crucial importance to a nascent farm forestry sector that lacks a significant international (or indeed domestic) profile, particularly where there is an intention to break into new market locations and/or niches. It may also reduce the amount of effort required on the part of the Australian farm forestry sector to develop and implement a certification standard both through an avoidance of the need "reinvent the wheel" *and* the potential to draw pre-existing administrative resources. A further attraction may be that professional and independent third party certifiers are much more likely to have experience with established, international certification schemes. This could be an important consideration in seeking the widespread implementation of certification, in the shortest possible time.

Although there are substantial benefits on offer from the adoption of an existing certification scheme, there are also a number of potential hurdles and/or disadvantages. The first issue to confront is which

scheme from the range of international approaches to certification should be adopted by the Australian farm forestry sector? Despite the recent proliferation of international certification schemes, only a minority may be applicable to Australian forestry circumstances generally, and the farm forestry sector in particular. A major problem is that many of the schemes are geographically/ nationally specific. These include, for example, the Sustainable Forestry Initiative, the Canadian Standards Association Scheme, the Finnish Forest Certification Scheme and the United Kingdom Woodland Assurance Scheme. Such schemes are tailored to the needs and circumstances of both the foresters using them and the forest types *of their particular regions*, in most cases Northern Hemisphere temperate forests, and may not be readily transferable to Australian farm forestry and Australian forest types. In addition, it is not immediately obvious why such schemes would wish to directly engage with foreign forestry enterprises when a fundamental reason for their existence is to promote their domestic industry over potential market competitors. In short, why would they choose to engage with and support the opposition?

If we exclude, then, the national specific certification schemes, that leaves three major trans-national certification schemes: ISO 14001, Forest Stewardship Council, and Pan European Forestry Certification. Of these, as noted above in Chapter Two, ISO 14001 has a structural impediment that severely compromises its attractiveness: it cannot be used as a "product label". In other words, only the forestry enterprises can be certified with ISO 14001, *not their timber products.* The net effect is that ISO 14001 has a substantially weakened market appeal, as it would not be articulated down the supply chain to the final consumer. It is possible, however, that major commercial purchasers would give preference to ISO 14001 accredited forestry enterprises. We noted the potential above, for example, for multinational paper companies to require ISO 14001 accreditation of their suppliers (a development that is, however, unlikely to be imminent).

With ISO 14001 "out of the picture" as a viable certification scheme, at least in part, that leaves two major international candidates: Forest Stewardship Council and Pan European Forest Certification. Taking the latter scheme first, Pan European Forest Certification has considerable attractions from the perspective of the Australian farm forestry sector. These include the fact that it was developed specifically *by and for small scale forestry enterprises*, largely in response to a perceived failure of existing certification schemes to address their circumstances, and the fact that it has a strong industry focus. There are, however, three factors that may undermine its attractiveness.

First, its "strength" of having an industry focus is also a potential weakness in that it does not enjoy the support of environmental organisations. It may be argued that without such support, certified timber products have a lesser chance of making a significant market impact.

Second, Pan European Forest Certification is more of a form of *mutual recognition* than an actual certification scheme. That is, it is a vehicle for recognising subsidiary national certification schemes (as, for example, has occurred with the recognition of the Finnish Forestry Certification Scheme). This characteristic means that the Australian farm forestry sector would still be required to develop its own national scheme to be recognised under Pan European Forest Certification, thus lessening some of the attractiveness of adopting a pre-existing scheme in the first place (there may still be the benefit, however, of a higher international market profile, and the task of adapting Pan European Forest Certification principles and criteria to Australian farm forestry circumstances may be substantially less onerous than starting from scratch).

Third, although Pan European Forest Certification is not nationally specific, it is clearly European in focus. Despite this, it is apparently technically feasible for an Australian scheme to be accredited under the PEFC. The question confronting farm forestry is whether such an alignment would hinder attempts to forge a separate marketing identity.

The other potential international certification scheme is the Forest Stewardship Council. Certainly, this is the dominant certification scheme to date in terms of market penetration, product supply and geographical distribution. It also, arguably, has the most sophisticated set of sustainable forest

management principles and criteria, and the greatest expertise in applying these to a variety of geographical and/or national circumstances. As noted above, adoption and application of Forest Stewardship Council certification by the farm forestry sector would necessarily be preceded by the formation of an Australian working group of relevant stakeholders to develop a tailored certification strategy. Going down the Forest Stewardship Council route is also likely to be the quickest means available to the Australian farm forestry sector in seeking to implement certification, both as a result of the considerable resources and expertise available with the Forest Stewardship Council, and the fact that many international professional certifiers are already accredited with it (one respondent noted that there have also been recent examples of domestic professional certifiers seeking Forest Stewardship Council accreditation). It is, arguably, for these reasons that the New Zealand plantation industry is seeking formal recognition under the Forest Stewardship Council.

Are there any reasons why the Australian farm forestry sector should not choose to simply adopt the Forest Stewardship Council approach to certification, and thereby benefit from its considerable advantages? The major potential problem with the Forest Stewardship Council may not be technical, but political. Put simply, the fact that the Forest Stewardship Council has strong connections with environmental organisations, in particular the World Wildlife Fund, is a cause of significant concern for many in the forestry industry, including within Australia. As we noted above, there is concern in some quarters that the Forest Stewardship Council may be using certification as a means of gaining leverage over an industry to which it is fundamentally opposed. The presence of such objections is one possible reason why certification in Australia has been much slower to take hold than in other comparable countries. It is may also be a significant driver behind attempts to develop an indigenous, industry supported certification scheme for the wider domestic forestry industry. It is possible, therefore, that collaboration by the Australian farm forestry sector with the Forest Stewardship Council could draw criticism from parts of the wider Australian forestry sector.

Opposition from within its own ranks is also possible (particularly given the historical ambivalence on the part of many farmers to environmental organisations generally). During interviews with farm foresters, for example, a significant minority expressed their preference for environmental organisations *not to have a direct administrative role in the operation and implementation of certification* (most however agreed that environmental organisations should have a role to play, if a more indirect, stakeholder role). A typical (if slightly extreme) response, in this regard, was:

> … I don't trust the greenies, and I certainly wouldn't want them to have anything to do with certification on my property. … I suppose I can see why you might want to have them on-side for political reasons, but I reckon they will only be trouble if they get involved in the day-to-day management.

Apart from political reservations, are there any other potential shortcomings of the Forest Stewardship Council approach? If we examine the history of Forest Stewardship Council, it is clear that non-plantation, industrial forestry operations have dominated early certifications. This may be a cause for concern in the Australian farm forestry sector where a significant proportion may be classified as small scale, and where plantation forestry is on the increase (certainly in terms of commercially orientated operations). Another potential problem is that the Forest Stewardship Council model, developed as it has been from a largely Northern Hemisphere perspective, may not be ideally suited to the circumstances of Australian forestry. In defence of the Forest Stewardship Council, the relative absence of small scale and plantation forestry may be more a function of the readiness and willingness of larger, natural forest enterprises in the Northern hemisphere to seek certification than an inherent incompatibility with other types of forest enterprise on the part of their principles and criteria for sustainable forest management. Certainly, in the case of Brazil, for example, the Forest Stewardship Council (2000) is attempting to rectify this perceived imbalance by working with both plantation and small scale enterprises. Finally, there may be questions about the speed, resources and expertise of the Forest Stewardship Council to establish a national or regional set of principles and criteria for certification in Australia, and the capacity to again apply certification to the needs and circumstances of smaller farm foresters in particular.

Potential resolution

The strategy of adopting a pre-existing international scheme by the Australian farm forestry sector has many potential benefits, however, despite the proliferation of certification schemes to date, it is likely that in the short term at least, Pan European Forest Certification and the Forest Stewardship Council *are the only realistic candidates that could fulfil this role.* It is arguable that participating in the one of these certification schemes would be relatively simple and expeditious way to introduce certification.

This poses a potentially uncomfortable dilemma for the Australian farm forestry sector because of, on one hand, long standing antagonism between mainstream forestry industry and environmental organisations, with which the Forest Stewardship Council scheme is widely perceived to be closely aligned, and on the other hand, a perception that Pan European Forest Certification may be too closely aligned with industry interests.

One factor to consider is the extent to which the Australian farm forestry sector is or wants to be seen as aligned to the wider forestry sector in opposition to the Forest Stewardship Council. It might be argued that in fact they (larger forestry operations on public land) are natural competitors (particularly to small scale farm foresters) in that decreased availability and/or consumer desirability of native forest timber is likely to increase the value and demand for farm forestry plantation timber. This is a view that was put forward (unsolicited) by some farm foresters. For example, one such respondent stated that:

> … certification is a life-line to a struggling farm forestry sector. The existence of a big native forest industry is holding down farm forestry. Any certification is important for adding value.

For this reason, it could be argued that the plantation side of the farm forestry sector for example, in attempting to increase its market profile both domestically and internationally, may actively seek to *emphasise the differences between it and large scale native forestry operations.* There may be a strong commercial advantage in adopting such a strategy. Choosing to align itself with the Forest Stewardship Council would certainly be one way of distinguishing plantation farm forestry within the marketplace from native Australian forestry enterprises and products, and may sit well with a broader policy objective of the farm forestry sector to target higher value added timber markets where final consumer preferences assume greater significance. It must be recognised, however, that plantation only represents one aspect of farm forestry, and that the "sleeping giant" of native farm forestry may not benefit from such a strategy.

An argument against both Pan European Forestry Certification *and* Forest Stewardship Council participation might be that the Australian farm forestry sector should avoid the wholesale adoption of *any* international certification scheme, particularly where this entails some form of formal membership, and thus avoid political complications. International convergence of the certification criteria and principles through mutual recognition may further reduce the need for formal alignment. As noted in the previous section, an eclectic approach could allow the sector to "pick and choose" the best parts of existing certification schemes. The problem with this approach is that all schemes, *even locally developed ones*, are likely to have a degree of "ideological baggage". Crucially, in the absence of some international mechanism for mutual recognition a domestic scheme is likely to lack an international profile, thereby defeating the fundamental reason for developing certification.

Should farm forestry support the Australian Forestry Standard?

The major alternative to both the development of an industry-based certification scheme, and the adoption of a pre-existing certification scheme, is for the Australian farm forestry sector to participate in the development of the Australian Forestry Standard. We described above the process in train to progress this option. If we examine the proliferation of international certification schemes, it is arguable that the Australian process has most in common with the Canadian approach to certification, in particular that administered by the Canadian Standards Association. In this case,

industry and government, in cooperation with a range of technical experts, jointly developed a certification standard drawing to large extent on ISO 14001 and other international norms such as the Montreal criteria and indicators, but with the inclusion of some additional performance standards, and with overall administration handed over to an independent standards body. There are obvious parallels between this approach and that being undertaken with the Australian Forestry Standard.

The issue confronting the Australian farm forestry sector is whether it should support the adoption of an eventual Australian Forestry Standard. In one sense, it has already shown its hand to the extent that the relevant farm forestry industry association, the Australian Forest Growers, is a participant on the Australian Forestry Standard steering committee. This does not necessarily guarantee, however, that an eventual certification scheme will be supported by the sector, nor does it determine its preferred for inclusion, or preclude the pursuit/exploration of other certification options.

There are numerous attractions to the Australian Forestry Standard, from a farm forestry perspective. First, is that it removes any potential financial burden that the farm forestry sector would have incurred if it had chosen to develop its own certification standard. Second, it provides much needed skills and expertise to the standards setting process. Third, once the Australian Forestry Standard is up and running, both the costs associated with its ongoing administration would not fall greatly on farm forestry (either because of ongoing government financial support and/or the burden would be shared across the entire forestry sector). Fourth, it increases the likelihood that the particular circumstances of Australian forestry types and enterprises will be accommodated (this is in contrast to a perceived "Northern Hemisphere bias" of many international certification schemes). Fifth, it minimises the possibility of political friction with the wider forestry industry. Sixth, arguably at least, it provides the most politically acceptable and environmentally credible alternative to the application of an environmental organisation dominated certification scheme, namely the Forest Stewardship Council – certainly more credible than a purely industry-based certification scheme. Seventh, it accords with the most commonly expressed preference of farm forester themselves for an independent standards body to administer certification in Australia.[16]

What, then, are its potential shortcomings? These are less numerous, but may be significant. First, while the development of an Australian Forestry Standard has the support of government, industry, technical experts, some community groups, and the relevant standards organisations, it does not have environmental representation (at this point in time) on the Steering Committee itself (as we noted above, environmental organisation representatives may participate in a technical committee that reports to the Steering Committee). This raises the possibility, in the event of irreconcilable differences, of the Australian Forestry Standard being criticised by environmental organisations. Such an outcome could undermine the credibility of the certification standard, particularly in the case of consumers most likely to exercise a purchasing preference for certified timber product. International studies indicate that this category of consumers places greatest faith in the pronouncements of environmental organisations. A lack of environmental organisation participation has proved to be a telling blow to many industry-based environmental initiatives in the past, and may be of particular concern in dealing with sustainable forestry management, which has historically been highly politicised and polarised.

Second, there is a danger that interests of the farm forestry sector could become subservient to the wider forestry industry, one that is more economically powerful and more organised. This could occur if in the development of an Australian Forestry Standard, the needs and circumstances of smaller farm foresters in particular were not accommodated. We have noted above, for example, the tendency for larger industrial forestry enterprises to dominate the certification process internationally, with even the Forest Stewardship Council acknowledging some failings in this regard (the exception being Pan European Forestry Certification, which was established precisely to counter

[16] Based on interviews with farm foresters in the preparation of this report.

such bias). This danger was acknowledged by the Vice President of Australian Forest Growers when he stated that:

> [Australian Forest Growers] will be a part of the process to make sure that it meets the needs of the plantation industry. If we don't do this, there is a danger the plantation/farm forestry will fall off the table. Australian Forest Growers has an interest in developing a protocol and administrative backbone for certification. It will be more beneficial if there is an overall Australian Forestry Standard, but with a subset tailored to plantation. If, however, it got bogged down over native forest issues, then we would have to consider the option of working with a green group – but it would have to be a compromise arrangement.

Even if the Australian Forestry Standard successfully accommodates farm forestry, it may be that the commercial interests of farm forestry and the wider forest industry are not always compatible. A single, dominant certification standard in Australia could limit opportunities for the farm forestry sector to forge a separate identity amongst consumers. It may also, consequently, get caught in the cross-fire of any political attack by environmental organisations on the Australian Forestry Standard being used to permit the continued logging of native forests on public land.

It is also possible that the within the farm forestry sector, the interests and circumstances of different growers may diverge. For example, small and large plantation growers versus small and large native forest growers. It is conceivable, therefore, that certification process could be split along forest types, rather than just the size and scale of forestry operations. It is possible that plantation operations, which are already familiar with a management system approach, and indeed as several have already gone down the ISO 14001 route, may be in a stronger position to adapt to certification requirements irrespective of which scheme is employed.

Third, in the event that the development of an Australian Forestry Standard is *not* successfully concluded, if the farm forestry sector is committed exclusively to the Australian Forestry Standard, it may have missed out on the chance to participate in and implement an alternative certification scheme and, consequently, to exploit new market opportunities. In short, there could be an opportunity cost.

Fourth, and finally, some farm foresters expressed strong reservations about the bureaucratisation of the certification process in what they was as ostensibly commercial issues: "the last thing we want to see is more bureaucrats involved".

Potential resolution

As noted above, the farm forestry sector, through the Australian Forest Growers, has already committed itself to the process of developing an Australian Forestry Standard. Therefore question of *whether* it should participate is redundant. Given this, it should be a priority to maximise the accommodation of farm forestry interests and circumstances, in particular those of smaller operations (including for example fewer resources and expertise) within an Australian Forestry Standard. In addition, given the importance of credibility and international recognition, the farm forestry sector should as far a possible seek environmental representation on (which already exists at present), and support for, the Australian Forestry Standard. Ultimately, however, if the Australian Forestry Standard fails to deliver a certification standard (or at least one that is appropriate to farm forestry), or produces one that attracts widespread criticism from national and/or international environmental organisation, then it may need to consider other certification options.

Should broader stakeholder representation be sought?

In addition to the question of ownership, stakeholder representation is one of the key issues determining the credibility of different certification schemes, and is also one of the issues generating the most discord in certification policy debates. Consumers and retailers alike, for example, may have strong reservations about a certified timber product with what is perceived to be a narrow stakeholder support base, particularly where industry dominates. Such arrangements may be

considered in danger of being (or becoming) essentially self-serving, and thus lacking in credibility. In contrast, and as noted above, industry groups may be suspicious of the involvement and motivations of environmental organisations.

Despite considerable disagreement about the extent and nature of stakeholder participation, the international trend towards comparability and equivalence highlighted above has resulted in a growing consensus on the desirability of broad stakeholder engagement in the certification process. This extends beyond the "usual suspects" of industry, government and environmental organisations to include local community representation and, in particular, indigenous groups and other peoples dependent in some way on forest resources. Most certification initiatives now agree that broad participatory processes that work towards consensus are necessary. This may be described as either a *process-based* approach, where a variety of stakeholders are involved, equal opportunity procedures are established, and criteria for achieving balance sought, *or* an *outcomes-based* approach, where standards, procedures or certificate are supported by consensus, or by relevant stakeholders (Bass and Simula, 1999). Whichever method is adopted, the process of achieving consensus, or not, is an inherently political process that will impact on the overall credibility of the particular certification regime.

From the perspective of the Australian farm forestry sector, the relevant questions are: to what extent broad stakeholder representation can and should be sought?. One argument might be that broad stakeholder participation, for example from environmental organisations and indigenous groups, is not as relevant in a farm forestry setting (particularly plantation farm forestry) as it is in larger native forestry operations, and as such, it need not be actively pursued. A counter argument might be that *precisely because* the farm forestry sector is perceived as being environmentally positive it should take advantage of this through broader stakeholder representation (it should also be recognised the private native forestry may not be seen as so environmentally benign by many in the community). To do so might bring significant kudos to the industry, and could also translate into commercial benefits in both domestic and international markets. Acknowledging this issue, one farm forester said they:

> … would support the involvement of environmental organisations – it will be an issue if they don't participate. There is a danger [that if they don't participate] there will a political split, and certification could come under attack from the greens.

Depending on which comes first, the level and type of stakeholder representation sought will have significant ramifications for, or be influenced by, different certification schemes. For example, if it is determined that broad stakeholder participation is desirable at the outset it may rule out certain certification schemes/approaches that do not achieve this objective. For example, a purely industry-based certification scheme with no representation from environmental groups would fall into this category. In contrast, the Forest Stewardship Council approach, with its emphasis on broad stakeholder participation, may be a more viable option in this regard. If, on the other hand, a particular certification scheme/approach was adopted with little consideration to the issue of stakeholder participation, the Australian farm forestry sector may discover that it had inadvertently adopted *or* excluded broad stakeholder representation. Whatever level of stakeholder representation is preferred, it would seem prudent, therefore, to factor this into the decision making process.

Potential resolution

The overriding objective of pursuing certification, at least from the perspective of the Australian farm forestry sector, is to achieve greater commercial gains for individual farm foresters either through increased market share, access to new markets and/or price premiums (or, couched in negative terms, to avoid being locked out of markets and/or to risk price penalties). Thus the attitude of timber retailers, their consumers and commercial third parties to certification is paramount. In this regard, it may be argued that broad stakeholder representation is an important pre-requisite for maintaining credibility for some, if not most, of these downstream constituencies. As a result, there is a strong case to be made for the Australian farm forestry sector placing a high priority on broad stakeholder representation in the certification process.

Most farm foresters interviewed during fieldwork accepted and supported the need for broad stakeholder engagement, as long as this was balanced, and that no one group had a controlling interest.

What role, if any, should there be for commercial third parties?

Certification has only gained a significant momentum in markets where a critical mass of retailers and traders of forest products decided to state and exercise a preference for certified products. The formation of "buyers groups" in Europe (particularly the United Kingdom) and the United States, fostered in many cases by the World Wildlife Fund and other environmental organisations, has been fundamental to the emergence of certification as a genuine market force and a serious forest policy issue. And although the initial impetus for the establishment of buyers groups was consumer concern about forestry practices, buyers groups have also fulfilled a crucial role in educating consumers to purchase certified timber products.

Although certification is intended to be market driven, with consumers sending a price signal up the supply chain, it unlikely that such a scenario would arise spontaneously in the absence of a concerted effort by buyers groups to educate their consumers. It is clear that where buyers groups have been most active, for example the United Kingdom, The Netherlands and Germany, certified timber products have acquired the largest market shares. However, as always, it "takes two to tango", and not coincidentally, these are also countries with high consumer sensitivity to "green" issues, where buyers see the most potential market advantage in developing into groups for certification purposes.

From the perspective of Australian farm foresters, the engagement of commercial third parties in the certification process will be crucial to establishing a viable domestic market for certified timber. This is because, at least initially, Australian consumers may not be particularly concerned and/or familiar with the issue of sustainable forestry management certification, and will therefore require a period of education. Commercial third parties could play an important role in this respect.

Internationally, to the extent that the sector engages in exports of timber and timber products, gaining the confidence of international buyers groups will also be an important pre-requisite. This has two clear and direct implications for the establishment of a Australian farm forestry certification scheme: first, commercial third parties should be active participants in the process, and second, whichever scheme is adopted, it should be recognised as legitimate by the major overseas sustainable forestry management buyers groups. This view is one that is recognised within the industry, for example, with one farm forester stating that:

> If it [farm forestry] is going to get the sort of credibility it needs, then external international support is essential.

It is important to note that governments are major consumers of forest products, and in this respect, may also be considered commercial third parties. Many local governments in Europe, for example, have already proclaimed a purchasing policy in favour of certified timber products. Through their purchasing power, governments may set minimum requirements for certified products, and – through their usually considerable market leverage – influence its development and implementation.

Potential resolution

Although certification has the potential to deliver commercial benefits to farm foresters, international experience indicates that retailers play a crucial role in the success or otherwise of certification arrangements. It would be short-sighted therefore if attempts by the Australian farm forestry sector to introduce certification did not simultaneously encourage and/or seek the commitment of domestic timber retailers (assuming that all farm forestry timber is not earmarked for export). The formation of domestic buyers groups is one way of achieving such an objective, and may be important in the establishment of a consumer awareness of certification. International experience also suggests that it has been environmental groups that are most successful in garnering the support of retailers to

purchase and promote certified timber. It would seem prudent therefore, that the Australian farm forestry sector seek to maximise the opportunity for environmental organisations to conduct such a role. This may influence the selection, make-up and/or operation of a certification scheme in the Australian farm forestry sector. Clearly, the certification scheme that has the greatest credentials in this regard is the Forest Stewardship Council.

In terms of seeking the support of international buyers groups, it is essential that they recognise the credibility of the certification scheme adopted by the Australian farm forestry sector. This may add weight to the argument of the adoption of an established, internationally recognised certification scheme.

Structure and content

The next issue confronting the Australian farm forestry sector is the preferred structure and content of a certification regime. That is, what would individual (or groups of) farm foresters be required to do in order to obtain certification? There are two key concerns in this regard. First, how can the particular circumstances of the farm forestry sector, including smaller owner operators, best be accommodated? Second, how can the international trend towards comparability and equivalence be reflected in a certification standard used by the Australian farm forestry sector? The resolution of these issues, while less overtly political than question of ownership and participation, will determine the operational effectiveness and attractiveness of certification for farm foresters.

How can the heterogeneity of farm forestry be accommodated?

The very broad range of activities included under the farm forestry umbrella poses a potential problem for the implementation of certification. In particular, is it possible to design certification criteria and principles which can accommodate such a variety of forestry circumstances?

Although the major international certification schemes have been at pains to emphasise the inclusiveness of their respective approaches (for example, the Forest Stewardship Council promotes its desire to make it "more accessible and more locally appropriate" and to "encourage further local participation" (Evison, 1998) the evidence to date suggests that in practice this has not been entirely successful. We noted in Chapter Two, for example, that the overwhelming majority of certifications had taken place in industrialised countries, with larger, industrial forestry enterprises within those countries, and using natural as opposed to plantation forestry types.

In terms of Australian farm forestry, many (although not all) of the enterprises fall outside some of the categories that have dominated certification processes to date. This includes for example, those farm foresters that have not engaged in joint ventures, or if they have, retain a high degree of management control, and those farm foresters that grow native or exotic plantations.

Two possible options for addressing this problem, from the perspective of Australian farm foresters, are, first, to adopt *one all encompassing certification scheme*, and second, to adopt *a series of independent or subsidiary certification schemes*. The first option, would entail the selection or development of a certification scheme that has sufficient flexibility in its criteria and principles to accommodate a variety of farm forestry circumstances, such as exotic plantations, indigenous plantations, regrowth and remnant vegetation, and/or farm forestry ownership structures. With this option, a certification process might be designed to contain a number of components which are specific to particular types of forestry practice, with individual foresters being required to apply only those components which are relevant to their particular type(s) of plantation/vegetation, and generic features of the certification scheme applicable to all farm forest types.

With the second option there would be a series of separate certification schemes, each with a different label, to address the broad categories of forestry activity, (eg a farm forestry plantation label, as is proposed for the New Zealand plantation industry, a remnant vegetation label and so on).

Notwithstanding the quite substantial differences between different types of farm forestry (eg plantation forestry versus all other types), there are a number of reasons why a single certification scheme might be preferable. These are as follows:

- a combination of individual schemes would invite administrative complexity, reduce economies of scale and lead potentially to confusion in the market place;
- it may be difficult in practice to make a clear-cut distinction between different types of forestry. For example, distinguishing between native plantations and regenerated growth where numerous seedlings have been planted may prove to be extremely difficult; and
- a variety of certification schemes might also be impracticable given that many farm foresters conduct a range of forestry activities *on the one landholding*, and it would be extremely onerous, both in time and resources, for them to seek a series of certifications from a variety of different schemes.

Multiple certifications would also go against the nascent international trend to streamline agricultural accreditation processes. In the case of fruit and vegetable environmental and quality assurance, for example, the majority of European retailers are about to agree on one common standard that would be acceptable to all them, and apply across the entire European Union (Thornber, 1999).

In addition, there was a marked reluctance on the part of the overwhelming majority of farm foresters interviewed to contemplate the introduction of multiple certification schemes to accommodate the heterogeneity of farm forestry activities in Australia. Most stated that a common but flexible/adaptable certification scheme was the preferred route. As one farm forester put it:

> The last thing we want is a whole lot of different schemes popping up all over the place – the industry needs to work together.

Potential resolution

A single certification scheme, rather than a variety of schemes, could be introduced. This should be sufficiently robust and flexible so as to accommodate the diversity of farm forestry operations. This suggestion is consistent with the views of most farm foresters interviewed.

Should the different motivations of farm foresters be accommodated?

Just as there are many different forestry types used in farm forestry, so too, as noted above, do farm foresters themselves have a variety of different motivations for engaging in such activity. Does this pose a dilemma for the application of certification to the Australian farm forestry sector?

As discussed earlier, of all the categories of farm forestry, it is those that are engaged in commercially orientated activities who are most likely to have the resources to devote to the implementation of sustainable forestry management and obtaining certification. Self-evidently, they also have the most to gain financially from the sale of certified forest product, and as such, are likely to be far more motivated than their non-commercial counterparts in seeking certification. In contrast, non-commercial farm foresters may not derive sufficient benefit from certification to motivate them to go through the time and cost of obtaining it. They may, however, chose to adopt some or all of the management practices included under a certification scheme (in order to benchmark their current practices, for example) without seeking formal certification, thus still obtaining a benefit from good management practices, but avoiding external audit costs.

The difficulty in attempting to make an absolute distinction between commercial and non-commercial farm forestry, however, is not only that individual farm foresters engage in a variety of forestry activities, some commercial and some not, but that many farmers themselves are not always sure of their ultimate intentions. For example, as one farm forester stated:

> The original justification was to stop erosion, but it has become a balancing thing – we now want to harvest, and see it as adding value to the property.

In developing or introducing a certification scheme, then, how should or could this variety of circumstances be accommodated? The key requirement of certification, in all its various international guises, is one of quality management. That is, the use of a sufficiently sophisticated level of ongoing management to ensure that not only have all relevant environmental issues been raised, but also adequately addressed. This assumes a level of time, resources and commitment that may well be absent from some, if not most, non-commercial farm forestry enterprises. There is a danger, therefore, in seeking to make certification attractive to all types of farm forester motivations, that it will lead (intentionally or otherwise) to a reduction of standards which will devalue, and potentially render ineffective, the entire certification process.

It should be noted, of course, that commercial farm forestry operations may also suffer from a lack of management expertise. Indeed, as a recent study highlights (Thornber, 1999), this is a problem that permeates most small scale forestry enterprises:

> Part of the problem, particularly for farm forestry, may largely be due to the assumptions which underpin certification or the way that certification schemes are currently organised and structured. … This may be exacerbated by the lack of appropriate documentation (no policy or management objectives, no management plan or maps or records of work undertaken). Being able to recognise and accept local management practices is particularly problematic for FSC approaches. In fact the lack of documentation presents problems for both FSC and ISO, as an assessor simply cannot assess in the absence of documentation … This raises problems for all small enterprises, for whom documentation is frequently minimal.

Even in such cases as this, the general rule is likely to be that the greater the commercial motivation and the commercial benefit perceived, the greater the motivation to obtain certification. Ultimately, it will be the degree of commercial intent that determines the attractiveness of certification to individual growers.

Potential resolution

The inherent nature of certification, with its emphasis on market forces, means that those farm forestry applications with a commercial bent should be the primary focus of, and principal beneficiaries, of any scheme introduced.

Should certification be based on process or performance standards?

One content question confronting farm foresters is whether they should adopt a certification system that is based on process or performance oriented sustainability criteria and indicators. Performance standards are common in the environmental arena and have been used for many years to control pollution from industrial processes (Gunningham and Sinclair, 1998). In such cases, they are usually described, for example, as limitations on the release of a particular pollutant in terms of parts per million. In other words, the relevant enterprise has a specific and measurable target that must be achieved in order to meet the standard.

Although this approach appears straightforward, in the case of sustainably managed forests, it may be difficult to obtain agreement on a particular standard applicable to a variety of situations. This is because there is considerable variation in the impact of different forestry practices and between different forest types. Nevertheless, it *is* possible to develop regional specific standards that take account of regional variations, but are still broadly compatible and equivalent. In short, such performance standards define what must be achieved, but not how it should be achieved.

Process standards are usually described as being based on environmental management systems. By this it is meant that a particular enterprise is obligated to introduce an integrated plan to manage, monitor and improve their environmental performance. There is no obligation that the enterprise *actually* improves its environmental performance, merely that it has the systems in place to do so. In short, a process standard defines how something should be done, but not what must be achieved.

Until recently, there has been a tendency in the certification debate to characterise different schemes as being either predominantly process or performance based. ISO 14001 in particular has been used as the basis for the development of a number of ostensibly process-based schemes including, for example, the Sustainable Forestry Initiative and the Canadian Standards Association. Such process-based schemes have gained greater support from forest industry groups. This is perhaps not surprising given that ISO 14001 has increasingly been adopted by industry generally as the common international standard for environmental management systems.

In contrast, the Forest Stewardship Council has tended to be characterised as a more performance orientated certification scheme, and has not been as widely supported by forest industry groups, but has received considerable support from downstream wholesalers and retailers of forest products.

Against this backdrop, however, has been the emerging issue of comparability and equivalence. In the case of process and performance standards, this has accelerated the convergence of many previously divergent certification schemes. In particular, certification schemes that began as largely process based have increasingly adopted or incorporated performance-based standards. Correspondingly, ostensibly performance-based certification scheme have increasingly adopted process-based elements (in fact, the Forest Stewardship Council, for example, has arguably always been a mixture of performance and process standards). Two examples of this convergence, at least at a broad policy level, are provided by the Confederation of European Paper Industries (2000) – criteria of certification and the International Forest Industry Roundtable (2000) – guidelines of credibility which state, respectively, that:

> Certification should include assessment against performance standards compatible with internationally recognised principles and criteria of sustainable forest management [*and*] certification should include assessment against internationally recognised management systems.

> A certification system must use a nationally (or regionally) accepted SFM standard based on quantitative and/or qualitative measures, SFM standards shall be consistent with internationally agreed sets of SFM criteria, coupled with appropriate indicators and include performance guidelines [*and*] SFM standard should be consistent or combined with an internationally recognised environmental management systems, eg, ISO14001 and EMAS.

What does this convergence mean for Australian farm forestry? First, it is increasingly likely that any certification scheme adopted or substantially based on an existing international scheme will be a mixture of both process and performance standards.

Second, that any Australian certification scheme must also contain both process and performance standards if it is to be accepted in international markets. For example, the United Kingdom retailer B&Q has already begun the process of unilaterally accepting or rejecting various existing certification schemes based on its own internal criteria (but with indirect reference to the Forest Stewardship Council as the established benchmark, which, as noted above, contains both performance and process standards). On this basis, B&Q has approved the Finnish Forestry Certification Scheme, for example.

And third, that, given the increasing ubiquity of ISO 14001 as an international standard for business generally (Gunningham and Sinclair, 1999), and its potential to become a *de facto* international trade requirement, any scheme utilised in Australia should have the capacity to be ISO 14001 compliant. Knowledge of ISO 14001 within the Australian farm forestry community is, arguably (based on the results of our fieldwork), significantly greater than that of certification *per se*. This is reflected in the fact that a growing number of forestry operations, including plantation farm forestry, have or are in the process of obtaining IS0 14001 accreditation (Lang, 2000).

The adoption of a process based certification scheme may be a boon for the commercially orientated farm forestry sector as most small-scale enterprises have not adopted formal management systems

(with the possible exception of those that have entered joint venture arrangements). Such practices have the potential to enhance environmental *and* economic productivity. In response to queries about the potential attractiveness of environmental management systems, one farm forester stated, fairly typically, that:

> Extra paperwork [associated with certification management systems] always makes me grumble, but it will be necessary and probably good for me in the long run.

Potential resolution

The convergence of certification schemes internationally (at least in terms of their content), means that virtually all schemes can be expected to contain a mixture of performance and process standards at some time in the near future, if it is not already the case. It would be unrealistic, therefore, and ultimately counterproductive, for the Australian farm forestry sector to "buck this trend", even if it developed an indigenous certification scheme in-house. As a means of addressing potential inexperience on the part of smaller farm foresters in dealing with sophisticated environmental management systems, however, it may be possible to introduce a simplified management approach, at least initially (see below). Given the fact that most farm foresters have not even started to put in place formal management systems, an emphasis on environmental management systems that accommodate both performance and process standards could be a major long term benefit to the industry. It would also fit with the increasing ubiquity of ISO 14001 in commercial operations globally.

Should a "streamlined" sustainable forest management system be used?

Irrespective of which certification model is chosen or developed by the Australian farm forestry sector, an essential and central component will be the introduction of a management system to ensure that all relevant environmental issues are identified, planned for, addressed and monitored (as noted above, the most common framework for achieving this is ISO 14001). Although the particular issues confronted will vary between different farm forestry sites, this process should ensure a *consistency of management approach*, and, if adopted sincerely, can bring about a cycle of continuous improvement.

Despite these important attributes, the application of sustainable forest management systems by smaller farm foresters, in particular those that lack a joint venture partner, may be particularly challenging for the following reasons. First, there may be a limited in-house capacity to implement complex management systems. Second, even if the necessary desire and/or expertise is present, the costs associated with implementation (either time or financial) may be prohibitive (this problem is compounded by the lack of short term commercial returns for many farm forestry operations). Arguably, such restrictions have contributed to the dominance of larger, industrial forestry operations in certification initiatives at an international level.

This is an experience that, arguably, has been replicated in Australia, for example, with the introduction of quality controls for the pine industry. In pointing to the difficulties of smaller operations to cope with this initiative, one owner operator of a relatively small pine saw mill operation stated that:

> The Radiata Pine Association went down the quality assurance path, [but] in practical terms we found it very difficult to get involved – it required too much time. … Pine Australia, which represents the big companies, has introduced a quality assurance logo, [however], … the official manual did not suit millers. [It is] way too complex, [and therefore we] have been excluded from the scheme.

In light of such difficulties, it may be unrealistic to expect smaller, independent farm foresters to come to terms with complex sustainable forest management systems. One potential way around this problem is to develop a streamlined version of sustainable forestry management systems, and therefore its subsequent certification, that is tailored to the needs and circumstances of such farm

foresters. This could still contain the essential core elements of the overall certification principles and criteria, but may, for example, require less onerous reporting and monitoring requirements.

However, attractive as the "streamlining" option is, it must be balanced against the danger that it might produce only a superficial approach to certification which might fail to deliver the anticipated environmental improvements. This is obviously a scenario that would need to be guarded against, for it could undermine the credibility of the entire certification initiative. The most important means of doing so are likely to be the (gradual) introduction of performance standards as described above, in conjunction with a requirement to undergo a similar process of (independent) certification as those using a more comprehensive management system.

During fieldwork interviews, farm foresters overwhelmingly supported the concept of a streamlined approach to sustainable forestry management, although it was pointed out that there is a wide variety of management capacities in the sector. This diversity could accommodated by allowing farm foresters to choose initially between streamlined and comprehensive management systems on a purely voluntary basis. Under such an arrangement, individual farm foresters (if appropriate) could then decide to progress from a streamlined to a more comprehensive management system approach over time, as they gained expertise, confidence and/or greater financial security.

Potential resolution

In order for small farm foresters to take advantage of the benefits of certification, and yet overcome the difficulties associated with the implementation of a potentially complex and costly management system, a streamlined management package could be introduced. This could form a minimum set of core certification responsibilities. A possible candidate in the regard is provided by the existence of codes of forest practice, which could be incorporated into a streamlined certification system. Compliance with such a system could be given equivalent status to a more formal and sophisticated environmental management systems such as ISO 14001. A code of practice already exists in Tasmania for private land, and could be used as a starting point for further development. Some other states, too, have gone down this path.

Can carbon credits be accommodated?

We described above the emerging issue of climate change, and the potential for trade in carbon credits, as well as trading mechanisms for other environmental issues such as salinity. New, privately owned plantations, given their capacity to deliver above "business as usual improvement", are the most likely beneficiary of such developments, this could result in a substantial boost in farm forestry operations. Indeed, some plantation joint ventures with farmers already include carbon credits in their contracts.

The (eventual) existence of carbon and/or other environmental trading has two major implications for farm forestry certification. First, those organisations and institutions funding farm forestry for credits will have an interest in ensuring that the subsequent operations meet appropriate sustainable management standards (this is likely to be a requirement under any agreed international carbon trading arrangement). Certification provides a vehicle for achieving this. And second, carbon and other environmental credits will necessarily require a system of verification to ensure that the greenhouse benefits delivered by farm forestry are genuine and long term. Without such a guarantee, it would be impossible to trade with any degree of confidence. In this respect, part of the carbon or environmental credit verification process will be more than just a confirmation that a particular amount of trees exist in a particular point in time – it will be equally vital that appropriate management processes are instituted to ensure the continued viability of a forestry plantation (and thereby maintain both its environmental and commercial value).

The issue of credit verification creates clear parallels with the certification process. In the case of certification, verification increasingly takes the form of third party professional auditors ensuring that forestry enterprises have adopted sustainable forest management practices, in combination with a system to distinguish certified timber from non-certified timber down the supply chain.

The question confronting the Australian farm forestry sector is whether carbon or other environmental credit verification and sustainable forest management certification can be combined into a single, complementary process. The potential benefits include: a minimisation of disruption to farm foresters through less external auditing; a related reduction in costs for the same reason; and importantly, less complexity through the integration of appropriate management practices. Perhaps, no surprisingly, there was unanimous support among farm foresters interviewed for the linking of sustainable forestry management certification and carbon or other environmental credit verification (as highlighted above, the issue of carbon credits for plantation forestry has generated a substantial amount of interest among regional communities, and many see it as the key to widespread adoption of farm forestry). The level of interest in carbon credits is equally matched, however, by a dearth of information and understanding about their operation. For example, one respondent stated that:

> … can't find anything out about carbon credits. People a very interested, but [there is] little information. … want to know more about it, [but] need more information. I am very interested.

A majority of farm foresters interviewed during fieldwork expressed concern about potential unnecessary duplication between sustainable forest management certification and carbon credit verification. It is interesting to note, however, that this concern was not restricted to just these two policy options. Several respondents referred to the increasing demands for external certification being placed on farms. A fairly typical response, in this regard, was:

> … [there are] too many certification systems. A lot of people are already involved in other systems. I am a beef farmer and we have our own Cattle Care program.

This increasing exposure to certification systems in other areas of farming endeavour does have a positive side in that, as one respondent stated:

> Farmers will be familiar with the notion of certification, and [therefore] will be more accepting.

This familiarity gives rise to an interesting contrast between the views of farm foresters towards sustainable forestry certification and carbon credit verification, respectively, that emerged during fieldwork. This was neatly encapsulated by one respondent who stated that:

> Even though there is more interest in carbon credits, there is a lower level of understanding. [In the case of] certification, there is a lower level of interest, but a higher level of understanding.

Potential resolution

In an ideal world, certification of sustainably managed forests and verification of the creation and maintenance of plantation carbon sinks would be merged into a single process to save on costs and enhance management systems. The problem, however, is that these two processes are at quite different stages of policy development. Certification, at an international level at least, is now a increasingly mainstream policy option, with reasonably well developed implementation guidelines, assessment procedures and active markets. In contrast, carbon credit verification is still an embryonic science, and even more significantly, remains a theoretical construct until actual markets for carbon credits come into existence. This in turn necessarily requires the establishment of legally binding, national greenhouse gas emission reduction targets – an outcome, particularly given recent events, that may be some time coming. Other environmental credits, such as salinity credits, may however by closer to realisation as they are not dependent on international consensus.

From an Australian farm forestry perspective, provision for the eventual accommodation of carbon and other environmental credits with a certification system would be a desirable outcome. It is interesting to note that some joint venture arrangements in the farm forestry sector have contractual arrangements that divide eventual carbon credits. It may be in the best interests of such participants, and indeed all farm foresters, to ensure the validity of carbon sinks in anticipation of the implementation of a national and/or international carbon trading scheme.

Will farmers become overwhelmed with different certification regimes?

Apart from the possibility of carbon credits, in the last decade or so there has been an influx of certification, accreditation and assurance schemes in the agriculture sector as a whole. Probably the genesis of this was the introduction of quality assurance schemes to maintain food quality along the supply chain. Supermarkets, in particular, have demanded of their suppliers certain guarantees of quality, and have, over time, prepared product specifications along with compliance systems. Food outlets, in particular multinational supermarket chains, are another major source of product specifications for agriculture. These pressures have led to the widespread application of quality management systems, in particular, the ISO 9000 series across Australian agriculture.

More recently, with increasing number of health scares around the world, there has been a concerted effort to improve food safety. This in turn has led to increasingly onerous standards being imposed on primary producers. In the cattle export industry for example, graziers have to comply with far reaching controls on pesticide inputs into the cattle food chain in order to protect access to vital export markets.

Several agricultural sectors have now gone down the path of introducing environmental management systems, either ISO 14001 or a locally developed scheme. One example of this is the Australian cotton industry with its Best Practice Environmental Management program. In some cases, this has now been extended to include occupational health and safety requirements, such as safety management systems.

There is now also a trend for agricultural departments, and their counterpart agricultural industry associations, to support the introduction of Farm Management Plans, designed to improve the overall financial and resource management of farms. In the case of farm forestry, this includes moves towards private native forestry management plans.

The danger of course is that in the case of mixed farms, which include many of the small farm forestry operations, farmers will simply become overwhelmed with excessive paperwork from this influx. Further, it is possible that the different management schemes will be incompatible, or at least require unnecessary and time/resource consuming duplication. For smaller operations in particular, this is likely to be a major irritant, and could ultimately undermine the very intent of the different management initiatives. From a financial perspective, each additional independent accreditation will necessarily require an additional fee, a burden that is likely to fall on the individual farmer.

Potential resolution

The introduction of any certification standards should be done in way which is cognisant of other management obligations and aims to, as far as possible, integrate any new management requirements with existing or planned one. In short, to avoid unnecessary duplication by building on commonalities.

In addition, efforts could be made to ensure that a single accreditation process could be used for certification along with other relevant management systems. This could substantially reduce up-front farmer costs.

Implementation

Apart from the ownership of, and participation in, certification, and its structure and content, the third major issue confronting the Australian farm forestry sector is the way in which the certification scheme is implemented. This includes how farm foresters receive certification, and the arrangements for conveying this information to the market place. A particular issue is how smaller farm foresters can overcome the potentially restrictive costs of certification.

Should independent certifiers be used?

In order for certification to take place, there must be a process whereby individual forestry enterprises are assessed against pre-determined principles and criteria. There are essentially two policy alternatives to achieving this end. The first is to use professional independent third party certifiers. The second is to use a form of industry self-regulation. In the case of the latter, for example, the United States industry-based Sustainable Forestry Initiative was based on individual enterprises endorsing their own practices as conforming to a set of principles developed by the industry association (recently, however, they have included optional third party verification). The Pan European Forestry Certification scheme is another example where self-assessment has predominated in the past.

One potential attraction of self-assessment to the Australian farm forestry sector is a reduction in implementation costs by avoiding the need to pay the professional fees of independent certifiers. This aspect may be particularly attractive to smaller, economically marginal farm forestry enterprises. It is possible, also, that some farm foresters may be more comfortable with an in-house approach to certification assessment. This is more likely to be the case with those farm foresters that have had limited experience with external accreditation in other agricultural activities on their farms. As described in Box 4 above, the Australian Forest Growers have already introduced a certification scheme to maintain pruning standards for plantation farm forestry based on a system of industry self-assessment. In this case, farm foresters attend an industry training course and are then eligible to accredit their peers. Conceptually at least, it may be possible to extend this concept to a certification scheme for sustainable forest management. There may be, for example, significant economies of scale to be gained from a convergence of two potentially complementary Australian Forest Growers certification schemes.

Increasingly, however, certification schemes internationally are requiring independent certification. Certainly this is becoming common practice in relation to ISO 14001 accreditation, upon which many certification schemes are based. This is considered an essential component for obtaining broader stakeholder endorsement, and the confidence of final consumers. Nascent moves towards comparability and equivalence have also hastened the move towards independent third party certifiers as a common certification practice. The ubiquity of independent certifiers as a fundamental requirement of certification is evident in the range of mutual recognition initiatives described above.

The majority of farm foresters interviewed supported the use of professional and independent certifiers, although a small minority did nominate a preference for an in-house industry certifications scheme, including the use of industry self-regulation. The widespread recognition of other forms of agricultural certification, such as required for food safety, meant that most were comfortable with the concept and practice of using external auditors. One respondent, a representative of a sizeable plantation investment company (unprompted), even contemplated the use of environmental organisations:

> … want self-regulation, *but* with an independent audit. This could be from an environmental group or a forestry auditor. … need to have a collaborative approach.

Potential resolution

Although there may be some financial attractions to using in-house certifiers, and potential synergies with other farm forestry certification initiatives, the overwhelming weight of international opinion is that independent third party certification is an essential requirement of a credible certification scheme. It is possible that major retail purchasers of certified timber, for example, may only source product from forestry enterprises that have employed independent certifiers. Thus there may be significant negative commercial consequences if the Australian farm forestry sector chooses not to employ independent third party certifiers. Given these developments and potential consequences, it is difficult to mount a strong case for industry based self-certification.

How can certified timber by distinguished along the supply chain?

The success of certification schemes depends ultimately on their credibility, amongst the industry, consumers and the wider community. A key component of such credibility is the assurance that certified timber can be reliably distinguished from non-certified timber. An essential task for any certification scheme, therefore, is to put in place robust chain-of-custody arrangements to keep certified timber separated adequately from non-certified timber. Without such an arrangement, all certification schemes would collapse. As a result, certification requires the support and participation of not just farm foresters, but all the commercial intermediaries, such as saw millers, wholesalers and retailers, down to the final consumer.

Potential resolution

Whichever certification scheme is supported and adopted by the farm forestry sector, a priority should be placed on ensuring adequate chain-of-custody arrangements are established, and that consumers have confidence in such arrangements.

Is group certification a viable option?

One of the major issues which might prevent the widespread adoption of certification in the Australian farm forestry sector, particularly by smaller farm foresters, is the cost associated with the use of independent professional certifiers (assuming, of course, that industry-based certification has been rejected). This is not just a one-off cost, because most existing international schemes require ongoing monitoring and follow-up audits, and an Australian based scheme is unlikely to be an exception in this regard. It is difficult to give a precise estimate on the amount it would cost an individual grower, at least initially, as this will vary greatly according to the size of the landholding and its particular characteristics. It may be, however, that entry price of several thousand dollars could be expected. This represents a very substantial outlay for many farm foresters, some of which may be only marginally profitable in the short term at least.

A potential means of overcoming this price hurdle is through “group certification”. The basic idea is that a number of growers in a particular region seek to have their operations certified simultaneously, by the one certifier. Through economies of scale, the cost to individual farm foresters is greatly reduced. Group certification assumes, however, that the properties are sufficiently similar in operation and forestry make-up to allow meaningful generalisations to be made. For this to occur, participating farm foresters would have had to collectively agree on a standardised sustainable forestry management process prior to group certification. This element of cooperation, although it may be perceived by some as a burden, could have a number of positive attributes. For example, simply getting farm foresters together to share experiences may lead to management insights and cost-saving opportunities. It may also foster greater cooperation in the sale and marketing of farm forestry products.

The most prominent example of group certification is under the Pan European Forestry Certification scheme which was specifically developed by and for smaller, non-industrial foresters in Europe in response to a perceived bias on the part of existing certification schemes in favour of larger, industrial forestry enterprises. Under Pan European Forestry Certification, smaller foresters may band together to obtain group certification. Interestingly, some of the other more established certification schemes, such as the Forest Stewardship Council, are starting to recognise the potential benefits of group certification and have begun to experiment with its implementation.

There was strong support amongst many farm foresters interviewed, particularly the smaller operations, for the concept of group certification, with many pointing out that “strong networks already existed in many regions”. Many saw group certification as an extension of, or compatible with, other cooperative farm forestry arrangements. For example, numerous networks of farm foresters have been established under the auspices of the various Regional Plantation Committees. This latter group, in particular, was nominated by several respondents as having an important role to play. For example, one respondent stated that:

> Regional Plantation Committees [are] the only non-threatening link between the industry and the environment. They are critical to the whole process [of group certification] and are critical to certification in general.

Another institutional candidate for group certification put forward by a number of farm foresters, particularly in Western Australia, was the phenomenon of forestry cooperatives. This potential role was characterised by one respondent as follows:

> Forestry co-ops (sic) are local farmers getting together to [ensure] continuity of supply, [to] pool finances [and to] share expertise and training. [They are] driven by strong local leader, and get help from the Department of Agriculture, Trade and Commerce and CALM. The Minister for Agriculture has provided funding for new initiatives in local economic development. [This] can be used to address forestry co-ops. Forestry co-ops would be an obvious vehicle for group certification.

A notable (and substantial) exception to support for the use of group certification was where farm foresters had entered into plantation joint venture arrangements. For many of this group it seemed more logical to participate in certification in coalition with their joint venture partners as a potential means of reducing costs, rather than to engage in a group certification arrangement with geographical peers that lacked the same joint venture partner. Perhaps not surprisingly, as one industry respondent stated:

> Forestry cooperatives are more attractive to those who aren't involved in joint ventures, or only partially involved in joint ventures.

The issue of joint venture arrangements (which, as noted above, is a significant driving of plantation farm forestry in Australia) adds a further dimension to the concept of group certification. It may be possible, for example, for a plantation investment company to have all its individual joint venture arrangements certified collectively. This might assume a high degree of management uniformity that was managed centrally, with limited individual farmer involvement. On the other hand, a joint venture arrangement with a high degree of farmer management is less likely to be suited to such an arrangement. However, such farm foresters could, if they engaged in their own plantation ventures side-by-side with their plantation joint ventures, have both plantations certified simultaneously and possibly share costs with their joint venture partners. This would be, in effect, a group certification arrangement of two.

There may be a question, however, over the application of certification to joint venture arrangements, specifically, which partner should receive the certification, the farmer or the investor? In practice, however, it is not so much the partners that are certified as the forests. The joint venture partners would simply be the joint owners, divided according to the particular contractual arrangements (and in some case the farmer will have no ownership over the final harvested product), of certified forest and subsequent timber product.

Potential resolution

As the cost of certification may be prohibitive for some smaller farm foresters, it may be attractive for any certification scheme adopted by the Australian farm forestry sector to make allowance for the possibility of group certification. This, however, could be introduced on a purely voluntary basis, as some farm foresters, particularly those in joint venture arrangements, may prefer individual certification, or to receive certification in collaboration with their joint venture partners.

What sized management units should be certified?

A related issue to that of group certification is the question of forestry management units. That is, whether certification should be directed at individual farm foresters or groups of farm foresters or indeed entire catchment areas. The difference between this question and that of group certification, is

that the latter is larger a question of economies of scale: participating farm foresters can reduce the costs of obtaining certification by, for example, by adopting similar management systems, by receiving bulk certification and by using the same chain of custody mechanism. In the case of management units, however, this concept would be extended to include a number of forestry operations in a single geographical location, utilising a single sustainable forestry management system. Thus in the case, assuming demonstrable compliance, there would be a single certification bestowed on a single management unit. In this case, then properties would need to be proximate to one another, whereas in the case of group certification they could potentially be remote.

The use of larger management units, for example an entire water catchment, could have profound implications for the forestry practices and outcomes on individual farms. For example, it is conceivable (though not necessarily desirable) that a farm forestry operation could be allowed to intensively log an area of private native forest (regrowth or old growth) if this was viewed in a larger geographical context whereby provision had been made for the greater preservation of off-farm (at least in terms of the farm in question) native forest. If, however, the same farm sought certification in isolation from a wider management unit for such a forestry operation it would be unlikely to succeed.

There are several potential advantages from adopting a more expansive management unit approach to certification. First, as with group certification it has the potential to substantially reduce the costs of obtaining certification for individual farmers.

Second, and importantly, it would allow a more integrated management approach to sustainable forestry management *across individual farm forestry operations.* For example, farm foresters might be able to coordinate the preservation of highly biologically diverse forests along adjoining borders, or more effectively coordinate the effective management of silt run-off into shared water ways. Arguably, a larger management unit approach to certification has the capacity to generate better environmental outcomes than if individual farm foresters acted alone (conceptually, at least, this is similar to theory of environmental economic instruments such as tradeable permits whereby some companies are allowed to increase pollution in exchange for others reducing their pollution).

Third, larger management units may more easily accommodate existing forestry strategies such as Regional Forest Agreements which also address sustainability on a catchment basis, and may also allow better integration with management practices on nearby publicly owned forests.

Fourth, larger management units may facilitate greater cooperation and sharing of information between participants than might occur if certification were to be pursued on an individual farm forestry basis.

Fifth, it may have benefits for subsequent chain of custody provisions (and marketing capacity), making it easier to discriminate between certified and non-certified timber.

Not surprisingly, however, there are also some potential disadvantages associated with the use of larger management units. First and foremost is one negative perception. Consumers may adversely react if they were to discover that intensively logged private native forestry on a farm, for example, that had been certified, even if this was approved as part of a larger management unit that more than offset this with forest preservation in other locations. It is possible that the subtleties of large versus small management units would be lost in the politically heated environment of forest policy debate in Australia. Arguably, this would make a certification scheme that countenanced such arrangements vulnerable to attack from groups that may oppose or feel disenfranchised from the certification process.

Second, it may be that larger management units with numerous participants and/or greatly divergent farm forestry circumstances would necessarily entail a higher degree of administrative and management complexity in order to obtain certification. This could slow down the rate at which farm forestry is certified, compared to that of individual farm foresters “going it alone”.

Third, it is possible that some farm foresters not wishing to participate in the certification of a larger management unit could effectively stall the process, even where a majority of farmer foresters supported the process. Alternatively, they may choose to participate in only a "half-hearted" fashion, effectively free-riding on the efforts of others, and thus creating an unfair management burden for those genuine participants.

Potential resolution

As with other possible innovations for certification in farm forestry, the use of larger management units has both advantages and disadvantages. In the case of smaller farm foresters, it is arguable that they have most to gain from an umbrella arrangement, given their likely more limited resources and expertise. A reasonable policy response, therefore, might be to allow the certification of larger management units on a voluntary basis: obviously they will not suit everyone. In order to overcome any subsequent criticism, either from other stakeholders or consumers, it might be prudent to establish additional certification guidelines particular to the use of larger management units. These might address, for example, the issue of minimum standards for participating farm foresters and the capacity to offset harvesting practices in one location with preservation practices in another.

5. Conclusion

In the space of less than a decade, forest certification has evolved from a “fringe” activity to the centre-stage of international forest policy. There has been a rapid expansion of the area of certified forests internationally, the variety of forest types being certified and the number of retailers committing to buying certified timber. So too has the number of (potentially rival) certification schemes itself proliferated rapidly (an indicator of the deep ideological divisions between many of the key institutional actors), and with it, growing interest in comparability and equivalence between certification schemes.

In its early years, certification had implications principally for large forestry enterprises. However, in its maturing form, small growers are also likely to be profoundly affected by it. Indeed, in Europe the interests of such growers are already being accommodated, as is evident from the evolving design of the Pan European Forestry Certification scheme. Yet our fieldwork demonstrates that, in Australia, beyond a few industry officials actively engaged in forestry policy circles, there is a high level of ignorance amongst farm foresters. Little is known about its growth internationally; about the implications of that growth for the local industry; or even about the nature of certification itself.

It is difficult to imagine how farm foresters can mount an effective response to the certification issue, counter any dangers represented by it, or capitalise on the opportunities it offers, in the absence of reasoned reflection, debate, and the evolution of a rational policy response. This Report is intended to facilitate that process.

In this final section, drawing on the analysis in the preceding parts of the Report, we summarise the key issues under three headings: the relevance of certification to farm forestry; the preferred elements of certification; and the preferred certification model options. We begin, however, with an explanatory caveat.

Caveat

The overall objective of this report is to provide interested parties, particularly farm foresters, with the necessary background and analytical tools from which a more informed debate about the role, and preferred models, of certification in Australia. However, it is important to acknowledge that throughout large sections of this report we have spoken about the Australian farm forestry sector as though it possessed a collective will in dealing with the certification issue. In fact, as would be evident to the reader, this is far from the case.

Although the sector does have an industry association, in the form of Australian Forest Growers (although its disparate nature means that its membership base is far from comprehensive), ultimately, the decision to participate in one or other certification scheme rests entirely with the individual grower. Thus industry associations could negotiate the introduction of a particular certification scheme (as would necessarily be the case with an industry based strategic alliance model, but only optional in respect of the other two models) only to see a minority or even a majority of farm foresters electing to adopt an alternative certification scheme (or possibly choosing to adopt no certification at all). This freedom of choice is an inevitable, and arguably desirable, consequence of the voluntary nature of certification. It is hoped, then, that this report will be of equal value to individual farm foresters in weighing up the pros and cons of particular certification options, and indeed the certification issue in general.

The relevance of certification to farm forestry

The commercial context

Within Australia, farm forestry has not been alone in responding slowly to international certification developments. Both large growers and government agencies have historically tended to down play the significance of certification and to question its applicability to our domestic situation (although this has changed more recently). They have pointed out that the vast majority of certified timber to date has emerged from highly concentrated regions of forest industry in a relatively few (mostly developed and northern hemisphere) countries, and where relatively mature, industrial and sophisticated forestry operations predominate. They have also noted that these are not the primary markets of Australian forest products. It is also the case that it is retailers, rather than consumers, who have been the principal drivers of certification in the supply chain. They in turn have acted in response to pressure from environmental organisations to change their purchasing policies, sometimes under the threat of negative political campaigns (the experience of Home Depot in the United States is illustrative in this regard). At the end of the supply chain, there remains doubt about whether, or to what extent, consumers are willing to pay a market premium for certified timber.

For these reasons, amongst others, the Australian federal government has (until recently) not sought to foster certification domestically, focusing instead on the potential contributions to certification of existing processes such as Regional Forest Agreements and the Montreal Process. At a national representative level, the forest industries have been actively antagonistic to certification in the form it has been emerging internationally (Lang, 2000). Environmental groups appear divided about the merits of certification, and those supporting it have been unsuccessful in generating sufficient interest amongst domestic consumers and/or retailers to counter the industry/government position. Overall, then, certification has clearly not received an enthusiastic reception in Australia.

But as large growers and government are now realising, Australia cannot remain isolated from broader international developments, and some export markets may be threatened seriously by a failure to develop a coherent and effective policy response to certification. Indeed, it is possible that a failure to effectively engage with certification, and a tendency to underestimate its policy/political significance, has already left the Australian forestry industry in the invidious position of having to play catch-up with policy initiatives in the rest of the world. The Australian forestry industry is now confronted with a situation where it must either come to terms with certification or risk its future prosperity (at least in terms of its export markets and the threat of market access restrictions) being threatened by forces substantially outside its control.

Of course, the worst case scenario may not eventuate. Certification may remain principally a Western European and North American phenomenon. It may be that Asian markets, especially Japan, and especially the market for pulp, will be relatively untouched by it (although this is by no means assured). It may even be that Australian consumers and retailers will remain as uninterested in certification in the future as they have in the past. And it may be that “business as usual” will be possible even for those who ignore certification. For these reasons, then, it may be that in the short to medium term at least, farm forestry products destined for markets not sensitive to certification may gain little benefit from certification. An obvious benefit from a “do nothing” approach is the avoidance of potential costs associated with both the development, administration and implementation of a certification scheme, along with the costs confronted by individual growers in seeking certification.

It is important to acknowledge, however, that certification is a dynamic, not a static phenomenon. It has moved a long way in the last decade and it will likely move much further in the next one, including possibly in Asian markets. Indeed, the certification movement has built up very considerable momentum, not least because of:

- the commercial power of timber retailers in Northern Hemisphere countries;

- the political power of global environmental organisations;
- the growing preferences of consumers for environmentally benign products;
- the adoption of certification by forestry industries internationally (increasingly, those with whom Australian industry competes); and
- the increasing recognition by national governments that certification plays a legitimate role in forest policy.

These influences are, in many cases, beyond the immediate control of the Australian forest industry and government policymakers. As such, the industry may have no choice but to respond in some fashion to their dictates.

For all these reasons, it would be unwise to assume that Australian forestry will remain untouched by certification issues, and a rational risk management strategy is to seek to come to terms with it. Understandably, both the Australian government and National Association of Forest Industries have recently come to the same conclusion and both have begun to develop a cogent policy response to certification. Our argument is that the Australian farm forestry sector, for similar reasons, must do likewise. For although the threat to large growers is much more pressing than it is to small operations, in the longer term, small growers too, will feel the impact of international political and market forces which favour certification, and which have implications for *all* types of forestry. Most particularly, there is the very real prospect that, with further growth of certification internationally, Australian exporters of timber product could find themselves increasingly locked out of new or existing markets, or at least unable to realise future export opportunities.

For example, within the European and North American context, the proponents of certification are now in the potentially uncomfortable position (at least temporarily) of confronting a supply shortage of suitably certified timber. In the case of the United Kingdom timber retailer B&Q, this has forced them to cast their certified timber supply net further afield, and to accept timber from certification schemes other than which they were initially aligned. This demand for certified timber from timber retailers and wholesalers creates an obvious commercial opportunity for farm foresters seeking new international markets, particular in Europe and North America, which are hopefully more secure and lucrative than much of what is available in the domestic market. The price of entry, however, may be possession of certification under an internationally recognised scheme.

Conversely, there is the risk that farm foresters, at least those engaged in commercial operations, may find in the not too distant future even their traditional markets, such as domestic retailers (as they fall into line with their international counterparts) or conceivably Japanese pulp companies (although these would probably be the last to succumb) might demand certification as a minimum standard of doing business. Alternatively, they may also miss out on any price premiums being offered for certified timber product (although at present it is debatable whether any such premium exists).

Certification's broader benefits

As we noted earlier, the Australian farm forestry sector currently lacks economic and organisational maturity. It is confronted with uncertain future markets, is made up of divergent management and ownerships structures, varies from small to larger operations, and is composed of foresters with several different motivations (from altruistic, through pragmatic, to commercial in nature). It is also an industry that has been largely overshadowed, both politically and commercially, by a much larger and economically mature public native forestry industry.

If the farm forestry sector is to reach its commercial potential, it will necessarily have to undergo significant maturation. In particular, it must escape the clutches of its cottage-based industrial heritage. Certification could assist in this process in several ways. First, the very act of negotiating and agreeing on a common certification format (if indeed this is done) may inspire a much greater

level of organisational sophistication and cooperation on the part of the sector. This may have the added benefit of providing with greater political and policy “muscle”.

Second, the arrival of a common set of management standards may force the sector to close the quite significant gap that exists between the leaders and laggards in the industry in terms of their forestry practices, and in so doing, improve their overall level of professionalism.

Third, and finally, certification may provide a catalyst, and the opportunity, for more effective marketing campaigns, both for the sector as a whole, and for individual operations. In this respect, product differentiation from the public native forest industry (if sought) may be relevant in some markets, including, potentially, the domestic market.

Apart from the obvious commercial benefits and dangers, and the potential sector wide benefits, there are additional, intrinsic benefits that may to accrue to individual farm foresters through their adoption of certification. As we highlighted earlier, improved environmental management practices can have a positive knock-on effect to greater management and financial efficiencies across their businesses as a whole. This has been demonstrated in other industries, for example, with the advent of similar process management standards such as the ISO 14001 environmental management system (Gunningham and Sinclair, 1999). This phenomenon may be particularly relevant to those smaller, independent farm foresters that usually possess only relatively unsophisticated management practices. It is likely that better environmental management practices will lead to better forestry practices and outcomes on the ground. These may be improved by better management practices generally.

Bottom lines

From the above we draw two broad conclusions. First, certification is an international phenomenon that is continuing to expand, both in terms of the volume of forests covered by it and the number of countries, forest companies, retailers and consumers who subscribe to it. For this reason certification is an increasingly important issue to Australian forestry, particularly for those who trade in the expanding number of environmentally sensitive markets. As certification further expands and matures, it will also have important implications to farm foresters to the extent that they also trade in those markets. As the ownership structure of Australia’s forest industries becomes increasingly internationalised, the importance of competitive access to European and North American markets sensitive to certification is likely to also increase, for both planted and native forest products. Over time, this may come to include the Australian domestic market.

Second, these are compelling reasons for the Australian farm forestry sector to, if not immediately embrace certification, then at least to actively engage in debate about its domestic application. Since the farm forestry sector cannot afford to ignore certification, it is in its interests to develop a cogent and coherent policy position on the issue and to argue this position in all relevant fora. Avoiding or coming late to the policy table can have negative consequences. These include a diminished industry voice, and an incapacity to shape outcomes in the interests of the sector, or to seize market opportunities provided by certification.

This Report seeks to provide the necessary information, background and analysis to enable Australian farm forestry to come to terms with that debate and to take a proactive position upon it. However, to the extent that that position is a political one, it is not our role to make recommendations but rather to provide the context and analysis to facilitate the industry making its own informed decisions.

The preferred elements of certification

To the extent that farm forestry decides to go down the certification path, an important issue will be *how* their particular needs and circumstances can be successfully accommodated. This issue is a particularly sensitive one to farm foresters because, despite its growth, certification has been, and to a large extent remains, a relatively exclusive club of larger-scale forestry operations native or "native-like" forests of industrialised economies in the Northern Hemisphere. It is only extremely recently that a minority of schemes (most notably Pan European Forestry Certification, but also the Forest Stewardship Council) have begun to grapple with the particular issues which will be central to certification of smaller, privately owned operations, and plantation operations. Of course, it precisely these sort of characteristics that predominate in the Australian farm forestry sector.

Given this background, a crucial task for the Australian farm forestry community is to ensure that its particular interests are adequately addressed. In doing so, it is important to recognise that it has a number of features that distinguish it from mainstream forestry enterprises, and that many of these will have a bearing on *how* it might adopt certification. These include:

- an immature, disparate and tenuous industry structure;
- geographically disparate landholdings;
- the presence of very small forestry operations, often with limited resources;
- a heterogeneity of forest types, including plantation, exotic, old growth native and regrowth native;
- a diversity of motivations for engaging in farm forestry
- a lack of environmental management expertise; and
- untested financial returns and/or economic marginality.

In addition, there are a wide variety of management structures within the sector, from small mixed-farm operations, through larger joint venture arrangements, to completely out-sourced plantation leases. Obviously, then, the capacity and desire of farm foresters to go down the certification route will vary according to their individual circumstances. Indeed, as previously noted, certification is most likely to have application to commercially orientated farm forestry operations rather than to those with other motivations.

In light of the particularities of the Australian farm forestry sector, then, what are the preferred elements of a certification scheme (that the sector might actively lobby for and/or seek out)? Prominent amongst these will be the following:

A capacity to accommodate a wide variety of forest types

Although these is broad support for this objective in principle, especially in comparability and equivalence initiatives, current certification schemes have only advanced a very limited way towards achieving it. It should be a priority for farm foresters that plantation, exotic, old growth and regrowth native forestry operations can be equally and easily accommodated under any proposed certification scheme.

A capacity to accommodate a wide variety of management structures

The great diversity of farm forestry management structures, including small operators, joint ventures and industrial plantation, poses particular problems for existing or proposed certification schemes that have been developed with essentially large forestry operations in mind. If this issue is not adequately addressed, there is a risk that only those larger, more sophisticated farm forestry operations will be able to participate in, and therefore benefit from, certification.

The introduction of a streamlined environmental management system

The lack of management acumen and resources may be an insurmountable hurdle to many farm forestry operations interested in certification. In order to overcome this, a simplified, streamlined management system should be introduced, at least as an option, to cater for smaller farm foresters. Over time, they should have the opportunity to progress to a more sophisticated environmental management system alongside their larger peers. One way of achieving this would be an initial emphasis on compliance with Codes of Forest Practice (such as exists in Tasmania for private land), or in states where these have not yet been developed for private forests (such as New South Wales and Queensland), their proxies in public forest management. This approach would be more realistic and potentially environmentally beneficial for smaller farm foresters than more sophisticated environmental management systems. In part, this is because such codes, relates to on-ground activities.

Integration with other farm based management systems

This applies in particular to mixed farm operations. The influx of many different management systems (including whole farm plans), many with compulsory external accreditation, covering a wider range of farm activities creates an obvious and unwelcome administrative burden. Any efforts to remedy this through the avoidance of duplication would obviously be welcome.

The availability of group certification

This could be an important means of both minimising start-up costs and sharing information and expertise for many (but not necessarily all) farm foresters. Group certification need not occur in geographically proximate regions, but would imply the establishment of common environmental management strategies and practices. In short, it aims to create economies of scale that might otherwise not be available to smaller farm foresters.

Multiple farm forestry management units

This is an extension of the group certification concept. In this case however, geographically proximate farm foresters would be certified as though they were a single forestry operation. This would therefore not only entail common environmental management, but *coordinated and integrated* environmental management between separate properties. In addition to minimising costs and maximising expertise, this would provide greater management flexibility for smaller farm foresters in particular.

The use of independent, third party certifiers

Given recent international developments in comparability and equivalence, it is highly likely that any certification model would require the use of independent certifiers. Nevertheless it is worthwhile stating this unequivocally, if only to emphasis the need for political credibility if certification is to be successful.

The engagement of commercial third parties

Given Australia's trade deficit in timber products, and our existing export bias towards Asian countries, it may be unrealistic to expect in the short term that lucrative new sales of certified timber to the Northern Hemisphere are going to transform the industry. An important factor in the success of certification for Australian farm forestry, therefore, will be the development of domestic market demand. International experience clearly demonstrates that the most effective way of achieving this is to engender the support of timber wholesalers and retailers. This has particular relevance to those in the farm forestry sector desiring to move towards higher value added timber sales. Those farm foresters going down the certification path may be advantaged by domestic demand for "green" timber (see "Doctors and Lawyers for Forests", 2000).

A capacity to accommodate carbon credits (and/or payments for other environmental services)

Although they may appear a relatively remote interest given the glacial pace of (and indeed the very recent breakdown of) international climate change negotiations, carbon credits have particular resonance for the farm forestry sector. This is because the potential advent of carbon trading, if it includes sinks as well as sources, will almost certainly be a powerful driver of farm forestry. The capacity of farm forestry to deliver benefits is not, however limited to carbon sinks. Other environmental issues too are potentially pertinent. For example, the mooted introduction of salinity credits could see some forms of farm forestry qualifying as quantifiable salinity abatement activities. It would therefore seem prudent that a certification scheme have the capacity to address such additional dimensions, even at some future point in time (as we noted earlier, some farm forestry joint venture arrangements already address the allocation of carbon credits in their contracts).

Broad stakeholder involvement

The success of certification depends ultimately upon its acceptance in both the market place and the community as a whole. In this respect, broad stakeholder involvement (including that of environmental organisations) is likely to be a critical test of external credibility, and therefore a key determinant of any subsequent commercial benefits. There would seem to be little point in embarking on the path of certification if the very thing that determines its success is not adequately addressed. The potential for farm forestry to be perceived by the community as possessing an environmental advantage over more traditional types of native forestry is pertinent in this regard.

The preferred certification model option(s)

We now arrive at the politically vexed and contentious question which lies at the very heart of the certification debate, and perhaps not surprisingly, the issue that also generates most interest. Put crudely, to which certification "mast" should farm foresters, either collectively or individually, nail their colours? Only if there were formal harmonisation and/or mutual recognition of the different certification schemes, both by their proponents *and* the major commercial retailers, could this issue be avoided. Under such an arrangement, the political divisions between different certification schemes and their institutional backers would inevitably dissipate. Such a degree of institutional cooperation, however, is unlikely to occur in the near to medium term (even though there has and continues to be considerable policy convergence), and so the fundamental question of which scheme to opt for, must be confronted.

Before engaging with this question directly, it is instructive to describe the major strategic, political and economic risks that confront the Australian farm forestry sector in embarking upon a certification strategy. These are:

- that the certification scheme adopted does not enjoy widespread support, particularly from environmental organisations. If this were to occur, farm foresters could leave themselves open to negative publicity, with the potential to undermine the very purpose of certification, that is, to gain a commercial advantage over non-certified timber through a positive environmental image. It is conceivable, even, that some retailers in international markets might not accept timber certified under a scheme under attack from environmental organisations;
- that the certification scheme adopted does not enjoy a significant international recognition. In this case, although it may not be subjected to an attack on its credibility, its application as a marketing and promotional tool may be limited by its low profile. This may be compounded by the advent of other rival certification schemes;
- that the certification scheme does not conform to international norms. Although there are no formally agreed minimum certification requirements, and it is an evolving science, increasingly there is an informal convergence of key elements (such as the use of independent, third party certifiers). A failure to encompass these may precipitate objections from a wider range of actors, not just environmental organisations;

- that the certification scheme fails to adequately distinguish between the farm forestry sector and more traditional forestry enterprises in Australia. This could have two negative outcomes. First, from a marketing perspective, it may limit the capacity of farm forestry to gain a competitive advantage over a commercial rival. Second, it may suffer from any cross-fire directed by environmental organisations at the continued logging of public native forests;
- that a certification scheme dominated by environmental organisations will not enjoy the widespread support of the farm forestry community. Many in the industry are uncomfortable with environmental organisations enjoying a "controlling interest" in the ownership and operation of a certification scheme, even if they are willing to accept their involvement in a more consultative fashion; and
- that the chosen certification scheme is subsequently swamped by the superior commercial, marketing and political weight of a rival certification scheme. This outcome would not only involve a very substantial waste of time and resources, but may undermine the future credibility of farm forestry.

Clearly, there is a tension between a number of the above criteria, with the result that it would be impossible to accommodate all of them within a single certification model, and that trade-offs are inevitable. Whichever model is adopted, some political preferences will go unmet, and/or some economic opportunities will be lost. And choices must be made in the often bitter and ideologically polarised context in which much of Australian forest policy debate has occurred over the last two decades.

The choice of scheme is made somewhat easier by the fact that the large majority of purportedly international schemes are not viable options for the Australian forest industry or farm forestry in particular. This is because the vast majority of certification scheme are nationally based. That is, they have been developed specifically to promote the interests of domestic forest industries. As such they are tailored to the specific circumstances of that country and that industry. Moreover, they would clearly not facilitate participation from a potential economic rival. If we eliminate the nationally, or quasi nationally, based certification schemes from our list of potential candidates, this leaves a greatly shortened list. In fact, the only genuinely international *pre-existing certification* schemes are the Forest Stewardship Council and Pan European Forestry Certification (and this latter scheme is not actually a certification scheme in its own right, rather it provides overarching recognition of a number of domestic certification schemes).

What about a domestic certification scheme? Even here, however, as the preceding part of the report articulates, there are only a very limited number of possibilities. For example, the ability and/or likelihood of the Australian farm forestry sector proceeding with its own, in-house certification scheme is remote. This leaves the proposed Australian Forestry Standard (still in the process of development) or some as yet to be developed hybrid scheme. To summarise, as a consequence of this culling process, then we are left with only three genuinely viable certification models for application in the Australian farm forestry sector. In broad terms, these are:

- The Australian Forestry Standard.
- The Forest Stewardship Council.
- An alliance between a domestic certification scheme and an existing international certification scheme.

We discuss the relative are advantages and disadvantages of each of these certification options below.

Australian Forestry Standard

There are a number of significant advantages to the Australian Forestry Standard model. First, it has the imprimatur of the government, the wider forestry industry, the standards associations, and some scientific experts. Second, it builds on and links with existing forest policies and practices in

Australia. Third, it follows the path of the (arguably successful) Canadian approach to certification, which in turn is based the internationally recognised environmental management standard ISO 14001. Fourth, it conforms to the wishes of the majority of farm foresters interviewed for this report in expressing a preference for an independent standards body to administer certification in Australia. Fifth, and finally, the farm forestry sector, through Australian Forest Growers, has already committed itself the Australian Forestry Standard process, and arguably this should at least be completed before any final judgement is made.

The potentially negative aspects of the Australian Forestry Standard are threefold. First, there is no guarantee that an Australian Forestry Standard will eventuate. It is possible that the many technical and/or political hurdles to its introduction prove to be insurmountable, in which case, the farm forestry sector will have "backed the wrong horse" and potentially lost valuable time and credibility in the certification arena. Second, there is a danger that by supporting the Australian Forestry Standard the farm forestry sector is aligning itself too closely with the traditional forestry industry, which is in many ways a commercial competitor. Consumers may not distinguish between the resultant timber products, or worse, farm forestry could be unwittingly associated with any criticism of continued logging of public native forests. Third, there is the very real possibility that major environmental organisations, having been lukewarm at best, will then conduct an overtly negative publicity campaign during its operational phase.[17] If such a campaign were successful, it could undermine the credibility of an Australian Forestry Standard certification label, and thus in turn undermine the fundamental attraction of certification for farm foresters: commercial advantage through market access and product premiums.

Forest Stewardship Council

The attractions of the Forest Stewardship Council certification model are clear. This is the dominant scheme internationally, with the greatest market share, both in terms of supply and demand, and would provide farm forestry timber product with instant recognition in a variety of international markets. If farm foresters were to pursue this option in isolation of the wider Australian forestry industry, it might also provide them with a much needed brand differentiation, and therefore greater marketing benefits, on the domestic front. This could be assisted by negative perceptions of continued logging of public native forests by the traditional forestry industry.

On the down-side, the sector might be seen as ceding too much management control to a large international organisation, remote from Australian circumstances and farm forestry interests, and with a less than impressive track record in accommodating forestry types and operations outside of a large, industrial, Northern Hemisphere forestry paradigm. It may also cause significant angst amongst large sections of the farm forestry sector that are nervous about a controlling involvement by environmental organisations – and draw significant antagonism from the traditional forestry industry. Finally, in the case of private native forestry, it is not clear whether or how this could be accommodated under the Forest Stewardship Council model, given the possibility of opposition from some domestic environmental organisations.

An alliance between a domestic certification scheme and an existing international certification scheme

As discussed above, the Australian Forestry Standard (in isolation) might not ever develop sufficient credibility to be a viable certification prospect from the perspective of farm foresters. Similarly, the Forest Stewardship Council, although it may come with significant international credibility, has substantial political constraints attached to it (particularly in an Australian industry context) that might equally limit its applicability. One way of overcoming these constraints would be to seek an alliance (or alignment) between a domestic certification scheme and an existing international certification scheme, namely the Forest Stewardship Council or Pan European Forestry Certification.

[17] As noted above, at the time of writing, the World Fund for Nature and the Native Forest Network, although not present on the Australian Forestry Standard steering committee, have been invited and may participate in the technical committee.

This could be achieved (from the perspective of the farm forestry sector) either *directly* under their auspices (the proposed New Zealand plantation industry certification scheme is an example of such an approach), or *indirectly* through accreditation (recognition) of the Australian Forestry Standard with those dominant players (the United Kingdom Woodland Assurance Scheme is an example of this approach).

The attraction of an alliance model is that it would to some extent lessen the above concerns associated with the application of the Forest Stewardship Council or the Australian Forestry Standard models *in isolation*. In the case of a direct alliance between the Forest Stewardship Council and the farm forestry sector, for example, it might allow the sector to retain a degree of control, at the same time as tapping into the international recognition afforded by this scheme (it may also facilitate even greater brand differentiation from the traditional forest industry, and its commercially competitive timber products, than a exclusively Forest Stewardship Council arrangement). Alternatively, an alliance could be formed between the Forest Stewardship Council and the Australian Forestry Standard. This would be an effective means of overcoming possible environmental opposition to a stand alone Australian Forestry Standard, but also potentially sooth some industry concerns about ceding all control to the Forest Stewardship Council. Although, officially, the Forest Stewardship Council maintains that such arrangements are not supported, the experience of United Kingdom Woodland Assurance Scheme clearly demonstrates that this is not necessarily the case.

In the case of Pan European Forestry Certification, an alliance is in effect the only way to bring about its introduction in an Australian setting given, as noted above, that it operates on the basis of accrediting an existing nationally based certification schemes. As we have described earlier in this report, it is unlikely that the farm forestry sector would be able to develop a certification scheme in-house. This would apply even if there was the prospect of eventual recognition by Pan European Forestry Certification. Consequently, the only realistic alliance model in this instance would be recognition of the Australian Forestry Standard. This could be an effective means of overcoming limited international recognition/acceptance of the Australian Forestry Standard, particularly if support by environmental organisations is not forthcoming.

An alliance approach has considerable attraction over the other possible certification models. Are there any potential disadvantages? There is the possibility of additional administrative complexities associated with the successful negotiation of an alliance. For example, in the case of a direct alliance of the farm forestry sector and the Forest Stewardship Council, this would likely entail a significant organisational and resource commitment required on the part of the sector (although significantly less that what could be anticipated if the sector developed an in-house certification scheme). As noted above, the farm forestry sector is characterised by very diverse participants and interest, and lacks organisational and economic maturity. This could handicap its ability to effectively pursue this certification option. An alliance via the Australian Forestry Standard would largely overcome these constraints.

Making choices

It is not the role of this report to make specific a policy recommendation as to which of these certification models the Australian farm forestry sector should actively pursue or align itself with. That decision is in large part a political one that is beyond our brief, and must ultimately be left to the industry itself. Our role, in relation to these particular issues, is to identify the likely implications of adopting particular options, as we did in the preceding section. It may also assist the industry to advance its thinking on this issue if we develop two hypothetical scenarios, revolving around the issue of certification ownership (the most contentious and intransigent aspect of the entire certification debate). The two scenarios are as follows.

- The Australian Forestry Standard *successfully* captures the support and participation of key international and domestic organisations environmental organisations.
- The Australian Forestry Standard *fails* to capture the support and participation of key international and domestic organisations environmental organisations.

If the first scenario eventuates, then the decision as to the preferred certification model/ownership structure is straightforward. The farm forestry sector should simply and emphatically support introduction of the Australian Forestry Standard, and concentrate its efforts (as it is indeed currently doing) on ensuring that its particular needs and circumstances (highlighted above) are adequately addressed under any eventual Australian Forestry Standard certification regime. In this scenario, the industry could also promote an alliance between the Australian Forestry Standard and the Forest Stewardship Council as a means of attracting far greater international recognition. Such an outcome is only possible if the Australian Forestry Standard did indeed possess the support of relevant environmental organisations.

In the case of the second scenario, however, the preferred policy strategy is much more complex (at the time of writing, our assessment, set out in the body of this Report, is that the risk of this occurring is a real one). To adopt the Australian Forestry Standard (and reject the alternatives) in these circumstances, would bring with it very real risks for the farm forestry sector. As we have described above, these include the possibility of negative publicity, seriously compromised acceptance in the market place, and unwanted competition from a rival scheme, inevitably in the form of the Forest Stewardship Council.

In this circumstance, the fundamental *industry* basis for adopting certification – to gain market and commercial advantage – would be undermined, and the farm forestry sector might rationally explore the attractions of the other remaining certification options. As a consequence, one option available to the farm forestry sector would be to simply adopt the Forest Stewardship Council model without modification or through the alliance of an industry scheme. Although in many ways this would be the simplest approach, and have the significant advantage of instant international recognition, our research indicates that there is a sufficiently strong undercurrent of industry opposition to ceding too much control of certification to environmental organisations as to render this option politically unattainable, certainly in terms of a collective farm forestry endorsement. There would be nothing, however, as noted above, to stop individual farm foresters to go down this route (although it does presuppose the existence of a Australian Forest Stewardship Council working group to oversee this process).

However, a preferred policy strategy would be some form of certification strategic alliance. Assuming the logistical hurdles can be overcome, this could be either through a direct alliance between the farm forestry sector and the Forest Stewardship Council, or an alliance between the Australian Forestry Standard and Pan European Forestry Certification.

In the case of the former, this would not only bring the benefits of participating in a large, international certification scheme, whilst allowing the farm forestry sector to more easily ensure that its particular circumstances are addressed, but also provide a greater opportunity for it to forge a distinctive marketing identity from the non-farm forestry sector. This may be sufficient to overcome any latent concerns in the industry about an alignment with the “greens”. In the case of the latter, this would provide similar benefits (particular as Pan European Forestry Certification was in large part established to address the interests of small forestry operations). Although an alliance with Pan European Forestry Certification (given its perceived industry bias) might still attract criticism from environmental organisations, its growing international profile would allow to more easily withstand this than the Australian Forestry Standard could in isolation.

Finally, it should be noted that each of the above policy options are not necessarily mutually exclusive. For example, having adopted the Australian Forestry Standard as its preferred model, the industry (or other institutions) could still attempt some form of alliance or mutual with other, pre-existing international certification schemes. This, however, would not obviate the need to make at initial decision as to which policy path to pursue

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