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Environmental certification and the small forest grower

A report for the New Zealand Farm Forestry Association.

Forest Environments Limited
creating resilient landscapes

MAF

New Zealand Farm Forestry Association

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EXECUTIVE SUMMARY

Forest environmental certification is a market tool that allows consumers and wood product buyers to support sustainable forest management practices without using the bluntness of imposed boycotts that have the potential to adversely punish sustainable forest management. The most recognised forest environmental certification scheme in New Zealand is the Forest Stewardship Council (FSC).

Due to the widespread and rapid uptake of the FSC certification scheme by the New Zealand plantation forestry industry, small forest growers are beginning to feel pressured to follow suit. The wood processing sector is experiencing high demand for FSC certified products and is requesting that forest growers supply them with the FSC log product necessary to complete the market transaction. The industry awareness of FSC, and the marketing power of the FSC brand, will ensure that it stays in the foreseeable future as the primary forest certification scheme in New Zealand.

With the majority of the future expansion in log supply coming from small forest growers, there is potential for a 'buyers-market' to develop. Log-buyer preference will be given to scale of forest product volume, quality of log products and records of quality control. Forest accessibility, efficiency of harvest, and ability to supply the market specifications will be the key requirements for market access. FSC certification of log products is one of the key specifications that will need to be met by the forest grower.

To not obtain FSC certification in some geographic areas of New Zealand may mean a loss of strategic market place for forest products and as such, reduced revenue. This has already happened, albeit sporadically, in a number of regions in New Zealand.

In the future those small forest growers who have the ability to provide the wood processing sector with what they demand will benefit. Such forest growers will retain market access and will not suffer from the likely discounting of non-FSC certified logs. As importantly, these small forest growers will not suffer from being excluded from those processing plants that are in close proximity to their forest.

To date, small forest growers in New Zealand have not had sufficient market incentive to obtain FSC certification of their forests. For the small forest grower with a limited harvestable forest resource, the premiums or additional market access that have resulted from having FSC certification have not been sufficient to justify the cost and time attached to the certification procedure itself.

There are also a number of barriers for small forest growers that contribute to the lack of uptake of FSC certification by this group. Firstly, the lack of specific information about what is required by forest owners makes FSC something of an enigmatic system. The jargon-filled legalistic speak of the FSC Principles and Criteria, and of the interim New Zealand standard, is also a barrier to uptake. However, for small forest owners, the overarching barrier to obtaining FSC certification is financial cost. This cost includes the direct cost of certification, and the indirect costs attached to achieving compliance to the certification standards.

A forest certification system for small forest growers must be cost-effective, and be based on measurable and objective performance standards that are defined at the national level. The system must require independent, third-party assessment of forest performance.

The most cost effective scheme for small forest owners wishing to gain FSC certification is under a group certification Small Low Intensity Managed Forest (SLIMF) methodology. The streamlined procedures of the SLIMFs are to aid the cost effectiveness of small forest growers obtaining FSC certification, and are justified by the reduced risk of environmental damage by these forest operations.

Given the position of the New Zealand Farm Forestry Association (NZFFA), as a not-for-profit entity operating for the benefit of its members, it is in an excellent position to develop a group certification SLIMF scheme. Certification could provide increased benefits to at least some of the NZFFA's members. The group's certificate would be managed by an NZFFA appointed Group Manager, whose responsibility would be to manage the consistency and integrity of the scheme and to ensure that Branch Manager's are coordinating activities within their branch to a high standard.

Managing an FSC scheme is akin to running a forest management service and monitoring body. There are obvious start up costs attached to the systems management and capacity building to ensure educated uptake at a local level. The position of the NZFFA would be one of providing the guidance and management systems, and organising the local networks to allow individual small forest growers to understand what is required to meet the FSC standards.

Initiating a group SLIMF scheme will be a significant decision for the NZFFA, and as such some additional research should be undertaken before such a commitment is made. This research should include developing a better understanding of the regional demand for FSC log products, potential premiums or restrictions in access to market, and future wood harvest forecasts. Small forest growers need regionally-specific information detailing how FSC certification will impact upon their forest product marketing.

Concurrently, a sample of small forest growers and ENGO stakeholders should be selected to field test a SLIMF scheme. In doing so, a better understanding of the level of philosophical agreement regarding sustainable forest management amongst these stakeholders will be gained. Other outputs should include an analysis of the ability of the sample group of forest owners to meet the requirements of the draft New Zealand forestry standard, a review of the SLIMF system, and recommendations made to the NZFFA for future system development.

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FOREST ENVIRONMENTS LIMITED

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1.0 INTRODUCTION

This report provides an overview of environmental certification in the forestry industry and the implications of environmental certification for the New Zealand small forest grower. It was prepared by Forest Environments Limited at the request of the New Zealand Farm Forestry Association (NZFFA), using Forest Industries Development Agenda (FIDA) funding.

Forest environmental certification is a process by which forests are certified by an independent third party as being managed using sustainable forestry practices. The process typically involves assessment of field-level forest management practices and management systems against pre-determined indicators of specific ecological, social and economic standards.

Within New Zealand there has been rapid uptake of environmental certification schemes by the major plantation growers, with an almost exclusive focus on the Forest Stewardship Council (FSC) scheme. However, to date, the uptake of environmental certification by small forest growers has been minimal. This report examines why this is so, and also discusses what the barriers to uptake of environmental certification are.

The current drivers of demand for environmental certification schemes are discussed, and the need for small forest owners to have environmental certification leading into a market period of increased log supply is highlighted.

South Otago is used as a case study for assessing the costs and benefits of small forest growers obtaining FSC certification. This includes discussion about the local market demand for FSC certified forest products, and an analysis of the profitability and potential loss of market access due to a lack of certified forest products.

Recognising the existing barriers to small forest growers in up taking forest certification, the Small Low Intensity Managed Forests (SLIMF) scheme is evaluated for its potential to cost effectively allow small forest growers to become FSC certified. Recommendations for trialling of such a scheme are made, with a view to using the trial to expose certification issues that are typical to small forest growers.

This report has been developed as a discussion document for the National Executive of the New Zealand Farm Forestry Association and for its members. The report will be useful for small forest growers in being able to better understand the drivers for certification, the costs and demands of forest certification, and the potential mechanisms for having their forests certified. This report will also assist the National Executive of the New Zealand Farm Forestry Association in formulating a strategy that will assist their members to access the environmental market place.

2.0 FOREST CERTIFICATION

2.1 CURRENT TRENDS IN DEMAND FOR 'SUSTAINABILITY'

Converging influences are currently forcing sustainability issues to the top of both business and government agendas throughout the western world. Rising consumer awareness, pressure on commodity and energy prices, scarcity of raw materials, together with regulatory and competitor actions are combining to ensure businesses cannot ignore the environmental and social dimensions of how they operate.

What was traditionally fringe, green consumer behaviour, is now becoming main stream. Consumers are buying the concept of 'sustainability', both notionally and at the tills. Consumers want to act and buy more sustainably, but are restricted by three key barriers – high price; confusion and lack of trust; and availability of alternatives.

A recent Price Waterhouse Coopers report explains "Today's consumers know, and care more about what they buy, how it is made, what it is made from, how far it travels and how it is packaged. The way consumers gather and share information has also changed; they are empowered and linked as never before by the internet. Information can spread globally in an instant. The consequences of being found to be operating unethically, or in an environmentally unfriendly manner, can be damaging and long-term. Equally important to retail and consumer goods businesses are the operational, cost and regulatory impacts of sustainability issues. These are having tangible effects upon every aspect of the business model, from the availability and price of raw materials to the types of products on the shelf and beyond" (PwC, 2008: 3).

PricewaterhouseCoopers (PwC) commissioned independent research into the attitudes and habits of 4,000 UK consumers and the results clearly demonstrate the existence of mainstream public awareness and concern about sustainability issues. Over 60% of consumers stated that sustainability issues (climate change, poverty, food and water shortages) were the most important issues facing the world. When asked about climate change, 80% said they were 'worried'. (PwC, 2008: 4).

Awareness of environmental issues has clearly been influenced by an explosion of media coverage. The number of articles appearing in the mainstream national UK press has increased ten-fold over the past decade and doubled between 2005 and 2007. This awareness and concern is motivating action and changing behaviour. The changes in behaviour are 'convenient changes', enabled by external action (such as recycling and doorstep collection) that is relatively easy for people to understand, and which may save them money. Purchasing habits of consumers have changed as well, with Fairtrade food penetration having grown from 20% of shoppers three years ago to 50% now. Organic food purchasing has grown from 22% to 43%. Non-food shows similar growth, albeit from a lower base. In addition, consumers clearly indicate they want to buy more sustainably; 58% buy fewer sustainable products than they would like to.
(PriceWaterhouse Coopers, 2008.)

Though the desire to purchase 'sustainable' is growing significantly, there are three significant barriers that are preventing consumers from acting as much as they would prefer. Price of product is the number one inhibitor for purchasing 'sustainable' products, with a marked price increase (average of c.45%) for environmentally and ethically friendly products. Reducing the disparity between these products, and the 'normal' shop products is considered to be a key challenge for retailers. During periods of economic buoyancy there is likely to be a greater willingness to purchase environmentally certified products at a premium.

The second major barrier to purchasing 'sustainable' is confusion. The contradictory and often overwhelming information about the implications of buying one product over another leaves consumers confused and unable to act on their concerns at the point of purchase. "They want to make sustainable choices, but are hampered by unclear messages. This confusion, coupled with high prices, leads to a lack of trust among shoppers. Over 50% of consumers questioned stated they trust Non-Governmental Organisations (NGOs), such as Greenpeace and the Fairtrade Foundation in the area of sustainability, whereas only 9%-16% gave the same level of trust to consumer goods companies and retailers" (PWC, 2008: 6).

The third major barrier to consumers purchasing 'sustainable' is a perceived, or otherwise, lack of alternatives. That is, sustainable alternatives do not exist for all product lines, and as such, provide consumers with no choice about where to spend.

From a retail perspective what is clear is that 'greenwashing' no longer works. Consumers are smarter, better informed and more discerning. Certainly, in today's tighter economic climate consumers will want to understand why a price premium exists so they can make an educated choice on which products best fit their emotional, ethical and functional needs.

2.2 SUSTAINABLE FOREST AND WOOD PRODUCT TRENDS

Increased awareness of certification systems, alongside a growing awareness of the social and environmental implications of poor forest management, has lead to a rapid growth in the demand for certified forest products. In 2008, more than 300 million hectares (almost 8% of the worlds' forests) were certified by independent third parties, representing a significant increase since third-party certification was introduced in 1993 (FAO, 2009). The two main forest certification schemes are the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification Schemes (PEFC). In 2006, certified forests supplied approximately 24% of the global industrial round wood market, with PEFC estimating that by 2017, this will have risen to 45% (FAO, 2009).

A wide range of forest certification schemes exist today, leading to increased confusion among consumers and potential users faced with numerous choices without having the ability or knowledge to

differentiate. A particular challenge for producers is making the choice of label when there are several certification schemes of the same type, or when they export to markets where different labels are popular.

To assist forest producers to understand what certification system they should partake in, the WWF report (WWF, date unknown, p.10) outlines the following requirements for effective certification systems:

- Credible to consumers and conservation NGOs
- Based on objective and measurable criteria
- Based on reliable and independent assessment
- Uninfluenced by parties with vested interests
- Cost-effective
- Transparent
- Institutionally and politically adapted to local conditions
- Goal-oriented and effective in reaching objectives
- Acceptable to all involved parties
- Based on regional and / or national-level forestry standards compatible with generally accepted international principles
- Easily understood by consumers.

2.2.1 Forest Stewardship Council (FSC) Facts and Figures

(Note, these figures have been taken from the FSC website (www.fsc.org) and have not been verified by an external agency).

- Over 100 million hectares are certified to FSC standards
- 904 certificates issued, spread throughout 78 countries
- Approximately 9% of the world's pulp supply is FSC certified
- Currently there are 2,999 and 576 chain of custody certificates in Europe and the USA respectively. This includes the large retailers B&Q, Tesco, Home Buy (UK), Home Depot (US), Lowes, and IKEA.

2.2.2 FSC IN NZ

The majority of large plantation owners in New Zealand are now FSC certified, or are in the process of becoming certified. The 2008 / 09 "New Zealand Forest Industry Facts and Figures" explains that 977,000 hectares of the total plantation resource of 1,790,000 hectares is FSC certified. This equates to 55% of the combined New Zealand plantation estate being FSC certified. The table over page provides detail about the New Zealand FSC certified estate.

Certification bodies share this load, with SCS, SGS Qualifor and Smartwood all providing significant input and expertise in this field.

The New Zealand Forest Industry Facts and Figures (2008 /09) identifies 47.5% of New Zealand's 20.3 million cubic metre annual harvest as being FSC certified.

Certificate Holder / Forest Owner	**Certification Body**	**Size of Forest Management Unit (Hectares)**
Blakely Pacific Limited	SGS Qualifor	29,500 ha *
City Forests Limited	SGS Qualifor	16,119 ha *
Craigpine Timber Limited	SGS Qualifor	4,200 ha *
Ernslaw One Limited - North Island	Smartwood	78,780 ha **
Ernslaw One Limited - North Island ex WPI forests	SGS Qualifor	24, 698 ha **
Ernslaw One Limited – South Island	SGS Qualifor	29,919 ha **
Hancock Forest Management (NZ) Limited	SCS	222,720 ha *
Hikurangi Forest Farms Limited	Smartwood	29,018 ha *
Juken New Zealand Limited	SGS Qualifor	15,144 ha **
Lindsay and Dixon	Smartwood	11,920 ha *
NZ Forest Managers	SGS Qualifor	48,462 ha **
Pan Pac Forest Products Limited	SGS Qualifor	34,428 ha *
PF Olsen Limited	Smartwood	69,362 ha *
Rayonier Matariki Limited	SGS Qualifor	38 ,254 ha *
Southland Plantation Forestry	Smartwood	10,000 ha *

Company of NZ		
Kaingaroa Timberlands	SCS	188,768 ha *
Timberlands West Coast Limited	SGS	46,142 ha *
Wenita Forest Products Ltd	SGS	29,094 ha *
Other FSC		65,943 ha *

Note: (*) Sourced from the NZ Forest Industries Facts and Figures 2008 / 09

(**) Sourced from (www.fscinfo.org/)

2.2.3 PROGRAMME FOR THE ENDORSEMENT OF FOREST CERTIFICATION SYSTEMS (PEFC)

(Note, these figures have been taken from the PEFC website (www.pefc.org) and have not been verified by an external agency).

- 35 independent national forest certification systems; of which 25 have been assessed
- These 25 systems account for more than 200 million hectares of forest, spread over 19 countries
- Currently there are 4930 chain of custody certificates issued

It is interesting to note that all but one of the certified forest areas are based in temperate, industrialised countries, dominated by European countries such as Finland and Austria. Canada, Australia and the USA are also significant contributors. There are no PEFC-endorsed certification systems within the tropics (from information provided on www.pefc.org).

2.3 DRIVERS OF FOREST MANAGEMENT CERTIFICATION

There are a number of converging drivers that are combining to increase the demand for certified forest products, both within New Zealand and overseas. Both within New Zealand, and internationally, there is a growing demand for certified forest products. This growing demand is now well established, and shows no indication of slowing.

The key drivers are discussed below.

2.3.1 CONSUMER DEMAND

Forest certification represents a shift from regulatory approaches to sustainable forest management, to market incentives promoting sustainable forest management. Forest certification is a market tool that allows consumers and wood product buyers to support sustainable forest practices without using the bluntness of imposed boycotts which could adversely punish sustainable forest management as well as the unsustainable practices.

Such certification schemes seek to link 'green consumers' to producers who are seeking to improve their forest management practices and obtain better market access and higher revenue. In addition to timber management issues, certification is perceived as a way to appease consumer concerns that the products they purchase are somehow contributing to irreversible damage to the environment (Peterson 1994, in Vlosky et al. 1999:4).

A study undertaken by Vlosky et al (1999) compared the perceptions and attitudes of wood product consumers in New Zealand the United States. In the study they compared six areas of consumer perceptions about environmental wood products. The New Zealand consumers who were surveyed responded by indicating they understood the concept of environmental certification (3.98 / 5.00), and that they generally believed the accuracy of the environmental claims (3.67/5.00). When questioned about the ability of environmental certification to positively influence the health of domestic forests, the New Zealand consumers responded strongly (4.22/ 5.00). Consumers also strongly indicated that there is a need to incorporate certification into domestic forest management and harvesting practices (4.33/5.00). With regard to the need to certify tropical forests, or that certification can lead to a reduction in tropical deforestation, there was a strong (97%) agreement that certification is needed and will help improve the health of tropical forests.

The justifications highlighted by the New Zealand consumers translated into a strong indication of intent to purchase environmentally safe wood products (70%). If certified wood products were available, the respondents indicated they would seek them out (3.76/5.00). However, the proportion of consumers that did actually purchase environmentally safe wood products was quite low (2.84/5.00), though this could possibly be explained by a lack of availability of certified wood products at that point in time. Bigsby et al. (1997) in Vlosky et al (1999:13) found that 75% of the New Zealand survey respondents

would pay a premium for environmentally certified products. About 50% of these respondents stated that the premium would be between 10-25% higher than existing prices.

Lastly, a question was posed to respondents that dealt with the degree of trust they would place with certain entities in certifying wood products. Non-governmental environmental organizations received the highest vote of confidence to certify at 59.8%, compared to the almost-total rejection of the wood products industry to certify (7.6%) and Government to certify at 10% (Vlosky et al. 1999:14).

The WWF discussion paper, "Forests for Life "(Date unknown: 3) discusses market research conducted for the National Association of Forest Industries (NAFI) in Australia in 1995, which indicated that more than 80% of survey respondents wanted "independent, third party auditing to demonstrate that forests are sustainably managed".

2.3.2 GOVERNMENT PROCUREMENT POLICY AND TRADE ISSUES

The current international trade regime requires that trade measures do not discriminate between like products on the basis of the method of production. In the case of timber production, forest management is the method of production. Therefore, under the World Trade Organisation's rules, timber certification must be voluntary and must apply to all types of timber and timber products. In theory, market forces will dictate the demand for particular types of forest products, and as such, voluntary certification will not lead to trade distortions. However, there is some evidence that domestic policy is starting to influence market access.

The growing status of certification schemes is demonstrated by the push from western governments to heavily influence the wood product procurement requirements of private enterprise, as well stipulating conditions on their own purchases. Usually timber procurement schemes will make reference to certificates issued by a limited number of certification schemes, though they will often reference other documentary evidence. Often, however, the choice of certification schemes is only theoretically available. This is because the other options listed are insufficiently developed.

A number of governments, mainly in Europe, have adopted procurement policies either directly or effectively requiring that wood products purchased by government be certified. There is ongoing European Union debate about what criteria may legitimately be included (Tarasovsky, in Dilling et al. 2008: 274).

Northern Hemisphere Governments with procurement policies that either require FSC, or where FSC is stipulated as a means of meeting environmental procurement standards, include the United Kingdom, France, Belgium, Germany, Netherlands, Denmark and Japan.

The United Kingdom's Government Timber procurement policy guidelines state that for the purpose of this policy, sustainable timber and wood products must come from a forest which is managed in accordance with a definition of sustainable that meets the following requirements:

"The definition must be based on a widely accepted set of international principles and criteria defining sustainable or responsible forest management at the forest management unit level, such as:

- Intergovernmental processes designed for use at FMU level
- ITTO criteria
- FSC, PEFC" (From Rhodes, 2008).

Note that there are no other certification schemes listed.

These procurement policies could be considered to be at odds with international trade law that aims to discourage regulations of extra-territorial production processes and methods (PPMs) as potential non-tariff barriers to trade (Dilling et al. 2008:274). Regardless, the adoption of procurement policies by governments has been a major force in promoting certification generally. Though certification schemes can be considered to be voluntary, the need to meet the demand requirements of purchasers mean that it is now considered by many in the forestry industry to be an absolute necessity.

2.3.3 The New Zealand Government Forest Product Procurement Policy

The New Zealand Government's Timber and Wood Products Procurement Policy (TWPP) is "an expression of its commitment to show leadership in addressing illegal logging and supporting the development of international sustainable forestry management".
(http://www.maf.govt.nz/forestry/twpp/page-01.htm)

Explicitly stated within the policy guidelines, is the intent to use the 'purchasing power' of government agencies to send a market signal that favours legally and sustainably produced timber and wood products. New Zealand Government agencies are 'strongly encouraged' to give preference to timber and wood products from sustainably managed sources, and are guided to recognise a number of certification schemes that will provide agencies with the assurance needed. The New Zealand Timber and Wood Products Procurement Policy does not endorse any one certification scheme over another.

Government guidelines also identify the use of 'equivalent evidence or origin of products' as being suitable, noting the voluntary National Standard for Environmental Certification of well-managed Plantation Forests in New Zealand.

2.3.4 Government Participation in Certification Programmes

Running contrary to the Non Governmental Organisation (NGO) /market-lead doctrine that underpins the Forest Stewardship Council (FSC) has been the direct participation of governments in the establishment of national FSC standards. The United Kingdom Woodland Assurance Scheme was developed with government funding. In Australia, the Commonwealth, State and Territory governments have partnered with the forestry industry to develop the Australian Forestry Standard. This standard has subsequently been recognised by the Programme for the Endorsement of Forest Certification Schemes (PEFC) and has seen the establishment of a not-for-profit company to promote the standard. The Victorian State government has announced that it will provide half a million dollars to research into FSC development and two state government forest agencies have applied for FSC membership (Rhodes, 2008). This direct action taken by the United Kingdom and Australian governments is directly focused at ensuring their wood products are able to access the premium markets.

2.3.5 Green Building

A recent "Global Green Building Trends" report stated that "this is a historical time for the global construction industry. Consumers, government stakeholders and market leaders are awakening to the importance and benefits of creating a sustainable built environment . . . 53% of construction firms expecting to build green at least 60% of the time. . ." (McGraw-Hill, 2008:1).

The analysis of the Australian and New Zealand markets for Green Building indicated the emergence of a significant market opportunity for green building, with the statement that "If market involvement continues to grow at the rates demonstrated by this research, green building may become mainstream in the near future" (McGraw-Hill, 2008:12). Of particular interest to the forestry industry is that the second most emphasised green building practice is the use of renewable resources and materials, cited by 82% of respondents in Europe, and 64% globally (McGraw-Hill, 2008: 24).

2.3.6 The New Zealand Green Building Council

The New Zealand Green Building Council uses a rating system "Green Star NZ", which assesses building projects against eight environmental impact categories: energy, transport, land use and ecology, water, indoor air quality, emissions, materials, and management. The rating system provides formal certification of a building's environmental performance, and is also used as a design guide to track and improve performance. The demand for Green Star rated buildings has increased significantly in the last twelve months to December 2008, driven by architectural awareness and client awareness of the need to address sustainability issues in building design.

Within the Green Star assessment tool, credits are given for environmental performance, providing an overall rating for the building design. A specific credit applies to 'Sustainable Timber (Mat-8)'. This credit aims to 'encourage and recognise the specification of re-used timber products or timber that has certified environmentally responsible forest management practices'. Green Star points are awarded where it is demonstrated that all timber and composite timber products used in the building and construction works are either post-consumer re-used timber; or Forest Stewardship Council (FSC) certified timber. When using FSC timber, the certification evidence must be retained.

Whilst the New Zealand Green Building Council only recognises FSC at the moment, they do have direct links to the Australian industry and, as such, are looking at PEFC as an alternative forestry certification system. However, they recognise some limitations around PEFC's lack of criteria, and its goal-based system (pers.comm Paula Pioch, 19/09/2008).

The NZ Green Building Council has over 350 paid members from the construction and building industry. Architects, property developers, building product manufacturers and builders are typical of the membership base, joining to learn about environmental efficiencies, and to meet the rising client demand for 'green building'.

Building professionals who are striving for a 'Green Star rated building' are increasingly specifying certified timber be used in the construction of buildings. Construction companies are reporting that certified timber is being specified in building tender specifications, though this sometimes is compromised by sourcing criteria that simply state "from New Zealand plantations where evidence of 'chain of custody' can be provided". The plethora of certification schemes being stipulated by architects and clients is a source of confusion for those involved in the building industry, and is generating a feeling of frustration amongst some (pers.comm S.Taylor 30/10/08). To complicate matters even further, many of the certified sources that are specified in tender documents are not available from the New Zealand retail market.

The confusing nature of certification schemes aside, there is a rapidly increasing demand for certified timbers to be used in the construction of buildings in New Zealand. It seems likely that once the building and construction industry learns more about certification, and is able to better understand the schemes, it will become an increasingly entrenched part of the standard building requirement.

2.3.7 Forest Product Certification in the retail sector

The two biggest timber retailers in New Zealand – Placemakers New Zealand, and Mitre 10, are beginning to stock FSC-certified New Zealand plantation timber. Demand for FSC certified NZ plantation timber is increasing, "due to architectural specifications and government departments especially in certain localities" (pers.comm R.Gannaway, 01/12/08). The Green Star rating system "is the dominant driver of FSC at the moment" and though there is a consumer premium to be captured by the retailer who stocks FSC timber, "it is an added cost" (pers.comm B.Young, 3/10/08). Other retailers are

managing the margin of the FSC premium, to ensure minimal additional cost is passed on to the consumer, stating "Any premium that is not absorbed will meet resistance in the market" (pers.comm R.Gannaway, 01/12/08). Construction companies who have sourced FSC-certified New Zealand plantation timbers have been quoted price premiums of 20% above that of non-certified timber (pers.comm S.Taylor, 22/10/08).

Many other retailers, such as The Warehouse, Bunnings and Briscoes, are offering FSC-approved furniture and stock, but normally only for timber products from tropical forests. This meets the significant international and consumer concern regarding the sustainability of management of tropical forests, and the high levels of illegal, unsustainable harvesting that occurs. In New Zealand, the Imported Tropical Timber Group (ITTG) was formed with the goal of ensuring tropical timber imported into New Zealand is sourced from certified sustainably managed forests. In September 2008, Mitre 10 became a member of the Tropical Forest Trust (TFT) to ensure a consistent supply of outdoor furniture from certified forests in South East Asia, reflecting the fact "that New Zealanders are becoming increasingly astute about the origin of their furniture. They do in fact care about where their furniture comes from, how it was made and the impact that its production has on the environment" (Thompson, 2008).

In August 2008, a number of Environmental NGOs, Wood Product Sector Groups and Forest Industry organisations signed a joint statement that requested the New Zealand Government take a leading role in stopping the importation of illegal forest products. The statement also requested timber importers, processors and retailers take responsibility for the timber they import, requesting verification that demonstrates the known source of the timber, the legality of the timber, and the legal right to harvest the timber. Third party verification is stated as a minimum requirement.

New Zealand plantation forest timbers and production processes have not been subject to the same amount of public concern, and as such retailers are not making the same level of commitment to domestic plantation timber as they are to imported tropical timber. As one retailer stated, "Though we are stocking FSC certified plantation timber, we question why, in New Zealand, we need certified timber when it is grown under the Resource Management Act and other such comprehensive legislation" (pers.comm. Anon. 10/10/08).

2.3.8 CARBON MARKET BENEFITS FROM ACHIEVING FSC CERTIFICATION.

Markets for carbon sequestration services are developing rapidly, but are still in their early stages.
They are expected to develop significantly in New Zealand with the introduction of an emissions trading scheme. This provides good opportunities for farm forestry owners to provide carbon trading forests that are a component of their forest product portfolio, alongside traditional products such as logs and timber.

Depending on the obligations of the agricultural sector within a New Zealand emissions trading scheme, there could also be good opportunities for farm foresters to offset their agricultural emissions, and to hedge against the risk of spiralling carbon prices. As with all emerging markets, there will be consumers who demand a higher grade of product. Afforestation with plantation grown trees is a source of contention in the international carbon market place; with many believing plantations are a poor method for the mitigation of climate change.

Opposition to afforestation as a method for combating climate change has arisen because of doubts about the permanence of the forests, and (in New Zealand) because of concerns about large scale monocultural afforestation with tree crops that have no alternative purpose other than to absorb carbon. Some NGOs and the media have started to question the role of offsetting as they see it as a licence to continue the status quo and delay true changes in behaviour that would drive society towards a low-carbon economy.

The negotiations around the Kyoto Protocol forestry rules were protracted and were strongly influenced by a group of environmental NGOs who sought to minimize the role of forestry in market-based mechanisms (Bayon et al. 2007:89). The legacy has been a minimal role for forestry under the Kyoto Protocol and its international mechanisms. However, in New Zealand, the Government has placed forestry at the centre of the New Zealand Emissions Trading Scheme, recognising its role in contributing to New Zealand's Kyoto obligations.

Growth in the afforestation carbon market will be dependent on the level of interest from the general public and key stakeholders interested in climate change, and on the perception of whether offsetting is the right way to address climate change in the long term. In addition, the voluntary market could be changed considerably by the introduction of a common standard that could improve credibility.

As such, plantation forests that can demonstrably exhibit their social and environmental services will be of greater interest to prospective carbon credit purchasers who demand additional benefits from their investment. Investing in such ethical practice is a growing trend in the world, and one that is certain to increase.

An FSC certified forest will provide a well qualified demonstration of sustainable, multiple-benefit forestry to those carbon purchasers who wish to purchase credible carbon credits. FSC certification will not, however, replace the need for independent verification of the carbon stocks (carbon sequestered) within the forest.

In November 2008, FSC announced its intention to explore its potential engagement in forest based carbon offsets. By passing the motion 43 on forest based carbon offset, the FSC community recognised that forests can have an important role to play in addressing climate changes and that FSC should

explore its potential, given that it is already delivering social and environmental performance at implementation level.

"The motion asks FSC to explore the role that FSC Principles and criteria, governance, accreditation, policy development and forest certification can play in frameworks to mitigate climate change by maintaining and/or increasing carbon stocks.

The motion suggests that FSC explores the possibilities to establish real, measurable and verifiable emissions reductions, based on forest protection and improved management, and looks into how FSC certified management practices could maintain and/or increase forest carbon sequestration.

Other options to be explored include the relationship between the FSC Principles & Criteria and the strategies under the UNFCCC, including reduced emission from deforestation and forest degradation (REDD); alignment or partnerships with voluntary carbon standard programs; the development of guidelines and cost models to help FSC certificate holders, including smallholders, indigenous peoples, and community-managed forests, access revenue sources for maintaining or enhancing carbon sequestration.

Finally the motion implies that the FSC Chain of Custody system shall be explored for its capacity to facilitate determination of product level carbon-footprinting." (From http://www.internationalforestindustries.com/2008/11/25).

Other forest certification system authorities have called on decision makers to only recognise sustainably managed forests as qualifying for carbon credits. PEFC (http://www.pefc.org/internet/resources/5_1184_1842_file.2166.pdf) called for only those forests that are certified as sustainable to be able to qualify for carbon credits or any other payments relating to afforestation.

Other entities, like the Chicago Climate Exchange, which operates North America's only cap and trade system for all six greenhouse gases, has outlined in its carbon afforestation offset policy that
"Forest owners need to provide evidence that all their forest holdings are sustainably managed. This may be demonstrated in the form of certification from CCX approved third-party verification programs. In addition, the project owners must attest that they sustainably manage their non-project forest carbon stocks, and that their non-project forest holding are not converted to non-forest uses." (from http://www.chicagoclimateexchange.com).

2.3.9 Environmental market benefits from achieving forest certification.

Similar to carbon, markets for other environmental services are developing, particularly for water and biodiversity. These markets are at the early stages of development and there have been few transactions or payments to date. The global policy environment appears less certain than that of carbon trading, and it is considered that these uncertainties could take some time to develop into meaningful processes. However, those landowners with certified land management practices will be a

step ahead when ecosystem trading becomes more developed. Third party verification will always underpin successful trading in natural resources, and rigorous systems such as FSC can provide the leverage upon which other natural resources can be traded.

3.0 TYPES OF FOREST ENVIRONMENTAL CERTIFICATION SCHEMES

3.1 THE BEGINNING OF FOREST CERTIFICATION

The 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro had a number of successes and failures, leading to a reaction of change in its immediate wake. On the negative side, there was failure from UNCED to produce a binding forest convention to guide and harmonise forestry regulation across the world's forested countries. As such, the great disparities in forest management around the world were left in their current form – including the accelerating forest destruction in many developing countries. A more positive outcome from UNCED was the consolidation of language and concepts of sustainable forest management, and ratified calls for a greater role of civil society organisations in setting and monitoring public policy (Dilling et al. 2008:261).

The Forest Stewardship Council formed in the immediate wake of the Rio conference. Founded by a coalition of environmental and social justice NGOs, progressive wood buyers and forestry experts, it quickly developed a set of globally applicable standards for forest management, with an accompanying institutional system for certifying complying forests and labelling forest products from such forests.

The early success of FSC lead to the establishment of competing forest certification programmes often formed by coalitions of national forestry authorities, forestry companies, landowners, and government agencies. There are now two major competing certification programmes and alliances supporting them. One is centred on FSC and the other on traditional landowner and industry interests through the Programme for the Endorsement of Forest Certification (PEFC).

3.2 FOREST STEWARDSHIP COUNCIL (FSC)

In an effort to validate the claims of timber certifiers and to avoid market confusion, a diverse group of representatives from environmental organisations, foresters, timber traders, indigenous people's organisations, community forest associations and forest product certification institutions established the Forest Stewardship Council (FSC) – an independent body with a mandate to accredit forest certification programmes. The FSC is funded by accreditation and membership fees, governments and environmental organisations and private foundations.

The goal of the Forest Stewardship Council (FSC) is to promote environmentally responsible, socially beneficial and economically viable management of the world's forests, by establishing a worldwide standard of recognised and respected Principles of Forest Management.

In December 2008, some 107 million hectares – the equivalent of roughly 10% of the world's production forests] – were certified to FSC's Principles and Criteria in 78 countries. Roughly 1/3 of this area is certified to so-called "interim standards", with two-thirds being certified to national standards (www.fsc.org).

Research ascertaining the reasons for international forest owner demand for FSC shows the following key points:

- 42% of forest owners become FSC certified because of demand from business partners
- 35% of forest owners become FSC certified because of marketing aspects
- 26% of forest owners become FSC certified because of environmental reasons.
  (from www.fsc.org/)

3.2.1 FSC – A PERFORMANCE STANDARD

The FSC developed ten Principles and Criteria for Natural Forest Management which are broad based guidelines relating to forest and plantation management issues. The ten Principles and Criteria by themselves are not designed to be used as the basis for certification in the field, but to provide a consistent framework for the development of locally (often national) determined forest management standards. To ensure consistency and integrity in standards in different regions around the world, the FSC formally endorses those standards which clearly meet all FSC requirements, including the process leading to their development.

According to Ozinga (2004:21), the FSC is still the only scheme that demands a truly performance-based minimum threshold for forest management practices before a national standard can be endorsed. A performance based standard specifies the level of performance of results that must be achieved in a forest. That is, they provide a bottom-line performance requirement for certification to be granted. Performance standards are in contrast to the bulk of certification systems, which specify system standards. System standards specify the management systems that must be in place within an organisation to ensure it is managing quality and environmental and social performance consistently. However, there is no minimum level of performance specified.

3.2.2 QUALITY OF STANDARDS

Certification is provided at the Forest Management Unit (FMU) level only, with the standards including social, spiritual, environmental and economic values. FSC national standards are detailed and specific, and require mandatory compliance with national regulations.

Standards are developed by a national working group which must exhibit a balanced composition of social, environmental and economic interests. Any interested stakeholder group must be given access

to the national working group. As a minimum requirement, the national working group must have two representatives from each chamber, and where necessary, input from groups that are underrepresented.

Though decidable at the national level, FSC International recommends that all national initiative make their decisions through a consensus. When disagreement exists, the FSC protocol is to put the issue to a vote, with a required two-third majority. This system is not obligatory at the national level.

Once a national standard has been finalised, and the FSC international secretariat has ensured correct procedure has been followed, the national standard will be sent to the FSC board for final approval.

The standard setting process is recognised as being democratic, rigorous, and transparent. The scheme is accessible to public scrutiny, and has over the years, been subject to intense scrutiny from NGOs. The benefit of this scrutiny is that the FSC scheme has received broad NGO support (Ozinga, 2004: 47).

3.2.3 Difficulty in Reaching Agreement on Standards

In its comprehensive analysis of FSC, Ozinga (2004:21) identifies the certification of forests without national standards being in place as being a real issue. The inability to develop a national standard, due to a lack of stakeholder consensus, will often result in the certification body using its own generic standards adapted to the local situation. There is obvious room for such standards to be challenged, particularly when there is significant deviation in standards between various certifying bodies.

In New Zealand there is no national standard, primarily due to the inability of industry and NGOs to agree on some environmental requirements within plantation forests. There is, however, a draft national standard. In recent months there has been a new wave of enthusiasm for reopening discussions around a New Zealand national standard.

3.2.4 The FSC Certification Process

In countries where an endorsed standard exists, this FSC standard is used for certification. Where no FSC endorsed standard exists then the certification bodies will produce an interim standard, and circulate this to stakeholders prior to making the certification decision.

The certification process is as follows: a forest manager / owner asks a certification body (which is accredited by FSC) to certify the forest. The certification body conducts an audit of the forest, and if the forest is found to conform to the FSC standard, will issue a certificate. Often a certificate will be issued with a number of corrective action requests (CARs) which request improvement in forest management within a given timeframe.

Certifying agencies are organisationally independent of both the FSC and the forest companies, or forest communities, seeking certification. However, they are chosen and paid by the clients who seek the forest certification, and are accredited by a spin-off FSC organisation.

Certificates are awarded for a five-year period and are then re-assessed. Certificate holders are audited annually during this five year term. Consultation of stakeholders is a key component of the certification process.

The certifying body is obliged to prepare a summary report for each of the forest management enterprises that are certified. These are made publicly available, normally on the certifying body's websites.

3.2.5 FSC LABELS AND CHAIN OF CUSTODY

Once a forest is certified it is important to be able to trace the products that come from it throughout the supply chain to ensure that any claims on the origin of the product are credible and verifiable. The FSC chain of custody certification is a voluntary process. FSC chain of custody is a tracking system that allows manufacturers and traders to demonstrate that timber comes from a forest that is responsibly managed in accordance with the FSC Principles and Criteria. It tracks the flow of certified wood through the supply chain and across borders through each successive stage - including processing, transformation and manufacturing - all the way to the final product.

It is up to a company to initiate the chain of custody certification process by requesting the services of an independent certification body to inspect its internal tracking procedures. Only FSC-accredited certification bodies can evaluate, monitor and certify companies to FSC standards.

The FSC label can only be used on products where the chain of custody has been audited and is monitored on an annual basis. An FSC-labelled product will have a chain of custody number on the label and this can then be used to identify the certificate holder in the event of questioning or dispute.

There are two main approaches to implementing chain of custody systems. Firstly, minimum percentage input, and secondly, segregation of FSC certified product from non certified products

Under the minimum percentage input option, products are labelled as FSC-mixed. FSC accepts that the FSC label is used on products that contain less than 100% FSC-certified wood or fibre, with the balance being made up of non-certified 'controlled wood'. Controlled wood is wood or wood fibre which is identified by a company as having not being harvested from areas where traditional or civil rights are violated; having not been harvested from non FSC-certified forests having high conservation values which are threatened by forest management activities; and having not been harvested from genetically modified (GM) trees or wood that has been illegally harvested.

Under this system companies may employ a threshold or volume credit system for the FSC product group. The FSC threshold system requires a minimum rolling average of FSC-certified material to be achieved in a product group from a specified starting date to the date on which a claim is made in order to label all (100%) of products in the product group with the FSC trademarks. (From FSC-STD-40-004 (Version 1-0) EN (2004))

Segregating non-FSC wood from FSC-certified wood allows companies to label their FSC –certified product as 'FSC-pure'. Material or products may be sold as FSC-certified and are eligible for labelling with the FSC-pure label if the rolling average of the material used in the product group from a specified starting date to the date on which a claim is made is 100% FSC.

3.3 PROGRAMME FOR THE ENDORSEMENT OF FOREST CERTIFICATION SCHEMES (PEFC)

The Programme for the Endorsement of Forest Certification Schemes (PEFC) was set up between 1998 and 1999 by national forestry industry groups in several European countries. Originally it was driven by small-forest owners and parts of the timber industry who felt the FSC did not address their needs and was overly dominated by NGOs. The PEFC is not a single certification scheme with a single standard, but a programme for the endorsement of national certification schemes. It is funded by its members through membership fees.

PEFC International is represented at the national level through local certification systems. These can become members of PEFC and - if they meet the globally accepted sustainability benchmark criteria set out by PEFC International - get endorsed by the international office and are allowed to utilize the PEFC logo. While some PEFC members have taken on the name for their national organisations, well-known national certification organisations that have kept their own name include the Sustainable Forestry Initiative (SFI), the American Tree Farm System (ATFS), Canadian Standards Association (CSA), the Australian Forestry Standard (AFS), and the Malaysian Timber Certification Council (MTCC).

PEFC has in its membership 35 independent national forest certification systems of which 25 to date have been through an assessment process. These 25 systems account for more than 200 million hectares of certified forests producing millions of tonnes of certified timber to the market place, making PEFC the world's largest certification system. The other national members schemes are at various stages of development and are working towards mutual recognition under the PEFC processes (from www.pefc.org). Schemes under the PEFC umbrella can be certified at a regional level, at forest management unit level, or at a group certificate level.

3.3.1 QUALITY OF THE STANDARD

All PEFC approved schemes have developed a national standard. To be accepted as a PEFC scheme, the standards need to be based on regionally developed criteria, such as the Montreal Process or the International Tropical Timber Organisation. Unlike FSC, these criteria are not entirely performance-based, but were developed by governments to monitor and report on the status of forests at a national level. Such criteria were not developed to assess any performance level, and as such, the various schemes that have been approved by PEFC have reportedly been widely divergent in their standards (Ozinga, 2004: 51). Some standards are based on performance, but most are system-based standards which do not specify a minimum performance level.

It is difficult to assess the quality of the standard across the many approved schemes. Though the FERN report is often scathing of the PEFC certification system, stating that "it is a great weakness of the PEFC scheme that the threshold for endorsement is so low, that most certification schemes can qualify". (Ozinga, 2004:52), PEFC itself states that their process includes "a stringent assessment of national standards and schemes against 195 requirements undertaken by consultants' independent from the PEFC Council." (PEFC, 2004:4).

Consultants employed by PEFC have, in a 2008 review of the PEFC governance and systems, identified that, "PEFC's greatest strength – the commonality of the meta-standard that retains the flexibility of local schemes – is also arguably its greatest weakness as well. National and international standards are merely empty frameworks, and rely upon a wide variety of other factors to make them 'live'.
National schemes and the institutions that develop and enforce them must also have skilled personnel, access to expert consultants, regular education and training, opportunities for peer review, support of national governments, industry, and the general public, and sufficient budgetary support.
That distinction is both a caution and a mandate for PEFC: the full organisation will remain vulnerable to the criticism and obstruction that can be levelled against the weakest combination of individual national scheme, and the institution responsible for implementing it, irrespective of the strength of the overall Mission, or other truly robust schemes and institutions. (PEFC, 2008:36)

The authors of the FERN report state that the fundamental system of PEFC does not provide for equal participation in its system, but instead gives the forestry industry and forest owners dominance in the development of the programme and in the development of the standards.

Unfortunately for the PEFC scheme, there have been multiple statements from a number of high profile, international, ENGOs that consider it to not be a system that will guarantee well-managed forests. However, many of these ENGOs have very strong representation on FSC, and as such could be accused of being biased in their assessment. It is no secret that PEFC was formed to represent communities that did not feel sufficiently supported by FSC, and that the two schemes have since then been in varying degrees of conflict and competition.

Though not subject to the same opposition as PEFC, there has been some opposition to FSC from various ENGOs. Friends of The Earth, a high profile ENGO and one of FSC's founders, has pulled its support for FSC until a review of the scheme is completed. Friends of the Earth state, "Most FSC timber certificates are highly reliable – guaranteeing that wood has been sourced sustainably and improving forestry standards in many countries. But we are concerned at reports that some FSC certificates are failing to guarantee rigorous environmental and social standards". It does, however, state that "The FSC certification sets the strongest available standard for new wood" (http://www.fsc-watch.org/archives/2008.09.22).

3.4 TOWARDS A NEW ZEALAND FORESTRY STANDARD.

New Zealand's forest estate is unique in that it combines a high degree of self-sufficiency in forest products with an almost complete reliance on plantation-grown, exotic trees. Relatively small amounts of timber come from indigenous forest, and there are minimal imports from either the tropics or the Northern hemisphere (Vlosky et al. 1999:6). Unique in its nature, it has lead to a particular set of environmental issues that are quite different from the more typical global management of indigenous forests.

Over the last fifty years, the New Zealand public has been significantly involved in the management of public forest lands. The phased reduction in the harvesting of indigenous timber was a result of a very public (and political) process that lead to the divorcing of plantation forests from indigenous forests, with the later being vested under the management of the Department of Conservation for the purpose of conserving New Zealand's natural and historic heritage.

In New Zealand, 23% of the land area is vegetated with tall indigenous forest that is largely unavailable for exploitation due to its physical topography and the legislative restrictions that surround its use. Instead these areas are viewed as conservation estates, providing ecosystem services, wildlife conservation, and recreation. Many people view this conservation estate as alleviating the requirements of New Zealand's 'working lands' to provide for wildlife, ecosystem services and recreation.

A series of legislative acts and voluntary actions has lead to a forestry industry that is considered to be a world leader in the field of environmental management. In 1991, the New Zealand Forest Accord was signed. This excludes forestry companies from land clearing and disturbance of all areas of naturally occurring indigenous vegetation, and concurrently, acknowledges the importance of plantation forestry as a means of producing wood products on a sustainable basis.

In 1995, the Principles for Commercial Plantation Forest Management in New Zealand was signed by industry, indigenous groups and industry bodies. This agreement seeks to "promote understanding between the signatory parties with a view to New Zealand achieving environmental excellence in

plantation forest management and participate as an effective advocate for the sustainable management of natural forests".

Following the establishment of FSC in 1993, the major environmental NGOs, Greenpeace and World Wide Fund for Nature (WWF), began to promote certification to the New Zealand Forestry Industry. A National Initiative was established after a full stakeholder meeting in May 2001. The key mission of the National Initiative was to develop national standards. The National Initiative working group involved the work of four chambers – Maori, economic, social and environmental. The decision making model relies upon consensus being reached, and, due to a number of environmental reasons, as at the end of 2008 this process had come to a halt. There is, however, active dialogue between ENGOs and industry, with a continued aspiration to form a New Zealand Forestry Standard.

Two key areas of debate are the use of pesticides within plantation forests, and the management of indigenous biodiversity reserves within the plantation forests. Though progress is being made with the biodiversity reserve issue, it seems the use of pesticides within forest estates is proving problematic. New Zealand's unique pest and weed problem has lead to a reliance on pesticides for the cost-effective control of pests such as possums, and for the control of weeds during the years of new crop establishment. The FSC pesticide policy does not allow for the ongoing use of some pesticides that are commonly used by land managers throughout New Zealand, including Sodium Cyanide (cyanide), Hexazinone and Terbuthylazine. Though New Zealand forest managers have jointly put their case forward to FSC for a derogation on these pesticides (for reasons of economic necessity) they have, for the mean time, been turned down.

3.5 THE NEW ZEALAND CONTEXT – FSC AND PEFC

The dominance of FSC in the New Zealand forestry sector is portrayed by the prevalence of FSC forest management certificates issued (refer Section 2.2.2) and the fact that close to one million hectares are certified through the FSC scheme. PEFC, on the other hand, has not endorsed any certification schemes in New Zealand, and remains a relative unknown.

Certainly many within the forestry industry are aware of PEFC, and given the difficulties of the New Zealand FSC Working Group in reaching a consensus on a New Zealand Forestry Standard, some have probably assessed its potential as a substitute certification system.

Those spoken to within the processing sector of the industry were aware of PEFC, but saw no demand for PEFC certified wood products from their customers, and as such had no obvious driver for implementation. This is contrary to FSC, which is essentially regarded as 'the bottom line' in forest management. Those spoken to within the retail sector saw there was no demand for PEFC certified timber to be stocked on the shelves within New Zealand. Some retailers commented that one

certification system was enough to satisfy the New Zealand consumer where public awareness of forest certification schemes is low. FSC is considered the most recognisable of the certification schemes.

PEFC itself recognises the limitations of its own brand, stating that "In spite of the organisation's size, membership, and certified area, PEFC is not a globally recognised 'brand' compared to Fairtrade, the Rainforest Alliance, or even FSC. The PEFC logo is valuable and important in the overall process, but not 'in demand' at the consumer level" (PEFC,2008:38).

Across the Tasman it is a different story. Australia has its own forest management certification standard: The Australian Forestry Standard (AFS) published in early 2003. The Australian Forestry Certification Scheme (AFCS) has used the AFS as its national standard, and has subsequently been endorsed by PEFC. Under the PEFC certification scheme, there are now 17 certified Australian Forest Owners who collectively manage 8,732,945 hectares of forest (www.pefc.org). In comparison, there are eight Australian Forest Owners who are FSC certified, collectively managing 532,390 hectares of forest (www.fsc.org).

The widespread uptake of the PEFC scheme in Australia is likely to be the catalyst for uptake from the New Zealand forestry sector. The free trade agreement that underpins the New Zealand-Australian trading relationship lends itself to promoting certification schemes of commonalty. Certainly the potential to develop a joint Australia – New Zealand standard has been suggested by some in the industry. The Joint Accreditation System of Australia and New Zealand has been established by a formal agreement between both countries. JAS-ANZ has as its main objectives the promotion of trade, by achieving mutual recognition with accreditation bodies for producers and exports.

Certainly if New Zealand forest owners and processors see marketing and sales potential in PEFC, then there is likely to be enthusiasm for having a New Zealand standard endorsed. Developing a New Zealand Forestry Standard seems to be increasingly likely, and given that such a standard is likely to be meeting the principles and criteria of FSC, this will enable a relatively easy path to endorsement by PEFC.

Recent discussions amongst New Zealand forest owners and ENGOs show there is a real willingness to solve some of the difficulties surrounding biodiversity set asides and the use of chemicals. Ultimately there is a shared desire to produce a New Zealand Forestry Standard which is agreed to all by stakeholders, and is endorsed by FSC. The considerable work that has been expended on working towards an FSC-endorsed New Zealand Forestry Standard will not be dismissed.

The industry's awareness of FSC, and the marketing power of the FSC brand, will ensure it stays – in the foreseeable future - as the primary forest certification scheme in New Zealand. The low level of awareness of PEFC, by both forest owners and consumers alike, will ultimately delay its uptake in New Zealand. However it does seem likely that at that some stage in the future, there will be a New Zealand

Forest Standard developed to meet the FSC Principles and Criteria that is subsequently endorsed by PEFC.

4.0 SMALL FOREST GROWER CERTIFICATION IN NEW ZEALAND

4.1 BACKGROUND – FARM FORESTRY AND SMALL FOREST GROWERS IN NEW ZEALAND

Farm Foresters are diverse in their backgrounds, attitudes and motivations for owning and managing tree crops. The forest management objectives of farm foresters are typically different to those of corporate and public ownership.

Farm forestry can provide a set of tree-based conservation and production practices for typical agricultural lands. The integration of forestry within a farming landscape provides a multi-functional, diverse and productive land use. Environmental, social and economic benefits of such an integrated land use include reduced soil erosion, the protection of water bodies, the enhancement of biodiversity, recreational opportunities such as hunting, improved animal welfare for livestock through the provision of shelter and shade, carbon sequestration and an additional income stream for the land manager through the sale of forest products. Certainly, when compared to farm management systems that do not incorporate trees into the landscape, the benefits of farm forestry - to society and the environment at large - become obvious. Farm forestry in New Zealand typically represents a reforestation process, with many plantings being established on denuded grazing land.

4.2 THE NEW ZEALAND FARM FORESTRY 'FOREST ESTATE'

The New Zealand Farm Forestry Association (NZFFA) has approximately 2200 members through New Zealand, under the following size classes. This size-class distribution is representative of the size-class distribution of the greater New Zealand forest estate, shown in the tables over page.

Year	2008	
No. members		No.
0-10 ha	64.4%	1421
10-40 ha	24.2%	534
40+ ha	11.3%	249
		2204

TABLE 1.0: NUMBER OF FOREST OWNERS BY SIZE CLASS AND REGION, TO APRIL 2005.

Wood supply region	<40 ha[2]	40-99 ha	Size class 100-499 ha	500-999 ha	1 000+ ha	Total
Northland	1 620	66	67	8	13	1 774
Auckland	1 309	31	25	4	6	1 375
Central North Island	1 734	53	40	6	20	1 853
East Coast	259	44	54	7	15	379
Hawkes Bay	662	34	43	9	9	757
Southern North Island	2 809	120	121	12	14	3 076
Nelson and Marlborough	796	131	102	13	11	1 053
West Coast	140	4	5	2	1	152
Canterbury	1 816	51	57	4	9	1 937
Otago and Southland	1 859	85	82	10	16	2 052
New Zealand total	**13 004**	**617**	**580**	**67**	**89**	**14 408**

Notes

1 The sum of the regional totals does not equal the national totals because some owners have forests in more than one region, particularly in the 1 000+ ha category.

2 The number of owners of forests less than 40 hectares is as at 30 June 2002, from Statistics New Zealand, 2002 Agricultural Census results.

(Source: www.maf.govt.nz/mafnet/publications/nefd/national-exotic-forest-2005/)

TABLE 2.0 : NUMBER OF FOREST OWNERS BY SIZE CLASS AND REGION, AS AT APRIL 2007

Wood supply region	<40 ha	40-99 ha	Size class 100-499 ha	500-999 ha	1000+ ha
Northland	..	147	89	11	16
Auckland	..	46	28	6	9
Central North Island	..	98	68	9	21
East Coast	..	60	54	9	19
Hawkes Bay	..	73	45	6	17
Southern North Island	..	271	169	13	19
Nelson and Marlborough	..	209	124	13	15
West Coast	..	8	7	1	2
Canterbury	..	108	75	5	12
Otago and Southland	..	163	97	11	19
New Zealand total	**..**	**1 183**	**756**	**70**	**90**

Note

1. The New Zealand totals do not equal the sum of the wood supply regions because some owners have forests in more than one region. This is particularly the case for large owners in the 1000+ ha size class

Symbol

.. Not available

(Source: www.maf.govt.nz/mafnet/publications/nefd/national-exotic-forest-2007/)

TABLE 3.0: FOREST AREA BY FOREST OWNER SIZE CLASS AND REGION, AS AT 1 APRIL 2007

	Size class					
	<40 ha	40-99 ha	100-499 ha	500-999 ha	1000+ ha	Total
Wood supply region	**(ha)**	**(ha)**	**(ha)**	**(ha)**	**(ha)**	**(ha)**
Northland	31 276	9 161	15 842	7 490	138 517	202 286
Auckland	10 451	2 730	5 463	3 298	32 445	54 387
Central North Island	49 701	6 101	14 252	4 818	469 660	544 532
East Coast	20 478	3 476	13 012	5 000	116 396	158 362
Hawkes Bay	21 301	4 357	9 631	3 355	93 303	131 947
Southern North Island	43 596	16 884	33 079	7 570	67 089	168 218
Nelson and Marlborough	23 800	12 673	21 117	8 432	105 653	171 675
West Coast	2 724	467	917	617	27 950	32 675
Canterbury	32 050	6 524	13 386	3 341	55 022	110 323
Otago and Southland	42 433	9 782	18 632	8 312	135 986	215 145
New Zealand total	**277 810**	**72 155**	**145 331**	**52 233**	**1 242 021**	**1 789 550**

(Source: www.maf.govt.nz/mafnet/publications/nefd/national-exotic-forest-2007/)

Between 13,000 and 14,000 land owners in New Zealand have forests of less than 100 hectares in size. Combined, these smaller forests represent approximately 350,000 hectares of forest. Including all size classes up to 1000 hectares, and the combined 'forest estate' of the small growers is approximately 547,500 hectares, or 31% of the New Zealand commercial forest estate.

This large number of forest owners represents a significant portion of the entire commercial forest estate of New Zealand.

4.3 FOREST CERTIFICATION AND THE SMALL GROWER

Professional land managers throughout New Zealand typically view farm forestry as a particularly good land use, integrating the benefits of both pastoral land use and larger scale afforestation, and reducing the impact of environmental effects of both. However, the technical forest management practices of professional foresters compared to their farming colleagues is quite different, thus providing impetus for better small forest management by way of certification.

FSC certification of small forests will expand the scope of management objectives to include environmental and social aspects, increasing the monitoring and transparency of the forest practice, and ultimately leading to improved practices. The environmental and social requirements of FSC certified forest management in New Zealand are the most rigorous of any land use in the country, and certainly if

such conditions were imposed upon the pastoral farming community, they would provide some serious challenges to these land managers and – undoubtedly – some significant opposition.

The documentation required by farmers to meet the demands of meat processing companies pales in comparison to the lengthy and complex language of the FSC principles and criteria. New Zealand farmers are often reticent to undertake vast amounts of paper work, and battle with what they perceive to be the huge growth of bureaucracy and regulatory requirements to manage their land. For those small forest growers who are primarily livestock farmers that have diversified their land use – usually because of sound land use decisions that ultimately result in greater land use sustainability – embarking on a path of FSC forest certification is currently neither feasible or an attractive proposition.

4.4 GROUP CERTIFICATION

Group certification is a certification process by which multiple landowners of forest managers are certified under one certificate. Both PEFC and FSC enable group certification. FSC, being a global scheme with multiple stakeholders, was not originally designed for the specific situation of small forest growers. PEFC was born out of the frustration of some small forest owners that their needs were not being met by the FSC certification system.

As a result, FSC introduced Group Certification to spread the costs of evaluations and audits. It has also, more recently, introduced "Small and Low Intensity Managed Forest" standards (SLIMFs) that simplify the certification process for forest growers that are small in size, or are considered to be low impact.

The group certification model was designed specifically for small forest growers. In this model, the certificate is held by an individual (such as a forest consulting company), a cooperative, a land owner association, or other legal entity that provides technical assistance, monitoring and oversight to the group members. There is a need for direct accountability from the individual forest owners to the group certificate holder, and the group certificate holder must monitor the forest management of every landowner for compliance with the group's systems, policies, and ultimately the FSC Principles and Criteria.

Responsibilities for management of the individual forests within the group will differ, depending on the structure of the group certification entity in place. Some group entities will take on the majority of the forest management requirements, including management planning, silviculture, harvest supervision and log sales. In other cases, the group entity will simply administer the group certification scheme, with each of the individual group members taking responsibility for their forest management activities. Other systems will sit somewhere in between.

4.4.1 COSTS OF GROUP CERTIFICATION

Group certification allows the direct and indirect costs of certification to be spread over a larger number of owners. Direct costs are the costs of the certification assessment and audits. Indirect costs are costs related to the changes that may be needed in management planning and forest practices to conform to the certification standards.

Direct costs: Under a group certification scheme not every forest needs to be visited during the assessment and audit, although most forests would be visited over the five-year certification contract period. Audit teams will normally develop a sampling strategy that identifies the appropriate portion of group members for field visits, based on variables such as the potential for environmental impact, forest type, and size.

However, there are additional costs of administration attached to group certification. The geographical spread of forest owners will often dramatically increase the cost, due to the overheads attached to the Group Manager servicing the group members.

Factors to be considered by those creating a group for certification, or for those contemplating joining an existing group include:

- Analysis of the minimum group size required to make the FSC assessment and audit costs afford able. This will depend on the spread of the group, and the group's production capabilities.
- In general, a larger group will have lower assessment and audit costs per landowner than a smaller group. Management system, audit costs and overheads are spread over a larger number of landowners.
- There is additional cost attached to developing a new, stand alone forest certification group. Using an existing organisation or an accredited certification scheme is preferable.

Indirect costs are difficult to estimate, as it is very dependent on the management of the forest prior to certification, and the subsequent forest management changes needed to meet the forest certification requirements.

4.5 SMALL AND LOW INTENSITY MANAGED FORESTS (SLIMFS)

In 2002, FSC made a further attempt to reach out to small forest growers through the SLIMF initiative (Small and Low Intensity Managed Forests). The SLIMF procedures recognise three "types" of SLIMFs and propose differences in streamlined procedures according to the "type". The streamlined procedures are justified by the reduced risk of environmental damage by forest operations, and have been developed to aid the cost effectiveness of small forest growers obtaining FSC certification.

One type of SLIMF is defined by the size of the forest. The definition of what constitutes a 'small' forest is established by the National Initiative, as long as the minimum ceiling is 100 hectares, and the maximum does not exceed 1000 hectares. FSC-US, for example, has set 1000 hectares or less as the definition for small (Butterfield et al, 2005:17). Other schemes, such as the United Kingdom's Woodmark SLIMF certification process, cap the maximum forest size at 100 hectares.

The second type of SLIMF is the 'low intensity' operation. This is defined by the intensity of harvesting, set by the international standard of less than 20% of mean annual increment harvested annually AND an area of less than 5,000m3. Again, this can be modified by the National Initiative.

The third type of SLIMF is a group of SLIMF members, where all group members meet either the size or intensity criteria.

4.5.1 FSC SLIMF PROCEDURES

FSC's SLIMF procedures, compared to the typical FSC certification procedures, are outlined below:

SLIMF "Type"	**Eligibility Criteria: Does not allow forest areas to exceed 100ha**	**Major Streamlined Procedures**	**Minor Streamlined Procedures**
Single			
Small Forest	< 100ha. National Initiatives can expand this definition up to 1000ha	• One person evaluation team • Annual field monitoring not required • Full re-evaluation at 5 years replaced with re-certification audit	• No peer review of report • Simple public summary report

Low Intensity Managed Forest	Harvest rates <20% of MAI (mean annual increment) AND total harvest <5,000m3	• One person evaluation team • Annual field monitoring not required • Full re-evaluation at 5 years replaced with re-certification audit	• Simple public summary report
Group			
Group of SLIMF (total area <1000 ha)	All individual members meet small forest criteria (<100 ha) OR low intensity criteria	• Lower risk-adjusted sampling • Field monitoring needed for 3 of 5 years • Full re-evaluation at 5 years replaced with re-certification audit	• No peer review of report • Simple public summary report
Large Group of SLIMF (total area >1000 ha)	All individual members meet small forest criteria (<100 ha) OR low intensity criteria	• Lower risk-adjusted sampling • Field monitoring needed for 3 of 5 years • Full re-evaluation at 5 years replaced with re-certification audit	• No peer review of report
Not a SLIMF	Anything not fitting above criteria	Standard procedures	Standard procedures

Table 4.5.1 (From Butterfield et al. 2005:18)

4.6 COST OF CERTIFICATION

The direct costs of a regular Forest Management FSC certification include the price of an initial assessment, annual audits and reassessment at year five. An assessment team can range from one to three or more members and includes, under the FSC system, public and stakeholder consultations as well as field review of forest management practices and documentation of those practices. FSC procedures require an annual audit, even if no harvesting activity took place that year, and a complete reassessment every five years.

Preparation of the first or pre-audit requires a considerable amount of resources. A forest management plan must be compiled, which requires a lot of data on tree species and other plants, age distribution, annual increment and many more. Though most of this information is easily available to the larger forest owners, it does not normally form part of a Small Forest Grower's management system and will often take considerable resources to complete it.

4.6.1 COST SAVINGS OF A GROUP SLIMF SCHEME

The assessment process for SLIMF follows the same general steps of a regular Forest Management assessment. However, there are specific steps of the FSC certification process that can be removed from a SLIMF scheme. The table below shows these savings.

Assessment Procedure	Single (large) Forest Management Unit	Single Small Forest Management Unit	Groups of SLIMFs
Pre-Assessment	Yes	Not required	Not required for Groups with total area <1000ha Required with Groups of total area >1000ha. Can sometimes be foregone if Group Manager submits a documented Quality System
Stakeholder Consultation	30 day notification of stakeholder notification required. Stakeholder consultation is required	Stakeholders must be notified and will be consulted where required	Stakeholders must be notified and will be consulted where required
Evaluation: Sample size required	NA	NA	Groups of SLIMFs are sampled using $x=0.6\sqrt{y}$ X is the sample size and Y is the total number of members

Evaluation: Number of Auditors	2-3 auditors, depending on CARs and process stage	A single auditor, covering all P&C of FSC	A single auditor, covering all P&C of FSC
Evaluations of Groups: Member-level evaluation requirements	NA	NA	The group as a whole must be evaluated against all requirements of the FSC standard; but not every sampled FMU needs to be evaluated against all requirements
Certification Report	Required. Detailed list of required contents	Required, but information provided may be brief. Report may be in checklist format	Required, but less detail is required than traditional FSC cert. Report may be in a checklist format. The report may be organized by principle, rather than by individual FMU site. Ie. A separate report of each FMU sampled is not required.
Peer Review	At least one peer review required	No peer review required	If total certified area <1000ha, then no peer review. If total certified area > 1000ha, then at least one peer review required.
Public Summary	If full report is not made publically available then an additional public summary is needed	If full report is made publicly available, no additional summary is needed	If full report is made publicly available, no additional summary is needed
Surveillance (Monitoring): Frequency and type of audit	Annual surveillance – including site audits – required.	Annual surveillance is required, however assessments may be based on documentation audits and don't necessarily require site visits. A minimum of 1 surveillance visit (audit) shall take place during the period of validity of the certificate. Document audits are required in the other years.	Annual surveillance is required, however assessments may be based on documentation audits and don't necessarily require site visits. A minimum of 1 surveillance visit (audit) shall take place during the period of validity of the certificate. Document audits are required in the other years. Taking the assessment visit as Year 1, a surveillance visit in Year 2 is obligatory; there must be a minimum of 1 further surveillance visit during years 3, 4 and 5

Re-certification	Re-certification will take place based on a 're-assessment audit', including stakeholder consultation and evaluation of all 10 P & C.	Re-certification will take place based on a 're-assessment audit', including stakeholder consultation and evaluation of all 10 P & C.	Re-certification will take place based on a 're-assessment audit', including stakeholder consultation and evaluation of all 10 P & C.

Table 4.6.1 SLIMF assessment procedures

The identifiable cost savings in the streamlined procedures for a SLIMF are a reduction of team size for individual SLIMF evaluations and eliminating the necessity for annual field audits. In theory this could reduce costs by 50% for a small group SLIMF. These cost savings do not allow for a reduction in management plan development and monitoring costs. However, as indicated in the table above, there is the potential for a much reduced format and intensity of management planning applicable to FSC certification of SLIMF operations. SLIMFs may be exempt from some indicators which are applicable to other forests, and alternative indicators may be developed for SLIMF application in their place.

Not every forest management unit will be visited during the assessment and audit, with the assessment team developing a sampling strategy that identifies the proportion of members, and types of members that need assessment. This will be based on elements such as management variables, forest type and harvest history.

4.6.2 FSC Costs for Small Forest Growers in New Zealand

Currently there is one Group Certification Scheme available in New Zealand. This is provided by PF Olsen Limited.

PF Olsen Limited's Group Certification Scheme

In New Zealand, PF Olsen Ltd operate the only group certification scheme. This Group Scheme currently includes 58,734ha of forest, over 131 forests throughout New Zealand. 129 of the 131 forests are Resource Members, rather than Group Members. Resource Members are those for whom full management is undertaken by PF Olsen Ltd under the framework of their FSC systems. The Group Members manage their own forests, but under the oversight and within the framework of the PF Olsen Ltd FSC systems (http//www.pfolsen.co.nz/ November 2008).

Over 60% of this forest area is owned by one Resource Member, and an additional 18% of the forest area owned by another two Resource Members. The remaining 29 Resource Members have forest areas that average 436 hectares in size.

The two Group Members contribute just 75 hectares to the 58,734 hectare forest management area.

Joining the group provides forest owners with the templates to allow completion of the FSC documentary requirements (eg. Management plan, Health and Safety plan) and forest audit and management tools to assist in the record keeping requirements of FSC. The PF Olsen chain-of-custody certification allows forest growers to sell their timber as FSC certified.

As per the requirements of FSC, PF Olsen – as Group Manager – undertakes annual surveillance audits of their members annually. This involves submitting forest management practice information and checklists, with a sample of one third of the forests being subject to a field audit annually. Again, as per the requirements of FSC, a full audit will be undertaken of each Group Member at least every five years.

The certification body, in this case Smartwood, will annually audit the PF Olsen Group Scheme, including a small sample of the forests. Greater attention is paid to the forest management system of PF Olsen Ltd, and to the forest auditing system that they manage, rather than to auditing the forest properties themselves. A sample of forests is audited annually, normally those forests that are new the scheme, or that have experienced high impact operations (pers.comm B.Hamilton. 07/06/08).

The fees for the two membership types within the PF Olsen Limited scheme are as follows:

- Start up costs of $500, irrespective of membership type
- First Audit and confirmation of acceptance to scheme - $1500 for Resource Manager Members and $2500 for Group Scheme Members.
- **Annual costs**, examples:

Scenario example	**Group Scheme Member**	**Resource Member**
Small mature forest <50ha	$5 / ha	$3 / ha
Large mature forest aged +20 yrs	$5/ ha	$3 / ha
Large forest mixed ages 6 through 20+	$3.8 / ha	$1.8 / ha
Large young forest <5 yrs	$3.5 / ha	$1.5 / ha

- **Harvest Royalty:**

Scenario example	**Group Scheme Member**	**Resource Member**
Small one off volume <5000 tonnes	$1.00 / t	$0.50 / t
Small annual volumes for 5 years totalling 50,000	$0.38 / t	$0.15 / t

tonnes		
Medium one off volume – 30,000 tonnes	$0.43 / t	$0.19 / t
Larger volumes, accumulated or one off – 90,000 tonnes	$0.34 / t	$0.13 / t

(From PFOlsen Limited)

For one of the approximately 1400 New Zealand small forest growers who own less than 10 hectares, and who are likely to undertake their own forest management and harvesting, costs will be as follows:

1. Start up cost of $500
2. First Audit cost of $2500
3. Annual fees of $5 / ha = $5 - $50 / annum
4. Harvesting fees of $ 1 / tonne. Assuming harvest volumes of 500 tonne / hectare, = $500 (I ha) - $5000 (10ha)

Forest Size	**Start up costs**	**First Audit**	**Group Mgmt Fees. $5/ ha / yr** **Over a 5 year period**	**Harvest Fees. Assume Avg 500 tonne / ha** **<5000 tonnes = $1 / tonne** **<50,000 tonnes = $0.38 /t**	**Total costs (average / annum) for 5 year period**
5	500	2500	125	2500	$1125/ annum = $225 / ha / annum
10	500	2500	250	5000	$1650 / annum = $165 / ha / annum
100	500	2500	2500	19,000	4,900 = $49 / ha / annum
400	500	2500	10000	68,000	16,200 = $41 / ha / annum

Table 4.6.2 Indicative costs of FSC certification using the PF Olsen Limited Group Certification Scheme.

Note that these prices are indicative only. They assume an average harvest of 500 tonne / ha / annum, which will differ significantly from site to site. PF Olsen Limited's price schedule may change from the figures used above.

4.7 WHAT CHANGES IN FOREST PRACTICE ARE LIKELY UNDER CERTIFICATION?

To understand what forest management changes small forest growers may need to make under an FSC certification scheme, it is best to look at what constitutes 'Sustainable Forest Management' under certification schemes, and to then pay attention to the common forest management issues that large New Zealand plantation owners have faced under FSC certification.

As can be expected, there is considerable debate over what is considered 'sustainable'. Such debate is not limited to forest management, but to all land use management in New Zealand. Nussbaum et al (1996) reviewed forest certification schemes and identified four main principles of Sustainable Forest Management (SFM) systems. They are as follows:

1. Maintain sustained yields of goods and services including ecological functions
2. Maintain biodiversity at the ecosystem, landscape, species or genetic levels
3. Optimise the socio-economic aspects of forestry
4. Develop a supportive institutional framework for SFM, including policies, skills and research.

These four principles are sufficiently broad to encompass the ten Principles and Criteria of FSC. Given that these Principles and Criteria were originally developed for the management of natural forests, it can appear difficult to translate them into a New Zealand plantation context. From an ENGOs' perspective, there are a number of concerns about New Zealand plantation forestry. Rosoman (2003:4), as a Forests Campaigner for Greenpeace, lists the following environmental issues related to the New Zealand Forestry Industry:

- Pesticide use. Greenpeace are seeking implementation of the goal of zero pesticide use, through acknowledging the lack of practical alternatives when dealing with NZ's huge weed and pest problem.
- Genetically Modified Organisms. Greenpeace demand a clear requirement for prohibition of GMOs in the forest management unit if certification is to be granted.
- Timber preservation treatment. Greenpeace want to see diversification into other forest tree species that do need timber treatment to aid its preservation.
- Indigenous peoples and local community rights. Ensuring 'free and informed consent' is achieved and that communities have a say and achieve benefit from plantation management.
- Natural forest ecosystem reserve set aside and restoration. The need for plantation forests to contribute to the health, maintenance and restoration of indigenous forest ecosystems.
- Habitat for rare, threatened and endangered species. Plantations need to provide habitat for threatened, rare or endangered species.

- Planted species diversity. A preference for both native tree species and a range of different species.
- Monocultures versus mosaics. Greenpeace opposes monocultures, and advocate mosaics of stands that mimic natural landscape patterns.

All of these environmental and social issues are encompassed within the New Zealand draft National Standard. The draft National Standard has been the basis for the certification of 55% of New Zealand's plantation estate. Certifying Bodies use this standard, or their interpretation of it, when assessing forest companies who hold FSC certificates.

In 2003, the Certifying Bodies auditing results of the 11 New Zealand FSC-certified organisations were compared (Hock and Hay, 2003). Some common environmental issues that were producing Corrective Action Requests (CARs) from the certifying bodies were found. They are as follows:

- "The need for or improvement of environmental impact assessments, particularly at the landscape level.
- The requirement for improved flora and fauna monitoring
- The need for improved safeguarding of rare, threatened and endangered species.
- The need to manage wilding spread or unwanted regeneration, both inside and outside the estate.
- The need to modify the use of chemicals
- The need to define a maximum clearcut size." (in Hock et al, Date Unknown).

The most frequent issues were for criterion 6.6, which requires management systems to promote alternatives, and minimize use of chemical pesticides. Specific issues were the usage of chemicals banned under FSC, the lack of strategies for phasing out chemical usage, and the lack of searching for alternatives. This issue remains in the current day, as briefly discussed in Chapter 3.4.

Criterion 6.2 frequently had CARs raised against it, with the need for more information from forest managers on safeguarding rare, threatened and endangered species and their habitats. Criterion 6.1 also required attention, with the need for improvement of environmental impact assessments.

The need to define a maximum clearcut size was listed by Certifying Bodies on several occasions. An important issue for exotic plantation forests is the need to maintain genetic diversity, species diversity and a representative range of age classes.

4.8 HOW WILL THE SMALL GROWER MEET THE CERTIFICATION REQUIREMENTS?

4.8.1 TAKING A LANDSCAPE APPROACH TO IMPLEMENTATION

For most small forest growers, sustainability is part of informal everyday management practices built on customary systems. Such systems need documentation and testing, and validation from the forest's stakeholders.

The sustainability of a land use system that has the potential to contribute significantly to maintaining or improving soil and water quality in a region, while helping to maintain the carbon cycle by sequestering large amounts of carbon in their biomass, is a system that needs encouragement and to be rewarded. As such, any FSC certification scheme that is to encourage uptake by the small forest grower must recognise the limitations of some forest growers in being able to practically meet some of the standards. There is a need to emphasis appropriateness to scale and the intensity of forest management.

From the forest owner's perspective there is a need to pay attention to the environmental management of the wider landscape. While farm forestry may provide ecosystem services at the site (farm) level, such as enhanced food or fibre production and improved soil quality, greater environmental services such as wildlife corridors and biodiversity protection will all benefit from connectivity through the landscape.

A whole-of-property approach to the implementation of the FSC standards will underpin a farm forestry model of certification. Small plantations within a farming system cannot be seen in isolation from the remainder of the farm. This is not to suggest that the pastoral part of the farm will be assessed as part of the FSC process – nor could it be of course – but the ability of the farm forester to meet some of the FSC standards through demonstrated positive management of environmental health across the farmscape must be attributable to the certification scheme. One obvious example is the management of a patch of indigenous biodiversity outside the bounds of the woodlot, but within the farm's boundary and connected to the woodlot in an ecological sense.

By operating at a landscape level, many of the FSC Principles and Criteria are able to be met. Certifying Bodies cannot expect landowners to convince their neighbours to manage collaboratively in the name of a healthy landscape, but the dialogue between neighbours is a positive step.

FSC provides a forum to talk to neighbours, local authorities and ENGOs, encouraging a culture of openness and trust. Forest owners must be proactive in engaging with others. Such a process is contrary to the strong culture of individual property rights that exist within New Zealand and will not sit comfortably with a lot of land owners.

4.8.2 FSC STANDARD REQUIREMENTS THAT COULD POSE DIFFICULTIES FOR SMALL FOREST GROWERS

Some of the FSC standards that may prove difficult for Small Forest Growers are discussed below. This is a brief discussion, aimed at highlighting some of the potential changes in forest management that small forest growers may need to make. Meeting some of the other FSC standards may also prove tricky, but the following are some of the most difficult.

Phasing out herbicide and pesticide use:

As the large forest owners have found, phasing out pesticides is difficult to achieve. Farm foresters do have another tool in the box in the ability to use intensive, short-term grazing, to remove competitive cover prior to forest establishment. However, in most scenarios, it is still necessary to release spray after rootstocks have been established. This use of herbicide in forest establishment has been met with resistance from FSC International. Though the New Zealand FSC Cluster Group has tried to demonstrate the need for herbicide during the very short time frame around tree establishment – given the favourable competitive weed growing environment that the New Zealand environment provides – the feedback from FSC International technical consultants has been to strongly advocate for a shift away from the reliance on herbicide in New Zealand forest management practice. To meet FSC's expectations will be a difficult task, and New Zealand's small forest growers will be reliant on their corporate forestry cousins to establish recommended FSC-certifiable practice here.

Meeting the Indigenous Reserve Requirement:

Current discussions between the New Zealand Forestry Industry and the ENGOs point toward a target of 10% reserve area of the Forest Management Unit. Many farm forestry, or small forest, properties are largely, or totally, devoid of natural forest remnants. In such cases, the expectation of natural forest conservation and restoration objectives is not practical.

The opportunities for the conservation of indigenous eco-systems are unevenly spread throughout the country, and as such need to be recognised. For example, the east coast of the South Island is particularly devoid of indigenous vegetation. To meet the reserve requirements will require large-scale indigenous revegetation from many forest owners. Such projects come at a considerable financial cost, and would seldom be justified from an economic perspective.

The ability of small foresters to address large-scale landscape wide issues is very limited, and needs to be recognised. While small forest owners who want to achieve forest certification must recognise that forest management needs to contribute to a healthy functioning ecosystem, they cannot be expected to bear the full costs of maintaining diverse functioning ecosystems.

However, it is important for farmers and foresters to recognise the important contribution their land management can make to the ecology of a wider landscape. Connectivity between fragments of permanent vegetation throughout a landscape will provide a permanent framework for biological cycles

to exist, allowing more transient management regimes (such as pastoral farming or cropping) to occur amongst it. Whilst recognising the importance of site-level reserves and connectivity, the need to take account of spatial scale underpins such a process.

Some New Zealand small forest growers who have been FSC certified have been awarded certification without meeting the 10% target, and even sometimes with no reserves present. Without a National Forest Standard in place, the Certifying Bodies have some flexibility in determining how they deal with a lack of reserves within small forests. To date, it seems that the response has been to certify without the presence of reserves. It must be recognised, however, that the small forest grower uptake of FSC certification has to date been minimal. Should there be a growth in interest in FSC certification, a better solution will need to be found, driven by the completion and consensus of a National Standard.

When implementing the FSC standards, it will be important for both forest manager and Certifying Body alike to consider the status of the landscape prior to the establishment of planted forests. Whether the planted forest is contributing to the increased sustainability of the landscape must be assessed, and within this assessment, a consideration of alternative land-uses. For example, is a woodlot of macrocarpa on a previously denuded hill with a waterway in its gully system a better (more sustainable) use of that land than using it for agriculture? Another example would be the consideration of whether a patch of gorse and scrubby indigenous vegetation is a better use of land than the establishment of a macrocarpa. Asking these questions from a landscape scale perspective will provide answers from an environmental, social and economic context.

Some potential methods for small forest growers to meet the FSC reserve requirements are:

- For farm foresters, phasing in the use of indigenous vegetation when developing shelterbelts and riparian strips in the farming landscape.
- Retirement of steep, erosion prone gullies that are not feasible for future timber crop harvesting.
- Recognition in the National Standard of continuous cover, long rotation timber crops as a contributor to reserves.
- Recognition in the National Standard of long rotation timber crops as a contributor to reserves.
- Development of a landscape plan that allows for spatial planning of reserves and connectivity areas between these. Timber crops should be considered to form a part of the reserve area, but the temporary nature of these crops needs to be recognised. To complement the temporary crops, a more permanent framework of long-rotation crops or permanent indigenous vegetation should be established.

Forest Crop Diversity:

Diversity of forest crops – both at genetic and stand levels – is an important component of the FSC standard. Many farm foresters will feel comfortable with their status in this regard. As discussed in Section 4.1, farm foresters establish planted forests for many reasons, which often include amenity and

diversity. Farm foresters are more inclined to plant a variety of timber crops, often with longer rotations of 40 years or more, thus providing stable habitat for wildlife and a land use with less-frequent high-impact activities. Such forest crop choices need to be made with regard to local market demand for timber products and site specific physical limitations that will favour specific species.

Small forest growers wanting to meet the FSC standards will need to incorporate forest management decisions that include:

- Using multiple species of timber species, matching site location with species suitability and market demand for specific timbers.
- A variety of silviculture regimes and rotation lengths.
- Increased use of native species as timber crops.

4.9 IS CERTIFICATION NECESSARY? MARKETING OF WOOD PRODUCTS – SUPPLYING THE RIGHT PRODUCT TO THE PROCESSOR.

There is considerable debate around the need for small forest growers to obtain FSC certification. Gaining certification is a difficult process that requires significant time and resources, and as such, many people ask the question "Is it worth it?" The answer to this question will differ from individual to individual, and from region to region. Some of the factors that need considering when answering this question are discussed below.

Insufficient Market Strength

Small forest growers tend to have insufficient market power due to external forces such as globalisation and internal factors such as low and irregular volumes of wood and low economies of scale. Some forest service companies, farm forestry associations and woodlot buyers have looked at mechanisms for creating shared market power. The cooperative model was floated by one Forestry Service Company in 2004, for example, but such models to date have not been effective. The natural independence of New Zealand landowners is contrary to the basic premise of a cooperative structure.

In a highly competitive log market, small forest growers are able to rely on market forces to assure their economic return. If the forest grower is able to sufficiently describe the volume, grade and quality of wood product for sale to a suitable number of potential buyers, then competition will provide a good price – dependent, on course, on the external forces of a global economy. In a less competitive log market, buyers will often favour larger forest growers for the regularity they can provide.

Lack of reliable log product

Some wood processors have stated that they have difficulty managing the supply relationship with small forest growers, listing the following negative attributing factors:

- Often the log products are of lesser quality than those in corporate plantation forest, with few records to demonstrate what silvicultural practice has taken place.
- Internal farm roading makes harvest transport difficult, inefficient and costly, and is often constrained to the summer months.
- There is also a trend for small forest growers, with a lack of age-class distribution in their forest estate, to hold off on harvesting until the log prices are at higher levels. This is in contrast to corporate forest owners, who will continue to harvest through the peaks and troughs of the market cycle. As such, the harvestable volumes available from small forest growers are unreliable.

This lack of reliability of the small forest grower model has made some wood processors consider small forest growers to be a second rate customer, and increasingly difficult to accommodate. In a buyers' market, with consistent log product being supplied by the corporate estate, small forest growers are finding that they are at the bottom of the pile when it comes to wood processors procuring log product.

Lack of FSC certification

With nearly all of the major New Zealand forest owners that are actively harvesting being FSC certified, the lack of FSC certification of small forest growers can be added to the list of barriers to log purchasers. There is a significant operating cost for wood processors to handle two lines of log products (non FSC and FSC logs) and as one wood processor succinctly stated, "It is increasingly problematic".

Due to the widespread and rapid uptake of FSC by the New Zealand plantation forestry industry, small forest growers are beginning to feel pressured to follow suit. In some geographic regions of New Zealand, to not obtain FSC certification may mean a loss of strategic market place for forest products, and as such, reduced revenue. There have already been geographical cases of restricted log demand for non-FSC log product, namely in the central north island, the far north and the southern south island (pers.comm K.Richards, 10/12/2008).

Although some forest producers are able to negotiate price premiums for their FSC log products, they seem to be the exception rather than the rule. However, the ability to maintain market share or to access market share is fairly well documented. Radiata pine has suffered from a poor international image, and FSC certification is a strong market benefit that offsets some of this negativity.

To understand this at a local level, a study was undertaken that examined the market demand for FSC log products in South Otago. The potential demand for uptake from small forest growers in this region was also examined.

5.0 SOUTH OTAGO – THE LOCAL CONTEXT

5.1 BACKGROUND - THE OTAGO / SOUTHLAND FORESTRY INDUSTRY

The following information has been taken from the 2008 'Otago / Southland Forest Industry and wood availability forecasts' (MAF, 2008 (a)), a joint initiative between MAF and the Southern Wood Council Inc. This forecast looks specifically at the Otago / Southland Forest Industry, a region in which the South Otago Farm Foresters have a strong history.

Harvest Availability:

'The wood availability forecasts indicate that the supply of radiata pine and Douglas-fir will remain static over the next eight years to 2015. From 2015 there is likely to be an increase in supply, with substantial increases in wood availability leading up to 2020.

The harvest from the combined Otago / Southland region has the potential to increase from the current level of 1.5 million cubic metres, to 2.6-2.8 million cubic metres in the early 2020s. Most of the projected increase in wood availability during this period will come from small-scale forest growers who established forests during the 1990s. Market conditions and logistical constraints will limit how quickly the additional wood supply from small-scale growers comes on stream between 2016 and the early 2020s. '

Current Forest Growing Sector:

The combined Otago / Southland region has a plantation estate of 215 700 hectares. The region has New Zealand's most diversified forest species composition. The three largest forest owners (Matariki, Wenita, Ernslaw One) make up 36.6% of the forest estate area, with the next three largest forest owners (City Forests, South Wood Export, Blakely Pacific) contributing an additional 18.2% of the forest estate area. Medium sized forest owners (1000+ hectares) make up another 8.5% of the forest estate, and then a combined small-scale forest grower estate contributing a very significant 36.7% (79,200 hectares) of forest to the region. In this MAF report (2008, a), small forest growers are those with less than 1000 hectares.

FSC Certified Forests:

Seven of the eight largest forestry owners in Otago / Southland have FSC certification of their forests. This amounts to 56.1% of the total Otago / Southland estate. The ninth and tenth largest forest owners are currently in the middle of the FSC certification process, and will likely be certified within the 2009 calendar year. Amounting to nearly 60% of the Otago / Southland forest estate, this proportion is significant.

The Wood Processing Sector:

Of the total 1,500 000 cubic metres harvested in the year ending March 31 2007, 52.7% was processed as sawlogs and peeler logs; 16.9% as pulp and small logs; 25.3% as log exports, and 5.1% as wood chip exports.

The Otago / Southland region has 28 sawmilling operations running, ensuring strong competition for logs. Also within the region is a modern MDF plant, a mouldings facility, a veneer operation and two stand alone chip operations.

Of the seven sawmills that process greater than 20 000 cubic metres per annum, six of these are FSC chain-of-custody certified. The Dongwha Patinna New Zealand Limited MDF plant at Mataura, which produces 170,000 cubic metres of finished product per annum, is also FSC certified.

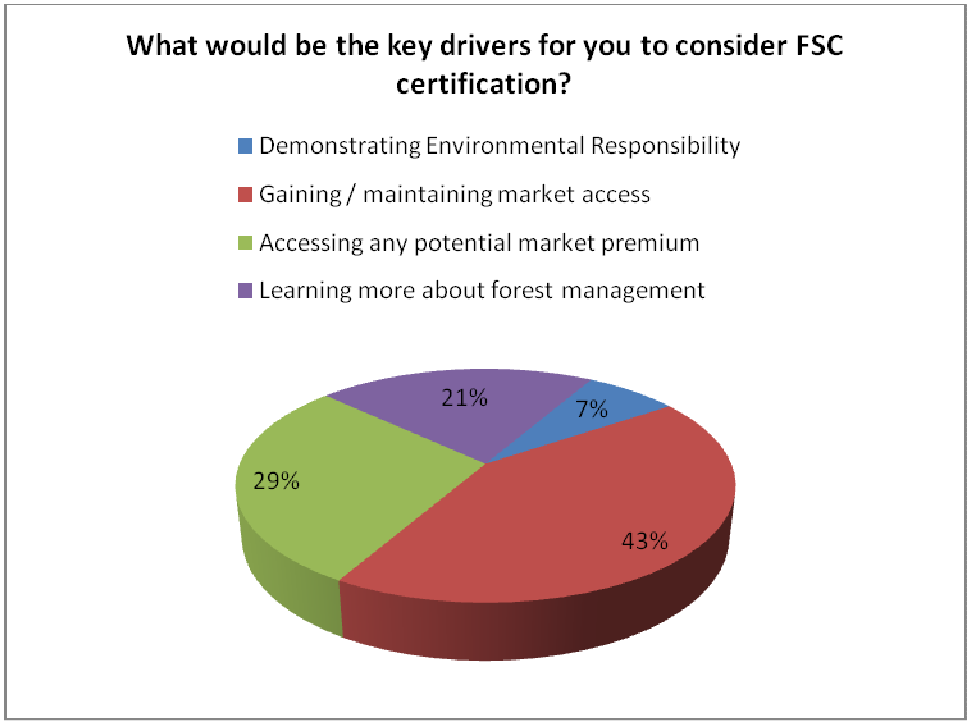
5.2 THE SOUTH OTAGO EXPERIENCE. . . . DO SMALL FOREST GROWERS DEMAND ACCESS TO THE FSC MARKET?

A small sample (ten) of small forest growers in South Otago were interviewed about FSC and their opinion of it as a scheme. Of the forest growers interviewed, four had no interest in FSC. Reasons given were as follows:

- "The supply / demand balance needs to alter to put mills into a stronger position, whereby they will demand FSC, and pay for it"
- "It feels like regulation, and what is the point? There has to be a reason to undertake FSC, and if there are no major forest management changes that will result, what is the point?"
- "I agree with the principal of it, but haven't got the inclination or time to undertake such projects. . . We're doing good things here already – I don't need someone else to tell me that!"
- "It will be just another cost to our businesses which are already not making any money. Compliance is killing us!"

Though each of the four above recognised there was potential market benefit from having FSC certified forests, the hassle and cost of achieving certification was not considered to make it worthwhile.

The remaining six forest owners were agreeable to the concept of FSC certification, and viewed the key reasons for obtaining certification as per the following chart.

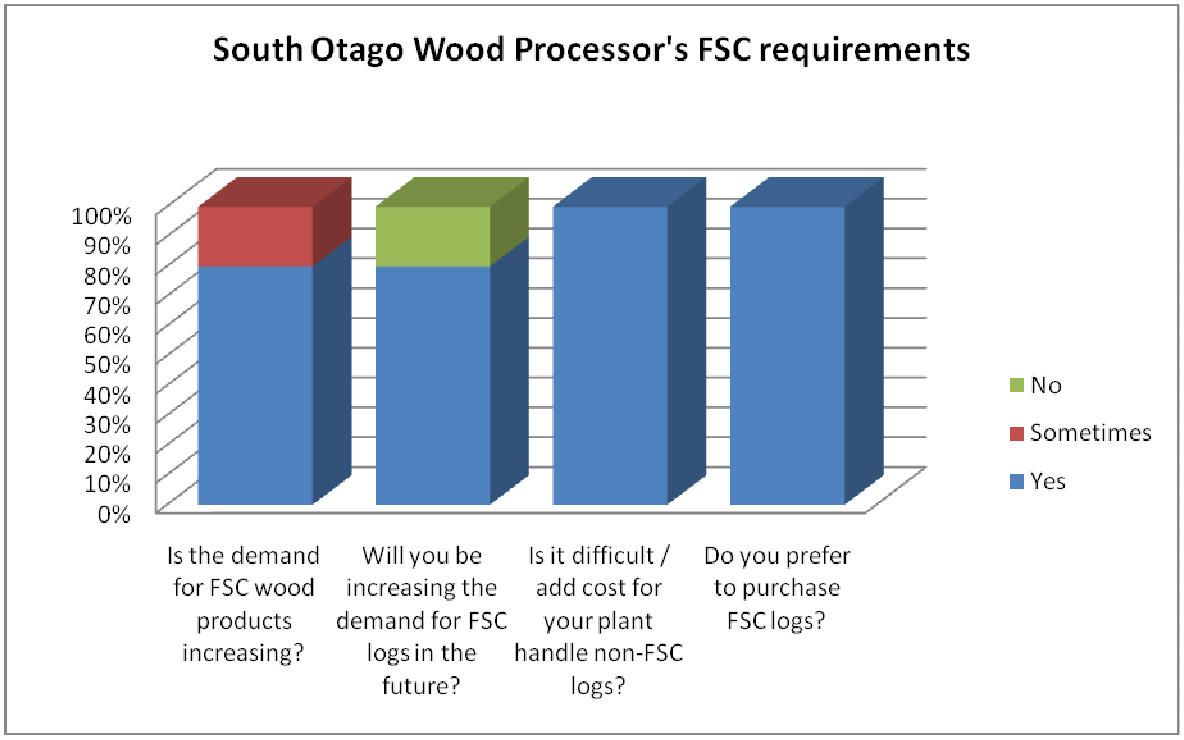


It was of interest that demonstrating environmental responsibility to a third party did not rate highly for many of the farm foresters, but on three separate occasions the point was made that their farm / forest management practice was environmentally proactive and that they were going that extra distance to better their environmental practice.

5.3 CASE STUDY - LOCAL WOOD PROCESSORS THOUGHTS ON FSC AND THE SMALL FOREST GROWER

During the course of this study discussions were undertaken with the Managers of each of the major sawmills that typically service South Otago forests. The results are depicted in the graphs below.

Graph 5.3.1. Wood Processor's FSC requirements



When questioned about the demand for FSC-certified log product, four of the five Managers interviewed believed that demand for FSC-certified logs was increasing, with one Manager stating that there had been a clear trend over the last 18 months for greater FSC products. Other Managers stated that demand for FSC wood products had fluctuated over the years, and may continue to do so, but that overall demand is expected to increase.

All sawmill Managers aimed to retain their FSC chain-of-custody certification going forward. Two of the mill Managers stated that they didn't always need the FSC certified logs, but that sudden market changes often occur, and big orders would often come in demanding FSC timber. As such, retaining the capability to be able to provide FSC timber was an important business decision.

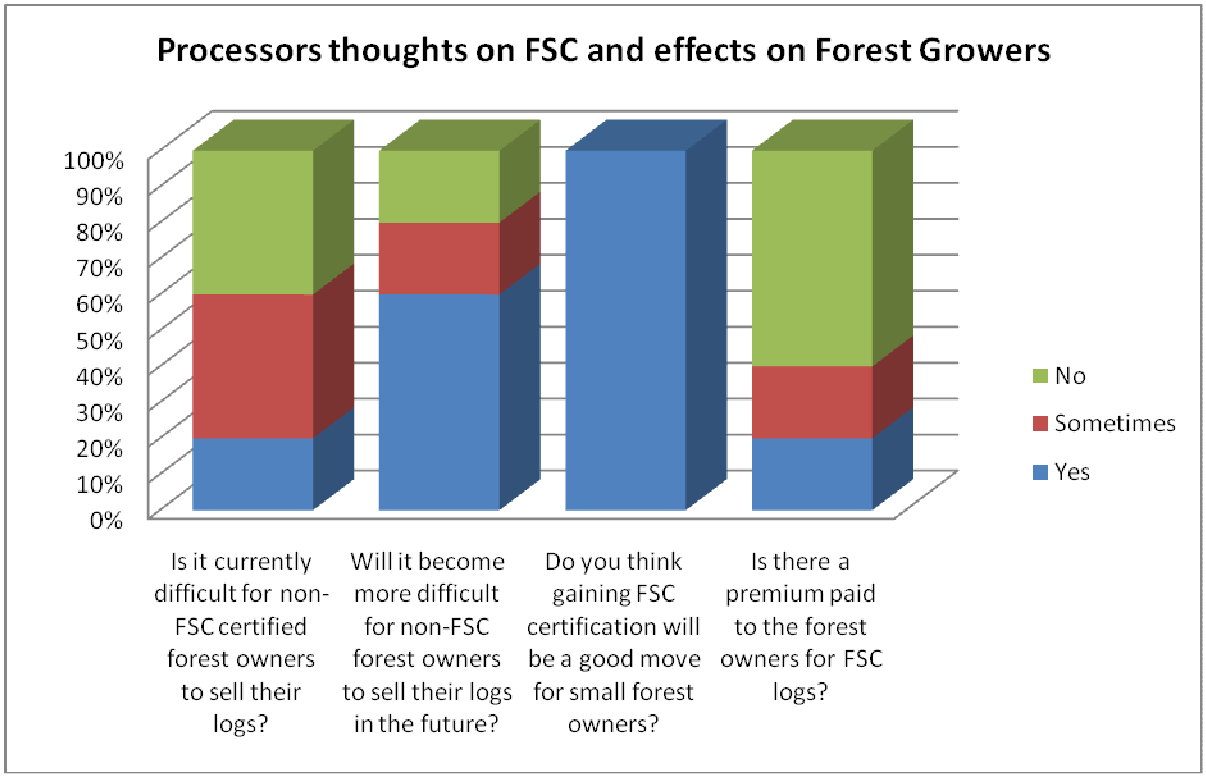
All but one of the sawmill Managers thought they would be increasing their demand for FSC logs in the future. This was primarily due to a perceived tightening in the ratio of non-FSC to FSC logs that would

be allowable. It was thought that the current ability to mix non-FSC wood in with FSC wood (often at the ration of 30:70% or 20:80%) would maybe lessen in the future as certification requirements toughened up.

All sawmill Managers said that handling non-FSC wood was an extra cost to their business, as it involved running two lines. This leads to increased operational and logistical costs. One mill manager was blunt, stating "quite frankly it is problematic to take non FSC wood into an FSC mill that is 100% certified as it must be fully segregated, which ultimately costs time and money". As such, all processors preferred to purchase FSC logs and would take them, all other things being equal, whenever available.

Two significant processors stated that to be of value, and for the product to be recognised in the market place, there was a need for the sale of the product to be FSC 'Pure'. FSC 'Pure', in comparison to a blend of FSC and non FSC wood, is wood or timber products that are produced entirely from FSC certified forest resource. Processors that wish to retain wood products as 100% FSC pure will, if processing non-FSC wood, manage two separate lines of production – FSC and non FSC, rather than producing an 'FSC mixed' product. This is because they believe the real value in the FSC product is in the 100% Pure, and that the mixed product is devaluing the brand, and the market benefit of certification.

Graph 5.3.2. Processors thoughts on FSC and effects on Forest Growers



Only one sawmill Manager believed not having FSC certified logs made it more difficult to sell their logs, although another two Managers believed that from time to time, the market situation had seen this situation arise where non-FSC logs were shut out of mills.

Moving into the future, the situation changes to one of sawmill Managers demanding more FSC certified log products, due to the predicted increased demands for FSC certified timber products. Again, one of these Managers stated that this would only happen from time to time, according to the whim of the market place, whilst another sawmill Manager stated that 'though FSC demand will increase, there will always be a home for non-certified wood'. From those sawmill Managers who believed the demand would increase, comments such as "We expect FSC to grow to become a more stringent market requirement. . . as such non certified FSC woodlots will become less marketable and less valuable going forward".

Only one sawmill paid a premium for FSC certified logs. Another paid a premium from time to time. One processor commented that "logs without FSC may be sold at a discount in the future".

All sawmill Managers were supportive of the idea of FSC certification for small forest growers, and believed it would benefit the forest grower's businesses, as well as that of the processors. One major processor stated categorically that "Small forest growers are currently riding on the coat tails of the corporate. They jump in when prices are good, they don't do winter logging, and they are not certified FSC. They need to up their game if they want to retain outlets for their logs".

5.4 CASE STUDY – SOUTH OTAGO LOG MARKETING SCENARIOS.

As discussed, there are a large number of processors in Southland and Otago, providing a competitive purchasing market for forest owners. Prices are discounted for non-FSC logs at one of the processors, but these non-FSC logs are generally still (but not always) able to be sold to this mill. Other mills do not supply premiums / discounts for FSC logs, but will always give preference to FSC logs.

Of high importance to the potential profitability of a small forest grower's operation is the marketing management of their log products. The normal method for small forest grower log sales in Otago / Southland is by graded sale. This method typically involves a log marketer managing the sales process on behalf of the forest grower, providing and supervising the harvest contractors, and organising the cartage contractors.

The other key role of the log marketer is the value optimisation of the log products. Gaining value from a small forest will come in two ways – from the maximisation of the log grade recovery, and from an ability to access key market places.

The skill and knowledge of the harvesting contractor's team and their ability to maximise the value of the log grades that arise from the tree is of high importance. A skilled harvesting team will optimise the

log grade recovery, quickly identifying the valuable log products within each tree. The log marketer has an important role to play, in ensuring that this value maximisation is occurring.

The second value-adding attribute of log marketers is their ability to supply key markets. Often sawmills and wood processors will have supply-management contracts with log marketers. The log marketer, as the 'middle man', effectively manages the wood supply for the wood processor. This enables the wood processor to concentrate on their immediate job, rather than being concerned with wood procurement. With a number of log marketers in business, it is important for small forest growers to understand who has the key supply-management contracts in their immediate area. If a small forest grower chooses to market their log product through a log marketer who does not have the optimal log access for their own forest products, then the forest grower will ultimately lose value. Often this loss of value will not come from a reduction in the gross value of the log (as most sawmill processors offer similar prices for specific log grades) but from extra costs attached to accessing a more distant market.

5.4.1 Testing the FSC log market in South Otago

To better understand the implications of restricted market access, three scenarios were run for a typical South Otago farm forestry block. The farm forester has been given the fictitious name of 'John Bloom', though his real-life persona was one of the ten people that took part in the study. John's location in South Otago represents that of another three farm foresters who took part in this study. John is well serviced by mills and the port of Otago, but given his rolling hill country and lack of internal farm roads, is restricted to summer logging only. John has a mixed resource of *P.radiata, C.macrocarpa, P.menziesii*, and a number of other exotic tree species. His stands are all well tended, aiming to maximise log value at all times.

Three log value scenarios were run, using actual prices and costs available to John in the current day (2009). A typical farm forestry volume of 1000 tonnes was used for this exercise.

The cost of joining a FSC Group Certification Scheme was not factored into the first three scenarios, as these scenarios are simply being used to illustrate the potential of FSC market access. The cost of certification has been factored into Scenario Four.

Scenario One: John is FSC certified, and has full access to all of the local mills.

FSC Log or not	FSC **P1**	FSC **P2**	FSC **Partial P**	No **S30**	No **A Grade**	FSC **ROB**	No **Chip**	**Totals**
Volume	100	100	50	100	100	300	250	**1000**
Gross Value	130	100	85	82	73	65	32	
Gross	13000	10000	4250	8200	7300	19500	8000	**70250**
Log and Load	25	25	25	25	25	25	12	
Cartage	8	8	8	11	9	8	15	
Mgmt	5	5	5	5	5	5	2	
FSC c-o-c fee	1	1	1			1		
Cost / tonne	39	39	39	41	39	39	29	
Total cost	3900	3900	1950	4100	3900	11700	7250	**36700**
Net Value	**9100**	**6100**	**2300**	**4100**	**3400**	**7800**	**750**	**33550**
Net price / tonne								**33.55**

Note.1. John receives full price for P1, P2, Partial Pruned, and ROB. These are all paid full price for FSC logs by a local mill, and discounted by $5 / tonne for non-FSC. Non-FSC logs are occasionally restricted access.

Note.2. This is the best possible combination of market outlets for John, and all of the closest mills are being supplied.

Note .3. An FSC chain of custody fee applies, payable to the log marketing company which is chain-of-custody certified, and uses this fee to cover their FSC costs.

Scenario Two: John is not FSC certified, but he has unimpeded access to all of the local mills. However, a log price discount applies to some log grades because they are not certified FSC.

FSC log or not	No	No	No	No	No	No	No	
	P1	**P2**	**Partial P**	**S30**	**A Grade**	**ROB**	**Chip**	**Total**
Volume	100	100	50	100	100	300	250	**1000**
Gross Value	125	95	80	82	73	60	32	
Gross	12500	9500	4000	8200	7300	18000	8000	67500
Log and Load	25	25	25	25	25	25	12	
Cartage	8	8	8	11	9	8	15	
Mgmt	5	5	5	5	5	5	2	
Cost / tonne	38	38	38	41	39	38	29	
Total Cost	3800	3800	1900	4100	3900	11400	7250	**36150**
Net Value	8700	5700	2100	4100	3400	6600	750	**31350**
Net price / tonne								**31.35**

Note.1. John receives discounted prices for P1, P2, Partial Pruned, and ROB. These are all paid full price for FSC logs by a local mill, and discounted by $5 / tonne for non-FSC. Non-FSC logs are occasionally restricted access.

Note.2. With the specific aim of maximising revenue, this is the best possible combination of market outlets for John. All of the closest mills are being supplied.

Note .3. No FSC chain of custody fee applies.

Scenario Three: John is not FSC certified, and due to the high availability of FSC from other forest owners, is restricted from providing one of the local processing mills.

FSC log or not	No **P1**	No **P2**	No **Partial P**	No **S30**	No **A Grade**	No **K Grade**	No **Chip**	**Total**
Volume	100	0	0	100	250	300	250	**1000**
Gross Value	130	0	85	82	73	65	32	
Gross	13000	0	0	8200	18250	19500	8000	**66950**
Log and Load	25	25	25	25	25	25	12	
Cartage	14	0	31	11	9	15	15	
Mgmt	5	5	5	5	5	5	2	
Cost / tonne	44	30	61	41	39	45	29	
Total Cost	4400	0	0	4100	9750	13500	7250	**39000**
Net Value	8600	0	0	4100	8500	6000	750	**27950**
Net price / tonne								**27.95**

Note.1. John is restricted from supplying P1, P2, Partial Prune, ROB to local processors. Real alternatives for this situation are:

- He is able to supply another mill P1, at the same gross value, but with an increase in cartage cost.
- There is no alternative market for P2, so this grade is downgraded to A grade.
- He is able to supply another mill Partial Pruned, but with significant extra cost for the extra cartage (to Invercargill). Instead, it is more profitable to sell this as A grade, with a smaller cartage cost.
- The ROB is restricted, but can be sold as an export K grade log. This provides the same gross value / tonne; but again involves extra cartage cost.

Note.2. This would be the best possible 'current day' combination for John, if access was restricted due to a lack of FSC certification.

DISCUSSION:

If, in 2008/09, John Bloom had FSC certification of his forests, he would obtain nearly 17% extra net values from his well-tended clearwood *P.radiata* regime. On this 1000 tonne woodlot, that amounts to $5,600.00. This value does not reflect the cost of obtaining certification, which is discussed in Scenario Four below.

If the local mill allows John to supply non-FSC logs, but at the discounted non-FSC rate, he will receive $31.35 / tonne. This is $2.20 / tonne less than being FSC certified, but still $3.40 / tonne more than not being able to supply his local processor.

If the local mill does not allow John to supply logs, because he does not have FSC logs to sell, John needs to find alternative markets. The next best scenario for John attracts a net price of $27.95 / tonne, a $5.60 / tonne reduction from the FSC certified price, or 17% reduction in the net profit.

Scenario Four: Costing in the price of John's FSC Group Certification Scheme:

John has 72.7ha of woodlots. He plans on harvesting an average of 1500 tonne / annum over the next five years, and as such is going to join the local FSC Group Certification Scheme.

The cost of joining the scheme and the first audit is $3000. John pays a forestry consultant to complete a management plan and set in place the environmental monitoring requirements. This costs an additional $3,500.00. Annual fees for Group Certification are $365.00. Chain of custody fees are $1.00/ tonne.[1]

Over a five year period, John aims to harvest 7,500 tonne of logs. Spreading the direct costs of obtaining FSC certification (not the indirect costs of change in forest management), this equates to $8325.00 of direct costs. Spread over the predicted volume of FSC logs (4125 tonnes of P1, P2, Partial Pruned, ROB) this amounts to a direct cost of $2.02 / tonne of FSC log product.

An additional $4,125 in chain of custody royalty fees will apply, at a rate of $1/tonne on FSC logs only.

Scenario Four. CERTIFIED FOREST. FSC premium (no discount) provided. Group Cert costs accounted for

	FSC P1	FSC P2	FSC Partial P	S30	A Grade	FSC ROB	Chip	**Total**
Volume	100	100	50	100	100	300	250	**1000**
Gross Value	130	100	85	82	73	65	32	
Gross	13000	10000	4250	8200	7300	19500	8000	**70250**
Log and Load	25	25	25	25	25	25	12	
Cartage	8	8	8	11	9	8	15	
Mgmt	5	5	5	5	5	5	2	
Group Cert Costs	2.02	2.02	2.02			2.02		
FSC c-o-c fee	1	1	1			1		
Cost / tonne	41.02	41.02	41.02	41	39	41.02	29	
Total cost	4102	4102	2051	4100	3900	12306	7250	**37811**
Net Value	8898	5898	2199	4100	3400	7194	750	**32439**
Net price / tonne								**32.44**

[1] These are current day prices for a New Zealand FSC group certification scheme.

DISCUSSION

The net price per tonne of FSC certified log product decreases $1.11 / tonne from $33.55 / tonne to $32.44 / tonne. This is $1.09 / tonne higher than Scenario Two - not being certified FSC, but still being able to retain access to discounted rates at local mills.

$1.09 / tonne, however, is unlikely to be considered a premium when one considers the significant work and effort that is necessary to obtain certification. When compared to the fluctuations of the international exchange rates, fuel prices, and transport costs to export markets, this 'premium' is inconsequential. Depending on the extent of forest management changes required to be implemented by John, this premium could easily be absorbed into forest management changes, with a likelihood of additional cost on top.

However, if John is excluded from his local sawmills because he is not certified (as per Scenario Three), the premium remains significant. At $4.49 / tonne premium (across the log product range), this amounts to a total increase of revenue of $33,675 over the five year harvesting period (7500 tonne).

5.5 CASE STUDY DISCUSSION – DO SOUTH OTAGO SMALL FOREST GROWERS NEED FSC CERTIFICATION?

Currently there is a competitive wood processing sector which provides good service to forest growers throughout Otago and Southland. The preference from the major sawmill processors is for FSC-certified logs. Currently some of the processors will mix non-certified logs with certified logs, thus providing the small forest grower estate access. Other processors will purchase non-FSC logs, but prefer to process them in a separate line, so as to retain the integrity of the FSC 'Pure' brand.

Going forward to 2015 and the scenario could begin to change. The harvestable estate expands quite rapidly, and without further processing expansion, a buyer's market could quickly develop. As outlined in the (MAF, 2008 (a)) 'Wood Availability Forecast'the wood availability forecasts indicate that the supply of radiata pine and Douglas-fir will remain static over the next eight years to 2015. From 2015 there is likely to be an increase in supply, with substantial increases in wood availability leading up to 2020.

The harvest from the combined Otago / Southland region has the potential to increase from the current level of 1.5 million cubic metres, to 2.6-2.8 million cubic metres in the early 2020s. Most of the projected increase in wood availability during this period will come from small-scale forest growers who established forests during the 1990s. Market conditions and logistical constraints will limit how quickly the additional wood supply from small-scale growers comes on stream between 2016 and the early 2020s'. (MAF, 2008 (a)).

With the majority of the expansion in log supply coming from small forest growers, there is an increased likelihood of a buyer's market developing. Log buyer preference will be given to scale of forest, quality of log products and records that are attached to this quality control. Forest accessibility, efficiency of harvest, and ability to supply the market specifications will all be in high demand, and likely will be the bottom line of market access. FSC is one of the key specifications that will need to be met, as discussed above.

Those small forest growers who have the ability to provide the log processing market with the specifications demanded will benefit. They will retain access, obtain any premiums, and will not suffer from the discounted non-FSC prices that are probable. They will not suffer from being excluded from processing plants in close proximity, and the subsequent increased costs that result.

Currently the demand for non-FSC logs is sufficient to ensure that small forest growers have a relatively stable outlet for their log products. Though there have been cases of non-FSC logs being refused entry at sawmills, this is not common. The 'open letter' in Appendix 1.0 provides a current-day example of how one small forest grower was turned away from local sawmills due to a lack of FSC certification.

Price discounting at one mill is standard practice, but unless a forest grower has large volumes of logs to sell, is not sufficient (negative) incentive for a smaller forest grower to become certified. The current barriers to gaining FSC certification – discussed in the next chapter – exceed the potential benefits.

The direct costs of joining a group scheme effectively see the premium of the FSC product absorbed. Adding into the mix the unknown costs of changes in forest management, and the significant investment in time, and the current proposition becomes dubious. If some of these barriers can be addressed, and gaining certification becomes a more cost-effective proposition, then the decision made by small forest growers will largely depend on their adversity to risk and the significance of the forest resource at stake. Those seeking security to supply will seek FSC certification.

Additional justification for gaining certification can be found in the evolving environmental services market place. Forward looking forest owners will see developing markets for environmental services, such as carbon sequestration and to a lesser extent biodiversity enhancement and watershed management. As the public's understanding of the environmental services provided by trees and forests grows, market mechanisms will develop. The carbon market has already been commercialized, and some forest owners are taking advantage of this. As these markets continue to develop, external verification programmes, such as FSC certification, will form a necessary part of the business transaction process.

6.0 BARRIERS TO NZ SMALL FOREST GROWERS ACHIEVING CERTIFICATION

As discussed in the previous chapter, the current barriers for small forest growers gaining FSC certification exceed the current market benefits. The main barriers for small forest growers obtaining certification are discussed below.

6.1. COST

For small forest owners, the overarching barrier to obtaining FSC certification is cost. This cost includes the direct cost of certification, and the indirect costs attached to achieving compliance to the certification standards. An example of expected direct costs has been provided previously. This does not include the indirect costs of changes in forest management.

There are concerns that the costs of achieving forest certification can effectively equate to a trade barrier. This opposition is based primarily on the concern that such labelling can limit market access when there is a lack of financial resources that will allow the implementation of social or environmental standards.

Forest growers contemplating the adoption of certification schemes usually have to bear the entire financial burden of employing more responsible practices, including the certification costs. However, eco-labels do not operate in a vacuum and their effectiveness can be increased if other forces come into action, such as sustainable procurement policies of corporations or governments, or new environmental regulations, or long term supply contracts.

In comparison to the larger forest operations, smaller low intensity forest operations find that the cost of certification is prohibitively high. WWF calculated that the annual cost of certification per hectare is ten times higher for a forest under 500 hectares than for a forest larger than 20,000 hectares (WWF, 2001; in Stewart et al. 2003:3).

Direct costs of certification include the price of an initial assessment, annual audits and reassessment at year five. An assessment team can range from one to three or more members and includes, under the FSC system, public and stakeholder consultations as well as field review of forest management practices and documentation of those practices. FSC procedures require an annual audit, even if no harvesting activity took place that year, and a complete reassessment every five years.

Though certifying bodies have discretion in matching the size of the team to the size of the forestry operation, there are certain minimum and fixed costs so that the costs per hectare for assessments and audits are much higher for small forest operations than for large corporate forest enterprises. Typical New Zealand farm forestry practice involves harvests once every 5 to 15 years, sometimes once in 30

years, and as such the annual audit and five-year reassessment requirements become overly burdensome. It is hard to offset the annual costs of certification with the once in 15-30 year revenues.

The compliance, or forest management, costs to meet the certification standards will vary from forest to forest, depending on the initial quality of the forest management practices. Typically farm foresters will have records of establishment and silvicultural practice, but no more. The lack of a forest management plan; assessing the environmental impact of forestry practices; monitoring yields, and inventories of rare and endangered species will be common. Even the keenest of farm foresters will struggle to have such management systems in place, and the prospect of needing such systems will seem daunting.

6.2 ACCESS TO INFORMATION ABOUT FOREST CERTIFICATION

Studies, such as those carried out by ProForest (Nussbaum et al. 2000, in Stewart et al. 2003:3) and from within FSC, suggest that larger operations are better equipped to gain access to information about certification, to implement the requirements of certification, and to respond quickly to market demands.

In New Zealand, the lack of a national standard and a central portal for FSC information makes it difficult for those outside of the industry to understand how the process works, and what is required of the FSC process. The interim standards used by the certifying bodies are difficult to locate and for all but the most enquiring of people, would appear to be private property.

The lack of specific information about what is required by forest owners makes FSC something of an enigmatic system. There are no readily available resources or technical support for small forest growers. Within New Zealand the best way for small forest growers to find out what the requirements of FSC are is to pay to join a group certification scheme. If, upon joining the scheme, they find it to be not what they had envisaged, they have unfortunately had to outlay several hundred dollars.

6.3. DIFFICULTY IN INTERPRETING FOREST MANAGEMENT STANDARDS

The jargon-filled, legalistic speak of FSC Principle and Criteria, and of the interim standards, are a barrier to small forest growers. Some of the indicators demanded within the standards are inappropriate for small forest growers, and will see the majority of small forest growers rapidly turn away from the process due to the overly daunting nature of what is required.

Large forestry companies have the resources, in-house expertise and industry contacts to enable the rapid understanding of the certification requirements. The industry / NGO accords that have been developed over the years have given the industry plenty of opportunity to improve its environmental practice, and to better understand the demands of the ENGOs. Small forest growers however, are

largely unaware of such agreements, and of the technical monitoring and evaluative requirements that are part of certification.

6.4. A LACK OF FLEXIBILITY IN THE EVALUATING SYSTEM

The current FSC certification systems are not responsive to the scale of forest management operations. Report writing, annual audits, and forest monitoring requirements are far too onerous for low risk, small forest operations. Group certification schemes, such as that offered by PF Olsen Ltd, have provided smaller forest growers with an improved ability to access certification. However, due to the requirements of FSC, there is a demand for planning and monitoring documentation that is far beyond the scope of smaller forest growers.

6.5 LACK OF CONTROL WITH FORESTRY OPERATIONS

Small forest growers typically use contractors for high-impact activities such as harvesting. Owners with a few hectares of forest cannot demand contractors change their operational practice and management systems to meet the rigid requirements of FSC or other certification systems. Without a contractor understanding the implications and requirements of FSC, there is no opportunity to meet the standards demanded, and as such the prospect of meeting the standards of FSC is diminished.

7.0 A PATH FORWARD - DEVELOPING A MODEL TO ALLOW CERTIFICATION OF SMALL FOREST GROWERS.

The lowering of entry barriers to allow small forest growers to gain FSC certification is a topic of high importance for sustainable forestry in New Zealand. Small forest growers provide approximately one third of New Zealand's wood supply, but very few of these small forest growers have chosen to access the well-established and expanding FSC market place. The approaching 'wall of wood' will persuade some of these small forest growers to gain FSC certification to ensure their ability to access the most profitable of forest market places.

However there is not currently a cost-effective system by which New Zealand small forest growers can access the FSC market. Though it is recognisable that certification will increase the costs of industrial wood production and distribution, those forest growers who find that the costs of certification are greater than the price premium will either continue to produce non-certified wood, or change land use and drop out of the forest market altogether. If the cost of certification is less than the price premium, most producers will become certified.

The development of a forest certification system must be cost-effective, and based on measurable and objective performance standards that are defined at the national level. The system must require independent, third-party assessment of forest performance. There is a need for FSC certification to retain its integrity and to raise the performance level of sustainable forest management. Though small forest growers need to be offered the opportunity to gain access to this market place, it should not be a case of simply 'writing a cheque'. Sustainable forest management is more than timber production and environmental management thereof, and the FSC certification system recognises this within its Principles and Criteria.

Group certification of New Zealand's Small and Low Intensity Managed Forests (SLIMFs) will allow individual forest managers to organise collectively to achieve certification. The streamlined procedures of the SLIMF scheme provide for lesser audit and documentation costs (refer Section 4.5.1), but do not provide immediate solutions to other barriers to certification (refer section 6.0) such as the lack of information about certification and the difficulty in interpreting what forest management requirements are necessary. In a Group Certification scheme this role is filled by the Group Manager. As with other Group Certification schemes, a Group Manager's role will also include the management and coordination of the Group, ensuring Member's compliance with the Group's rules and procedures.

7.1 A ROLE FOR THE NEW ZEALAND FARM FORESTRY ASSOCIATION

Given the position of the New Zealand Farm Forestry Association (NZFFA), as a not-for-profit entity operating for the benefit of its members, it is in an excellent position to develop a group certification scheme. Certification could provide increased benefits to at least some of the NZFFA members. As the NZFFA is a not-for –profit organisation, there is potential for it to cover the cost of establishing the group certification system through government grants.

The NZFFA would provide the most suitable 'philosophical fit' with its members. As discussed, the NZFFA membership base is comprised of farm foresters who typically have a real love of trees and forests, and are keen advocates of alternative species management. Members will join the association for two reasons: to advance an agenda together more effectively than they are capable of advancing it alone, and to benefit from collective resources available only at scale. It is this later point that holds relevance with FSC group certification.

Being a legal entity will allow the New Zealand Farm Forestry Association (NZFFA) to provide both the legal and management structure to meet the FSC certification process requirements. The Association's National Executive has the authority to sign certification contracts, develop policies required for group certification, and to hire staff to manage the certified group.

Managing an FSC scheme is akin to running a forest management service and monitoring body. There are obvious start-up costs attached to the systems management, and capacity building is required to ensure educated uptake at a local level. There are also additional travel and overhead costs attached to

monitoring the group's activities. The position of the NZFFA would be one of providing the guidance and management systems, and organising the local networks (which are already in existence) to allow individual forest owners to understand what is required to meet FSC standards.

The NZFFA would need to build the capacity to provide technical assistance to members and prospective members to assist in meeting requirements of the FSC standard. A programme of forest management training could be rolled out across the NZFFA regional branches, with a specific focus on meeting the requirements of the group certification standards. The production of specific training manuals and guidelines would underpin this programme.

Though less rigorous in its demands, SLIMF certification still demands the forest grower to interpret the forest management standards, change forest management where necessary and provide management documentation thereof. To many small forest growers this will be well beyond their level of expertise, knowledge and available resources. Identified as a barrier to uptake of certification (refer Section 6.3) it is likely that, without assistance, the vast majority of small forest growers would employ a consultant to write the management plan; which is $2-$4,000 in value, depending on the complexity of the forest management unit. For forest holdings of less than 100 hectares in size, this is unlikely to be cost effective. The indirect costs attached to achieving certification remain, and will differ from forest to forest.

By providing the tools and systems that allow specific needs and technical gaps of the FSC certification process to be filled, the NZFFA could develop a cost-effective system that enables small forest growers to complete the FSC requirements themselves. For example, simple environmental monitoring tools and the development of management plan templates.

By applying the 'Plain-English' principle, the NZFFA could create versions of the most frequently accessed certification resources that are free from overly technical language, for the non-technical reader. The development of realistic, appropriate indicators would be a key task to be completed by the Group Manager in conjunction with other FSC stakeholders.

For those NZFFA members who choose not to complete the FSC documentation requirements themselves, the network of New Zealand-wide professional consultants that is known to the NZFFA could assist in this group member implementation of the FSC standards.

The NZFFA could increase support and value to members by collecting and disseminating 'best practices', building a database of technical experts and key contacts regionally and nationally, and materials and information. Emphasis would need to be placed on training and compliance assistance for participating small forest growers. Rather than it simply being a 'write-a-cheque-to-get-market-access' exercise, the NZFFA's role will be one of up skilling and encouragement of better forest management.

7.2 HOW COULD SUCH A NZFFA SLIMF WORK?

The group certification model was designed specifically for Small Forest Growers. In this model, the certificate is held by an individual entity, such as the New Zealand Farm Forestry Association. There is a need for direct accountability from the individual forest owners to the group certificate holder, and the group certificate holder must monitor the forest management of every landowner for compliance with the group's systems, policies, and ultimately the FSC Principles and Criteria.

The group's certificate would be managed by an NZFFA appointed Group Manager, whose responsibility would be to manage the consistency and integrity of the scheme. Depending on the level of uptake by NZFFA members, and on the simplicity of the scheme, the participating forest growers would either participate in a regional (or NZFFA branch) FSC group, or simply act as an individual forest owner within a wider, nationwide group.

The NZFFA –appointed Group Manager would be responsible for:

- Managing the group membership
- Ensuring that correct procedures were followed
- Training NZFFA members in the FSC requirements and processes of the Group.
- Reviewing applications for membership and ensuring eligibility into Group, in accordance with the requirements of the Group.
- Ensuring the FSC-required management plans, monitoring and consultation is implemented by each of the Group members.
- Auditing Group member's compliance with the FSC standard.
- Maintaining the Quality Control system enabling effective external auditing.

NZFFA-branch groups

If NZFFA member demand for FSC certification was sufficient, a local branch scheme operating under the greater umbrella of the nationwide Group Manager would be preferable. Each NZFFA branch would appoint a coordinator that would be responsible for collecting records from the forest growers who are members of the Scheme, and for organising peer reviews and 'local group' discussions surrounding sustainable forest management and FSC.

FSC Group Members would join a local branch 'pod', and will partake in forestry discussion groups, and audits of each other's sustainable forest management practice. The Branch Coordinator will need to be involved in these audits, and as determined by sampling need, so will the NZFFA Group Manager. The local Branch Coordinator would have an important role, in ensuring documentation is filed correctly and provided to the Group Manager as required.

The biological, cultural and environmental data should be collected at a regional level, consulting with stakeholders through one central body (or regional bodies) to filter this information back through to individual forest owners. This will assist with the cost effectiveness of the certification.

The Group will be largely checklist based, allowing members to work through requirements quickly and efficiently, without having to necessarily employ a forestry consultant. The discussion groups, or pods, will help less experienced forest growers to meet the requirements. Training days and on-line resources will also assist in this process.

During the checklist procedure there will be thresholds that, if triggered, will require affected forest growers to complete management planning for things such as high value conservation management.

A low-priced membership fee will provide NZFFA members with:

- Management Plan Templates
- Monitoring Plans
- Checklists
- Written procedures
- Access to local-Branch FSC Cluster
- Access to web-based decision tools.
- Database of resources and templates that could be accessed on-line.eg. models of forest mgmt plans; Environmental Impact Assessments etc.

7.2.1 GROUP COSTS

The costs of establishing and subsequently managing a group SLIMF certification scheme can be broken down into three components: establishment costs; ongoing management, training and systems costs; and external auditing costs.

Establishment Costs:

The cost of establishing the Group SLIMF certification is significant. An estimate of cost to establish the group systems, documentation, and to upskill regional (or NZFFA Branch) Coordinators is $100,000. This cost would include the marketing and promotion of such a scheme, to ensure the necessary uptake is achieved that will ultimately provide the economies of size and cost effectiveness for individual

members. Given the necessity for such a system, it is justifiable that this cost would be borne by public funds.

Annual Group Management Costs:

Once the group certification scheme is established, and with a sufficient inaugural membership base (estimated minimum of 100 members) the ongoing cost for managing such a scheme could be borne from increased membership to the NZFFA; a small annual FSC fee; or a combination thereof. Such a scheme would have annual costs of approximately $60,000 - $80,000. This would include the pro-rata employment of a Group Manager, maintenance of group systems, and the ongoing upskilling and capacity building of Group Members. Note that the group system recommended in this report relies on a peer-review system, where local forest owners are responsible for auditing their peer's operations. This is both a cost-saving and capacity-building device.

The Group Management costs would be relatively fixed, irrespective of membership size. The economies of size from a larger membership base are quite obvious, and are presented in the table below. The costs of managing the group certificate are normally shared between the members in a manner which is considered equitable.

External Auditing Costs:

It is important to note that the external auditing and surveillance costs attached to a SLIMF certification scheme decrease significantly as the membership grows. As shown in Table 4.6.1, the external-audit process is based on a sampling strategy which is based on a square root calculation. As such, the more members, the lower the cost.

For the purpose of this report, prices were obtained from two Certifying Bodies. One of these Certifying Bodies provided an estimate for a group scheme of 10 members and of 100 members. The other Certifying Body provided an estimate of fees for a 10 member group scheme.

	10 member Group Scheme	**100 member Group Scheme**
Certifying Body A	$20,250 over 5 years, or $405 / member / yr	$37,500 over 5 years, or $75 / member / yr
Certifying Body B	$41,600 over 5 years, or $832 / member / yr	Not provided

These prices are indicative only, and are based on a five year certification period. As such, the outlined costs include that of the Main Assessment (year 0) and the surveillance audits (years 1-4).

Note that these prices were both supplied in a foreign currency. As such, they are dependent on exchange rate changes.

7.2.2 INDIVIDUAL FOREST OWNER'S INDIRECT COSTS

It is difficult to estimate the indirect costs of group certification. The indirect costs are the forest management upgrades needed to meet the certification standards; and as such are influenced by what the landowner's current level of forest practice.

One advantage of a NZFFA group scheme that has a regional (or branch) focus which utilises in-house technical support and peer review practice is that these management recommendations and landowner education would arise from being a member.

7.2.3 PAYING FOR THE GROUP SLIMF SCHEME

There are a number of possible fee structures for such a scheme. How the structure will work is ultimately the responsibility of the NZFFA executive.

The table below shows some possible options:

Annual Group Management costs	$60 – 80,000	
External Certifying Body costs	$37 – 50,000	
TOTAL ANNUAL COSTS	**$97 – 130,000**	
NZFFA Membership fees	$14,000	(For 100 small grower members)
External Certifying Body fee	$15,000	(100 growers @ $150 pa)
FSC Group Membership fees	$15,000	(100 growers @ $150 pa)
FSC Log royalty fee	$70,000	100 growers, harvesting an average of 700 tonne / annum over 5 years. Royalty fee of $1.00 / tonne
TOTAL ANNUAL GROUP FEES	$114,000	

The scenario above equates to an annual certification fee of $300 / grower, with an additional $1 / tonne of royalty payments. Again, economies of size exist, and the greater the annual harvest volume, the lower the annual cost of certification will become.

Because chain-of-custody (or log royalty) fees are such a large contributor to the generation of group fees the minimum group size required to make the costs of the FSC assessment and audit affordable for its members will depend partly on the production capabilities of the group's forests.

This scenario has similar annual fees to that of the current Group Certification Scheme operating in New Zealand. However, unlike the existing Group Certification Scheme, there are no major joining fees or first audit fees. For smaller forest growers, this saving of $3000.00 will be significant.

All else being equal, a larger group will have lower assessment and audit costs per landowner than a smaller group.

8.0 NEXT STEPS

Initiating a group SLIMF scheme will be a significant decision for the NZFFA. The management requirements of operating such a scheme are high, and far exceed the current NZFFA management systems that are in place. Some additional research is required before the NZFFA should commit to such a programme. This research should include:

1. Better understanding the regional demand for FSC log products, potential premiums or restrictions in access to market, and future wood harvest forecasts. Small forest growers need regionally-specific information detailing how FSC certification will impact upon their forest product marketing. This should include analysis of those regions where small forest growers are most vulnerable to market exclusion.

2. Gain a better understanding of the number of landowners within each of the NZFFA branch's regions in New Zealand who would be interested in FSC certification. In doing so, better understand the level of philosophical agreement amongst the landowners and the Group Manager, regarding sustainable forest management.

3. Better understand small forest grower demand for a SLIMF scheme, the costs of running a scheme, and the potential to recover the costs of running the scheme.

4. Using a sample of small forest growers, develop the systems and processes required for a SLIMF scheme. Field test the SLIMF scheme. Outputs should include the following:

    - Analysis of the ability of the sample group of forest owners to meet the requirements of the draft New Zealand forestry standard.
    - A review of the system and recommendations made to the NZFFA for future system development.
    - A review of the SLIMF and its success, making recommendations to the National Initiative developing the national FSC standard.

- Development of tools and templates, Best Management Practices, guidelines, and a group management system necessary to begin a SLIMF scheme.

It is essential that a representative of the NGO stakeholder group be involved in this process in a participative manner.

8.1 ROLES FOR OTHER STAKEHOLDERS IN THE DEVELOPMENT OF AN NZFFA GROUP SLIMF.

The resources needed to develop a NZFFA Group SLIMF are significant. To aid the successful development of such a scheme, there is a need for other stakeholders to participate. Some possible roles for other stakeholders are listed below.

Possible Roles for the Government:

- Assistance with the development of the SLIMF scheme, through the provision of funding.

Possible Roles for the Forestry Industry:

- Assistance in the development of streamlined procedures and standards for the SLIMF scheme.
- Help define the eligibility criteria for a New Zealand SLIMF.
- Assistance in training of small forest growers in sustainable forest management and the requirements of FSC, including open days / workshops.

Possible Roles for Environmental NGOs:

- Partake in the trial SLIMF scheme. During this process, assist small forest growers to understand what the ENGOs demand from the FSC certification process.
- Help define the eligibility criteria for a New Zealand SLIMF.
- Assist in the development of realistic, appropriate indicators that are meaningful to SLIMF members.
- Assistance in the development of streamlined procedures and standards for the SLIMF scheme (along with the forestry industry).
- Assist in the recognition of the scale and limitations of the small forest grower in meeting the draft New Zealand forestry standard, and encourage flexibility within the standard in light of this recognition.

9.0 CONCLUDING COMMENTS

The global demand for products that are verified 'sustainable' is increasing rapidly, under heightened consumer awareness and a groundswell of people wanting to use their purchasing power to good effect. The regulatory environment is assisting with this transition, encouraging sustainability and 'verified sustainable' wherever possible. Within New Zealand, the forestry industry has been a commercial leader in embracing the requirements of externally verified certification schemes. The majority of large plantation forest owners in New Zealand have been FSC certified for a number of years, and it is now considered standard practice.

To date New Zealand small forest growers have not had sufficient reason to obtain FSC certification of their forests. The barriers to uptake include cost of certification, complexity of certification and a lack of flexibility in the evaluating system of the certification scheme. Sitting alongside these barriers is the lack of market incentive to provide FSC certified forest products. For the small forest grower with a limited harvestable forest resource, the premiums or additional market access that have historically resulted from having FSC certification, have not been sufficient to justify the certification procedure.

However, in the future it seems likely that there will be localised restrictions on market access for forest products that are not FSC certified. From 2015 the New Zealand wood processing sector will have an abundance of wood supply, allowing processors to be more selective of the log product that they choose to procure. Many in the wood processing sector prefer to purchase FSC certified forest products, due to the cost efficiencies in handling one product line. In a period of abundant log supply, processors will naturally favour those forest owners who can deliver certified product. Small forest owners choosing to protect their available market access and thus the value of their forest will choose to seek FSC certification.

The New Zealand Farm Forestry Association (NZFFA) has a leading role to play in developing a nationwide group certification scheme that allows small forest growers to access the FSC market place should they choose. As the leading advocate for New Zealand small forest growers, the NZFFA has the existing structure and network to allow small forest growers to participate in such a certification scheme.

The SLIMF scheme is untested in New Zealand, and in the global setting this scheme is still in its infancy. It is, however, the most appropriate mechanism for small forest owners to gain cost-effective access to the FSC market. With the assistance of the greater forestry industry and the environmental NGOs who contribute so strongly to the FSC standard setting process, the development of a SLIMF with streamlined procedures and realistic management objectives for the small forest owner should begin. This process, like the development of a New Zealand forestry standard, will take significant time. To be prepared for the impending wall of wood, and subsequent market restrictions, this process should begin immediately.

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