

Why a strong indigenous forestry sector is in the national interest

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Abstract

A strong indigenous forestry sector is in the national interest because of the present and potential social, economic, and ecological benefits that it brings. Among the economic benefits are foreign exchange earnings through overseas sales and substitution of domestic production for imports. Social benefits are related to economic ones and include employment and the resiliency that economic diversification confers for individuals, communities, and the country. Ecological benefits result from investment in protection of forests from stock, pests, and fire. Because of the scale of present and potential benefits from indigenous forestry, policy should be revised to encourage sustainable indigenous forest management. A facilitatory policy will streamline and standardise regulation and remove current policy anomalies. The Forests Amendment Act should be revised to reflect contemporary understanding of indigenous forestry.

Introduction

The indigenous forest policy released by the Labour Party on 10 September 1999 and subsequent Government action with respect to the State forests of the West Coast (Forests (West Coast Accord) Bill) and inaction with respect to the South Island Landless Natives Act 1906 (SILNA) forests suggest that without some motivating rationale, the present government is unlikely to act to maintain confidence in the indigenous forestry sector. For forestry and for the nation, much is at stake. It may therefore be germane to briefly review the actual and potential benefits to the nation of a healthy indigenous forestry sector, and then what policy elements might contribute to it.

In New Zealand, natural forest wood supply is a small and specialised component of the forestry sector, about 0.5 per cent of New Zealand's total forest production (MAF 2000a). However, on the order of 90 per cent of world wood consumption comes from natural forests (FAO 1999). New Zealand is unique in the high ratio of plantation to natural-forest-grown yield (MAF 2000b). While indigenous forestry in New Zealand is very small in comparison with plantation forestry, it is crucial to the well being of many private landowners, communities, and the nation as a whole. Foresters, processors, manufacturers, retail stores, and customers certainly feel the impacts when indigenous timber supply and prices fluctuate.

Eco-sensitivity has increased at the consumer and political levels in New Zealand, providing incentive

to produce environmentally sound products. Consequently, wood fibre-based products have increasingly been substituted for steel, aluminum, concrete, and plastic (New Zealand Forest Industries Council 1999). Use of sustainably managed native timbers reduces dependency on imported hardwoods often derived from unsustainable sources (O'Loughlin and May 1999).

Economic Benefits

Current production from New Zealand's indigenous forests is only about 76,000 cubic metres of roundwood per annum (<http://www.maf.govt.nz/statistics>), while 1.8 million cubic metres could be sustainably produced on privately owned land alone (O'Loughlin and May 1999). This means that the present level of benefits could be multiplied 23 times and remain within current notions of sustainability. Such timber production would be consistent with the Forests Amendment Act 1993 (FAA) and limited to forest increment captured through small coupes (less than 0.5 ha), single-tree and small-group selection.

From a small proportion of current production, over \$1.3 million in foreign exchange was earned through export, up from \$920,000 in 1999 (MAF 2000b). New Zealand imported \$17 million of sawn timber in 2000, up from \$15 million in 1999. We also imported \$104 million of wooden furniture and furniture components in 2000, up from \$98 million in 1999 (<http://www.maf.govt.nz/statistics>). The indigenous forestry sector has the potential to replace all of this importation with domestic production, thus conserving foreign exchange and building the domestic economy. If New Zealand were to export as rough sawn lumber all the indigenous sawntimber that can be sustainably produced on private land, \$190-250 million could be earned (O'Loughlin and May 1999).

Economic activity associated with the indigenous timber industry is estimated at \$200 million per annum (MAF 2000b). Around 4000 individuals are working in joinery and furniture industries dependent on a sustainable indigenous forest supply (Sayer 1999). This is on the basis of a very modest raw material supply, variously estimated to be around 20,000 cubic metres of sawn timber in 1998 (Devoe 1998) and 30,000 cubic metres of roundwood in 1999 (O'Loughlin and May 1999). Consider the potential if production were to approach the level of sustainable timber supply; with only the same fraction (about a quarter) of total indigenous timber production allocated to joinery and furniture manufacture, 80,000 new jobs could be added to the economy.

In 1999, the building industry used over 70,000 cubic metres of indigenous roundwood (O'Loughlin and May 1999). If this raw material were not furnished domestically, it is likely that hardwood imports would

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increase. Existing domestic industries based on indigenous timbers, especially furniture manufacture, are at risk because of reduced native timber harvests and competing, often unsustainably produced imports. With major native timber sources placed in reserves, there is a risk of imported hardwoods increasingly filling the void unless fragmented, mostly private local sources are effectively orchestrated to meet domestic demand. Sawn hardwood imports, which have continued to increase over the past four years, were up 7.7 per cent for the year 2000 at 13,000 cubic metres compared with 12,000 cubic metres in 1999. Their 2000 values were up 11.7 per cent from 1999. Wooden furniture and furniture parts imports increased in value 5.8 per cent during the same year (MAF 2000b).

Forestry taxation policies allow deductions on such items as administrative costs, factory and machinery depreciation, land development costs, cost of timber, and the acquisition cost of a right to take timber (Morrison and Ziegler 2000). The present tax legislation makes it less favorable to sell immature forests than to sell mature forests (Bilek 1999). Some individuals feel that the present forest taxation policy, which views standing timber as a taxable commodity while land remains untaxed, is a disincentive to indigenous forest owners (Personal communication, 2001).

Contenders in today's indigenous timber industry need to be savvy. Export offers one tactic to increase earnings by widening the spectrum of niche markets and lessening competition on the domestic front. Exporting timber can allow a larger profit margin from strong foreign currencies. Year 2000 natural forest products exports profited from a weak New Zealand dollar. Total volumes remained unchanged from 1999 but the total value increased by 32.2 per cent (MAF 2000b). By careful market research, skilled planning and the use of marketing tools such as branding or Forest Stewardship Council (FSC) certification, niche markets can be established overseas (Bigsby and Ozanne 1998; Ozanne et al. 1999).

Social Benefits

Social benefits are purchased from economic returns. Additional tax revenues plus employment and the multipliers that increased employment bring would be large if the indigenous forestry sector were to reach its potential.

Much of New Zealand's private indigenous estate is in small parcels on farms. The remainder, 47 per cent, is Maori-owned (Wilson 1994). By providing additional saleable services and commodities from any give farm, indigenous forestry has the potential to diversify farm incomes. Economic diversification confers resiliency in a highly volatile primary production sector. Downturns in agriculture can be smoothed by forestry returns. This is of particular relevance where the local economy depends heavily on primary production, e.g., the West Coast. Diversity in sources of income and employment stabilises rural communities.

The right to manage privately owned indigenous forest is an important property right in rural New Zealand and among Maori. Private property rights are the basis for civil society. Citizens have the right and the responsibility

to manage their forests consistent with the public good. The balance between private and public interests must be fair. Government's support of maximisation of individual return on assets consistent with the public good is appropriate and desirable.

The indigenous timber sector provides an opportunity for New Zealanders to express their national and cultural identity by providing something that is "purely New Zealand," sourced from sustainably managed native forests. The opportunity to enjoy products from indigenous forests is regarded as a right of important heritage value by many.

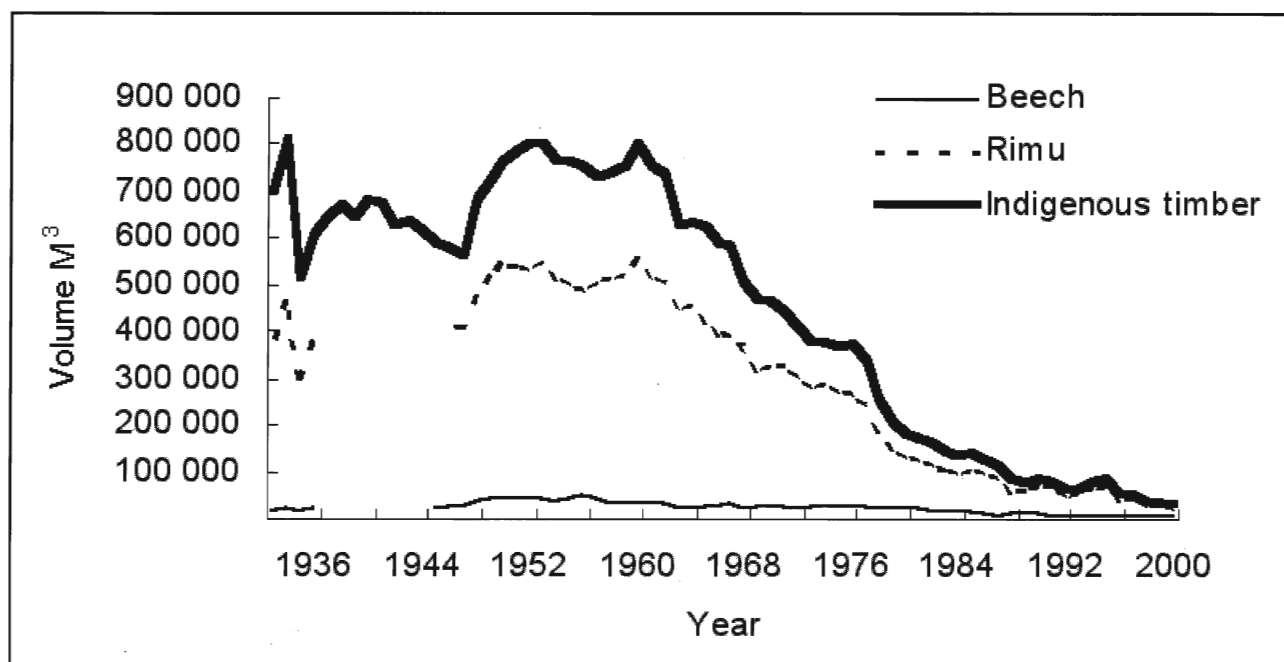
Ecological Benefits

Some private indigenous forests will not be protected unless they return value to owners (Wilson 1994). Stock will have the run of the remaining forest in some parts of the country unless the forest is more valuable to the farmer without the stock. For many private owners, ecological benefits are linked to economic issues of investment and returns. On the other hand, many private landowners have worked to restore and protect indigenous forest remnants for reasons that relate more to enjoyment of nature, pride of ownership, and aesthetics than to economic returns. Some of these owners have had assistance with costs of fencing from arrangements such as QEII covenants and Nature Heritage Fund.

Protection of ecological values requires investment in pest control to maintain native bird and other populations. Management arrangements that lack provision for adequate on-going expenditure result in ecosystem deterioration, not protection. Sustainable management as defined by the FAA requires adequate pest control and the exclusion of stock from managed forests. Certain forests require investment in fire management or prevention. Forest management, whether for recreation, potable water, timber, or other uses, can generate a relatively small but stable income stream that can finance investment in forest health.

A well-managed forest is healthy, biodiverse, structurally complex, and growing vigorously. Unmanaged natural forests may or may not be healthy. Some segments of the public and some within government do not appreciate that management of indigenous forests can be sustainable. The spectre of past indigenous forestry, clearly not consistent with ecosystem management or contemporary standards of sustainability, clouds perception of contemporary indigenous forestry in New Zealand. It is true that a forest well-managed for the production of commodities such as sawtimber, small-dimension lumber, fuelwood, and moss is modified from the unmanaged condition. Even forests managed for services (tourism, wildlife habitat, soil and water conservation) are modified from the unmanaged condition, however slightly. Continuous production from indigenous forests results in modifications that are much less drastic than modifications under e.g., agriculture. Where indigenous forestry is practiced to a high standard, it is clearly more sustainable than any of New Zealand's existing primary production activities, including the planting of

Figure 1: Production of rough-sawn indigenous timber in New Zealand



monoculture exotic tree crops.

Indigenous forestry has been demonstrated to be sustainable in other countries and we have had controlled experimentation underway since 1995 to evaluate the sustainability of indigenous forestry as practiced in New Zealand. Good international examples of continuous forestry production over five centuries can be found in Europe and Japan, with more recent examples from North America (Schabel and Palmer 1999). Results to date from New Zealand are positive, as demonstrated by the recent FSC certification of Gowan Hill Forest, one of the sites in our experimental programme.

The Future of Indigenous Forestry in New Zealand

In order to size up the future, a quick look at the past is helpful. Beech rough sawn timber production peaked in 1956 at 48,000 cubic metres. By 1993, it had declined to 4,000 cubic metres around which it has fluctuated, the year 2000 volume being 5613 cubic metres (Figure 1).

Rimu reached peak production in 1953 at 547,000 cubic metres rough sawn timber, falling by 1997 to 44,000 cubic metres and a further 21,000 in 2000 cubic metres (MAF 2000b; MoF 1996). Of this 44,000 cubic metres, some 20,000 cubic metres (30,000 cubic metres roundwood) came from Timberlands West Coast Ltd (TWCL). TWCL planned to produce something like 80,000 cubic metres beech round wood (perhaps 40,000 cubic metres sawn beech) once it reached full production on its 98,000 hectare beech estate. Following passage of the Forests (West Coast Accord) Bill, only the indigenous production on private land is left, unless the Crown reinstitutes a public indigenous production forest.

New Zealand has approximately 6.4 million hectares of natural forest covering about 23.7 per cent of its land surface. Of this, roughly 1.3 million hectares are

Table 1

SFM Plans and Permits (at 31 December 2000)

Approved		
22 plans	52 220 m ³ (annual harvest)	24 173 hectares
263 permits	71 399 m ³ (10 year harvest)	32 882 hectares
In process		
18 plans	14 137 m ³ (annual harvest)	9 826 hectares
78 permits	22 270 m ³ (10 year harvest)	12 507 hectares

privately owned indigenous forest available for sustainable management. MAF estimates that 650,000 hectares currently have sound commercial potential for management under Sustainable Forest Management (SFM) plans and permits (MAF 2000a; Newton 1998). As of 31 December 2000, the SFM plans and permits summary was as shown in Table 1.

Currently about 7000 cubic metres/year of roundwood (mainly rimu) is coming from sustainable management plans and permits nationwide. While 59,360 cubic metres/year (mainly beech) has already been approved for harvest from plans and permits, much greater volumes are available but as yet, no sustainable management plans or permits have been requested for these (MAF Indigenous Forestry Unit 2001).

In the order of 25,000 cubic metres of roundwood has come off SILNA lands (non-sustainable production) per annum between 1990 and 1998. In the face of this competition, a number of beech producers have struggled to secure any sales at prices sufficient to exceed the costs of FAA-mandated sustainable production (Devoe 1998; Rooney 1999). The Crown's recent closure of its own large beech production programme has rapidly altered the market, so this situation may change if New Zealand private producers hold the domestic market against imports.

Why is the indigenous sector failing to achieve its potential?

We are working with landowners, in some cases farmers with indigenous forest blocks and in other cases, SILNA landowners who retain the option to clearfell and whom we seek to influence in favour of sustainable management. By analysing existing and potential sustainable management enterprises, and comparing these to costs and returns of clearfelling, we have learned that:

- Stumpage prices are low relative to sustainable production costs and investment risk for beech producers.
- Markets are poorly developed, domestically and internationally.
- The sector is seriously under-capitalised.
- Holdings are in small blocks - to date no coordination or economies of scale have been achieved.
- Relevant expertise is in short supply, and the expertise that is available is unknown to the potential end-users. Because they mostly have no start-up capital, they cannot afford to hire the expertise that is there.

The business of indigenous timber is clearly profitable with international markets, and venture capital to increase operational efficiency and to invest in international marketing would change this scenario.

The current indigenous forestry production on private land is far below the level that is sustainable. Government can favour development of the sector by implementing policy that supports New Zealand producers.

How Policy Can Support Indigenous Forestry and Maximise its Benefits

Government must streamline the regulatory environment so that FAA, RMA and FSC requirements dovetail. This will reduce start-up time and compliance costs for producers and regulatory and monitoring costs for government. Independent FSC certification will enhance the international credibility of sustainable management plans for indigenous timber from privately owned New Zealand forests and expand market opportunities.

Increased funding and other support for the Indigenous Forestry Unit of MAF is critical to international and domestic credibility because IFU/MAF is the sole monitor of plans and permits and enforcer of the provisions of the FAA. Poor financing has led to a low level of auditing of forest operations and forest health, especially with regard to permits (Perley 2001).

Forestry provisions and treatment of indigenous vegetation provisions under district and regional plans vary tremendously and must be standardised under national guidelines or a national policy statement in the interests of consistency, equity, and credibility.

Trust needs to be fostered among communities, landowners, government and NGOs so that they can effectively work together to resolve individual needs.

For example, the Department of Conservation (DoC) should consider landowners' perspectives and accommodate more than the preservation option (Perley 2001). A confidence in security of cutting rights guaranteed in the land title is a prerequisite to sustainable production management of indigenous forests. Education and publicity can instill a sense of fulfillment and togetherness in managing indigenous forests for the benefit of all.

Rather than seeking to restrict landowners' options for removing indigenous vegetation in favour of other land uses, policy should provide incentives to maintain and develop indigenous vegetation. Other countries typically employ rates reductions where landowner management favours a defined public good such as conservation. The current conservation programmes Nature Heritage Fund and Nga Whenua Rahui are good but more is needed. Sustainable management can be supported with marketing and export assistance from e.g., TradeNZ, with enhanced forestry extension from MAF, and with facilitatory policy and legislation as described below.

The special case of the SILNA forests, now exempt from the FAA, must be addressed, again in the interests of credibility and equity. Clearfelling on SILNA lands discredits New Zealand producers in general and disadvantages sustainable producers in the market because clearfelling produces timber so much more cheaply than sustainable production. Clearfelling and conversion of indigenous vegetation to plantations and scrub continues on SILNA lands because the returns from other land uses (conservation, sustainable indigenous forestry, eco-tourism) are not competitive with conversion. The Crown has in the past threatened to legislate away the exemption of SILNA owners to the FAA. This would devalue their assets and violate their Treaty rights. Forests would be far better protected from unsustainable exploitation if the differences in value between non-sustainable use, sustainable use, and reservation for conservation were fully offset by the Crown.

The stated purpose of Part IIIA of the FAA 1993 is "to promote the sustainable forest management of indigenous forest land". However, the provisions of the Second Schedule Clause 10 are inimical to this purpose and should be revised. To provide a few illustrations, clause 10.1 restricts harvests to forest increment. However, when old growth or previously mismanaged forests are taken under sustainable management, a refinement of stand structure is frequently desirable. Such refinement includes the removal of defective stems and salvage of moribund individuals. The purpose of this activity is to make additional growth resources available to trees most able to increase in value. At the outset, then, it may be highly advantageous to the future health and productivity of the forest to remove more volume than the annual increment. Such flexibility must be incorporated into revised legislation, subject to sound professional judgment.

Revised legislation should recognise that forest management is an economic endeavour - an

investment in professional time and skilled labour is made with the expectation of commensurate return. A managed natural forest is not a nature preserve. If it is well managed, it differs from a nature preserve in being faster-growing, with a more regular structure. It will be proportionally higher in economically desirable species because lower value species and crooked and rotted stems will be progressively removed. Wording in the existing legislation reflects a desire to perpetuate the status quo (Clause 10.2.b "throughout the term of the sustainable management plan, the character and structure of all parts of the forest shall be maintained"), which is an absolute nonsense if the forest in question has a highly modified structure resulting from past mismanagement, if it is old growth that is unthrifty, or if it is young seral forest.

The wording of the second schedule presupposes coupe management for beech and precludes shelterwood management. This means that in some cases, the best possible management for a stand will be overlooked.

The restriction on chip export unnecessarily compromises the quality of forest management. Provided that forests are managed sustainably, no constraint should be placed on use, sale, or export of the outturn. This change has long been sought by the forestry sector and will improve forest hygiene and forest management generally (see Devoe 1998). Forest management will improve when the returns to management are improved, and restoring access to markets for low-grade and defective material is an important route to boosting returns to sustainable management.

The prescriptive provisions of the existing Act contained in the Second Schedule clause 10 are unhelpful to promoting sustainable management and should be revised or repealed. Appropriate revision will reduce the gap between the value of clearfell and sustainable operations by improving the economic performance of sustainably managed forests. This will improve forest management outcomes, more fully recognise private property rights, and assist the Crown in meeting its obligation to act justly with its Treaty partners in resolving the SILNA anomaly.

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