

# PART 1

## THE SETTING



# DESCRIPTION OF THE EXISTING SECTOR

# 3

## »» OVERVIEW

This chapter describes what the various industries of New Zealand's forestry sector look like at the time of publication. It looks at the structure of the industries and topics such as wood availability and trade, as well as describing the exotic forest resource.

## > DRIVERS

A number of situations drive the sector and cannot readily be altered. For example:

- › The “proximity” (relative to other markets) of Australia, Pacific nations, Asia and North America drives the focus on the Asia-Pacific region.
- › Just about all of any increase in wood production (potentially 50 percent in the next 5 to 10 years) will have to be exported and this drives a strong focus on global markets.
- › New Zealand has a mostly scattered resource with limited areas of concentrated forest plantings (for example, as in the central North Island). An increasing amount of the future harvest will be on scattered and steep(ish) hillsides.
- › The trees currently in the ground will determine the characteristics of the available wood over the next two or three decades.
- › Ownership of production forestry is dominated by the private sector, is international and has an increasing proportion of small-scale forest growers.
- › Sawmilling in recent years has been moving toward more consolidation, with fewer and larger mills.

Sawmilling is pivotal as it bridges the gap between log and other wood products and provides residues to make other products.

## > THREATS

Being a small player in a globalised market can present some threats. For example:

- › New Zealand's wood products are a tiny fraction of world production. Therefore, in many of its export markets, New Zealand is a taker of prices set by bigger international players.
- › Five markets take almost 80 percent of New Zealand's forest products exports.
- › Clearfelling is the primary harvesting method in New Zealand but it has been significantly criticised in North America and parts of Europe, which could spill into New Zealand.
- › New Zealand's second largest export lumber market, Australia, is increasing production, and lumber imports into Australia from Europe and Chile are rapidly increasing.

## > OPPORTUNITIES

However, domestic and international developments could provide opportunities. For example:

- › A very diverse pattern of forest ownership may offer processors more options for log supply.
- › Developments in Russia may reduce its log exports and put upward pressure on prices.
- › There will be an extra 10 to 11 million cubic metres of logs available annually (above the 2007/08 harvest) by around 2020.
- › If processing increases, volumes of wood residues will rise, enhancing the potential for biomaterials and bioenergy production.
- › New Zealand radiata pine laminates well for use in engineering solutions, such as construction plywood and laminated veneer lumber.

## »» NEW ZEALAND FORESTRY AND ITS PLACE IN THE WORLD

New Zealand is a small player in the international forest industry. It accounts for around 1.0 percent of the world's trade in forest products by volume. In comparison, Chile accounts for 1.4 percent of trade, Russian Federation 4.1 percent, Sweden 7.1 percent and Canada 15.9 percent. But in its main market of Asia, MAF estimates (Eyre, 2007<sup>5</sup>) that New Zealand's share of softwood forest products trade by value is much more significant, at almost 20 percent.

New Zealand exports wood products to over 30 countries, with total export earnings for the year ended March 2007 of \$3.447 billion and substantial potential for export growth. The forestry sector's annual gross income is around \$5 billion. This is off 7 percent of the country's land area. Gross income for the rest of the land-based primary sector is around \$19 billion (MAF, 2008a: Table 2.3), off 50 percent of the country's land area. Forestry also contributes about 3 percent of New Zealand's GDP and directly employs around 20 400 people.

The sector consists of plantation and indigenous forest growing, log harvesting and exporting, sawmilling (lumber), pulp and paper, MDF and panel products, value-added products such as mouldings and furniture, and ancillary and service industries.

New Zealand's wood industry is built around radiata pine, a species that has strengths and weaknesses. It is a utility species, although it is versatile and has some good characteristics (it glues, nails, machines and holds paint and chemical treatments very well and is easy to treat, to name but a few). Its weaknesses include being technically difficult to dry correctly and its lack of durability for external and/or in-ground uses unless it is treated in some way.

*New Zealand is a small player in the international forest industry.*

On the world stage, radiata pine can be poorly perceived and struggles for recognition; there just isn't enough of it around the world to make a significant impact as a species, except in some specific market segments. On the other hand, in the New Zealand context and in reconstituted forms it is a different story. For example, it is recognised as producing fine-textured, even, light-coloured MDF that has a niche in furniture and fittings for both the domestic market and export markets. In some markets, such as appearance grades and mouldings, New Zealand's tree-pruning regimes can produce higher-value long-length clear lumber of wide dimensions.

Forestry also contributes substantially to New Zealand's environment, to climate change mitigation, to water and soil conservation and to New Zealand's longer-term sustainable development. Plantation forests are also a very important part of integrated land management (where land use is matched with land use capability).

Sustainable development may increasingly depend on wood-based biomaterials, rather than non-renewable materials. Wood-based products have the potential to grow their market share at the expense of materials such as plastics and metals, especially as energy costs rise and greenhouse gas emission costs are internalised.

## »» FOREST RESOURCES

New Zealand has a total land area of just over 27 million hectares:

- › Plantation forest accounts for 1.8 million hectares (7 percent of the land area).
- › New Zealand's indigenous forests cover 6.2 million hectares (23 percent).
- › Around 50 percent of the land area is classed as pastoral agriculture.

5 Using data from Maplesden and Turner (2006).

### › AFFORESTATION

The first significant exotic forest establishment took place in the early 1920s in response to a growing awareness that New Zealand's indigenous forests would be unable to meet New Zealand's future demand for forestry products. Large tracts of land were planted on the central North Island plateau where the land at that time was considered unsuitable for pastoral agriculture, but could profitably grow forests. Another objective of the forest establishment was to generate employment. Since the 1920s, the rate of afforestation has fluctuated significantly based on government policies, forest product market conditions and perceptions of forestry as an investment (see Figure 3.1).

### › PLANTATION FOREST LOCATIONS

Plantation forests are spread across much of New Zealand.

### › SPECIES COMPOSITION

Radiata pine makes up almost 90 percent of the plantation forest area, although the species composition of the plantation forest area varies to some extent regionally. In the lower South Island, there is currently a move away from radiata pine

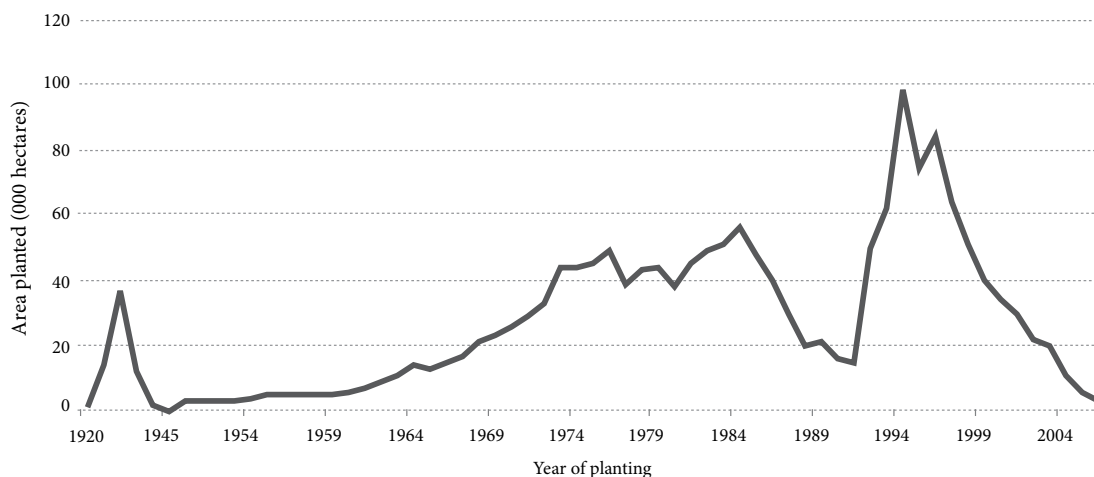
to Douglas-fir, particularly on higher-altitude sites. Nationally, Douglas-fir makes up 6 percent (113 500 hectares) of the plantation forest resource, with the greatest concentrations in Otago and Southland, the Central North Island, Canterbury and Nelson. There is very little Douglas-fir in other regions.

New Zealand's focus on a single utility species has some advantages:

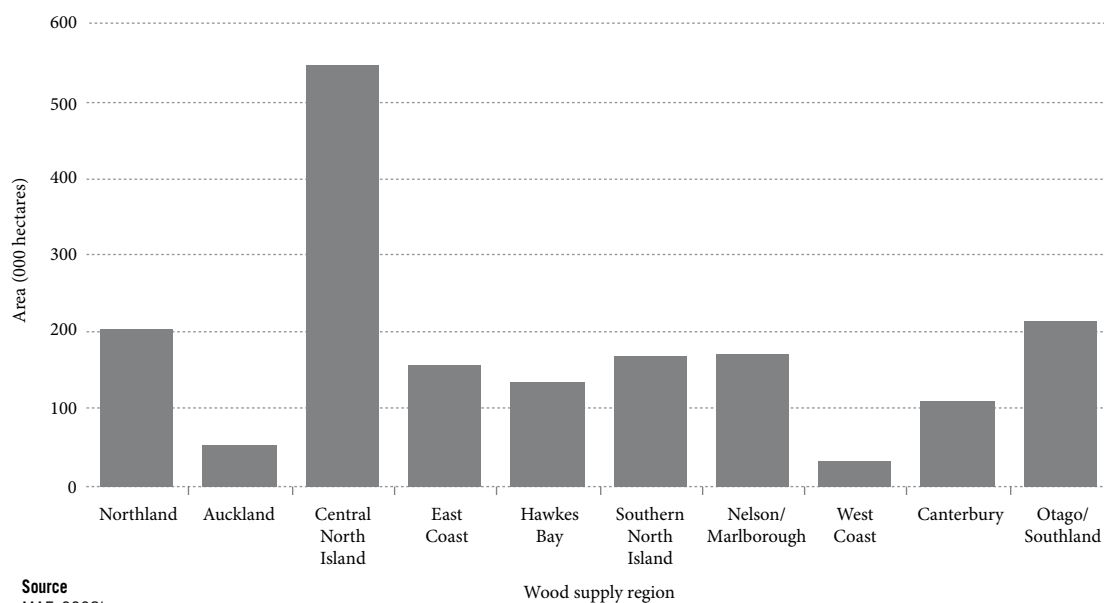
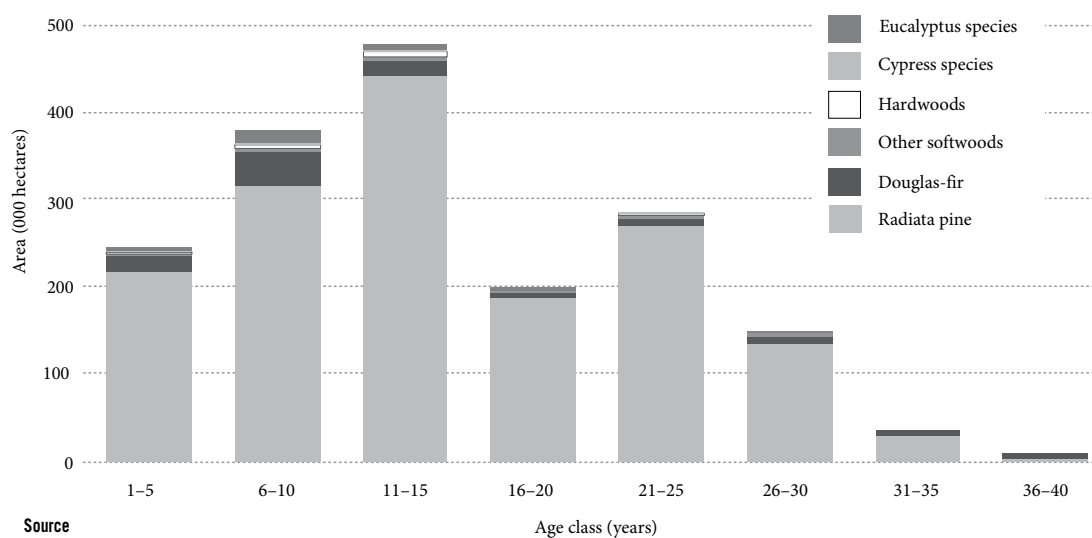
- › Research into, for example, biomaterials does not need to be spread across multiple species.
- › The wood properties of radiata pine are generally well understood.
- › Multiple products can be integrated across different wood processing sites. For example, lumber sawn and dried at one site can be sent to another site to be made into furniture, another for prefabricated buildings, another for roof trusses and so on.

However, radiata pine's inherent deficiencies compared with some other species, such as natural durability and comparative strength, mean it can be poorly perceived. Other issues and risks around relying on a single exotic species are covered in Chapter 12 "Biological risks and their management".

**FIGURE 3.1: EXOTIC AFFORESTATION IN NEW ZEALAND**



Source  
MAF, 2008b

**FIGURE 3.2: PLANTATION FORESTS BY WOOD SUPPLY REGION**

**FIGURE 3.3: FOREST AREA BY AGE CLASS AND SPECIES AS AT 1 APRIL 2007**


### › SILVICULTURE

New Zealand's plantation forests are intensively managed by world standards. Plantation forest stands usually contain a single forest crop tree species of uniform age, although in many situations there are a variety of understorey species, mainly indigenous shrubs and ferns.

Sixty-one percent of the radiata pine forest estate has been or is expected to be pruned to at least four

metres in height. Of the area that has been pruned, approximately:

- › 121 000 hectares (12 percent) is greater than 25 years old;
- › 175 000 hectares (18 percent) is between 21 and 25 years old;
- › 680 000 (70 percent) is 20 years old or younger.

Approximately 16 percent of the radiata pine area is currently or is expected to be production thinned.

The level of production thinning has declined over recent years.

### › HARVESTING

The volume of timber harvested from New Zealand's plantation forests has risen steadily over the last 50 years, based on available wood supply, market conditions and, prior to 1987, the policies of the New Zealand Forest Service.

From 2003 to 2005, the rate of harvesting declined because of deteriorating market conditions (mainly caused by increased competition in log and forest products markets), a strong New Zealand dollar and significant increases in shipping charges.

The reduced harvest was also caused by some forest owners harvesting less in order to restore the average rotation age of their forests back to around 30 years. Previous owners had taken advantage of a weak New Zealand dollar to boost their cash flow by increased harvesting, which resulted in a lowering of their average rotation age to around 24 or 25 years. (Logs could be sold for lower US dollar prices, giving them a price-competitive edge, but the weak New Zealand dollar translated to increased returns in New Zealand dollars). In

some cases, this may have impacted negatively on New Zealand's reputation, as for many uses the wood from younger trees lacks the good-quality features present in older wood.

The provisional estimate of roundwood removals in the year ended March 2008 is 20.6 million cubic metres, 3.5 percent up on the previous March year. Log harvest is more than 99.9 percent from plantation forests.

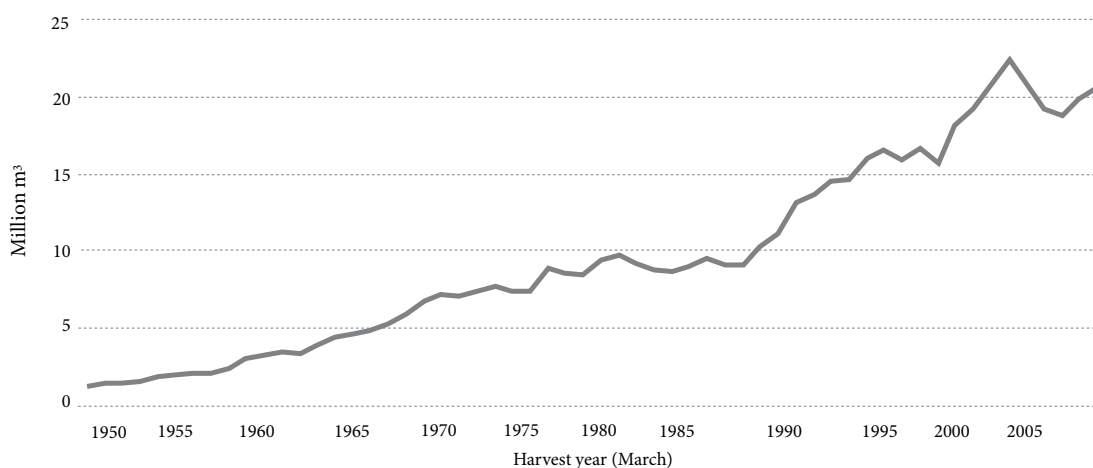
### › LAND-USE CHANGE

A trend of not replanting forest after harvesting, and in a few cases converting immature forest to pasture, started to increase in 2004. New Zealand has always had a relatively dynamic landscape, so changes in land use are not unusual. Historically, however, little plantation forest land has been converted.

In the year ended March 2007, approximately 13 600 hectares of clearfelled forest was converted to other land uses. This area represents 32 percent of the area harvested, and compares with historical information indicating that only about 3 percent of the area harvested per year was not replanted.

A survey of land-use change intentions in 2006 indicated that, under economic conditions

**FIGURE 3.4: HARVESTING FROM PLANTATION FORESTS**



Source  
MAF, 2008b

**TABLE 3.1: "HEAD OFFICE" LOCATIONS OF NEW ZEALAND PLANTATION FOREST OWNERSHIP, 2008**

LOCATION	AREA OWNED (000 HA)	PERCENTAGE OF TOTAL AREA
New Zealand (large owners)	397	22
Mostly New Zealand (smaller owners)	626	35
US	544	30
Japan	89	5
Malaysia	113	6
China	25	1
Indonesia	17	1
<b>Total</b>	<b>1 811</b>	<b>100</b>

Source  
MAF, 2008.

and government policies of the time, around 130 000 to 170 000 hectares could be at risk of deforestation in the period to 2020. The bulk of the changes are expected to occur in the South Waikato district and parts of the eastern Bay of Plenty, with some on the Canterbury plains. It is estimated that almost 60 percent of the change is likely to go into dairy farms and about 35 percent into sheep and beef farms, with the rest going into lifestyle blocks.

### › INDIGENOUS FORESTS

About 5 million hectares of indigenous forest are owned by the state. Much of this forest is located in mountainous areas, particularly on the West Coast of the South Island, although large tracts of forest are also located on the North Island mountain ranges. The Department of Conservation manages the bulk of this indigenous forest for conservation, biodiversity, catchment management and recreation purposes. Harvesting of government-owned indigenous forest is not permitted.

A further 1.3 million hectares of indigenous forest are privately owned. Harvesting of privately owned indigenous forest requires a sustainable management plan or permit under the indigenous forest provisions (Part IIIA) of the Forests Act 1949. MAF Policy administers the indigenous forest provisions of the Forests Act.

## ››› FOREST OWNERSHIP

The make-up of New Zealand forest ownership has changed substantially over a little more than a decade – now it is dominated by the private sector, is international and includes an increasing proportion of small-scale forest growers. As described later in this section, significant forest ownership changes continue to occur, with public companies selling their forestry assets to institutional investors.

There are currently 15 forest owners (with considerable offshore investment) that individually own over 15 000 hectares of forest. Collectively, these companies and organisations own almost 1 million hectares of forest or 56 percent of the plantation forest estate. A wide variety of small companies, local government, partnerships, joint ventures and thousands of small-scale forest owners own the remaining forests.

Table 3.2 shows the major plantation forest owners (note that this is ownership of trees, not necessarily of land – some trees are on leasehold or forest-licence land).

## ››› THE WOOD PROCESSING SECTOR

### › LUMBER (SAWN TIMBER)

The sawmilling industry is pivotal to the future of the sector. In addition to using over 7 million cubic metres of logs per year, it on-supplies more than

**TABLE 3.2: LARGE-SCALE PLANTATION FOREST OWNERSHIP, MARCH 2008**

ORGANISATION	AREA
Hancock Natural Resource Group <sup>1,2</sup>	307 000
Rank Group <sup>1</sup>	20 000
Kaingaroa Timberlands (Harvard Endowment Fund via GFP)	170 000
Matariki Forests (RREEF)	143 000
Ernslaw One (includes 17 000 ha from Winstone Pulp International) <sup>3</sup>	86 000
Weyerhaeuser NZ Incorporated	60 000
Juken Nissho	56 000
Crown Forestry (MAF)	36 000
Pan Pac Forest Products	33 000
Timberlands West Coast	29 000
Blakely Pacific	28 000
Hikurangi Forest Farms (Glenealy)	27 000
Global Forest Partners <sup>4</sup>	27 000
Wenita Forest Products	25 000
Roger Dickie New Zealand	24 000
Forest Enterprises	22 000
Winstone Pulp International	17 000
City Forests (including Opio Forest)	17 000
New Zealand Superannuation Fund	12 000
Ngati Porou Whanui Forests	10 000
Lake Taupo Forest Trust	9 000
Selwyn Plantation Board	9 000
GSL Capital	9 000
Rotoaira Forest Trust Board	9 000
All other owners	626 000
<b>Total</b>	<b>1 811 000</b>

**Notes**

1 In late 2006, Rank Group sold most of its forest to Hancocks, retaining about 20 000 hectares for conversion to other uses, such as dairy farms and lifestyle blocks.

2 Hancock Natural Resource Group owns the forestry right to Tarawera Forest and is also the investment manager for Viking Global and the Ontario Teachers Pension Plan, both of whom purchased trees from Kiwi Forests Consortium following the Kiwi acquisition of the former Fletcher Challenge forest estate.

3 In late 2007, Ernslaw One bought the assets of Winstone Pulp International, including 17 000 hectares of forest.

4 In addition to this 27 000 hectares of forest, Global Forest Partners has financial interests in a range of other New Zealand forests.

**Sources**

MAF 2008; New Zealand Forest Owners Association, 2008.

3 million cubic metres of residues per year to the pulp, paper and panel sectors.

There are around 370 sawmills operating in New Zealand, ranging from a few sites producing more than 250 000 cubic metres per year (700 000 cubic metres per year and greater is considered to be world-scale) to small family mills producing less than 1000 cubic metres per year. For the year ended March 2008, these mills produced 4.34 million cubic metres of lumber. A breakdown of the number of mills by annual production shows:

- › 12 mills produce over 100 000 cubic metres per year;
- › 5 mills produce 50 000 to 100 000 cubic metres per year;
- › 34 mills produce 20 000 to 50 000 cubic metres per year.

The general trend in sawmilling in recent years has been toward consolidation, with fewer and larger mills and the bulk of investment being in “brownfield” expansions and upgrades (that is, expansions and upgrades of existing sites). Parts of the sawmilling industry, particularly some smaller operators, have experienced a very difficult time since around 2000, with some mill closures. Those significantly exposed to export markets have been hardest hit because of external factors, such as high shipping costs and the strength of the New Zealand dollar, particularly against the US dollar.

On the other hand, larger sawmills are continuing to make capital investments to increase output, for example, Red Stag Timber Limited in Rotorua. Other more “medium-sized” players, such as Ernslaw One Limited, are also expanding. For mills that are able to make these investments, increasing output is one way (along with cost reductions and productivity gains) of countering external pressures.

## › MEDIUM-DENSITY FIBREBOARD AND PANEL PRODUCTS

The largest medium-density fibreboard (MDF) facility is at Nelson Pine Industries (a wholly owned subsidiary of Sumitomo Forestry New Zealand Limited). There are also MDF plants at Mataura (Dongwha – Korea) and Rangiora (Carter Holt Harvey Woodproducts). Tenon manufactures medium and high-density particleboard, hardboard, ceiling tiles and MDF at various plants. Particleboard is produced at three mills in New Zealand. Plywood and laminated veneer lumber production have been growth areas in New Zealand’s forestry sector during the past decade. Modern plants are operated by Carter Holt Harvey Woodproducts (at Tokoroa and Whangarei), Juken Nissho (at Kaitaia, Gisborne and Masterton) and Nelson Pine Industries.

*The sawmilling industry is pivotal to the future of the sector.*

## › PULP AND PAPER

The New Zealand pulp and paper sector comprises seven mills, with the bulk of the capacity centred around the central North Island at Kinleith and Kawerau (both owned by Carter Holt Harvey Paper). Norske Skog and SCI Hygiene (tissue production) own paper plants at Kawerau, while Carter Holt Harvey has a paperboard plant at Whakatane. There are dedicated pulp mills at Karioi (Winstone Pulp, now owned by Ernslaw One) and Whirinaki (Pan Pacific Forest Industries), while in Penrose there is a small papermaking facility using recycled paper.

## › REMANUFACTURED PRODUCTS

Remanufactured products are a relatively small but expanding part of the forestry sector (around 9 percent of total forest product export values in the year ended March 2008). (In a wood processing

context, remanufactured products include mouldings, furniture and so on.) It is a very diverse sector of about 80 companies, ranging from Tenon's moulding plant in Taupo to small furniture businesses.

### »» TRADE IN FOREST PRODUCTS

It is widely accepted that there is no looming global shortage of wood fibre. Instead, there is significant potential supply from existing forests and plantation forests in North America, Europe, South America and Oceania, from fast-wood forestry in the tropics, from greater use of recycled and non-virgin wood fibre and from other (non-traditional) fibre sources – as well as from continued (although possibly reduced) illegal logging.

On the other hand, reductions in illegal and unsustainable logging in the Asia-Pacific region might lead to shortages in this particular region.

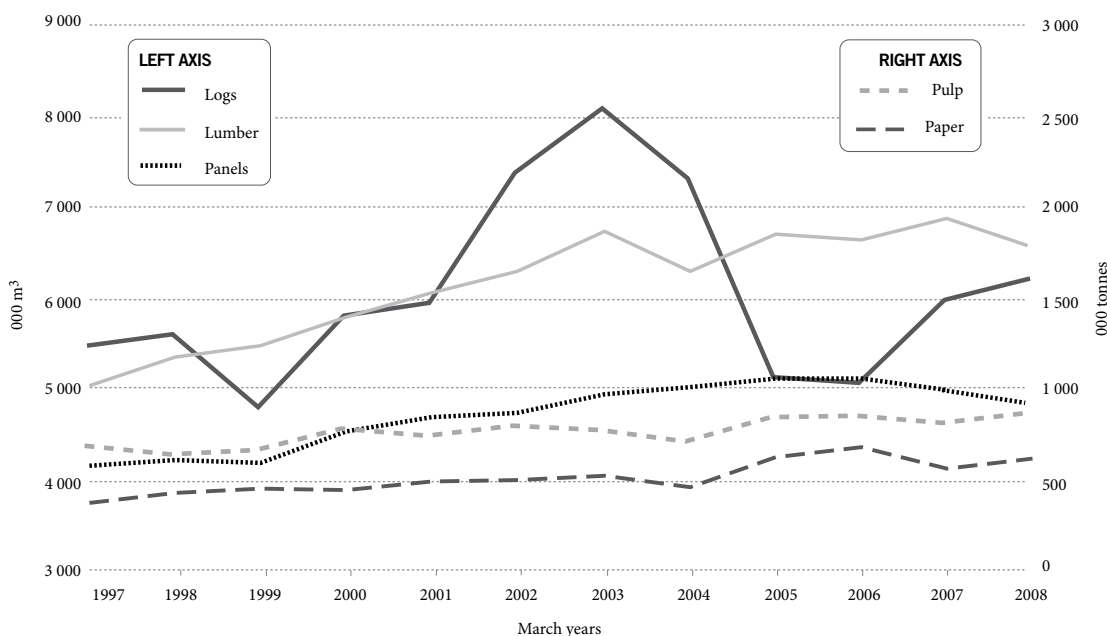
In 2006 (the latest date for global data), the global

trade of forest products was over US\$203 billion (Food and Agriculture Organization, 2007) and New Zealand's export values in 2005 were US\$2.5 billion (NZ\$3.6 billion – MAF, 2006a), 1.2 percent of the global value. However, New Zealand's main markets for forest products are around the Pacific Rim. Excluding paper and paper products<sup>6</sup>, New Zealand's share of Pacific Rim trade is around 9 percent (Maplesden and Turner, 2006). If this is further refined to only softwood trade to Asia (excluding trade to North America), New Zealand's share rises to nearly 20 percent.

New Zealand, with its small population base and consequential small domestic market, depends greatly on international trade. Its closest and biggest single market is Australia, which takes 24 percent of total forest products exports. Other major markets are the all-important Asian markets of Japan (13 percent), China (14 percent) and the Republic of Korea (10 percent). The US is the fifth

<sup>6</sup> There are so many different grades of paper and paper products that an inter-country trade analysis becomes very complicated.

FIGURE 3.5: EXPORTS BY VOLUME/TONNES



Source  
MAF, 2008b

largest export market, taking nearly 10 percent of forest products (mainly in the form of lumber and mouldings but also including panels such as MDF). Fourteen Asian markets account for 57 percent of New Zealand's forest products exports, with the balance spread over more than 23 other countries.

### › EXPORTS

Figure 3.5 shows exports by volume (thousands of cubic metres for logs, lumber and panels; and thousands of tonnes for pulp and paper).

#### LOGS

In the year ended March 2008, 30 percent of the logs harvested were exported. The reductions over the last four years are due largely to forest owners wanting to mature their forests, the high exchange rate and shipping costs. The Republic of Korea remains the largest market for log exports (at 3.2 million cubic metres), followed by China (at 1.4 million cubic metres) and Japan (at about 0.8 million cubic metres). The other significant log market is India, with over 0.6 million cubic metres in the year ended March 2008.

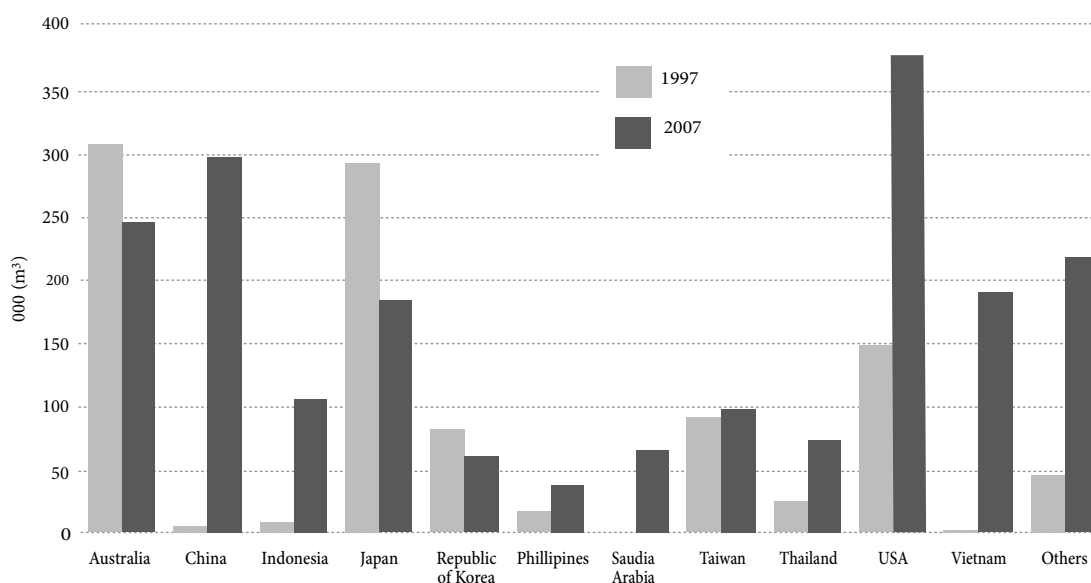
#### LUMBER

The export market base has expanded significantly in recent years but depends heavily on the Asia-Pacific region (see Figure 3.6). In 1983, New Zealand had three principal export markets, which were responsible for 96 percent of sawn lumber exports. By 2007, 11 markets take almost 90 percent, but the top five markets still collectively take over 60 percent or almost two-thirds of export production. The balance is spread over more than 50 other countries.

New Zealand's dominance in the Australian market is threatened by the increasing harvest of Australian radiata pine forests and increasing imports into Australia of European and Chilean lumber.

In 2002, the US surpassed Australia and became New Zealand forestry's major lumber market. However, the US may be a more vulnerable market for New Zealand in the medium-term due to the potential pressure of US imports from other countries, notably South America. The other point to note about Figure 3.6 is the huge increase in exports to China.

**FIGURE 3.6: MAJOR LUMBER EXPORT MARKETS, 1997 AND 2007**



Source  
MAF, 2007b

## PANELS

Exports of panel products are predominantly MDF. Japan is by far the major export market for fibreboard, reflecting the importance of the Japanese-owned New Zealand manufacturing plants and the market size.

*Australia is by far the largest market for paper and paperboard products.*

## PULP AND PAPER

Exports of all paper and paperboard products have shown strong export growth over the last 10 years, rising from 368 000 tonnes in the year ended March 1996 to 682 000 tonnes in the year ended March 2006. Australia is by far the largest market for paper and paperboard products, and is likely to remain so in the medium-term. A problem for the New Zealand industry is that mills are not world scale and compared with big producers the technology is becoming dated. The previous advantage of cheap electricity has been reduced as New Zealand has moved to a commercialised model for electricity supply.

## »» FUTURE WOOD AVAILABILITY FROM PLANTATION FORESTS

MAF has recently produced new wood availability forecasts looking out to 2040 for all regions with the exception of the West Coast, which only extends out to 2015, and Northland which is in preparation.

These new regional forecasts are being undertaken in association with forest owners, industry groups and consultants in each region. The forecasts show the range of log volumes potentially available from the plantation forest estate. Separate forecasts have been produced for large and small-scale forest owners. (Large-scale owners are defined as owners with more than 1000 hectares of forest.)

An interim national wood availability forecast has been produced for the Forestry Sector Study. This national forecast sums the forecasts for the five regions that had been completed at the time, along with interim forecasts for the remaining five regions.

The forecasts are based on supply, but incorporate the harvesting intentions of the large-scale owners<sup>7</sup> out to 2015.

While the forecasts show the potentially available wood supply, future harvesting decisions will be driven by a range of factors, including:

- › individual forest owners' objectives;
- › log prices;
- › forest age;
- › demand by local wood processing plants;
- › harvesting and transport costs; and
- › perceptions about future log prices and future wood supply.

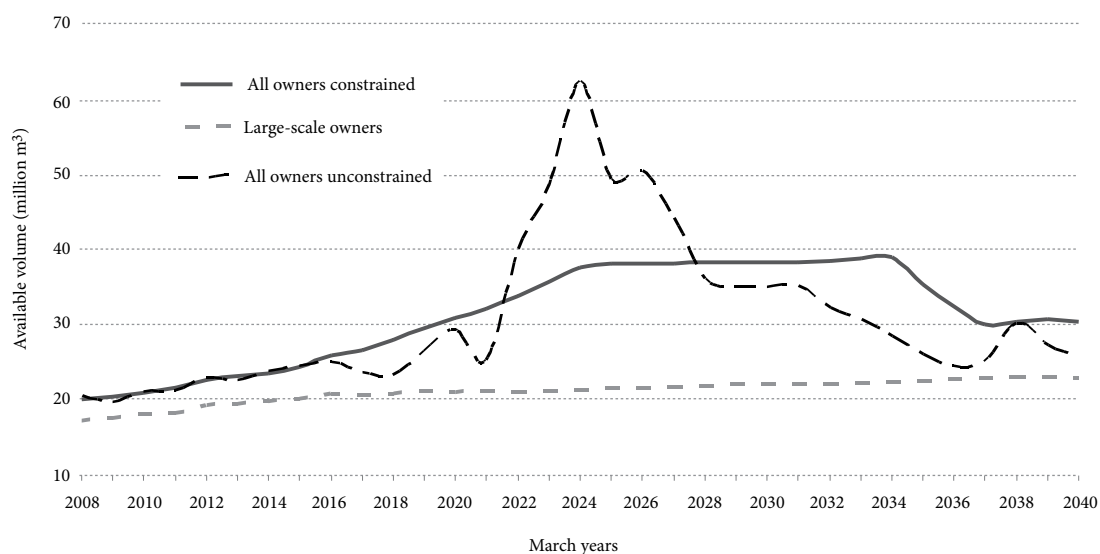
Log prices are one of the most critical factors that drive harvesting levels.

There are different levels of certainty associated with the wood availability from each component of the estate. The volumes forecast from the large-scale owners' forests are more certain than those forecast from the small-scale owners' estates. Not only are harvest intentions less clear for small-scale owners, but also the resource description is likely to be less accurate. Also, there was limited modelling of species other than radiata pine, due to limited data being available for these species.

The scenario presented in Figure 3.7 assumes that large-scale owners' wood availability is at stated harvest intentions until 2015 and then at a non-declining yield for the remainder of the current rotation (through to 2034). Thereafter, volumes may be reduced in the forecast model as the area available

<sup>7</sup> For these interim forecasts, large-scale forest owners' harvesting intentions have been used in all regions, except Northland and Auckland. Harvesting intentions for Northland and Auckland were not available at the time these interim national forecasts were produced.

**FIGURE 3.7: INTERIM NATIONAL WOOD AVAILABILITY FORECASTS**



for harvesting decreases. Any increase or decrease in volume has been restricted to a maximum of 10 percent of the previous year's harvest.

An alternative scenario also shown in Figure 3.7 is to assume that wood availability from the small-scale owners is “unconstrained”, closely following the age structure of these forests. In practice, such large increases in available volume could never be harvested over such short periods of time because of the significant amount of labour and equipment that would be required to harvest, transport and process the logs. The “constrained” scenario is probably more realistic.

### »» INDIGENOUS WOOD SUPPLY

Productive management of indigenous forests is confined to privately owned forests. Timber production from these forests is less than 1 percent by volume of New Zealand's total timber production.

Some current issues concerning indigenous forests include:

- › a difficult current transition from traditional timbers (for example, rimu) to more abundant but lesser-known timbers (predominantly beech);
- › the lack of critical mass in the sector to develop

and maintain a timber-processing industry for a different species (that is, beech);

- › technical and marketing hurdles regarding beech timber;
- › public perception/understanding regarding the legality of using indigenous timber, coupled with a lack of detailed information regarding the extent, quality and availability of indigenous timber;
- › biodiversity conservation constraints on the ability to manage forests for sustainable timber production;
- › additional processes and constraints with associated costs imposed through the RMA on approved sustainable forest management plans and permits; and
- › timber imports from unsustainably managed and possibly with a dubious legality of harvesting.

Currently, around 121 000 hectares of forests are covered by approved sustainable forest management plans or permits:

- › Plans contain a more comprehensive set of management considerations than permits and apply for a period of at least 50 years. The total approved annual volume able to be harvested under existing sustainable forest management plans is about 80 000 cubic metres.
- › Permits cover a 10-year term and provide for

a restricted maximum cut. The total 10-year approved volume under existing sustainable forest management permits is about 132 000 cubic metres.

Sustainably managed indigenous forests produce a range of timbers for furniture and speciality areas. Approximately 1.1 million hectares of private indigenous forests have the potential to be sustainably managed.

### »» GOVERNMENT INVOLVEMENT

The Government's involvement in New Zealand's forestry sector is mainly through MAF (which includes Crown Forestry and Biosecurity New Zealand) and the Department of Conservation. The Department of Corrections also owns or manages some plantation forests. A number of other agencies play important roles including the Ministry of Foreign Affairs and Trade, New Zealand Customs Service, Ministry for the Environment, and New Zealand Trade and Enterprise.



Photo courtesy of NZ Wood.

### » CROWN FORESTRY

MAF's Crown Forestry business unit administers the Government's interests in commercial forestry, such as forestry leases on Māori land, residual Crown forest assets and a portfolio of Forestry Encouragement Loans established under the Forestry Encouragement Loan Regulations 1967.

These assets all result from government decisions from the 1960s to the 1980s. Since the late 1980s, it has been government policy to withdraw from direct investment in forestry and to dispose of its forestry interests. The forestry assets managed by Crown Forestry are those that the Crown was not able to sell immediately. The Māori leasehold interests are not assignable, so a Crown exit has to be negotiated for each one, and any disposal of Crown forest land has to await the settlement of any relevant Treaty claims. The Forestry Encouragement Loans are not repayable until the forests are harvested.

### » MAF BIOSECURITY NEW ZEALAND

By far, the biggest amount of government resource directly applied to the forestry sector is through the provision of pre and post-border biosecurity and at-border biosecurity and quarantine services. These are discussed further in Chapter 12 "Biological risks and their management".

*Indigenous timber production is less than 1 percent of New Zealand's total timber production.*

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