

New Zealand Forest Owners Association

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Wood Processors Association of NZ

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NEW ZEALAND FOREST INDUSTRY FACTS&FIGURES

2006/2007

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- Knowledge and skills, now and for the future
- Quality national standards for business improvement
- · Skilled people, successful business

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NZ Plantation Forestry In Summary

Area & standing volume statistics	April 2004	April 2005
Net stocked forest area (ha)		
Total estimated area	1,822,000	1,811,000
Growth characteristics		
Standing volume (000m³)	398,000	400,000
Average standing volume (m³/ha)	219	221
Area-weighted average age (years)	13.7	13.9
Area by species (ha)		
Radiata pine	1,626,000	1,611,000
Douglas-fir	112,000	115,000
Cypress species	-	6,000
Other exotic softwoods	33,000	28,000
Eucalyplus species	-	33,000
All exotic hardwoods	51,000	18,000
But it is a second to be a second to the sec		
Radiata pine area by tending regime (ha) Pruned with production thinning	256 000	226 000
Pruned without production thinning	256,000	226,000
	798,000	793,000
Unpruned with production thinning	40,000	40,000
Unpruned without production thinning	532,000	551,000
	Year Ended	Year Ended
Planting & harvesting statistics	31 December 2004	31 December 2005
New planting (ha)		
Total estimated new planting ²	19,900	10,600
Restocking	38,200	39,600
Harvested area awaiting restocking	54,600	42,700
Harvesting	31 March 2004	31 March 2005
Area clear felled (ha)	40,800	39,000
Volume clear felled (TRVIB ¹ , 000m ³)	18,550	17,580
Volume production thinned (TRVIB, 000m³)	826	719
Total volume removed (TRVIB, 000m³)	19,376	18,299
Average clear fell yield (m³/ha)	455	450
Area-weighted average clear fell age for radiata	pine (years) 27.6	27.9

Notes:

Source: NEFD 2005

Unless stated, all information contained in this booklet has been sourced from the New Zealand Ministry of Agriculture and Forestry.

¹ TRVIB is an abbreviation for Total Recoverable Volume Inside Bark.

² This is an estimate based upon the application of product recovery conversion factors to the main products made from the forest harvest.

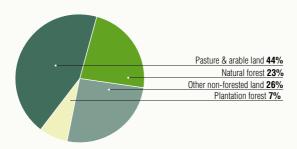
NZ Economic Indicators – 2005/06

Population	4,142,472
GDP \$ billion	98.5
GDP per capita \$	23,200
Exports \$ billion	31.5
Forest products exports total \$ billion	3.1
Total overseas debt \$ billion	132.9
Annual percentage change in GDP	2.2%
Inflation (as measured by annual	
percentage change in CPI)	3.3%
Forestry sector contribution to GDP	3.4%

Source: Statistics New Zealand

New Zealand Land Use

(Total area of New Zealand 26.9 million hectares)



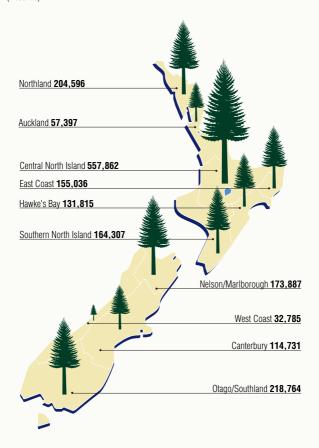
	Hectares (millions)	% of total
Pasture & arable land	11.8	44%
Natural forest	6.2	23%
Other non-forested land	7.1	26%
Plantation forest	1.8	7%

Notes

Total area is measured at mean high tide mark on 21 September 2001

Where The Plantation Forests Are

(Hectares)



Total 1.8 million hectares

Source: NEFD 2005

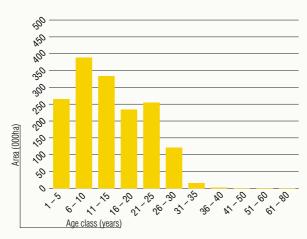
Plantation Forest Area By Species

(As at 1 April 2005)

	Hectares (thousands)	% of total
Radiata pine	1,611	89.0
Douglas-fir	115	6.4
Cypress species	6	0.3
Other exotic softwoods	28	1.5
Eucalyptus species	33	1.8
All exotic hardwoods	18	1.0
Total	1,811	100

Net Stocked Area Of Radiata Pine

(By age class at 1 April 2005)



Source: NEFD 2005

Global Forest Areas By Main Regions (2000)

(Millions hectares)

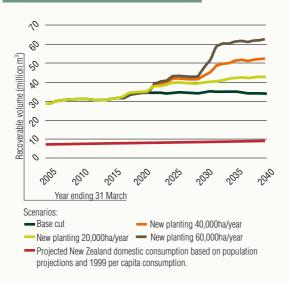


2000: total area = 3869 million ha Source: FAO State of World Forests 2005

Did you know that:

New Zealand's forest industry supplies 1.1% of world and 8.8% of Asia Pacific's forest products trade. All from just 0.05% of the world's forest resource and an annual harvest area equivalent to 0.0009% of global forest cover. The reason – highly productive, sustainably managed plantation forests.

Wood Availability Forecast



New Zealand Planted Forest Ownership

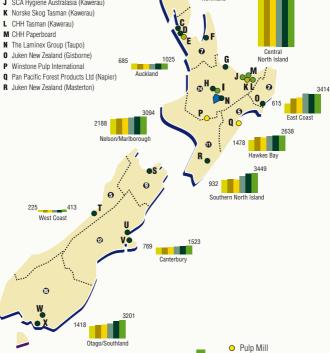
As at 1 December 2005

Owner/Manager	Planted Area (ha) ² - round figures	% of Total
Carter Holt Harvey	221,000	12.3
Kaingaroa Timberlands	167,000	9.2
Matariki Forests	143,000	7.9
Hancock Natural Resource Group	107,000	5.9
Ernslaw One	75,000	4.1
Weyerhaeuser New Zealand	60,000	3.5
Juken New Zealand	56,000	3.1
Crown Forestry	37,000	2.6
Pan Pac Forest Products	33,000	1.2
Timberlands West Coast	27,000	1.5
Hikurangi Forest Farms	27,000	1.5
Global Forest Partners ¹	27,000	1.5
Blakely Pacific	25,000	1.4
Wenita Forest Products	24,000	1.3
Roger Dickie New Zealand	24,000	1.3
Forest Enterprises	22,000	1.2
Evergreen Forests/James Fielding Funds Management	21,000	1.2
Winstone Pulp International	16,000	0.9
City Forests	15,000	0.8
Selwyn Plantation Board	9,000	0.5
GSL Capital	9,000	0.5
Other (Includes Farm Forestry)	665,000	36.6
Total	1,818,000	100

In addition to the 27,000 hectares of forest Global Forest Partners have full ownership of they have financial interests in a range of New Zealand forestry investments including joint venture interests in Mangakahia Forest with CHH and the forests managed by Weyerhaeuser NZ Inc in the Nelson region.
 Based on the total net stocked area reported in the NEFD Report 2005

Location Of Major Forest Industries and Expected Woodflows by **Wood Supply Region**

- A Juken New Zealand (Kaitaia)
- B CHH LVL Plant (Whangarei)
- C The Laminex Group (Kumeu)
- D Plycoselect (Penrose)
- E CHH Paperboard (Penrose)
- F CHH Pinepanels (Thames)
- G CHH Wood Products(Mt Maunganui)
- H CHH Engineered Wood Products (Tokoroa) I CHH Pulp and Paper (Kinleith)
- J SCA Hygiene Australasia (Kawerau)



- S Nelson Pine Industries (Richmond)
- T International Panel & Lumber (Greymouth)
- U CHH Pinepanels (Rangiora)
- V Gunn's New Zealand Pty (Christchurch)
- W Dongwha Poutinna NZ (Gore)
- X Southland Veneers (Invercargill)
- - per annum (000m²) (base-cut scenario)

4058

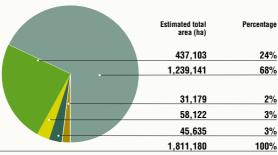
9276

11682

- Paper Mill
- Pulp & Paper
- Panel Board Mill
- Number of sawmills producing 5000m3 or more of sawn timber in the year ended 31/3/05

Plantation Forest Ownership

(Net stocked planted production forest area at 1 April 2005)





Note:

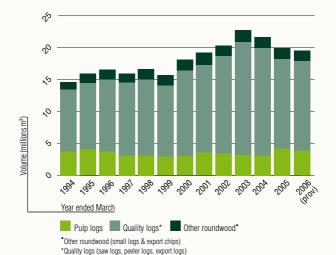
- 1. Ownership is based solely on the ownership of the forest irrespective of the ownership of the land.
- "Privately owned" includes all privately owned forests. The legal entities included in this category are private companies, partnerships, individuals and trusts, which include Maori trusts and incorporations.
- "Central Government" forests are predominantly Crown owned forests on Maori lease hold land. These forests are managed by the Ministry of Agriculture and Forestry.
- Note that significant changes in forest ownership occurred during 2003 resulting in large areas of forest previously owned by public companies now being privately owned.

Rates Of New Planting

(In addition to restocking)

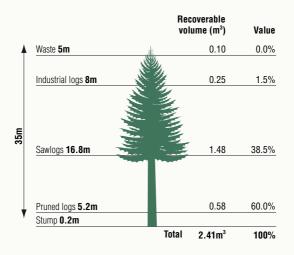


Plantation Forest Harvest



Typical Log Out-turn

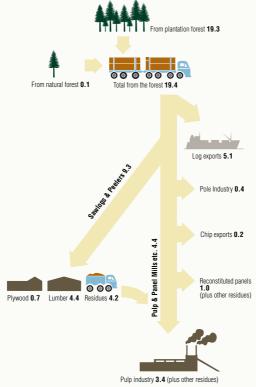
(Radiata pine age 27 from direct sawlog regime)



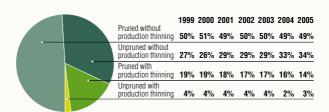
Source: NZFOA

Log Flow In The New Zealand Forestry Industry

(Volumes in millions m³ roundwood equivalent. Year ended 31 March 2005).

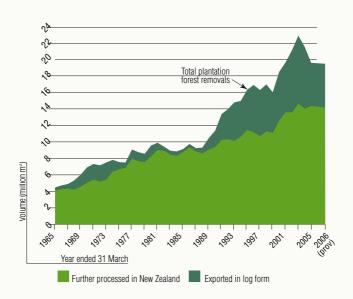


Forest Management Trends - Radiata Pine



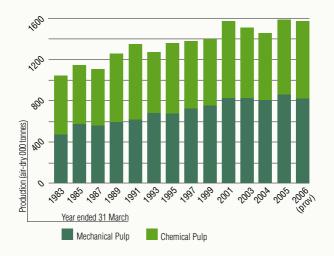
Source: NEFD April 2005

Where The Log Harvest Goes

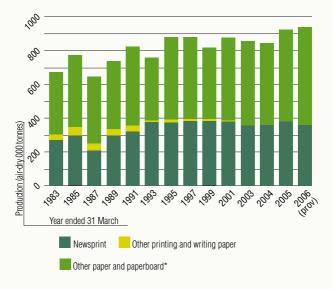




Wood Pulp Production



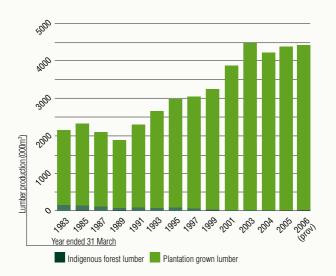
Paper And Paperboard Production



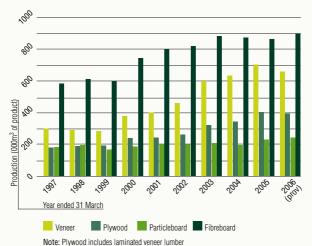
^{*} All other paper and paperboard includes household and sanitary papers, packaging paper & paperboard.

NB. Other printing and writing paper no longer produced in New Zealand.

Lumber Production



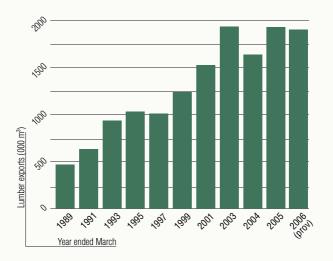
Panel Products Production



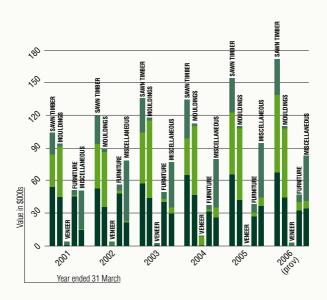
Fibreboard includes MDF, hardboard, triboard & softboard.

Source: NZPMA

New Zealand Lumber Exports

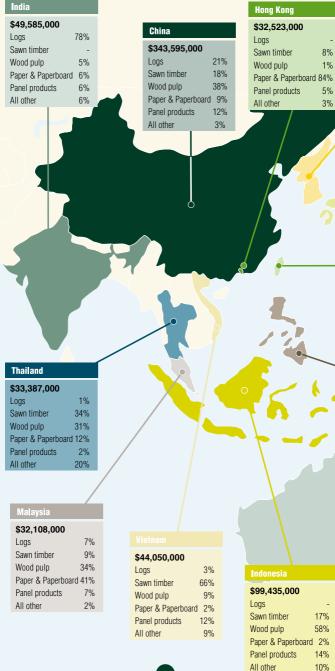


Exports of Forestry Products from New Zealand "Value Added"



Top Export Destinations

Year ended March 2006 (provisional - values in NZ\$ f.o.b.)



Korea

\$325,987,000

 Logs
 72%

 Sawn timber
 3%

 Wood pulp
 14%

 Paper & Paperboard
 7%

 Panel products
 4%

 All other

Japai

\$544,333,000

 Logs
 15%

 Sawn timber
 9%

 Wood pulp
 17%

 Paper & Paperboard

 Panel products
 48%

 All other
 12%

Other Countries

\$178,603,000

 Logs
 4%

 Sawn timber
 37%

 Wood pulp
 5%

 Paper & Paperboard 24%

 Panel products
 8%

 All other
 21%

Taiwan

\$65,396,000

 Logs
 13%

 Sawn timber
 41%

 Wood pulp
 33%

 Paper & Paperboard
 7%

 Panel products
 6%

 All other

Philippines

\$99,628,000

 Logs
 1%

 Sawn timber
 14%

 Wood pulp
 6%

 Paper & Paperboard
 34%

 Panel products
 43%

 All other
 4%

USA

\$385,472,000

 Logs

 Sawn timber
 65%

 Wood pulp
 1%

 Paper & Paperboard
 3%

 Panel products
 11%

 All other
 22%

Australia

\$897,595,000

 Logs

 Sawn timber
 20%

 Wood pulp
 10%

 Paper & Paperboard 37%

 Panel products
 7%

 All other
 26%

Fiji

\$32,372,000

Logs Sawn timber 10%
Wood pulp Paper & Paperboard 40%
Panel products 8%
All other 42%

Production And Exports Of Selected Forestry Products

(Year ended 31 March 2006 - provisional)

	Total production	Directly exported	Percentage exported	Export Value (NZ \$ m f.o.b.)
Logs (000m³)	18,984	5,072	26.7	447
Lumber (000m³)	4,247	1,822	42.9	720
Fibreboard (m ³)	898,931	708,152	78.8	240
Particleboard (m³)	242,859	107,728	44.4	59
Plywood (m³)	397,383	106,076	26.7	135
Chemical pulp (tonnes)	747,629	484,947	64.9	323
Mechanical pulp (tonnes)	815,657	369,122	45.3	155
Newsprint (tonnes)	367,064	300,010	81.7	251
Other paper & paperboard (tonnes)	573,384	381,640	66.6	293

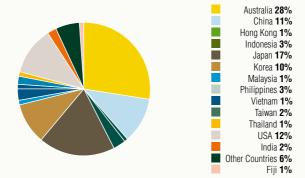
Value of Exports By Product And Destination

(Year ended 31 March 2006 – provisional. Values in NZ\$000 f.o.b.)

Country of Destination	Logs & poles	Lumber	Wood pulp	Paper & paper- board	Panel products	All other forestry products	All forestry products
Australia	103	177,831	87,314	336,492	62,716	233,139	897,595
Japan	80,716	47,374	89,875	115	263,606	62,647	544,333
USA	130	251,471	218	10,055	40,698	82,900	385,472
China	72,018	60,168	131,500	31,057	39,626	9,226	343,595
Korea, Republic	235,212	10,167	46,521	21,241	12,410	436	325,987
Philippines	550	13,700	6,008	33,561	42,751	3,058	99,628
Indonesia	122	17,075	57,222	2,086	13,446	9,484	99,435
Taiwan	8,299	26,836	21,514	4,333	4,121	293	65,396
India	38,618	19	2,249	2,972	2,730	2,997	49,585
Vietnam	1,230	28,976	4,161	745	5,113	3,825	44,050
Thailand	212	11,425	10,494	4,055	764	6,437	33,387
Hong Kong	170	2,451	275	27,245	1,498	884	32,523
Fiji	4	3,345	-	12,857	2,507	13,659	32,372
Malaysia	2,087	2,848	10,919	13,270	2,354	630	32,108
Saudi Arabia	-	12,699	-	3,456	1,432	391	17,978
United Arab Emirates	6,898	3,794	236	211	1,790	3,627	16,556
French Polynesia	9	8,513	-	3,068	643	2,651	14,884
Other countries	656	41,782	9,270	36,990	9,777	30,710	129,185
Total	447,034	720,474	477,776	543,809	507,982	466,994	3,164,069

Export Destinations of Forestry Products

(Year ended 31 March 2006 - provisional)



Forestry Exports Summary

(Year ended 31 March 2006 - provisional)

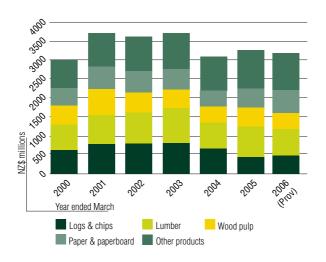
Forestry Product:	Qty	2004 Value (\$mil)	Qty	2005 Value (\$mil)	2006 Qty	(prov) Value (\$mil)
Logs and poles (000,000m³)	7	624	5	410	5	447
Wood chips (BDU 000m³)	313	43	199	29	262	39
Sawn timber (000,000m³)	2	683	2	809	2	720
Chemical pulp (000 tonnes)	386	282	436	320	485	323
Mechanical (000 tonnes)	330	144	404	171	369	155
Newsprint (000 tonnes)	196	218	282	233	300	251
Other paper and paperboard (000 tonnes)	262	193	343	273	382	293
Fibreboard (000m ³)	671	223	669	235	708	240
Plywood (000m³)	106	151	140	181	106	135
Veneer (000m³)	130	70	135	91	138	73
Particleboard (000m³)	103	64	113	71	108	59
Manufactures of paper and paperboard	-	129	-	116	-	114
Continuously shaped wood	-	115	-	150	-	167
Wooden furniture and furniture parts	-	38	-	39	-	53
Miscellaneous forestry	-	142	-	123	-	93
All forestry products	-	3,119	-	3,253	-	3,164
Total NZ produce exports	-	- 27,504 - 29,714		29,714	-	29,700
Forestry exports as % of total exports		11.3%		10.9%		

Note: Source: INFOS database, Statistics New Zealand. Table prepared by Forestry Statistics Section, Ministry of Agriculture and Forestry.

- 1. Values are NZ\$ free on board (f.o.b.) and may include items for which no quantities are given.
- Other paper and paperboard includes all other paper and paperboard exported but not manufactures of paper and paperboard.
- Miscellaneous forestry products includes wood manufactures, cork and cork manufactures, waste paper and prefabricated wooden buildings.
- 4. Because of rounding, figures in this table do not always sum to the stated totals.
- Not available

r = revised.

Major Export Earners



Wood Processing Investment

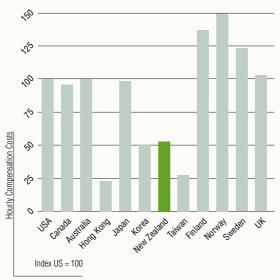
(Publicly announced as at January 2005, values in NZ\$million)

	New	l Wood Pro Plant Upgrades	cessing Total	New	due Proce Plant Upgrades	ssing Total	Total
1988	11.0	0.0	11.0	0.0	0.0	0.0	11.0
1989	0.0	21.0	21.0	0.0	230.0	230.0	251.0
1990	20.0	0.0	20.0	8.0	50.0	58.0	78.0
1991	0.0	0.0	0.0	0.0	304.6	304.6	304.6
1992	42.0	14.7	56.7	0.0	0.0	0.0	56.7
1993	41.5	41.6	83.1	1.1	8.8	9.9	93.0
1994	49.0	67.2	116.2	0.0	152.0	152.0	268.2
1995	2.0	49.8	51.8	0.0	0.0	0.0	51.8
1996	1.0	4.0	5.0	10.0	58.0	68.0	73.0
1997	13.0	25.4	38.4	120.0	265.0	385.0	423.4
1998	65.4	56.3	121.7	0.0	313.0	313.0	434.7
1999	3.9	4.0	7.9	10.0	0.0	10.0	17.9
2000	0.0	49.0	49.0	4.0	10.0	14.0	63.0
2001	2.0	14.4	16.4	0.0	4.0	4.0	20.4
2002	236.5	83.5	320	0.0	7.7	7.7	327.7
2003	12.0	5.0	17.0	0.0	18.5	18.5	35.5
2004	30.0	2.5	32.5	0.0	62.0	62.0	94.5
2005-09	380.0	219.0	599.0	0.0	78.0	78.0	677.0

Note: This summary is not comprehensive. It covers major, publicly announced, one-off investment intentions greater than NZ\$1 million. Actual investments will depend on a number of circumstances.

Source: MAF

International Labour Cost Comparisons 2004



Source: US Bureau Labor Statistics, September 2004

Employment In Forestry And Processing Activities

	Persons engaged as at Mid-February					
	2001	2002	2003	2004	2005	
Forestry	970	970	1,060	1,050	800	
Logging	4,090	4,240	4,750	4,010	3,630	
Services to forestry	3,100	3,520	3,780	3,190	3,210	
Total forestry & logging	8,160	8,160	9,590	8,250	7,640	
Log sawmilling	7,060	7,310	7,840	7,490	7,580	
Wood chipping	30	30	30	15	12	
Timber resawing & dressing	1,450	1,590	1,940	1,900	1,960	
Plywood & veneer manufacturing	2,040	2,110	2,040	1,840	1,880	
Fabricated wood manufacture	970	890	1,150	1,500	1,250	
Total pulp, paper &						
paperboard manufacturing	3,180	2,980	2,470	2,410	2,180	
Total forestry & first stage processing	22,980	23,070	25,060	23,405	22,502	

Source: MAF/Statistics NZ (see separate page

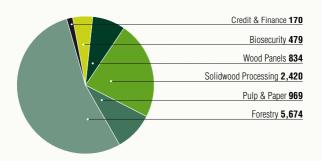
Employment Multipliers: It is estimated that for every full-time job created in forestry and wood processing between 2.2 and 5.8 other jobs are created outside the industry.

Note: Because of changing classification, employment in forestry and processing activities before 1995 is not directly comparable. Because of rounding, figures in this table do not always sum to the stated total. r = revised

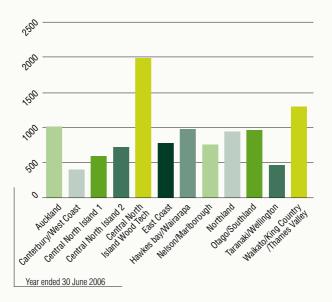
FOREST INDUSTRIES TRAINING

As at June 2006. All material sourced from FITEC.

Trainees By Sector

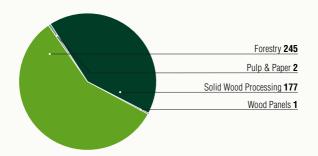


Trainees By Region

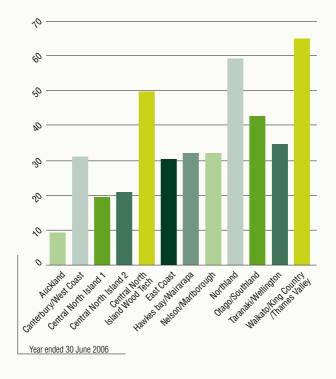


STATISTICS

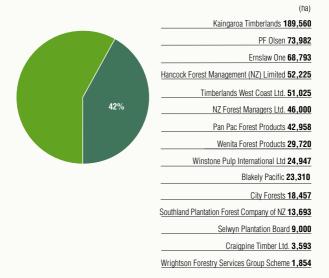
Modern Apprentices By Sector



Modern Apprentices By Region



Proportion of NZ's 1.82 million ha plantation certified by FSC¹



Source: NZFOA June 2006

Non Certified Certified

Proportion of NZ's 21million m³ annual harvest certified by FSC



Source: NZFOA June 2006

^{1.} Forest certified area relates to total land area which may include areas not currently stocked.

Vision 2025 - Development Milestones

2004	2025
\$5 billion outputs	> \$20 billion outputs
4% GDP	> 14% GDP
23,000 employed (100,000 indirectly)	60,000 employed (250,000 indirectly)
\$3.3 billion exports	> \$14 billion exports
3rd largest exporter	Largest exporter
Top 20 global suppliers	Top 5 global suppliers
1.8 million hectares	3.5 – 4 million hectares
21 million m³ harvest	> 40 million m³ harvest
\$100 million supporting technologies industry	\$1 billion supporting technologies industry

Source: NZFOA

New Zealand Forest Accord 1991

The New Zealand Forest Accord is an agreement between conservation groups and most major plantation growers and users to:

- define areas unsuitable for forestry;
- acknowledge that existing natural forest should be maintained:
- · recognise commercial forest as essential;
- ensure any use of wood from indigenous forest is on a sustainable, value-added basis:
- ensure new plantation forests will not disturb areas of natural indigenous vegetation.

Principles for Commercial Plantation Forest Management 1995

Environmental excellence in plantation forest management is the primary objective of these Principles. Signed by major plantation growers' associations, users and conservation groups, the parties agree that:

- inter-dependence of ecological, economic and social sustainability must be recognised;
- efficient and effective Principle implementation monitoring is required;
- rural land users should be treated equitably, based on the environmental effects of their activities:
- management practices must meet or improve on all statutory requirements and accepted best practices.

Industry Overview

Vision - A New Zealand Sustainable Forestry Culture within New Zealand

Strategic Objectives

Recognition

- Industry is operating under independently audited certification systems and a suite of self-regulatory codes
- Forestry's non-wood values, including carbon sequestration, are appropriately recognized and supported
- Government policy facilitates forestry's environmental and economic contributions
- Central and local government land-use policy is equitable, effectsbased and includes the use of national policy statements that support sustainable forest management

Research

 Research capability with supporting skills and technology transfer is suitably funded

Growth

- Market share and per capita consumption of wood in NZ expands annually
- Energy supply is adequate, reliable and competitively priced
- Forest transport and infrastructure is internationally competitive and equitably funded
- The level of value-added investment is consistent with international competition

Labour & Skills

- A safe and healthy operating environment is provided for the workforce
- · A sufficiently skilled workforce is recruited and retained
- Annual productivity gains are achieved
- The potential of renewable energy including forest biomass at the national level is maximised

Risk management

- · Forest health protection is cost efficient and effective
- The forestry estate continues to expand and diversify



Carbon Sequestration In The Forest

- In 2000, New Zealand's plantation forests absorbed around 25 million tonnes of CO. (net of harvesting).
- If the present average new planting rate of more than 30,000 ha per year for the last 10 years is maintained, then it is estimated that over the period 2008 – 2012 (the first Commitment Period under the provisions of the Kyoto Protocol) NZ's plantation forests

planted since the beginning of 1990 will remove more than 105 million tonnes of CO, from the atmosphere worth as much as \$2.5 billion in international carbon markets.

Source: NZ Ministry for the Environment/FOA



Terms And Things

Area & Volume

- A hectare (ha) = 100 x 100 metres (about the size of two rugby fields).
- A cubic metre (m³) = 1metre x 1metre x 1metre (about three times the size of a household dishwasher).
- An average radiata pine tree yields 2.4m³ of wood at harvest.
- 1 hectare of 28 year-old radiata pine contains between 650 and 800 m³ of wood.
- 1 hectare grows up to 28 m³ of wood each year.
- NZ radiata pine plantations yield up to 30% more wood per hectare than they did 60 years ago.
- 1 hectare sequests approximately 25 tonnes CO, per year.
- A fresh log contains about 55% water; approximately 50% of the balance is carbon



Costs & Values

- It costs 15 20 cents to truck one m³ of wood one km (for 100 km that is \$15 - \$20 per m³).
- Harvesting costs begin around \$10 per m³ increasing with steeper terrain, environmental sensitivities, smaller trees etc.
- Depending on market conditions, the average radiata pine tree when harvested is worth \$150 - \$200 to the grower.
- Value of wood being grown (added) each year in one hectare of forest is between \$1200 and \$2000.
- High quality pruned stands, well located to the market can sell for as much as \$50,000 per hectare net to the owner, while unpruned stands may net less than \$20,000 - particularly if logging and cartage costs are higher.

Note: Prices are indicative only.

