

NEW ZEALAND FOREST INDUSTRY

FACTS&FIGURES

2008/2009

RESOURCE 1 – 4

OWNERSHIP 5 – 7

PLANTING & HARVESTING 7 – 10

PROCESSING 11 – 12

EXPORTS 13 – 18

INVESTMENT 18

LABOUR & EMPLOYMENT 19

TRAINING 20 – 21

CERTIFICATION 22

ACCORDS 23

INDUSTRY DIRECTION 24

CARBON SEQUESTRATION 24

CLIMATE CHANGE 25

TERMS 25

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New Zealand Planted Forestry in Summary

Area & standing volume statistics	1 April 2006	1 April 2007
Net stocked forest area (ha)		
Total estimated area	1,800,000	1,790,000
Growth characteristics		
Standing volume (000m ³)	418,152	434,039
Average standing volume (m ³ /ha)	232	242
Area-weighted average age (years)	14.3	14.8
Area by species (ha)		
Radiata pine	1,603,000	1,597,000
Douglas-fir	113,000	113,000
Cypress species	7,000	8,000
Other exotic softwoods	28,000	27,000
Eucalyptus species	31,000	29,000
Other exotic hardwoods	18,000	16,000
Radiata pine area by tending regime (ha)		
Pruned with production thinning	219,000	218,000
Pruned without production thinning	774,000	758,000
Unpruned with production thinning	39,000	37,000
Unpruned without production thinning	571,000	584,000
	Year Ended	Year Ended
	31 December 2005	31 December 2006
New planting (ha)		
Total estimated new planting ²	6,000	2,600
Restocking	31,900	34,400
Harvested area awaiting restocking	37,100	35,600
	31 March 2006	31 March 2007
Harvesting (ha)		
Area clear felled (ha)	38,800	43,000
Volume clear felled (TRVIB ¹ , 000m ³)	17,862	19,075
Volume production thinned (TRVIB ¹ , 000m ³)	410	251
Total volume removed (TRVIB ¹ , 000m ³)	18,272	19,326
Average clear fell yield (m ³ /ha)	460	444
Area-weighted average clear fell age for radiata pine (years)	28.2	28.1
Estimated planted forest roundwood removal (000m ³) ²	18,802 ¹	19,897 ¹

Notes:

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

²This is an indirect estimate based on the application of conversion factors to the various forestry products.

¹revised

Source: NEFD 2007

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

NZ Economic Indicators – 2007/2008

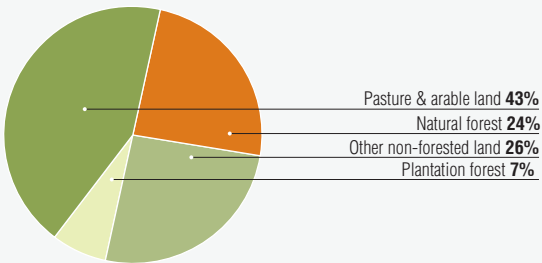
	31 March 2008
Population	4,262,900
GDP \$ billion	135.5
GDP per capita \$	31,944
Exports \$ billion	38.1
Forest products exports total \$ billion	3.2
Total overseas debt \$ billion	153.9
Annual percentage change in GDP	3.1%
Inflation (as measured by annual percentage change in CPI)	3.4%*
Forestry sector contribution to GDP	3.8%

Source: Statistics New Zealand

*as at 31 December 2008

New Zealand Land Use

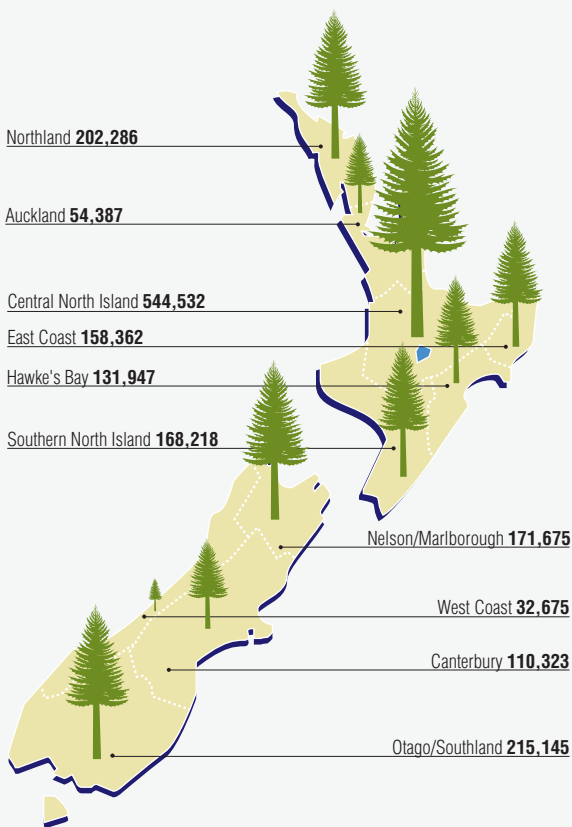
(Total area of New Zealand 26.7 million hectares)



	Hectares (millions)	% of total
Pasture & arable land	11.5	43%
Natural forest	6.5	24%
Other non-forested land	6.9	26%
Plantation forest	1.8	7%

Where the Plantation Forests are

(Hectares)



Total 1.79 million hectares

Source: NEFD 2007

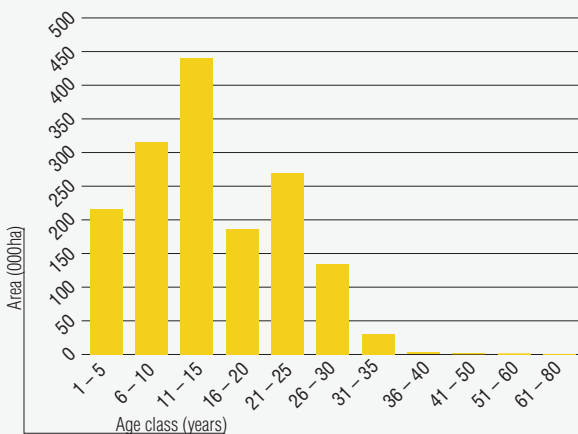
Plantation Forest Area by Species

(As at 1 April 2007)

	Hectares (thousands)	% of total
Radiata pine	1,597	89.2
Douglas-fir	113	6.3
Cypress species	8	0.4
Other exotic softwoods	27	1.5
Eucalyptus species	29	1.6
Other exotic hardwoods	16	0.9
Total	1,790	100

Net Stocked Area of Radiata Pine

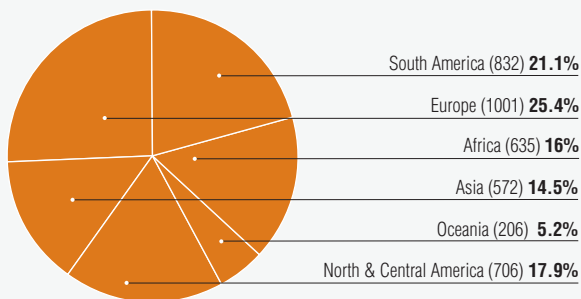
(By age class at 1 April 2007)



Source: NEFD 2007

Global Forest Areas by Main Regions (2005)

(Millions hectares)



2005: total area = 3950 million ha

Source: FAO State of World Forests 2007

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.

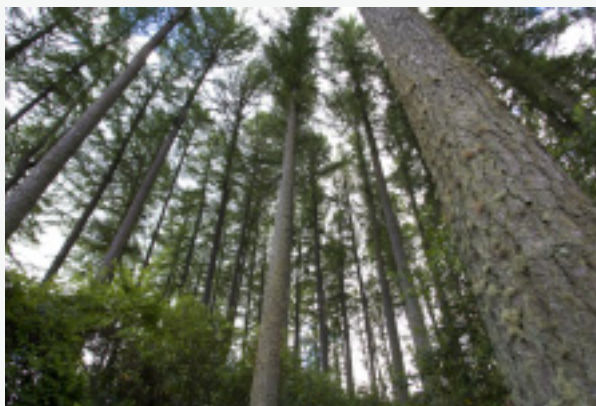
New Zealand Planted Forest Ownership/ Management

As at 1 December 2007

Forest Owner/Manager	Area (ha) – round figures	% of Total
Hancock Natural Resource Group	293,000	16.4%
Kaingaroa Timberlands	171 000	9.6%
Matariki Forests	132,000	7.4%
Ernslaw One	82,000	4.6%
Weyerhaeuser New Zealand ¹	59,000	3.3%
Juken New Zealand	56,000	3.1%
Pan Pac Forest Products	33,000	1.8%
Crown Forestry (MAF)	32,000	1.8%
Timberlands West Coast	28,000	1.6%
Hikurangi Forest Farms	26,000	1.5%
Blakely Pacific	25,000	1.4%
Roger Dickie New Zealand	24,000	1.3%
Wenita Forest Products	23,000	1.3%
Forest Enterprises	22,000	1.2%
Global Forest Partners ²	16,000	0.9%
City Forests	16,000	0.9%
Winstone Pulp International	15,000	0.8%
Other ³	1,030,000	57.5%
Total	1,790,000	100.0

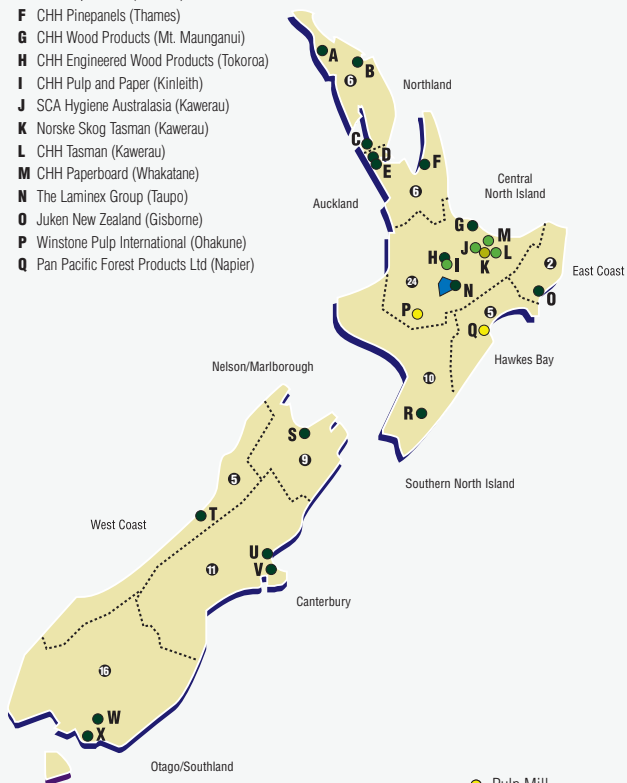
Footnotes:

1. At the reference date for this table Weyerhaeuser owned 51% of these Nelson forests. In June 2007 Weyerhaeuser announced that these forests were to be sold to Global Forest Partners effective from 1 November 2007.
2. In addition to the outright ownership of 27,000 hectares as at 1 December 2006 Global Forest Partners has further equity interests in a range of New Zealand forest investments including joint ventures in Mangakahia Forest with Hancock Natural Resource Group, Wenita Forest Products forests and the Nelson forests managed by Weyerhaeuser NZ Inc.
3. Based on the total net stocked area reported in A National Exotic Forest Description as at 1 April 2007.



Location of Major Forest Industries 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)
- K** Norske Skog Tasman (Kawerau)
- L** CHH Tasman (Kawerau)
- M** CHH Paperboard (Whakatane)
- N** The Laminex Group (Taupo)
- O** Juken New Zealand (Gisborne)
- P** Winstone Pulp International (Ohakune)
- Q** Pan Pacific Forest Products Ltd (Napier)

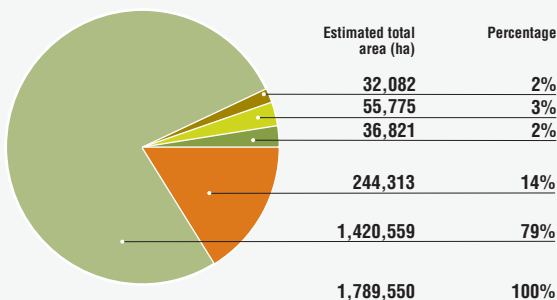


- Pulp Mill
- Paper Mill
- Pulp & Paper
- Panel Board Mill
- 16 Number of sawmills producing 5000m³ or more of sawn timber in the year ended 31/3/06

- R** Juken New Zealand (Masterton)
- S** Nelson Pine Industries (Richmond)
- T** International Panel & Lumber (Greymouth)
- U** CHH Pinepanels (Rangiora)
- V** Gunn's New Zealand Pty (Christchurch)
- W** Dongwha Patinna NZ (Gore)
- X** Southland Veneers (Invercargill)

Plantation Forest Ownership

(Net stocked planted production forest area at 1 April 2007)



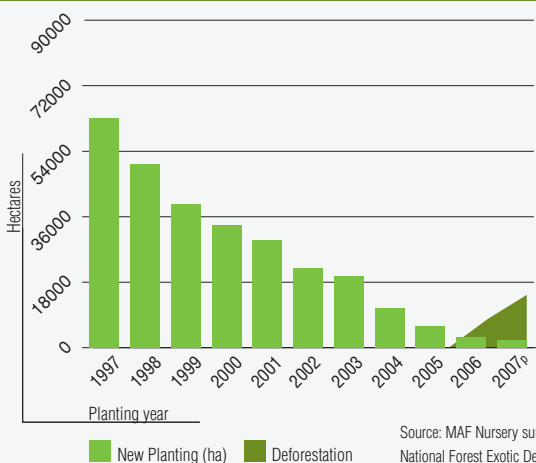
Ownership category¹

- Registered public companies
- Registered private companies²
- State owned enterprises
- Central Government³
- Local government bodies

Note:

1. Ownership is based solely on the ownership of the forest irrespective of the ownership of the land.
2. "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.
3. "Central Government" forests are predominantly Crown owned forests on Maori lease hold land. These forests are managed by the Ministry of Agriculture and Forestry.

New Forest Planting and Deforestation since 1990



Note:

1. These estimates do not include immature forest cleared for other land uses. Deforestation is a relatively new phenomenon and sensitivity over deforestation and the increased separation between forest and land ownership has made it difficult to collect this information in a postal survey. Official statistics of the area of forest not intended to be replanted after harvest are unavailable before 2005.

Plantation Forest Harvest



Typical Log Out-turn

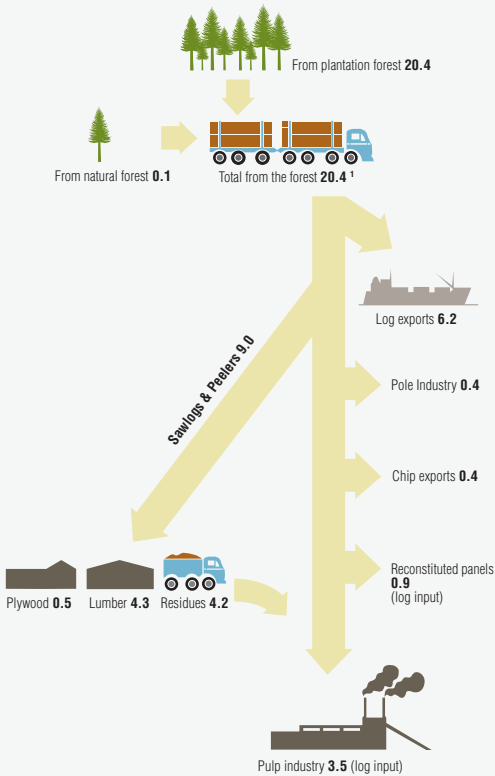
(Radiata pine age 27 from direct sawlog regime)



Source: NZFOA

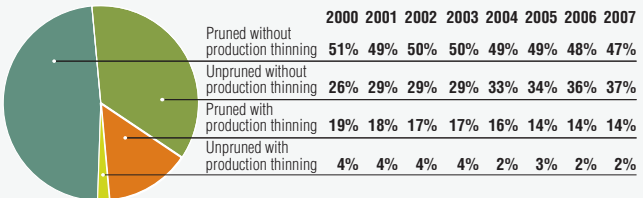
Log Flow in the New Zealand Forestry Industry

(Volumes in millions m³ roundwood equivalent. Year ended 31 March 2008).



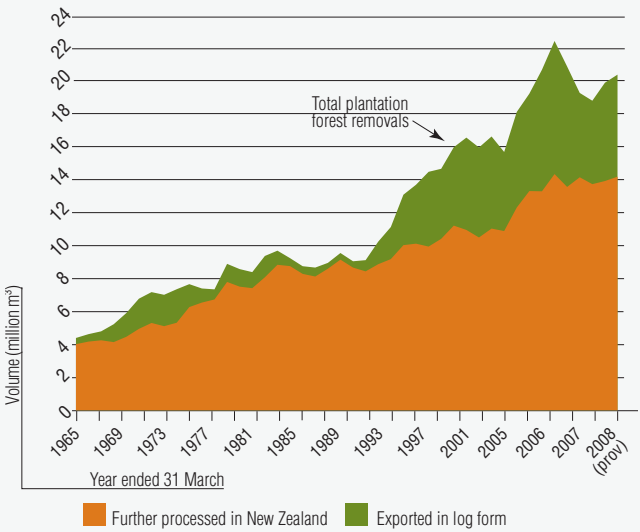
¹ Total may not add up due to rounding

Forest Management Trends – Radiata Pine



Source: NEFD April 2007

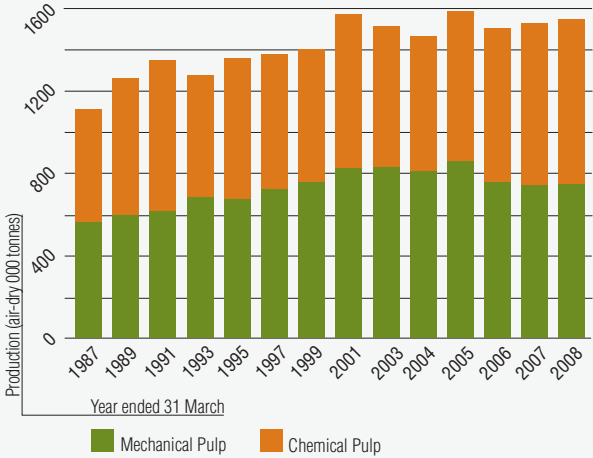
Where the Log Harvest Goes



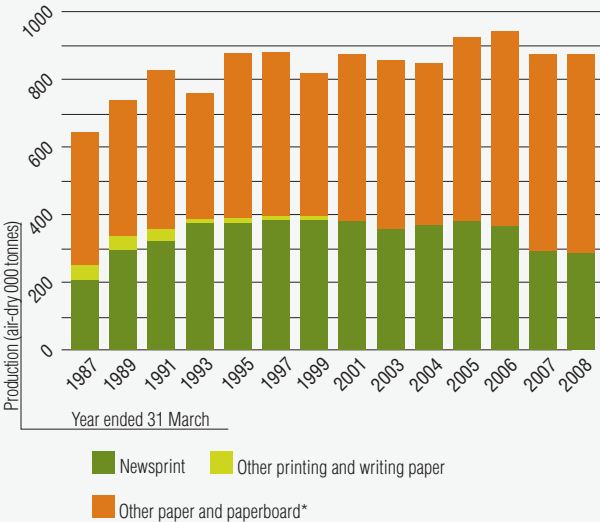
Note: Export logs data in 2007, further processed and production forest removals data from 2003 to 2007 have been revised



Wood Pulp Production

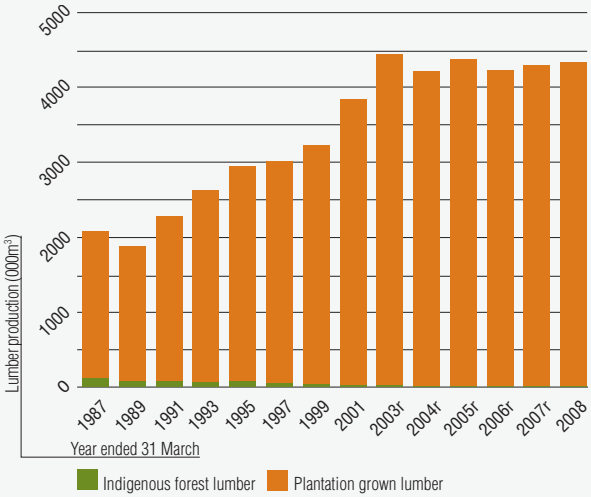


Paper and Paperboard Production



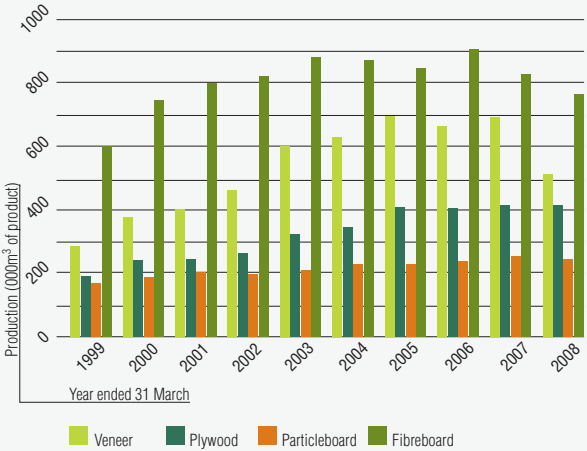
* All other paper and paperboard includes household and sanitary papers, packaging paper & paperboard.
 NB. Other printing and writing paper no longer produced in New Zealand.

Lumber Production



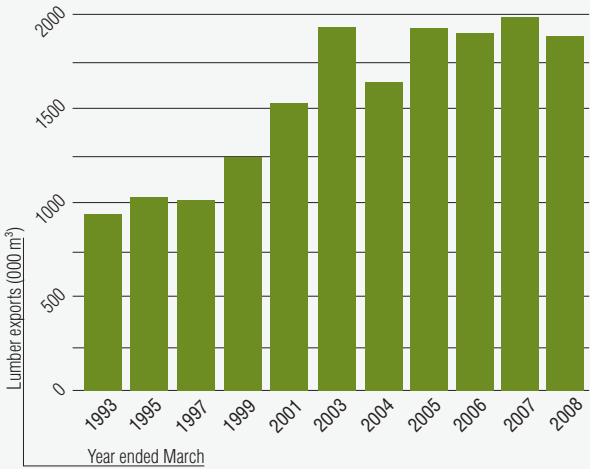
^r revised

Panel Products Production



Note: Plywood includes laminated veneer lumber
Fibreboard includes MDF, hardboard, triboard & softboard.

New Zealand Lumber Exports



Top Export Destinations

Year ended March 2008 (provisional - values in NZ\$ f.o.b.)

India

\$83,207,000

Logs	77%
Sawn timber	5%
Wood pulp	3%
Paper & Paperboard	<1%
Panel products	5%
All other	9%

China

\$472,746,000

Logs	28%
Sawn timber	16%
Wood pulp	40%
Paper & Paperboard	7%
Panel products	7%
All other	3%

Hong Kong

\$24,163,000

Logs	1%
Sawn timber	7%
Wood pulp	4%
Paper & Paperboard	73%
Panel products	10%
All other	6%

Thailand

\$60,197,000

Logs	1%
Sawn timber	37%
Wood pulp	40%
Paper & Paperboard	4%
Panel products	3%
All other	15%

Malaysia

\$45,749,000

Logs	7%
Sawn timber	17%
Wood pulp	42%
Paper & Paperboard	28%
Panel products	5%
All other	1%

Vietnam

\$70,951,000

Logs	3%
Sawn timber	59%
Wood pulp	7%
Paper & Paperboard	3%
Panel products	13%
All other	15%

Indonesia

\$101,176,000

Logs	2%
Sawn timber	24%
Wood pulp	46%
Paper & Paperboard	3%
Panel products	13%
All other	12%

Korea

\$398,645,000

Logs	76%
Sawn timber	3%
Wood pulp	15%
Paper & Paperboard	4%
Panel products	2%
All other	—

Japan

\$498,001,000

Logs	16%
Sawn timber	8%
Wood pulp	20%
Paper & Paperboard	—
Panel products	42%
All other	14%

Taiwan

\$68,910,000

Logs	11%
Sawn timber	26%
Wood pulp	47%
Paper & Paperboard	9%
Panel products	7%
All other	—

Philippines

\$70,940,000

Logs	—
Sawn timber	17%
Wood pulp	11%
Paper & Paperboard	41%
Panel products	26%
All other	4%

Australia

\$797,973,000

Logs	—
Sawn timber	20%
Wood pulp	14%
Paper & Paperboard	23%
Panel products	11%
All other	32%

Other Countries

\$247,081,000

Logs	5%
Sawn timber	43%
Wood pulp	6%
Paper & Paperboard	11%
Panel products	4%
All other	30%

USA

\$830,278,000

Logs	—
Sawn timber	60%
Wood pulp	1%
Paper & Paperboard	2%
Panel products	9%
All other	28%

Fiji

\$30,189,000

Logs	—
Sawn timber	3%
Wood pulp	—
Paper & Paperboard	36%
Panel products	6%
All other	55%

Production and Exports of Selected Forestry Products

(Year ended 31 March 2008 – provisional)

	Total production	Directly exported	Percentage exported	Export Value (NZ \$ m f.o.b.)
Logs (000m ³)	20,406	6,217	30	607
Lumber (000m ³)	4,341	1,787	41	727
Fibreboard (m ³)	765,044	578,962	76	228
Particleboard (m ³)	245,309	118,281	48	53
Plywood (m ³)	416,383	77,941	19	112
Chemical pulp (tonnes)	801,179	623,128	78	514
Mechanical pulp (tonnes)	745,288	243,102	33	97
Newsprint (tonnes)	285,654	187,868*	65	202
Other paper & paperboard (tonnes)	585,429	374,767	64	350

*Note: Newsprint export volume and value is for the year ended December 2008

Value of Exports by Product and Destination

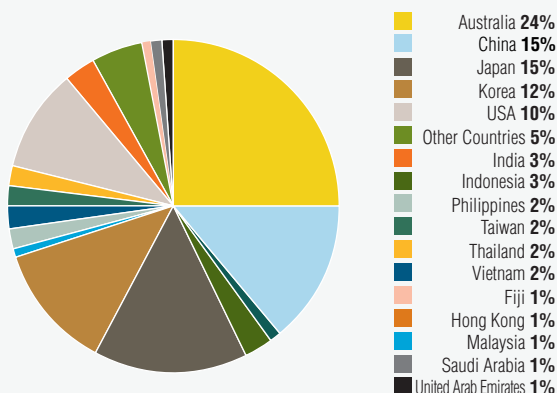
(Year ended 31 March 2008 – provisional. Values in NZ\$000 f.o.b.)

Country of Destination	Logs & poles	Lumber	Wood pulp	Paper & paperboard	Panel products	All other forestry products	All forestry products
Australia	45	161,325	108,641	252,914	89,332	256,703	961,555
Japan	80,788	38,167	99,308	7	207,559	72,172	498,001
China	131,262	75,724	188,581	31,352	32,714	13,367	473,000
Korea	301,233	12,635	59,261	17,235	7,991	290	398,645
USA	-	198,514	1,697	7,272	30,051	92,744	330,278
Indonesia	1,870	24,010	47,029	2,823	13,135	12,309	101,176
Philippines	1	12,406	7,847	29,190	18,539	2,957	70,940
Taiwan	7,636	18,126	32,530	5,939	4,511	205	68,947
Vietnam	2,220	41,696	4,901	1,937	9,544	10,653	70,951
India	64,430	4,473	2,704	21,098	3,784	7,487	103,976
Malaysia	3,187	7,615	19,371	12,826	2,115	635	45,749
Thailand	532	22,434	23,860	3,067	1,926	8,744	60,563
Saudi Arabia	-	13,685	-	477	1,805	13,670	29,637
United Arab Emirates	11,730	13,886	-	97	929	17,258	43,900
Fiji	-	1,050	-	12,708	1,861	16,523	32,142
Hong Kong	246	1,599	863	20,274	2,375	1,427	26,784
Other countries	1,640	79,829	14,303	40,251	7,454	42,759	186,064
Total	606,820	727,174	610,896	459,467	435,625	569,903	3,502,308

Note: The newsprint component of the Paper & Paperboard product is for the year ended December 2008

Export Destinations of Forestry Products

(Year ended 31 March 2008 – provisional)



Forestry Exports Summary

(Year ended 31 March 2008 – provisional)

Forestry Product:	2006		2007		2008 (prov)	
	Qty	Value (\$mil)	Qty	Value (\$mil)	Qty	Value (\$mil)
Logs and poles (000,000m ³)	5	446	6	634	6	607
Wood chips (000 BDU)	262	39	268	47	367	62
Sawn timber (000,000m ³)	2	720	2	805	2	727
Chemical pulp (000 tonnes)	485	323	613	516	623	514
Mechanical pulp (000 tonnes)	369	155	198	79	243	97
Newsprint (000 tonnes)	300	251	139	151	188	202
Other paper and paperboard (000 tonnes)	382	293	379	342	375	350
Fibreboard (000m ³)	708	240	657	243	579	228
Plywood (000m ³)	104	135	73	110	78	112
Veneer (000m ³)	138	73	154	48	145	43
Particleboard (000m ³)	108	60	110	51	118	53
Manufactures of paper and paperboard	-	169	-	187	-	211
Continuously shaped wood	-	114	-	123	-	119
Wooden furniture and furniture parts	-	53	-	55	-	52
Miscellaneous forestry products	-	93	-	150	-	126
All forestry products	-	3,163	-	3,539	-	3,502
Total NZ exports	-	29,701	-	33,481	-	36,657
Forestry exports as % of total exports		10.6%		10.6%		9.6%

Notes: Source: INFOS database, Statistics New Zealand, NZFOA

- 1) Values are NZ\$ free on board (fob) and may include items for which no quantities are given
- 2) Other paper and paperboard includes all other paper and paperboard exported but not manufactures of paper and paperboard
- 3) Miscellaneous forestry products includes wood manufactures, cork and cork manufactures, waste paper and prefabricated wooden buildings
- 4) Because of rounding, figures do not always sum to the stated totals
- 5) Newsprint figures for 2007 and 2008 are for the year ended 31 December.

Major Export Earners



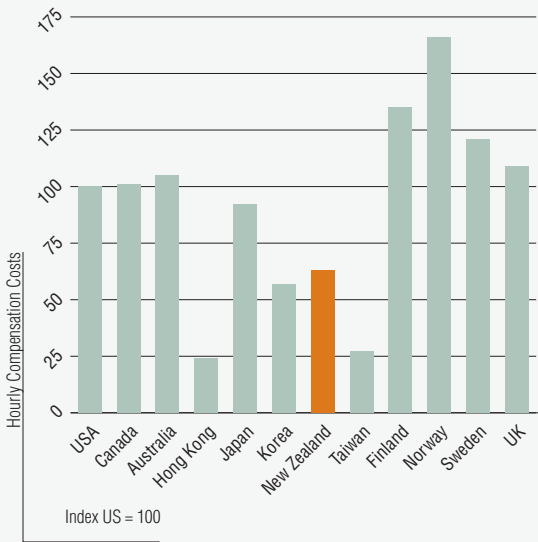
Wood Processing Investment

(Publicly announced as at January 2006, values in NZ\$million)

	Solid Wood Processing			Residue Processing			Total
	New Plant	Plant Upgrades	Total	New Plant	Plant Upgrades	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	0.0	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	0.0	34.0	34.0	0.0	33.0	33.0	67.0
2006-09	380.0	188.0	568.0	0.0	45.0	45.0	613.0

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.

International Labour Cost Comparisons 2006



Source: US Bureau Labor Statistics, September 2006

Employment in Forestry and Processing Activities

	Employee Count ¹ as at Mid-February						
	2001	2002	2003	2004	2005	2006	2007
Forestry	970	970	1,160 ^r	1,040 ^r	800	730	550
Logging	4,090	4,240	4,890 ^r	4,160 ^r	3,760 ^r	3,500 ^r	3610
Services to Forestry	3,100	3,530	4,100 ^r	3,380 ^r	3,100 ^r	2,830 ^r	2310
Total Forestry and Logging	8,160	8,740	10,150^r	8,580^r	7,660^r	7,060^r	6470
Log Sawmilling	7,060	7,310	8,100 ^r	7,690 ^r	7,610 ^r	6,970 ^r	6750
Wood Chipping	30	30	30	18	9	12	9
Timber Resawing and Dressing	1,450	1,600 ^r	1,850 ^r	1,820 ^r	1,920 ^r	1,970 ^r	2,200
Plywood and Veneer Manufacturing	2,040	2,100 ^r	1,850 ^r	1,960 ^r	1,990 ^r	1,670 ^r	1,730
Fabricated Wood Manufacture	970	880 ^r	1,370 ^r	1,390 ^r	1,300 ^r	1,230 ^r	1,140
Pulp, Paper and Paperboard Manufacturing	3,180	2,990 ^r	2,940 ^r	2,730 ^r	2,690 ^r	2,360 ^r	2,090
Total forestry and first stage processing	22,980	23,650^r	26,290^r	24,188^r	23,179^r	21,272^r	20,389

Source: MAF/Statistics NZ

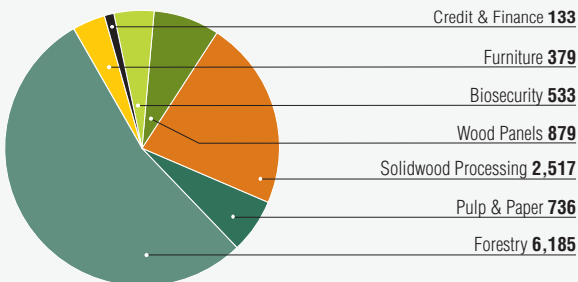
¹**Employee count** is a head-count of all salary and wage earners for the February reference month. Previous releases in this series described "Persons engaged" (total number of full-time employees and working proprietors ie number of persons working 30 hours or more per week plus half the number of persons working part-time), and so the data are not strictly comparable with previous releases in this series.

^r revised

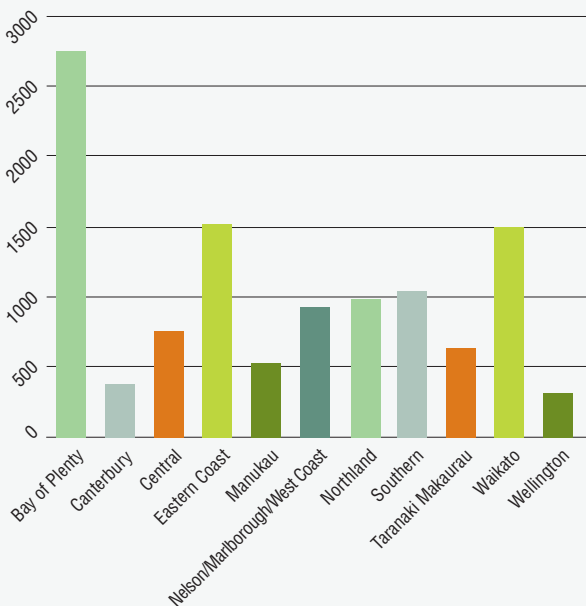
FOREST INDUSTRIES TRAINING

As at June 2008. All material sourced from FITEC.

Trainees by Sector



Trainees by Region

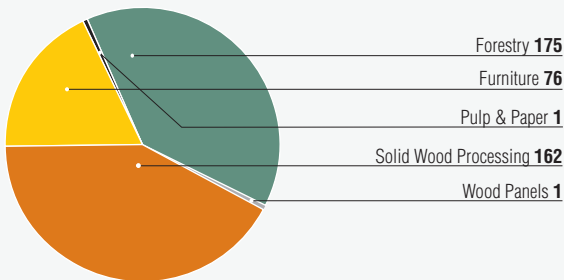


As at June 2008. Training Programs calculated in accordance with TEC Criteria.

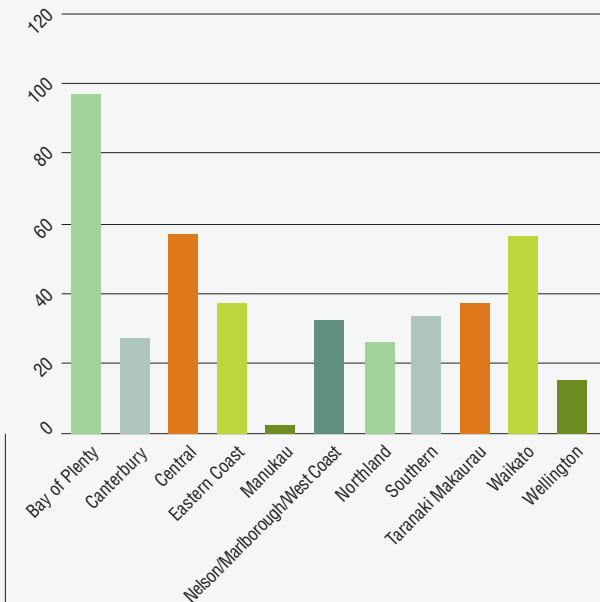
Figures are based on NZ Post new postal regions as at August 2008

STATISTICS

Modern Apprentices by Sector



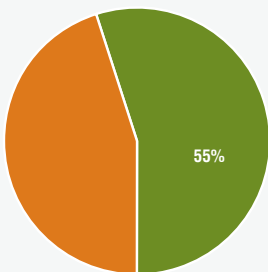
Modern Apprentices by Region



As at June 2008. Training Programs calculated in accordance with TEC Criteria.

Figures are based on NZ Post new postal regions as at August 2008

Proportion of NZ's 1.8 million ha Plantation Certified by FSC¹



	(ha)
Hancock Forest Management	222,720
Kaingaroa Timberlands	188,768
Ernslaw One Ltd	133,237
PF Olsen & Co Ltd	69,362
Crown Forests, MAF	48,295
Timberlands West Coast	46,142
Rayonier Matariki	38,254
Pan Pac Forest Products Ltd	34,428
Blakely Pacific	29,500
Wenita Forest Products Ltd	29,094
Hikurangi Forest Farms Ltd	29,018
City Forests	16,119
Lindsay & Dixon Ltd	11,920
Southland Plantation Forest Company of NZ	10,000
Craigpine Timber	4,200
Total	911,057
Indigenous	11,920
Other FSC	65,943
Total Plantation FSC	977,000
Total Plantation Forest	1,790,000

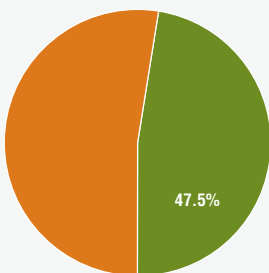
Source: FSC/FOA

■ Non Certified ■ Certified

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

Note: FAO State of the Worlds Forests 2007 lists New Zealand's plantation forest area as 1.852 million ha

Proportion of NZ's 20.3 million m³ Annual Harvest Certified by FSC



	(m ³)
Hancock Forest Management	2,805,390
Kaingaroa Timberlands	1,863,600
Ernslaw One Ltd	1,155,470
PF Olsen & Co Ltd	1,011,609
Crown Forests, MA	678,900
Timberlands West Coast	168,250
Rayonier Matariki	498,270
Pan Pac Forest Products Ltd	797,782
Blakely Pacific	23,300
Wenita Forest Products Ltd	269,720
Hikurangi Forest Farms Ltd	244,886
City Forests	179,678
Lindsay & Dixon Ltd	23,000
Southland Plantation Forest Company of NZ	80,000
Craigpine Timber	12,000
Total	9,811,855
Indigenous	23,300

Source: NZFOA June 2008

■ Non Certified ■ Certified

Members of the NZ Forest Owners Association are committed to the following agreements:

New Zealand Forest Accord 1991

The New Zealand Forest Accord 1991 was updated in 2007 to reaffirm the principles of the 1991 Accord and respond to the threat of climate change. It 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 forests as essential
- Ensure any use of wood from indigenous forests is on a sustainable, value-added basis
- Ensure new plantation forests will not disturb areas of natural indigenous vegetation

And in responding to the urgency of the threat of Climate change:

New Zealand Climate Change Accord 2007

Acknowledging, inter alia:

- The environmental benefits delivered by indigenous and plantation forests
- That carbon sequestration by forests is a key mechanism to offset greenhouse gas emissions
- That policies must be consistent with the Polluter Pays Principle, be broad-based and cover all greenhouse gases in all sectors, should avoid net increases in greenhouse gases, should promote the retention and expansion of indigenous forests and the replanting and expansion of plantation forests; ensure all sectors are taking responsibility, be consistent with customary rights and the Treaty of Waitangi and acknowledge that wood is a renewable reusable and recyclable resource.

Eliminating Illegal Forest Products

On 14 August 2008 a statement was signed in which the signatories called on the New Zealand Government, importers, processors, retailers, New Zealand forest and plantation managers and processors of forest and plantation products to support their call to strongly oppose the import and the use of illegally harvested and traded forest products in New Zealand. Trading in illegal products contributes to deforestation biodiversity loss, poverty and other adverse social effects, and undermines the viability of legal forest products.

Prohibition of the import of these products will benefit New Zealand's legal forest products industries; assist in improving the producer countries' social, environmental, and economic well being; and show that New Zealand is responsibly addressing the problem. Illegal logging is not sustainable and thus eliminating illegal logging is an important step towards achieving sustainable forestry globally.

The organisations that signed the statement were: the Ecologic Foundation, Environment & Conservation Organisations of New Zealand (ECO), Greenpeace Aotearoa New Zealand, NZ Forest Owners Association, NZ Farm Forestry Association, NZ Pine Manufacturers Association, Royal Forest and Bird Protection Society, Sustainable Energy Forum, Wood Processors Association of New Zealand and WWF New Zealand.

Industry Direction

Vision – A 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, effects-based 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 and 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.

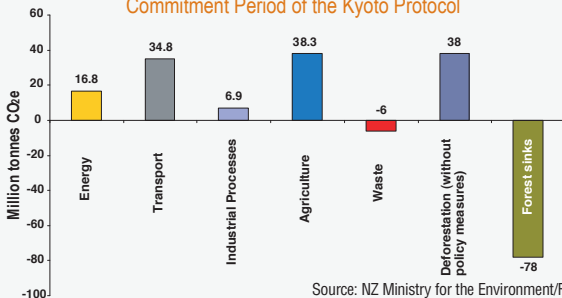
Risk management

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

Carbon Sequestration in the Forest

- In 2005, forests removed 25.5 m+ of CO₂ from atmosphere

Projected excess emissions from key sectors over the first five-year Commitment Period of the Kyoto Protocol



Source: NZ Ministry for the Environment/FOA

Forests and Wood Fight Climate Change



Wood is the world's most renewable raw material. For this reason forests and the wood they provide are vital in the fight against climate change. As the effects of global warming impact on our environment, the use of renewable and sustainable building materials has never been so important.

The stages of the wood story – planting and renewal, growth, harvesting and use are part of a renewable cycle that takes and stores carbon dioxide from the atmosphere, making wood a truly carbon-neutral building material.

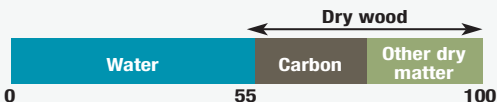
Using wood is something we can all do to help the environment. By demanding and using more sustainably produced wood, we can ensure that more trees will be planted and more carbon dioxide will be absorbed from the atmosphere. The result is a better world for ourselves, our families and future generations. It's simple.

Wood. Manage it responsibly. Consume it voraciously. For a better world.

Terms and Things

Area and 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 sequesters approximately 25 tonnes CO₂ per year.
- A fresh log contains about 55% water; approximately 50% of the balance is carbon.



Costs and Values

- It costs 18 - 24 cents to truck one m³ of wood one km (for 100 km that is \$18 - \$24 per m³).
- Harvesting costs begin around \$15 - \$24 per m³ - increasing with steeper terrain, environmental sensitivities, smaller trees etc.
- Depending on market conditions, the average radiata pine tree when harvested is worth \$50 - \$200 to the grower.
- Value of wood being grown (added) each year in one hectare of forest is between \$500 and \$1500.
- 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 \$10,000 - particularly if logging and cartage costs are higher.

Note: Prices are indicative only.

with the compliments of:



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