



SCHOOL OF **FORESTRY AND PRIMARY INDUSTRIES**



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WITH THE COMPLIMENTS OF:



Ministry for Primary Industries
Manatū Ahu Matua



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NEW ZEALAND PLANTATION
FOREST INDUSTRY

FACTS & FIGURES



2011/2012

Designed by www.sceneinfo.co.nz

1,719,400_{HA}

The net stocked forest area dropped 18,600 hectares from 2010 to 2011, to 1,719,400 ha. However, an increase in the average standing volume from 269m³/ha to 279m³/ha means the estimated standing volume of wood in New Zealand's plantation forest is 479 million m³, an increase from 2010 of 2.7%.

43,300_{HA}

The total harvested area dropped 200 hectares in 2011 compared to 2010 – however the volume clearfelled increased by over 1 million cubic metres.

NZ\$1.6_B

The value of log exports increased 38% from 2010 to 2011 to NZ\$1.6 billion free on board (f.o.b).

NZ\$4.7_B

Total New Zealand forest product exports totalled \$4.7 billion for 2011, an increase of 21% from 2010.

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Some images used in this publication are winning entries from the NZ International Year of Forests photo competition.

Cover photo by Peter Scott was second in the environment category of the competition.

FOREWORD



The 2011/12 edition of *New Zealand Plantation Forest Industry Facts & Figures*, produced by the Forest Owners Association in co-operation with the Ministry for Primary Industries, presents a compelling summary of this important industry. It portrays a sector that contributes around three percent of New Zealand's GDP, and generates export earnings of \$4.7 billion per year. The availability of this detailed information reflects the decades of co-operation between the industries that supply the data, and the government agencies that compile the databases. Importantly, it also describes a plantation forest resource that has the potential to increase the available volume of wood harvested from 25 million cubic metres to 35 million cubic metres per year by 2023. This provides a platform for economic growth in the forest industries, and for New Zealand. What is built upon that platform will depend upon decisions and actions taken over the next few years. A course of actions has been outlined in the *New Zealand Forest and Wood Products Industry Strategic Action Plan*. I look forward to working with the forest industries to ensure this potential for economic growth becomes reality, with future editions of *Facts & Figures* reporting the achievements.

A handwritten signature in dark ink, reading "Nathan Guy". The signature is fluid and cursive, with a long horizontal stroke at the end.

Hon Nathan Guy
Associate Minister for Primary Industries
(with responsibility for forestry)

NEW ZEALAND PLANTED FORESTRY IN SUMMARY

Area and standing volume statistics	1 April '09	1 April '10	1 April '11
Net stocked forest area (ha)			
Total estimated area	1,751,000	1,738,000	1,719,400
Growth characteristics			
Standing volume (000 m ³)	456,874	467,063	479,709
Average standing volume (m ³ /ha)	261	269	279
Area-weighted average age (years)	15.6	15.9	16.3
Area by species (ha)			
Radiata pine	1,568,000	1,556,000	1,545,000
Douglas-fir	109,000	110,000	107,000
Cypress species	9,000	10,000	10,000
Other exotic softwoods	26,000	25,000	24,000
Eucalyptus species	25,000	24,000	22,000
Other exotic hardwoods	13,000	13,000	13,000
Planting statistics	Year ended 31 Dec '08	Year ended 31 Dec '09	Year ended 31 Dec '10
New planting (ha)			
Total estimated new planting	1,900	4,300	6,000
Restocking	31,300	32,500	35,200
Harvested area awaiting restocking	46,400	55,300	54,300
Harvesting statistics	Year ended 31 Mar '09	Year ended 31 Mar '10	Year ended 31 Mar '11
Harvesting (ha)			
Area clear felled (ha)	41,800	43,500	43,300
Volume clear felled (TRVIB ¹ , 000 m ³)	19,192	20,588	21,725
Volume production thinned (TRVIB ¹ , 000 m ³)	190	146	201
Total volume removed (TRVIB ¹ , 000 m ³)	19,382	20,734	21,926
Average clear fell yield (m ³ /ha)	459	473	505
Area-weighted average clear fell age for radiata pine (years)	28.3	28.4	28.6
Estimated planted forest roundwood removal (000m ³) ²	18,847	21,944 ³	25,033

Notes:

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

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

³ Revised

Source: NEFD 2010, NEFD 2011

NEW ZEALAND ECONOMIC INDICATORS

As at 31 March 2011

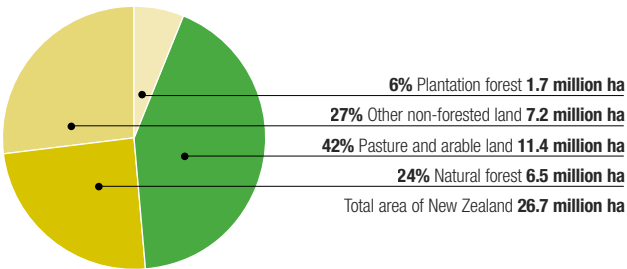
	31 Mar '11
Population	4,381,000
GDP \$ Billion	135.0
GDP per capita \$	30,824
Exports \$ Billion	42.9
Forest products exports total \$ billion	4.7
Total overseas debt \$ billion	133.6
Annual percentage change GDP	1.2%
Inflation (as measured by annual percentage change in CPI)	4.5%
Forestry sector contribution to GDP	3.0%

Source: Statistics NZ and FOA as at 31 March 11

GDP in 1995/96 prices

NEW ZEALAND LAND USE

As at 31 March 2010



Source: MPI and Statistics New Zealand

(Planted forest excludes harvest area awaiting replanting)

NEW ZEALAND HAS 1.7 MILLION HECTARES OF EXOTIC, HIGHLY PRODUCTIVE, SUSTAINABLY MANAGED PLANTATION FORESTS

EMPLOYMENT IN FORESTRY AND PROCESSING ACTIVITIES

Description of activity	Employee count ¹ as at mid-February					
	2005	2006	2007	2008	2009	2010
Forestry	960	840	690 ^r	750	600 ^r	650
Logging	3,780	3,440 ^r	3,610 ^r	3,590 ^r	3,330 ^r	3,610
Services to forestry	3,120	2,840	2,360 ^r	2,480 ^r	2,240 ^r	2,240
Forestry and logging	7,860	7,120^r	6,660^r	6,820^r	6,170^r	6,500
Log sawmilling	7,550	7,210 ^r	6,970 ^r	6,370 ^r	5,500 ^r	5,400
Wood chipping	9	12	9	12 ^r	9	15
Timber resawing and dressing	2,180	2,010 ^r	2,220 ^r	2,090 ^r	1,710 ^r	1,730
Plywood and veneer manufacturing	2,020	1,700	1,760 ^r	1,580 ^r	1,340 ^r	1,270
Fabricated wood manufacture	1,280	1,180	1,130	1,000 ^r	910	830
Pulp, paper & paperboard manufacturing	2,690	2,360 ^r	2,090	2,050	1,880 ^r	1,870
Total forestry and first stage processing	23,589	21 592^r	20,839^r	19,922^r	17,519^r	17,615

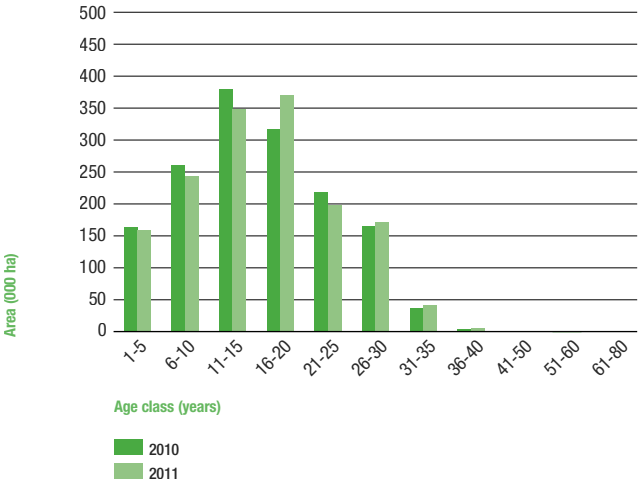
Source: Statistics NZ

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 (i.e. number of persons working 30 hours or more per week plus half the number of persons working part-time), and so the data is not strictly comparable with previous releases in this series.

^r Revised

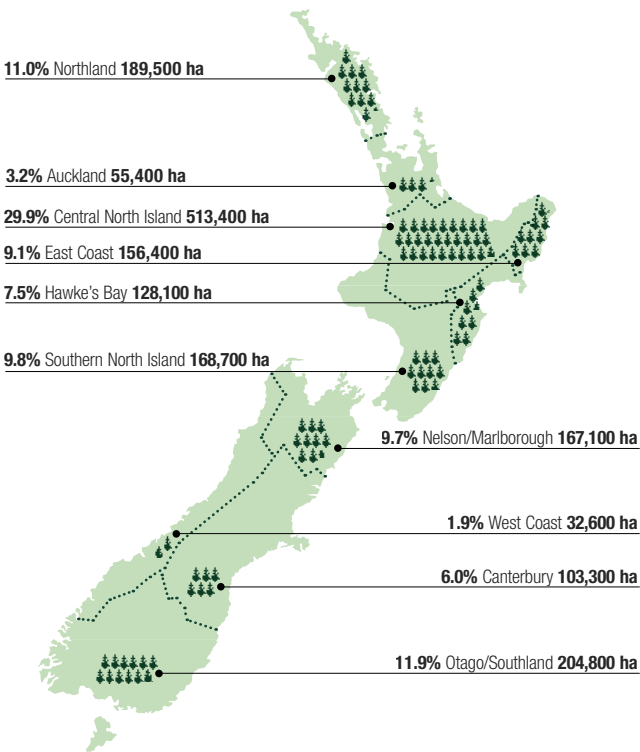
NET STOCKED AREA OF RADIATA PINE

By age class at 1 April 2011



Source: NEFD 2011

WHERE THE PLANTATION FORESTS ARE

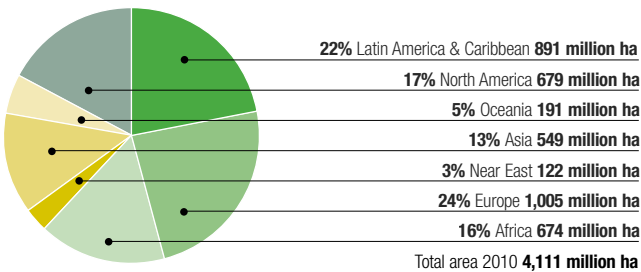


Each complete tree represents 1%

Total 1,719,000 hectares

Source: NEFD 2011

GLOBAL FOREST AREAS BY MAIN REGIONS (2010)



Source: State of the World's Forests 2011

THE WORLD'S TOTAL FOREST AREA IN 2010 WAS JUST OVER 4 BILLION HECTARES, CORRESPONDING TO 31 PERCENT OF THE TOTAL LAND AREA OR AN AVERAGE OF 0.6 HA PER CAPITA. THE FIVE MOST FOREST-RICH COUNTRIES ARE THE RUSSIAN FEDERATION, BRAZIL, CANADA, THE UNITED STATES AND CHINA. TOGETHER THEY ACCOUNT FOR MORE THAN HALF OF THE TOTAL FOREST AREA

THE NET CHANGE IN FOREST AREA IN THE PERIOD 2000-2010 IS ESTIMATED AT -5.2 MILLION HA PER YEAR, WITH MOST OF THE LOSS TAKING PLACE IN TROPICAL FORESTS. AREAS WHICH GAINED FOREST AREA WERE LARGELY IN THE TEMPERATE AND BOREAL ZONES, AND IN SOME EMERGING ECONOMIES

NEW ZEALAND PLANTED FOREST OWNERSHIP/MANAGEMENT

Forest Owner/Manager	Net stocked forest area (000 ha)		
	As at 1 April 2009	As at 1 April 2010	As at 1 April 2012
Hancock Natural Resource Group	262	257	235
Kaingaroa Timberlands	174	175	175
Matariki Forests	131	128	124
Ernslaw One	94	95	109
Global Forest Partners LP	97	96	91
P F Olsen			66
Juken New Zealand	55	55	60
Crown Forestry (MPI)	63	61	47
Pan Pac Forest Products	35	35	34
Hikurangi Forest Farms	26	25	25
Wenita ¹	25	25	25
Roger Dickie NZ	24	24	24
Blakely Pacific	23	22	23
GMO Renewable Resources ¹	27	24	21
Forest Enterprises	21	21	21
City Forests	16	16	16
Lake Taupo Forest Trust	13	13	15
Others (under 10,000 ha)	675	666	608
Total Plantation Forest Area	1,761	1,738	1,719

¹ GMO Renewable Resources has a 38% share in Wenita.

Source: FOA

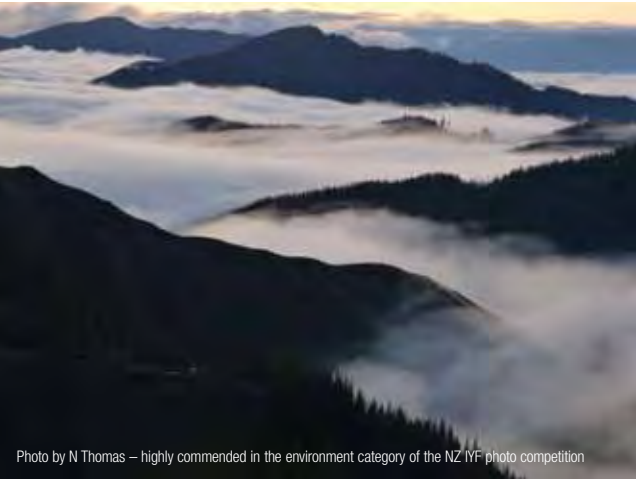


Photo by N Thomas – highly commended in the environment category of the NZ IYF photo competition

NEW ZEALAND PLANTATION FOREST OWNERSHIP – UNDERLYING LAND STATUS

As at 1 April 2012

Productive area (ha)	Underlying land status				
	Freehold	Leasehold			Total
		Crown	Māori Inc.	Other	
Hancock Natural Resource Group	106	26	68	51	251
Kaingaroa Timberlands	1	4	177	-	182
Matariki Forests	56	36	32	6	130
Ermslaw One	54	49		7	110
Global Forest Partners LP	28	61		2	91
PF Olsen	49		2	15	66
Juken New Zealand	9	44	5	2	60
Crown Forestry (MPI) ^{1, 2}		4	43		47
Pan Pac Forest Products	4	30			34
Hikurangi Forest Farms	27		3		30
Wenita	6			24	30
Roger Dickie NZ	24				24
Blakely Pacific	22			1	23
GMO Renewable Resources	14	4	2	1	21
Forest Enterprises	21				21
City Forests	15			1	16
Lake Taupo Forest Trust	15				15
Totals	451	258	332	110	1,151

¹ Crown land includes land leased under Crown Forest License

² Crown land includes unlicenced Crown forest land as well as Crown-owned Freehold land purchased by Timberlands West Coast in the 1990s and transferred to the Crown in Jan 2009.

Source: FOA



Photo by P Taylor – second in the products category of the NZ IVF photo competition

NEW ZEALAND PLANTATION FOREST MANAGEMENT

As at 1 April 2012

Firm/entity	Forest management productive area (ha)	
	TIMO	Property Mgmt
Hancock Forest Management (NZ) Ltd	251	209
Timberlands Limited		185
Rayonier NZ Ltd		131
P F Olsen Ltd	3	129
Ermslaw One		109
Juken New Zealand		60
Pan Pac Forest Products		35
Global Forest Partners LP	63	28
Wenita		24
Blakely Pacific		23
NZ Forest Managers		22
City Forests		16
Forest Enterprises	21	
GMO Renewable Resources	21	
Totals	359	971

This table is designed to identify who **manages** New Zealand forests.

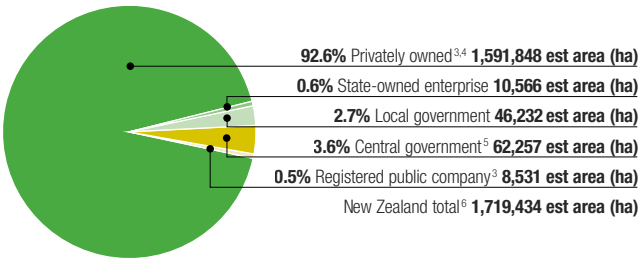
Within “management” there are 2 main categories:

1. **Timberland Investment Management** (commonly referred to as a TIMO).
 These organisations do not own any forest. The forests are owned by retail investors or institutional funds.
2. **Property Management** – planning and managing field operations, mapping and maintaining records.
 Some entities carry out both functions within the same organisation, others carry out both for some parts of a forest estate and not others.

Source: FOA

PLANTATION FOREST OWNERSHIP¹

Net stocked planted production forest area as at 1 April 2011



Source: NEFD 2011

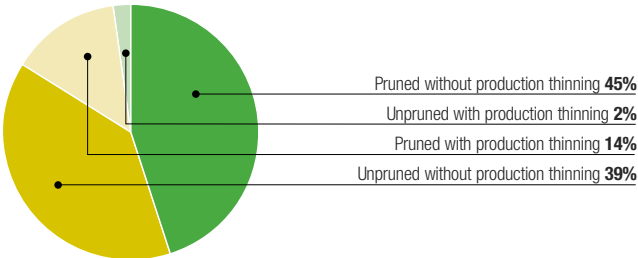
Note:

- ¹ Ownership is based solely on the ownership of the forest irrespective of the ownership of the land.
- ² Net stocked planted production forest area.
- ³ 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.
- ⁴ "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.
- ⁵ "Central Government" forests are predominantly Crown owned forests on Maori leasehold land. These forests are managed by the Ministry for Primary Industries (MPI).
- ⁶ Individual entries may not sum to total shown due to rounding.

FOREST MANAGEMENT TRENDS – RADIATA PINE

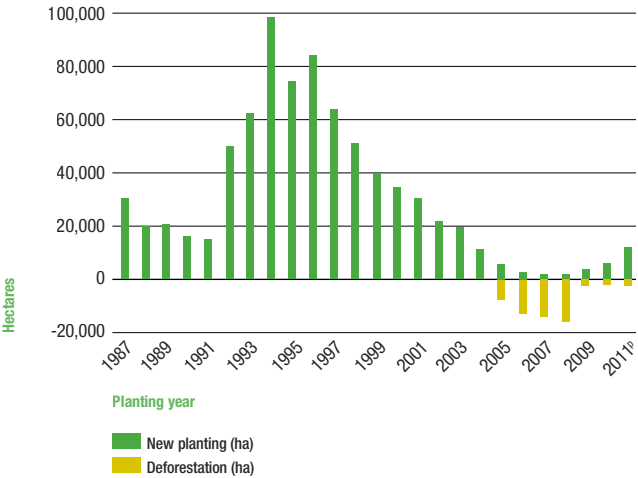
	2006	2007	2008	2009	2010	2011
Pruned without production thinning	48%	47%	45%	46%	46%	45%
Unpruned without production thinning	36%	37%	39%	38%	38%	39%
Pruned with production thinning	14%	14%	14%	14%	14%	14%
Unpruned with production thinning	2%	2%	2%	2%	2%	2%

FOREST MANAGEMENT TRENDS – RADIATA PINE (2011)



Source: NEFD 2011

NEW FOREST PLANTING (1987) AND DEFORESTATION (SINCE 2005)



Source: NEFD 2011

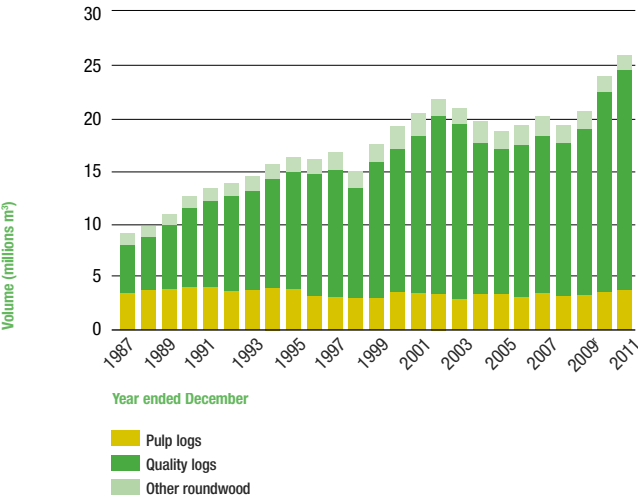
Note:

These estimates do not include immature forest cleared for other land uses.

2011 Deforestation figure: www.maf.govt.nz/news-resources/statistics-forecasting/statistical-publications/national-exotic-forest-description

^p Provisional

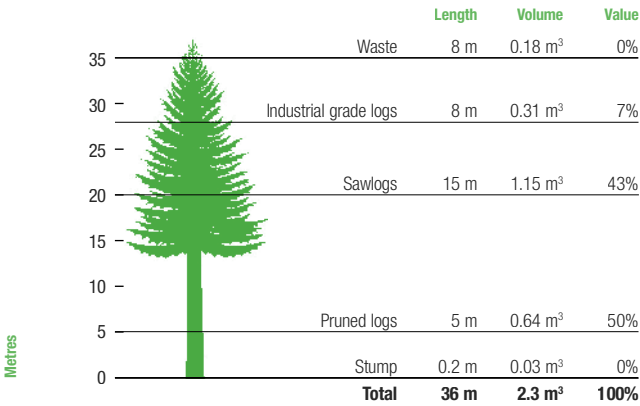
PLANTATION FOREST HARVEST



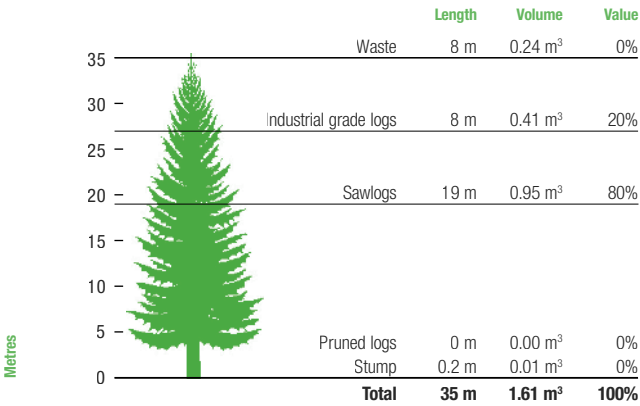
^r Revised

Source: MPI

TYPICAL LOG OUT-TURN



Direct Sawlog Regime
Pruned and thinned to waste. Final Crop Stocking 228 spha.



Structural Regime
No pruning. Thinned to waste. Final Crop Stocking 487 spha.

Average site (Site Index 29 m, 300 Index 23 m³/ha/yr). Clearfelled at 28 years.
Approximately 45% of the pine estate is managed under a regime with pruning and thinning to waste.
Approximately 39% of the pine estate is managed under a regime with no pruning and thinning to waste.

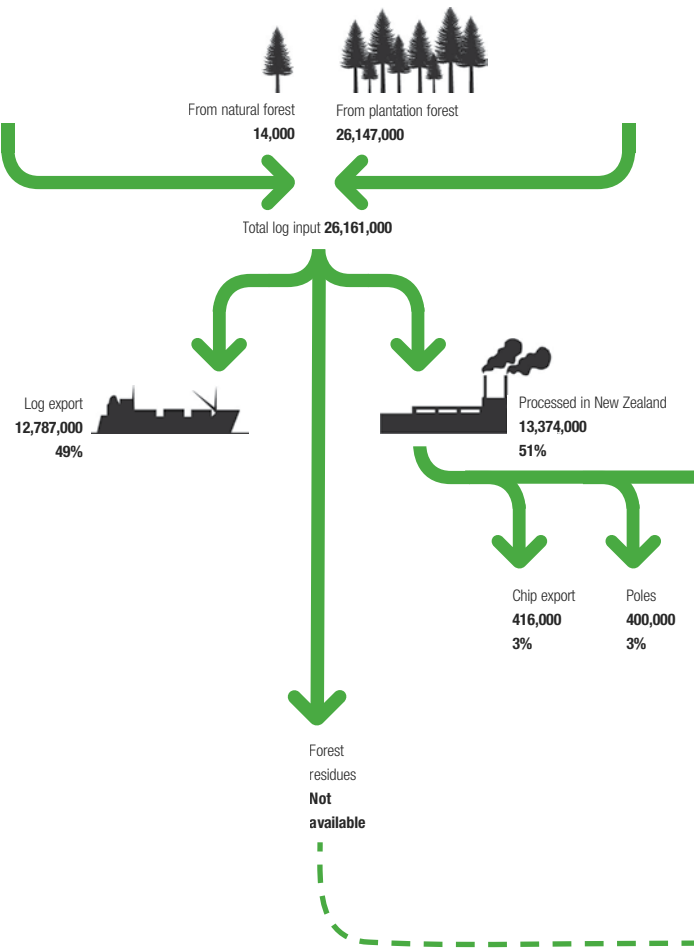
Source: Scion



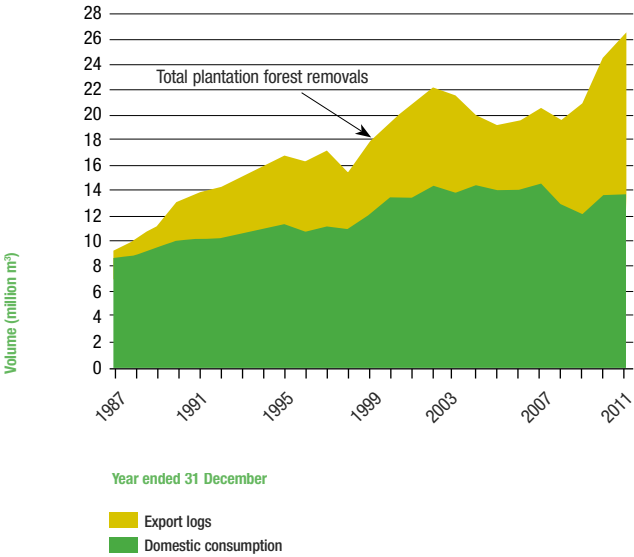
LOG FLOW IN THE NEW ZEALAND FORESTRY INDUSTRY

Volumes in m³ roundwood equivalent. Year ended 31 December 2011

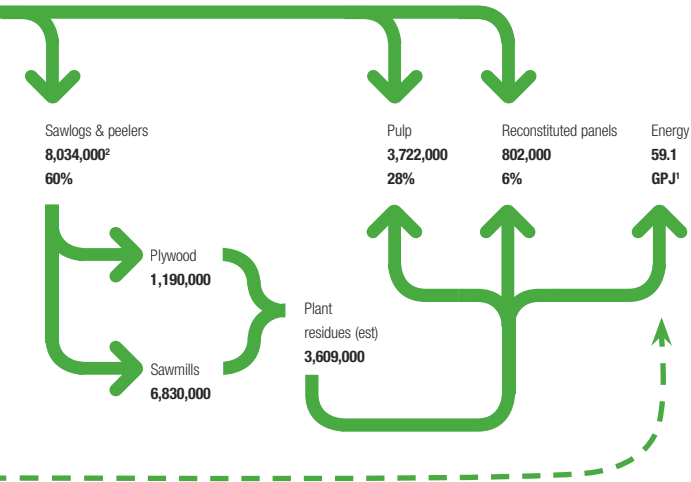
Source: MPI and FOA



WHERE THE LOG HARVEST GOES



Source: MPI



GPJ: Gross Petajoules

¹ Source: NZ Energy Datafile 2010, Woody Biomass

² Includes natural forest

LOCATION OF MAJOR WOOD PROCESSORS BY WOOD SUPPLY REGION 2011

- Fibreboard
- Particleboard
- Paperboard
- Pulp & Paper
- Plywood
- Veneer/LVL
- Sawmill
- Manufacturers – Solid Wood

Source: FIEA



Northland:

- A** Juken New Zealand Ltd Triboard Mill (Kaitiaki)
- B** Juken New Zealand Ltd Northland Mill (Kaitiaki)
- C** Carter Holt Harvey Woodproducts, LVL (Marsden Point)

Auckland:

- D** Thames Timber Ltd (Thames) 50,000-99,999 m³
- z** SFCF (Thames)
- E** Carter Holt Harvey Woodproducts, Kopine (Kopu)
- j** Jenkin Timber (Auckland)
- k** Goodwood Industries (Auckland)
- t** McIntosh Timber Laminates Ltd (Auckland)



Central North Island:

- **F** Claymark Sawmills Ltd (Katikati) **50,000-99,999 m³ sawn**
- **G** Carter Holt Harvey Woodproducts, Plywood (Tokoroa)
- **H** Carter Holt Harvey Kinleith (Tokoroa)
- **m** Morre Levesque Morris (Cambridge)
- **n** Pukepine Sawmills (Te Puke)
- **I** Claymark Rotorua Sawmill Ltd (Rotorua) **50,000-99,999 m³**
- **J** Tachikawa Forest Products (NZ) Ltd (Rotorua) **> 100,000 m³**
- **o** Lockwood Group (Rotorua)
- **p** Hume Pine (Rotorua)
- **q** Verda (Rotorua)
- **r** Otorohanga Timber Company (Otorohanga)
- **K** Red Stag Timber (Waipa) **> 100,000 m³**
- **L** Carter Holt Harvey Woodproducts, Kawerau Sawmill (Kawerau) **> 100,000 m³**
- **M** Sequel Lumber (Kawerau) **50,000-99,999 m³**
- **N** SCA Hygiene Australasia (Kawerau)
- **O** Carter Holt Harvey Tasman Ltd (Kawerau)
- **P** Norske Skog Tasman Ltd (Kawerau)
- **Q** Carter Holt Harvey Pulp & Paper (Whakatane)
- **R** Laminex Group (Taupo)
- **S** Tenon Ltd (Taupo) **> 100,000 m³**
- **T** Winstone Pulp International (Ohakune) **50,000-99,999 m³**

Hawke's Bay:

- **U** Pan Pac Forest Products Ltd (Napier) **> 100,000 m³**
- **s** Kanuka Engineered Wood Products Ltd

Southern North Island:

- **V** Taranakipine Ltd (New Plymouth) **50,000-99,999 m³**
- **W** Juken New Zealand (Masterton)

Nelson/Marlborough:

- **X** Waimea Sawmillers Ltd (Nelson) **50,000-99,999 m³**
- **Y** Nelson Pine Industries Ltd (Richmond)
- **Z** Southpine (Nelson) Ltd (Nelson) **50,000-99,999 m³**
- **u** Flight Timbers (Blenheim)
- **a** Carter Holt Harvey Woodproducts, Nelson Sawmill (Eves Valley) **> 100,000 m³**
- **a1** Hunter Laminates Nelson Ltd (Nelson)
- **a2** Nelson Forests Ltd (Renwick)

Canterbury:

- **b** Daiken (Rangiora)
- **c** SRS New Zealand Ltd (Rolleston) **50,000-99,999 m³**
- **d** Starwood Products Ltd (Timaru)
- **v** Southern Pine Products (Christchurch)

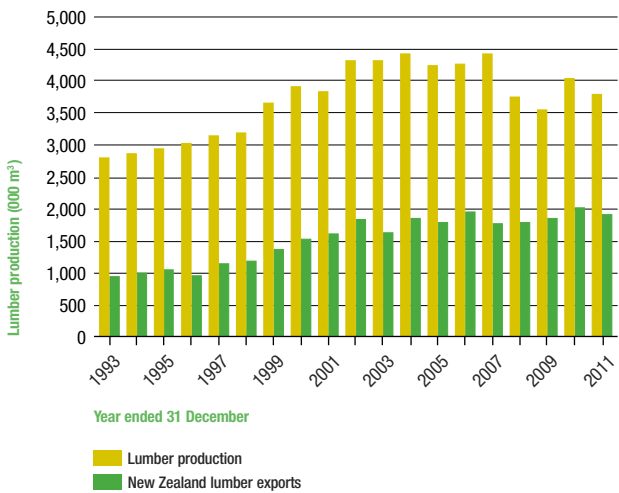
West Coast:

- **e** International Panel and Lumber Ltd (Greymouth)
- **z** Stillwater Lumber Limited (Greymouth)
- **w** Westco Lagan Limited (Hokitika)

Otago/Southland:

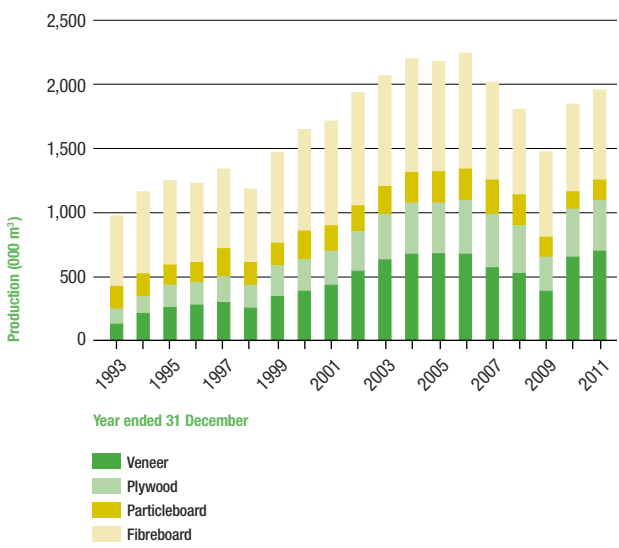
- **f** Dongwha Patinna NZ Ltd (Mataura)
- **g** Southland Veneers (Invercargill)
- **h** Niagara Sawmilling Co. Ltd (Invercargill) **50,000-99,999 m³**
- **x** SCFP (Mosgiel)
- **I** SCFP (Milton)
- **y** Niagara/PT (Invercargill/Ashburton)
- **i** Craigpine Timber Ltd (Winton) **> 100,000 m³**

LUMBER PRODUCTION AND EXPORTS



Source: MPI

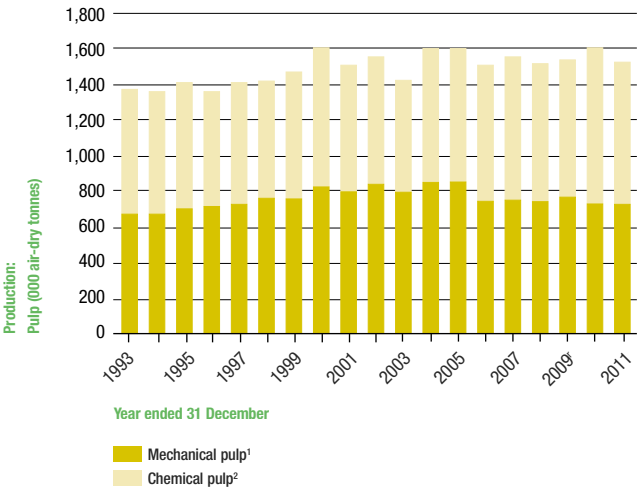
PANEL PRODUCTS PRODUCTION



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

Source: MPI

WOOD PULP PRODUCTION

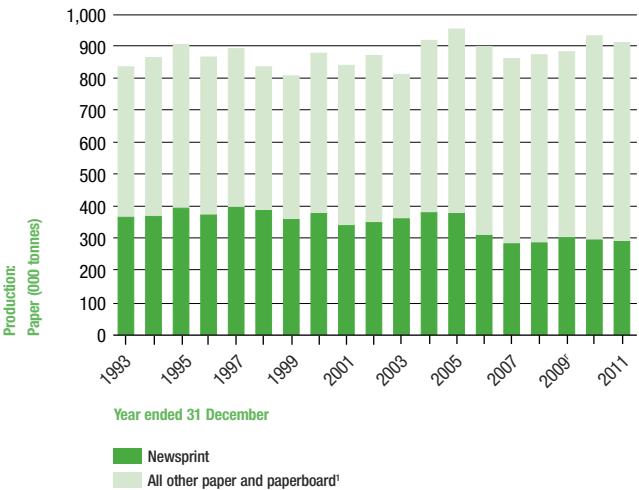


^r Revised

1. Mechanical Pulp is those export items in HS item grouping 4701. Values are in NZ\$ free on board (f.o.b)
2. Chemical Pulp is those export items in HS groupings 4702, 4703, 4704 and 4705. Values are NZ\$ free on board (f.o.b)

Source: MPI

PAPER AND PAPERBOARD PRODUCTION



^r Revised

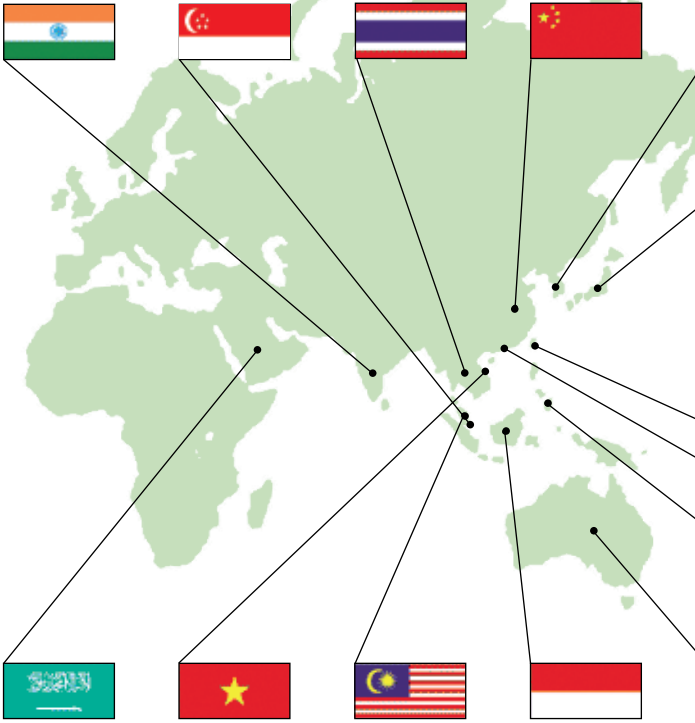
- ¹ All other paper and paperboard includes printing and writing paper, other paper and paperboard.

Source: MPI

TOP EXPORT DESTINATIONS

Exports of forestry products by main countries of destination for the year ended December 2011 by value (

India		Singapore		Thailand		China, People's Republic of	
NZ\$286,327		NZ\$33,079		NZ\$78,948		NZ\$1,428,678	
Logs & poles	69.8%	Logs & poles	0.1%	Logs & poles	4.7%	Logs & poles	72.0%
Sawn timber	2.4%	Sawn timber	14.3%	Sawn timber	40.6%	Sawn timber	8.7%
Wood pulp	0.8%	Wood pulp	33.6%	Wood pulp	29.5%	Wood pulp	12.9%
Paper & paperboard	22.2%	Paper & paperboard	45.1%	Paper & paperboard	11.6%	Paper & paperboard	3.2%
Panel products	1.3%	Panel products	1.8%	Panel products	1.6%	Panel products	1.9%
All other	3.6%	All other	5.2%	All other	11.9%	All other	1.4%



Saudi Arabia		Vietnam		Malaysia		Indonesia	
NZ\$17,620		NZ\$77,284		NZ\$82,455		NZ\$143,828	
Logs & poles	—	Logs & poles	3.2%	Logs & poles	0.0%	Logs & poles	0.2%
Sawn timber	60.0%	Sawn timber	63.7%	Sawn timber	12.5%	Sawn timber	17.3%
Wood pulp	—	Wood pulp	1.4%	Wood pulp	26.9%	Wood pulp	47.0%
Paper & paperboard	—	Paper & paperboard	2.9%	Paper & paperboard	43.7%	Paper & paperboard	3.6%
Panel products	15.5%	Panel products	26.6%	Panel products	14.1%	Panel products	15.2%
All other	24.5%	All other	2.0%	All other	2.7%	All other	16.6%

Note:
Values are NZ\$ f.o.b. and may include items (e.g. some plywood items) for which no quantities are given.
All other forestry products include chips, mouldings, manufactures of paper and paperboard, furniture and miscellaneous forestry
Other countries are all other countries to which New Zealand has exported forestry products during the year.

Source: Statistics New Zealand and FOA

NZ\$000)

Korea, Republic of \$NZ474,970		Japan \$NZ562,631		USA \$NZ188,469		Other countries \$NZ189,734	
Logs & poles	66.3%	Logs & poles	16.0%	Logs & poles	—	Logs & poles	66.3%
Sawn timber	7.9%	Sawn timber	6.8%	Sawn timber	67.9%	Sawn timber	37.4%
Wood pulp	18.8%	Wood pulp	17.4%	Wood pulp	0.0%	Wood pulp	18.8%
Paper & paperboard	3.9%	Paper & paperboard	0.0%	Paper & paperboard	4.8%	Paper & paperboard	19.6%
Panel products	2.6%	Panel products	41.9%	Panel products	8.5%	Panel products	5.5%
All other	0.5%	All other	18.0%	All other	18.8%	All other	29.2%



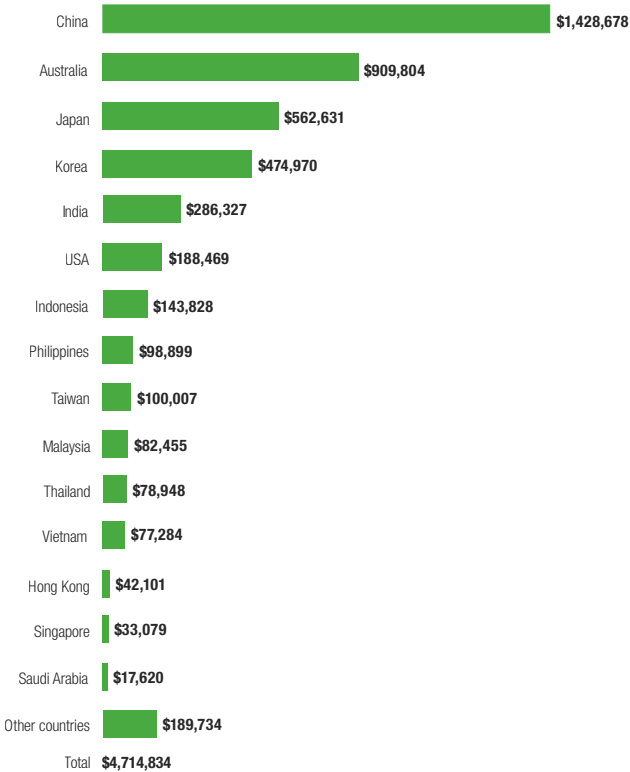
Australia \$NZ909,804		Philippines \$NZ98,899		Hong Kong (SAR) \$NZ42,101		Taiwan \$NZ100,007	
Logs & poles	0.0%	Logs & poles	—	Logs & poles	—	Logs & poles	12.7%
Sawn timber	18.2%	Sawn timber	15.7%	Sawn timber	0.8%	Sawn timber	31.9%
Wood pulp	7.8%	Wood pulp	5.2%	Wood pulp	—	Wood pulp	23.3%
Paper & paperboard	29.8%	Paper & paperboard	38.9%	Paper & paperboard	94.3%	Paper & paperboard	24.2%
Panel products	8.1%	Panel products	36.1%	Panel products	1.0%	Panel products	7.5%
All other	36.1%	All other	4.2%	All other	4.0%	All other	0.4%

products.

EXPORTS OF FORESTRY PRODUCTS FROM NEW ZEALAND

For the year ended 31 December 2011^P by value

Top export destinations

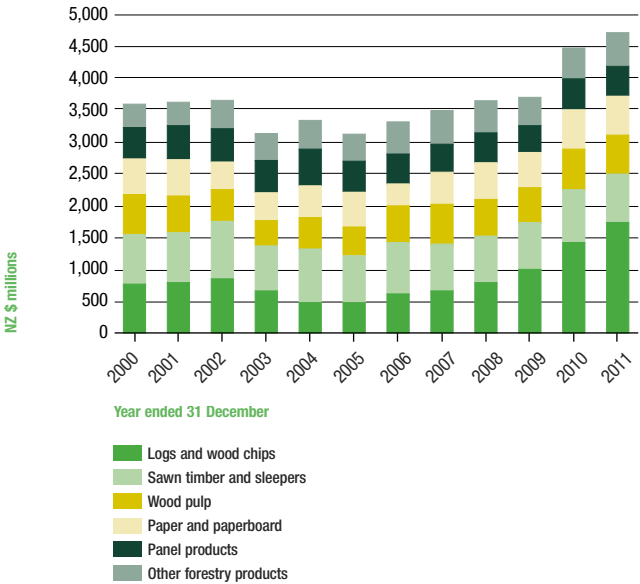


^P Provisional

Source: Statistics New Zealand and FOA

TOTAL EXPORT EARNINGS FOR THE INDUSTRY FOR THE YEAR ENDED DECEMBER 2011 WERE \$4.7 BILLION, 10% OF ALL MERCHANDISE EXPORTS ABOUT 70% OF FOREST PRODUCTION WAS EXPORTED, EITHER AS LOGS OR PROCESSED PRODUCTS. EXPORT LOGS ACCOUNTED FOR 39% OF THE VALUE OF EXPORTS AND 49% OF THE TOTAL HARVEST VOLUME

MAJOR EXPORT EARNERS



Note:

Values are NZ\$ free on board (f.o.b.) and may include items, e.g. some plywood 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.

Manufactures of paper and paperboard revised for 2007; accordingly total value is also revised.

Miscellaneous forestry products includes wood manufactures, cork and cork manufactures, waste paper and prefabricated wooden buildings.

Source: Statistics New Zealand and FOA



PRODUCTION AND EXPORTS OF SELECTED FORESTRY PRODUCTS

Year ended 31 December 2011

Forestry Product	2008					
	Total pro- duction	Quantity ex- ported ³	% Exported	Export value (\$NZm f.o.b.)	Total pro- duction	Quantity ex- ported ³
Logs (000m ³)	19,399	6,684	34.46%	711	20,749	8,821
Wood Chips (000BDU)	..	375,406	..	84	..	210,366
Sawn Timber (000m ³)	3,747	1,794	47.87%	721	3,554	1,859
Chemical pulp (tonnes)	766,640	571,321	74.52%	491	767,822	631,414
Mechanical pulp (tonnes)	742,681	219,863	29.60%	89	767,386	251,375
Newsprint (tonnes)	288,047	188,053	65.29%	202	305,639	181,865
Other paper & paperboard (tonnes)	584,698	385,126	65.87%	384	575,761	353,127
Fibreboard (m ³)	668,517	530,498	79.35%	238	652,096	513,754
Plywood ¹ (m ³)	388,540	87,279	22.46%	111	255,490	55,839
Veneer (m ³)	518,942	138,464	26.68%	45	404,604	122,420
Particleboard (m ³)	226,490	125,836	55.56%	57	155,313	84,156
Cont Shaped Wood	..	..	..	99	..	..
Manufactures	..	..	..	227	..	..
Wooden Furniture	..	..	..	41	..	..
Miscellaneous and other wood products	..	..	..	137	..	..
All forestry products	..	..	..	3,636	..	..
Total New Zealand exports	..	..	..	41,168	..	..
Forest exports as a % of total exports	..	..	..	8.8%	..	..

Note:

Exports excludes re-exports.

¹ Plywood includes laminated veneer lumber.

[†] Revised

.. Not available

Source: MPI, Statistics New Zealand and FOA

2009 ^r		2010 ^r				2011			
% Exported	Export value (\$NZm f.o.b.)	Total pro- duction	Quantity ex- ported ³	% Exported	Export value (\$NZm f.o.b.)	Total pro- duction	Quantity ex- ported ³	% Exported	Export value (\$NZm f.o.b.)
42.51%	952	24,331	10,886	44.74%	1,352	26,203	12,802	46.86%	1,655
..	46	..	351,587	..	75	..	421,457	..	86
52.30%	727	4,032	2,024	50.20%	842	3,780	1,908	50.47%	751
82.23%	457	873,281	585,825	67.08%	534	796,316	615,605	77.31%	517
32.76%	113	730,795	194,980	26.68%	93	726,261	201,771	27.78%	95
59.50%	202	297,822	..	..	235	293,068	..	..	213
61.33%	343	631,588	393,168	62.25%	392	615,881	392,910	63.80%	402
78.79%	226	665,787	509,935	76.59%	219	706,160	599,679	84.92%	241
21.86%	102	359,941	85,047	23.63%	128	386,632	96,381	24.93%	139
30.26%	40	663,433	174,486	26.30%	60	707,892	170,580	24.10%	59
54.18%	52	142,045	63,324	44.58%	43	155,260	68,632	44.20%	42
..	101	..	..	..	127	..	..	..	114
..	224	..	..	..	233	..	..	..	255
..	37	..	..	..	32	..	..	..	27
..	85	..	..	..	117	..	..	..	118
..	3,7505	..	..	..	4,482	..	..	..	4,715
..	37,777	..	..	..	41,773	..	..	..	45,921
..	9.8%	..	..	..	10.7%	..	..	..	10.3%



VALUE OF EXPORTS BY PRODUCT AND DESTINATION

Year ended 31 December 2011

Country of destination	Logs & poles value (\$NZ000)	Lumber value (\$NZ000)
China, People's Republic of	1,027,961	123,604
Australia	9	165,623
Japan	90,041	37,975
Korea, Republic of	314,767	37,741
India	199,709	6,857
United States of America	–	128,000
Indonesia	270	24,953
Philippines	–	15,511
Taiwan	12,631	31,882
Malaysia	7	10,272
Thailand	3,832	32,043
Vietnam	2,489	49,261
Hong Kong (SAR)	–	318
Singapore	13	4,733
Saudi Arabia	–	10,584
New Caledonia	261	9,092
Other countries	3,171	62,524
Total	1,655,161	750,973

Note:

Values are NZ\$ f.o.b. and may include items, e.g. some plywood items, for which no quantities are given.

All other forestry products include chips, mouldings, manufactures of paper and paperboard, furniture and miscellaneous forestry products.

Other countries are all other countries to which New Zealand has exported forestry products during the year.

Source: Statistics NZ and FOA

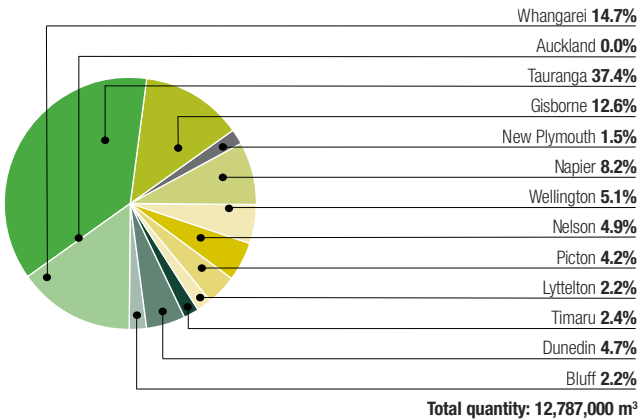
Wood pulp value (\$NZ000)	Paper & paperboard value (\$NZ000)	Panel products value (\$NZ000)	All other forestry products value (\$NZ000)	All forestry products value (\$NZ000)	% of Total
184,143	45,558	27,154	20,683	1,427,607	30%
71,655	270,740	73,955	327,941	815,876	17%
97,657	27	235,631	101,217	562,550	12%
90,394	18,595	–	2,204	476,174	10%
2,147	63,557	–	10,233	227,365	5%
13	9,072	15,959	35,425	188,470	4%
67,614	5,239	–	23,849	143,828	3%
5,115	38,422	35,718	4,135	98,900	2%
23,333	24,182	7,510	424	90,444	2%
22,216	36,060	11,656	2,244	81,258	2%
23,304	9,196	–	9,410	79,038	2%
1,077	2,280	–	1,587	77,284	2%
–	39,705	–	1,665	23,718	1%
11,099	14,901	–	1,729	20,644	0%
–	0	–	4,310	17,620	0%
–	2,235	1,989	2,788	16,365	0%
11,557	34,992	72,133	50,590	367,217	8%
611,324	614,761	481,705	600,434	4,714,358	100%

Photo by D Thyne – third in the products category of the NZ IYF photo competition



LOG EXPORTS BY PORT

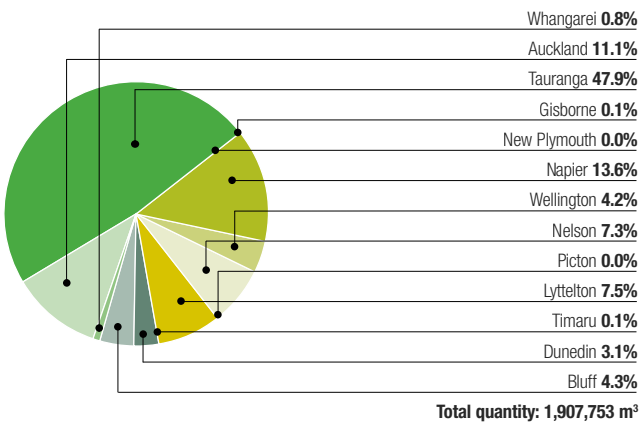
Year ended 31 December 2011^p



Source: Statistics New Zealand

SAWN TIMBER EXPORTS BY PORT

Year ended 31 December 2011^p



^p Provisional

Source: Statistics New Zealand

FSC CERTIFIED FOREST OWNER/ MANAGER – PLANTATION FOREST

Productive area as at May 2011

Company	Productive Area (ha)			
	2009	2010	2011	% of total 2011
Hancock Forest Management Ltd	222,153	206,921	222,720	22%
Timberlands Ltd	183,069	182,531	187,544	18%
Rayonier NZ	38,051	38,055	125,867	12%
Ermslaw One Ltd	94,186	94,186	102,107	10%
Nelson Forests Limited	63,040	63,040	65,253	6%
PF Olsen Ltd	63,145	62,629	63,110	6%
Juken New Zealand Ltd	60,451	62,331	61,703	6%
PanPac Forest Products Ltd	34,271	34,271	33,597	3%
NZ Forest Managers Ltd	34,052	34,073	33,509	3%
Crown Forestry, MPI (West Coast)	30,006	29,808	29,733	3%
Hikurangi Forest Farms Ltd	28,636	29,005	28,605	3%
Wenita Forest Products Ltd	25,101	25,070	25,460	2%
Blakely Pacific Ltd	23,287	22,206	22,385	2%
City Forests Ltd	16,044	15,997	15,997	2%
Southland Plantation Forest Company of NZ	10,544	10,130	9,900	1%
Craigpine	3,371	3,371	3,371	0.3%
Total FSC Plantation Productive Area	929,407	913,624	1,030,861	100%
% FSC Certified	52%	51%	58%	
NZ Productive Plantation Area (ha)	1,794,700	1,793,300	1,773,700	
Lindsay and Dixon (naturally regenerated)	11,719	11,719	11,719	
Total NZ FSC	941,126	925,343	1,042,580	

Note: Productive Area = Net Stocked Area + Area Awaiting Restocking.

Source: FSC/NZ FSC Certified Forest Owner/Manager Cluster Group

**THE GLOBAL FOREST AREA CERTIFIED
TO FSC PRINCIPLES AND CRITERIA IS
GROWING WORLDWIDE, ACCOMPANIED
BY STRONG GROWTH IN THE CERTIFIED
SUPPLY CHAIN**

156,246 MILLION HA CERTIFIED
23,565 COC CERTIFICATES
1,115 FM/COC CERTIFICATES

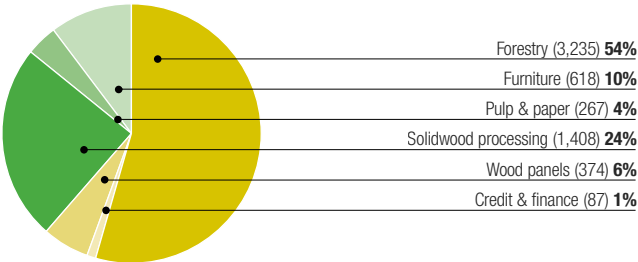
FM – Forest Management

CoC – Chain of Custody

FOREST INDUSTRIES TRAINING STATISTICS

TRAINEES AND APPRENTICES BY SECTOR

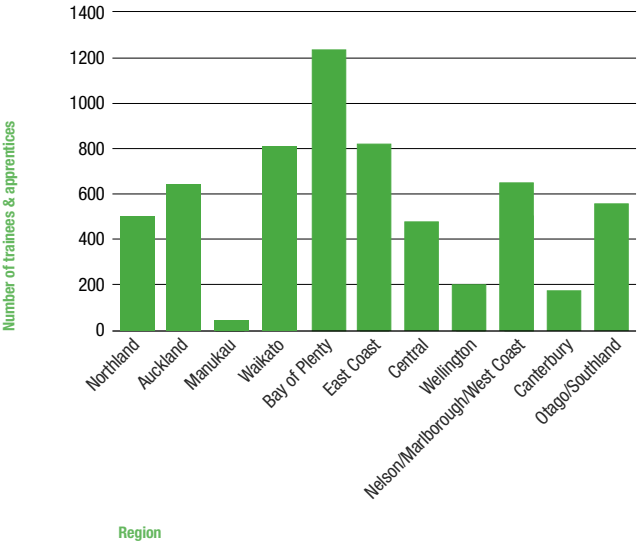
as at December 2011



Source: FITEC

TRAINEES AND APPRENTICES BY REGION

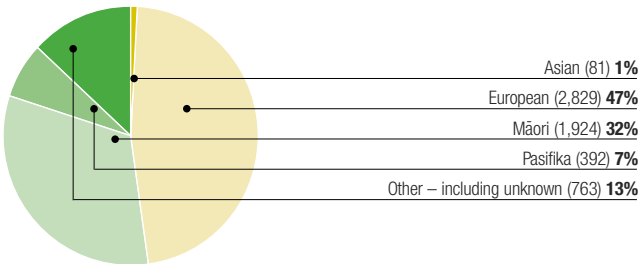
as at December 2011



Source: FITEC

TRAINEES AND APPRENTICES BY ETHNICITY

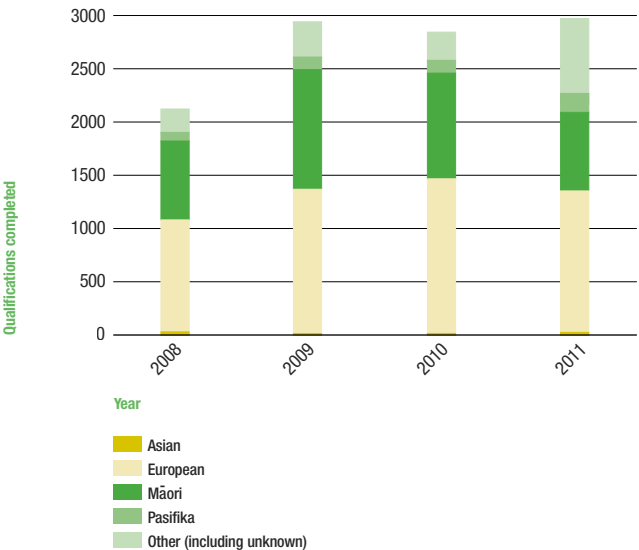
as at December 2011



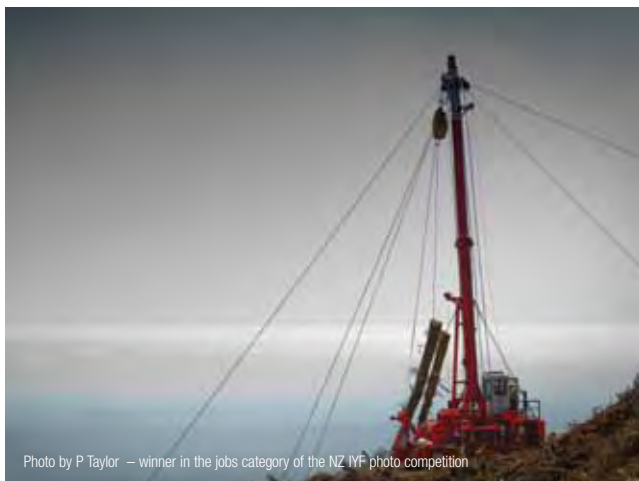
Source: FITEC

QUALIFICATIONS COMPLETED BY ETHNICITY

as at December 2011



Source: FITEC



SECTOR AGREEMENTS

Members of the New Zealand 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

www.nzfoa.org.nz

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.

www.nzfoa.org.nz

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, New Zealand Forest Owners Association, New Zealand Farm Forestry Association, New Zealand Pine Manufacturers Association, Royal Forest and Bird Protection Society, Sustainable Energy Forum, Wood Processors Association of New Zealand and WWF New Zealand.

www.nzfoa.org.nz

Log Transport Safety Accord

Log truck operators and forest owners on 7 August 2008 signed an updated Log Transport Safety Accord designed to further improve the safety of all road users. Since the Accord was first signed in 2001 there has been a 65% reduction in log truck crashes, and a 75% reduction in rollover crashes, during a time of rapid growth in the logging industry. The Accord has been updated with the aim of reducing the rollover crash rate even further.

www.nzfoa.org.nz

Principles for Commercial Plantation Forest Management in New Zealand

To promote understanding between the signatory parties with a view to New Zealand achieving environmental excellence in plantation forest management and participating as an effective advocate internationally for the sustainable management of plantation forests and the protection, preservation, and sustainable management of natural forests. These principles are complementary to the New Zealand Forest Accord (August 1991).

www.nzfoa.org.nz



NZ WOOD



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 better-than-carbon-neutral building material.

Wood is the only construction material which has absorbed CO₂ from the atmosphere when produced, not emitted more

During its production, one tonne of:

- concrete – has released 159 kilos of CO₂ into the atmosphere
- steel – has released 1.24 tonnes of CO₂ into the atmosphere
- aluminium – has released 9.3 tonnes of CO₂ into the atmosphere
- wood, however, has absorbed a net 1.7 tonnes of CO₂ from the atmosphere, over and above the energy expended in growing, harvesting and processing.

The more timber you use in a house, the more CO₂ you remove from the atmosphere

- It takes around 20 trees to build an average house frame
- A steel house frame has added 4.5 tonnes of CO₂ to the atmosphere
- A wooden house frame has absorbed 9.5 tonnes of CO₂ from the atmosphere
- Choosing timber options for an average house can take around 20 tonnes net of CO₂ out of the atmosphere (saving the equivalent of 150 trips Auckland to Wellington, or 7.1 years of car use)
- Using alternative materials (concrete, steel, brick and aluminium) can add 24 tonnes net CO₂ to the atmosphere (costing the equivalent of 180 trips Auckland to Wellington, or 8.6 years of car use)

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. Our most renewable raw material.

<http://www.nzwood.co.nz>



MAJOR NEW ZEALAND FORESTRY SPECIES

There are a range of New Zealand plantation-grown exotic and indigenous species to suit a variety of applications including structural, appearance, engineered wood products, furniture and joinery.

Radiata Pine

Radiata Pine has a number of structural uses including decking, fencing, exterior cladding, window sashes, pergolas, landscaping, shingles, barge boards and exterior trim. Untreated, it can be used for furniture, mouldings, trim and panelling. Panel products, such as plywood, MDF and laminated veneer lumber, are also available from radiata pine resources.

Douglas-fir

Douglas-fir can be used for roof trusses and framing, internal panelling, and glue-laminated beams. As well as being popular for light timber framing, the larger dimensional stock is sought after for exposed interior posts and beams because of its good stability and freedom from twist. Glue lamination to produce beams, arches and scaffold planks is also common.

Macrocarpa

Macrocarpa has a range of uses including ceiling sarking, exposed beams, flooring, wall panelling, framing, furniture, solid wood bench tops, architraves and skirtings. It can be used outside for weatherboard, soffit, fascia, pergolas, decking and outdoor furniture. It is not recommended in-ground for construction purposes (including in-ground posts for fencing, decking and pergolas).

Eucalypts

Eucalypts have a number of applications. The Blue Gum group is suitable for tongue and groove flooring, in-sequence parquet, overlay, joinery stairs, doors, furniture, panelling, decking, outdoor furniture, and sliced veneer. The Stringybark group is suitable for flooring, joinery, decking, cross arms (mainly *E. microcorys*), and sliced veneer. The Ash group is suitable for furniture, joinery, and sliced veneer.

Source: <http://www.nzwood.co.nz/species/>



NEW ZEALAND FOREST AND WOOD PRODUCTS STRATEGIC ACTION PLAN

The Strategic Action Plan provides a pathway to shape a strong forest and wood products sector for the future.

The New Zealand forest and wood products industry is based on wholly renewable resources, producing 100% of its products from plantation forests and recycled waste fibre; is New Zealand's largest biomaterial recycler and has a very low carbon footprint. In the future it will be substantially independent of non-renewable energy inputs apart from transport fuel (and even this could be sourced from New Zealand wood in the long run). The industry already provides greenhouse gas offsets, reducing New Zealand's overall carbon footprint.

Vision for the Plan

In the ten years to 2022 annual export earnings will more than double to \$12 billion from a New Zealand forest and wood products industry that is:

- Delivering innovative wood-based solutions from a sustainable resource to meet our customers' needs;
- manufacturing a range of high-value, fibre-based products, including new biochemical and biofuel value streams;
- recognised as a world-leader in timber-engineered building solutions;
- underpinned by forest growing as a valued and profitable land use;
- recognised as a key New Zealand growth industry, delivering strong economic and environmental benefits;
- connected and collaborative across the value chain, from end-product to seeding;
- characterised by industry players that have pride in each other, with the sector regarded as a preferred career option for our brightest talent.

Forest product export earnings for 2011 were \$4.7 billion. On the current path of development by 2022 export earnings will be \$6.1 billion. The Strategic Action Plan provides an alternative path targeting \$12 billion export earnings by 2022.

STRATEGIC ACTIONS BY THE INDUSTRY HAVE THE POTENTIAL TO INCREASE EXPORT EARNINGS BY \$5.9 BILLION

TERMS AND THINGS

Area and volume

- A hectare (ha) = 100 x 100 metres
(about the size of two rugby fields).
- A cubic metre (m³) = 1 metre x 1 metre x 1 metre
(about three times the size of a household dishwasher).
- An average radiata pine tree yields 2.4 m³ 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.
- A log truck and trailer contains approximately 30 tonnes of logs.
- A log ship contains approximately 30-35,000 tonnes of logs.

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.
- The value of wood being grown (added) each year in one hectare of forest is between \$500 and \$1,500.
- 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.



Photo by I Aleksandrov – winner in the products category of the NZ IYF photo competition

CARBON EMISSIONS AND SEQUESTRATION

The Carbon Cycle

Planting trees begins a cycle that continuously removes, releases and reabsorbs greenhouse gases such as carbon dioxide. As trees grow, they absorb carbon dioxide through the process of photosynthesis.

The carbon dioxide absorbed by the growing forest remains stored within the wood products used throughout the lifetime of the building structure or product.

At the end of a structure's or products lifetime, the carbon dioxide is released back into the atmosphere when the wood decays or is burnt as fuel.

Wood can be recycled to extend its lifetime and slow down the natural release of carbon dioxide back into the atmosphere. Once the carbon dioxide is released, it is available to be re-absorbed by growing trees.

When wood materials decay or are burnt as fuel they release carbon dioxide that was absorbed during the growth of the trees and are therefore carbon neutral.

New Zealand's Greenhouse Gas Inventory is the official annual report of all anthropogenic (human induced) emissions and removals of greenhouse gases in New Zealand. The inventory measures New Zealand's progress against obligations under the United Nations Framework Convention on Climate Change and the Kyoto Protocol.

Key points

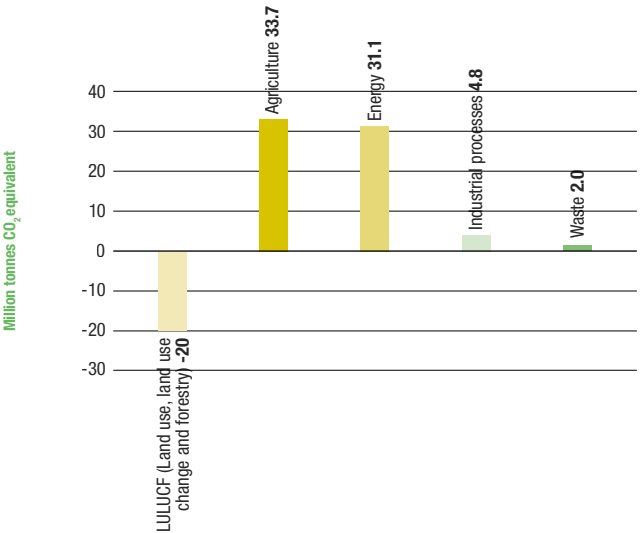
- In 2010, New Zealand's total greenhouse gas emissions were 71.7 million tonnes of carbon dioxide equivalent (Mt CO₂-e), which means total emissions are now 11.9 Mt CO₂-e (19.8%) higher than the 1990 level of 59.8 Mt CO₂-e.
- In 2010, net removals from afforestation, reforestation and deforestation under the Kyoto Protocol were 18.3 Mt CO₂-e.



Photo by M Forward - highly commended in the environment category of the NZ IYF photo competition

How much does each sector contribute to total emissions?

Agriculture was the largest sector of New Zealand's emissions in 2010, contributing 33.7 million tonnes carbon dioxide equivalent (Mt CO₂-e), 47.1% of total emissions. Energy was the second largest sector, contributing 31.1 Mt CO₂-e, 43.4% of total emissions.



Notes: Emissions from the solvent and other product use sector are not represented in this figure. Net removals from the LULUCF sector are as reported under the UN Climate Change Convention.

How much carbon is sequestered by New Zealand's forests?

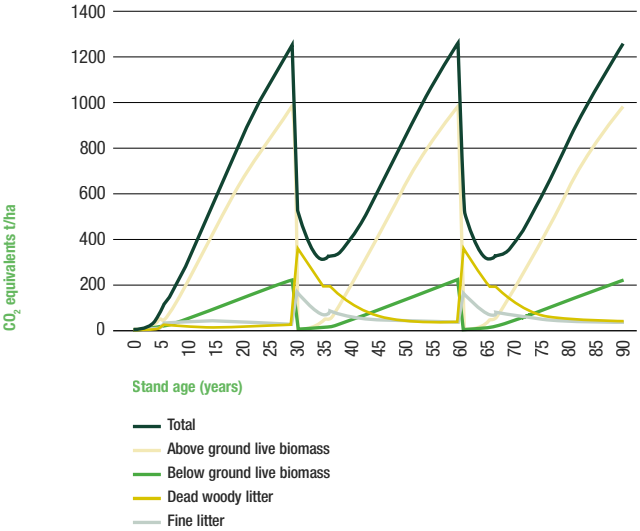
Net removals have fluctuated over the period 1990–2010 due to tree growth, harvesting and changes in the area of forestry. In 2010, under UNFCCC reporting New Zealand's net removals were 20.0 Mt CO₂.¹ This estimate is different to the 2010 estimate of 18.3 Mt CO₂ for net removals reported under the Kyoto Protocol. This is because under Article 3.3 of the Kyoto Protocol, New Zealand can only account for removals from forests established after 31 December 1989.

A key factor in the ability of a forest to remove CO₂ is the age of the forest. A newly planted forest is slow at removing CO₂, but once established the forest will enter a period of rapid growth during which it removes the most CO₂. Once a forest has reached maturity, the growth slows and the rate at which it removes CO₂ decreases. Consequently, planting and harvesting cycles have a large impact on New Zealand's net removals.

¹ Net removals under UNFCCC reporting also include emissions from non-forest land categories that are excluded from Kyoto Protocol accounting.

Source: MfE – Environmental Snapshot April 2012

CARBON YIELD: MULTIPLE ROTATIONS



Growth Modelling region: Waikato Taupo, Latitude 37.8, Altitude 495 m
300 Index 29.0 m³/ha/year, Site index 34.8 m

Source: MPI

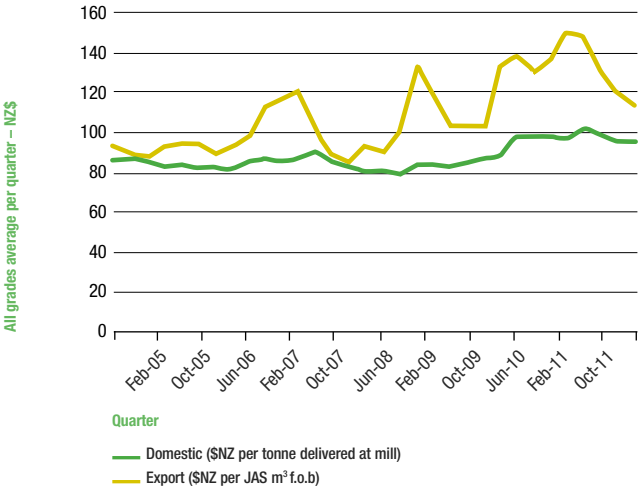
This is the classic sawtooth carbon sequestration graph for a plantation stand. It shows the sequestration and loss of carbon in the system over time. It records the gradual sequestration of carbon in the different layers (leaves, roots and litter) and the assumed release when the crop is harvested. Note the difference in release at harvesting time for the different layers, with a level of carbon being retained as sequestered, despite the crop being harvested.

The graph is for an unpruned stand, harvested age 30, waste thinned at age 6 to 450 spha.

The choice of harvest age is dependent upon the crop owner's principal stand objective (timber, carbon, etc).

Graph shows CO₂ equivalent (CO₂ tonnes = 44/12xCarbon tonnes).

EXPORT AND DOMESTIC LOG PRICING



Source: MPI



LOG PRICING DATA

Log type, pricing point and market	Mar-07	Jun-07	Sep-07	Dec-07
	Quarter	Quarter	Quarter	Quarter
Export (\$NZ per JAS m³ f.o.b)				
Pruned – Japan, Korea	144-230	112-133	101-114	101-114
A Grade – Japan	114-122	96-120	93-109	93-109
J Grade – Japan	114-120	107-118	90-106	90-106
K Grade – Korea	107-111	90-108	72-88	72-88
Pulp	59-78	57-70	45-62	45-62
All grades average per quarter	120	101	88	84
Domestic (\$NZ per tonne delivered at mill)				
P1	130-137	123-141	123-141	123-141
P2	93-107	98-111	92-111	97-111
S1	86-88	91-98	85-85	67-87
S2	63-93	90-94	85-94	82-89
L1 and L2	63-76	73-96	59-80	60-79
S3 and L3	63-76	68-82	64-76	56-71
Run of bush	..	..	..	..
Pulp	41-56	40-55	41-53	41-52
All grades average per quarter	86	90	86	83

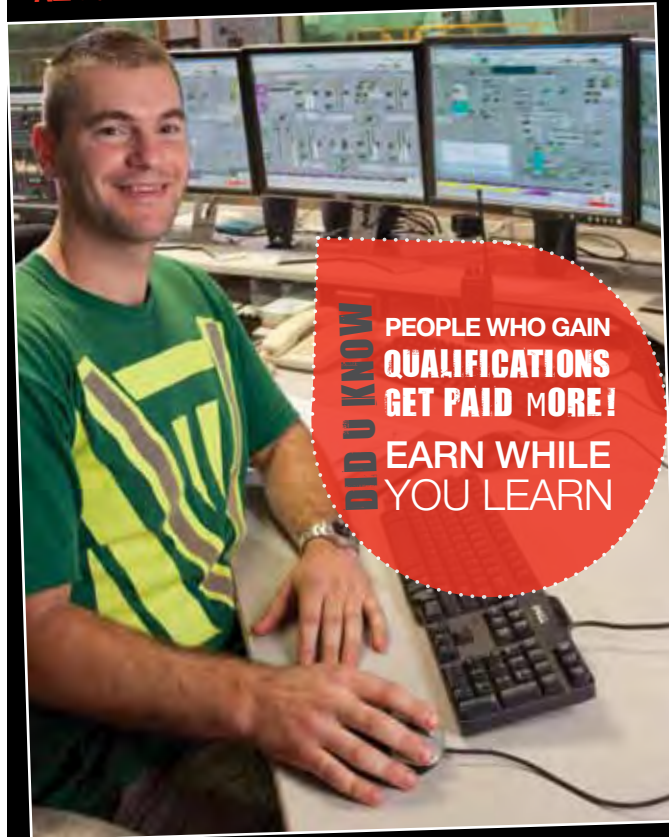
* Limited response – very small volume traded

.. Data not available

Source: MPI

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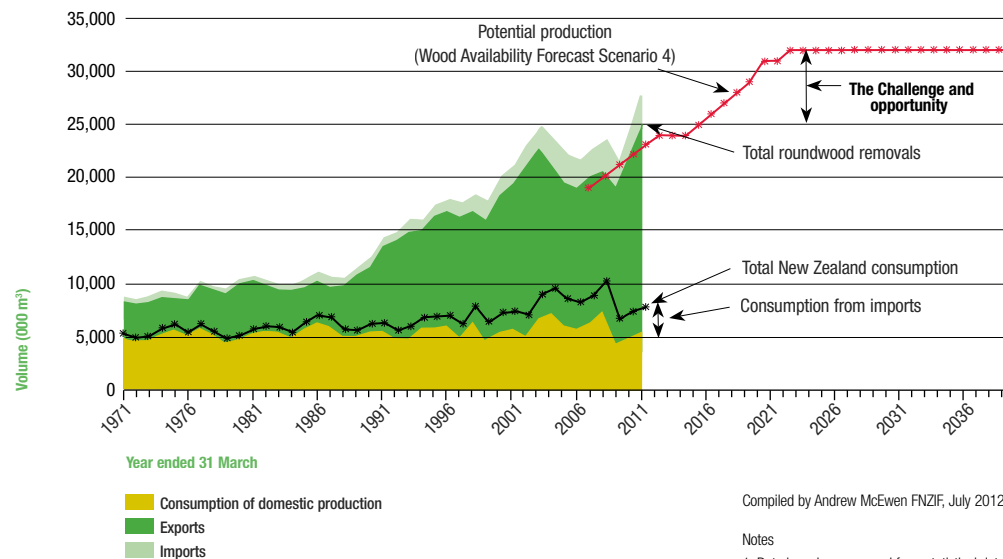
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Mar-08	Jun-08	Sep-08	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter
121-165	121-165	122-175	198-216	169-206	126-158	125-175	110-172	151-189	154-187	148-219	176-203	179-197	155-181	161-173	146-155	144-513
92-96	93-98	88-103	121-133	95-131	95-106	91-104	82-103	129-156	127-144	118-121	114-136	132-144	133-148	123-132	112-122	110-117
80-85	70-84	90	112	116	85	87	74	79	*	*	*	*	*	*	*	*
76-82	70-87	80-93	106-116	86-116	85-102	81-99	74-110	98-137	115-140	109-118	106-130	130-148	125-145	108-114	105-112	94-109
45-62	58-62	68-76	75-93	56-94	65-86	69-77	65-92	80-116	105-127	103-105	100-120	129-137	110-176	109-118	98-112	87-100
93	90	101	132	119	103	103	103	132	137	130	136	150	147	130	120	114
118-141	118-132	120-130	116-126	116-128	116-135	120-139	121-143	125-145	125-161	125-156	130-154	128-147	130-152	132-152	127-134	120-134
92-107	92-105	93-105	89-109	95-107	93-107	93-111	94-114	98-117	104-131	108-127	109-132	110-127	122-130	114-130	111-128	110-127
82-87	81-87	80-87	89-96	85-97	84-90	84-92	93-97	88-97	95-102	97-130	97-100	88-98	99-125	99-105	99-103	95-100
57-88	61-85	57-85	78-89	75-88	77-87	80-85	82-87	88-91	94-103	89-101	92-102	92-103	86-105	94-108	93-101	88-100
57-70	57-76	60-69	69-75	70-76	68-72	65-76	68-83	67-85	73-109	71-99	73-102	72-103	74-115	78-95	76-91	90-110
57-69	61-65	57-65	63-67	64-69	64-67	64-75	67-74	72-77	75-84	81-94	80-86	82-92	81-92	82-89	79-87	66-81
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
40-51	40-55	39-56	41-62	40-64	40-62	40-59	40-55	43-57	44-57	44-59	46-58	47-57	48-61	49-61	49-54	49-55
80	80	79	84	84	83	85	86	89	97	97	97	96	101	99	95	95

ROUNDWOOD PRODUCTION AND CONSUMPTION IN NEW ZEALAND



Compiled by Andrew McEwen FNZIF, July 2012

Notes

1. Data have been sourced from statistical data on the web sites of the Ministry Primary Industries and the former Ministry of Agriculture and Forestry and from the Ministry of Agriculture and Forestry June 2001 publication 2000 New Zealand Forestry Statistics. Those sources should be referred to for details of the conversion of imports and exports to roundwood equivalent.
2. Production is for years ended 31 March.
3. Imports and exports are for years ended 30 June.
4. Domestic consumption is production plus imports less exports.