FOREST OWNERS ASSOCIATION

Facts & Figures 2023/24

NEW ZEALAND PLANTATION FOREST INDUSTRY

Contents

Minister's Foreword

It is an honour to be the Minister of Forestry. The sector has been a mainstay of our economy and communities, and the Government is committed to the sector's ongoing success.

We have set an ambitious target to double the value of New Zealand's exports within ten years. For forestry to achieve increased export values, we aim to provide an operating environment that can enable more domestic processing and export of higher-value products.

As the minister, I will be investigating options to support further investment in value-added wood processing that drives domestic demand and increases log sales. Not only will this support our stated goal of doubling exports, but it will also contribute to New Zealand's climate change goals.

Providing greater certainty is important for long-term investment, and we are committed to restoring stability and confidence to the forestry and wood processing sector to support investment, restore price certainty, and drive export growth.

We will unlock the sector's potential by removing barriers to investment, including fast-tracking consent, and supporting exporters in existing markets and developing new export markets. Growing demand for existing and emerging wood products in domestic and international markets will allow more logs to be processed into timber and other value-added wood products onshore. As well as creating jobs and boosting export revenue, this increased demand will mean increased revenue from domestic log sales, improving the sector's market resilience significantly.

To grow New Zealand's forestry exports, we recognise the need for the right settings and addressing regulatory barriers for business. This includes eliminating redundant bureaucracy and ensuring regulation is fit-for-purpose – while also protecting the environment to meet the expectations of New Zealanders, consumers and overseas markets.

There is no question that forestry has endured a tough couple of years. Challenging market conditions, global supply chain issues, workforce shortages and extreme weather events have all contributed. While some of these factors are out of our control, others can be influenced by central Government.

My promise to you is that we will do this, and in partnership with the sector ensure that forestry and wood processing continue to be a cornerstone of our economy.

Hon Todd McClay
Minister of Forestry

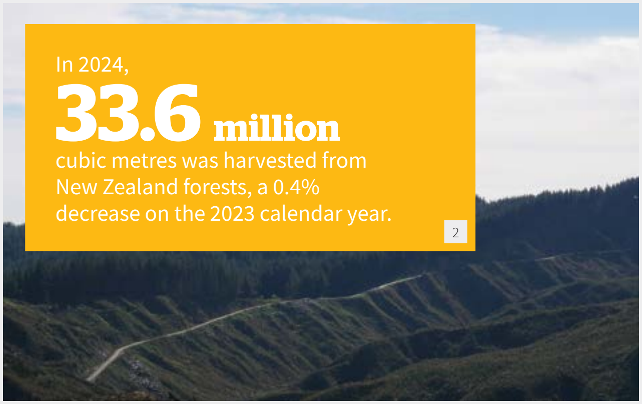
SECTION 1

Planted Forestry Highlights

New Zealand Planted Forestry Highlights

1,788,799 ha is the estimated net stocked plantation forest area at 1 April 2023. This is an increase in the plantation forest area of 31,328 ha from 1 April 2022.

1



In 2024,

33.6 million

cubic metres was harvested from New Zealand forests, a 0.4% decrease on the 2023 calendar year.

2

The value of all forestry exports to 31 March 2024 was

$5.87 billion. Of this, $3.44 billion was logs.

3

In 2023

567 million

cubic metres of planted forest standing volume in New Zealand.

4

Processing for domestic consumption to March 2023 consumed

5.6 million m^3

of the harvest (17%), while processing for export also consumed 5.6 million m^3.

5

Source **Box 1** NEFD 2023
Source **Box 2** NEFD 2024
Source **Boxes 3 and 4** SOPI June 2024
Source **Box 5** MPI 2023

National Exotic Forest Estate Statistics

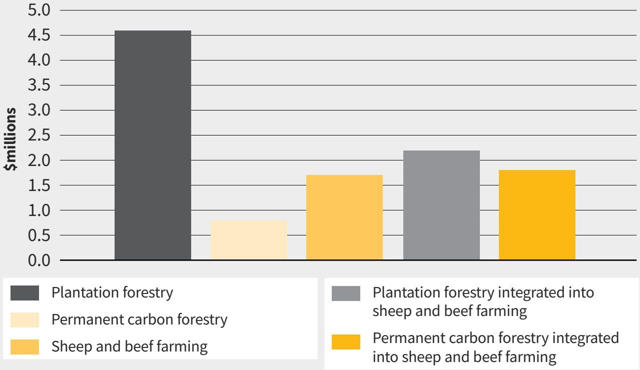
Area and standing volume statistics	As at 1 April 2021	As at 1 April 2022[r]	As at 1 April 2023
Forest area			
Net stocked area (ha)	1,739,990	1,757,471	**1,788,799**
Harvested area awaiting restocking (ha)	45,487	46,101	**40,196**
Total forest area	1,785,477	1,803,572	**1,828,995**
Growth characteristics			
Standing volume (000 m^3)	529,305	547,243	**567,421**
Average standing volume (m^3/ha)	304	311	**317**
Area-weighted average age (years)	18.3	18.6	**18.8**
Area by species			
Radiata pine (ha)	1,571,591	1,587,482	**1,618,607**
Douglas-fir (ha)	97,585	100,108	**97,003**
Cypress species (ha)	9,970	9,057	**9,572**
Other softwoods (ha)	24,028	25,290	**27,032**
Eucalypts (ha)	21,950	22,036	**22,195**
Other hardwoods (ha)	14,866	13,498	**14,390**
Planting statistics	**Year ended 31 December 2020**	**Year ended 31 December 2021**	**Year ended 31 December 2022[p]**
New planting			
Total estimated new planting (ha)	34,000	45,000	**70,000**
Restocking (ha)	42,907	40,415	**32,279**
Harvesting statistics	**Year ended 31 March 2021**	**Year ended 31 March 2022[r]**	**Year ended 31 March 2023**
Harvesting			
Estimated planted forest roundwood removal (000 m^3)[6]	34,264	34,401	**33,700**
Area-weighted average clear fell age for radiata pine (years)	25.4	29.0	**28.0**

Notes
[1] Individual entries may not add to totals due to rounding.
[2] The forestry statistics released in this report, and in particular, new planting estimates, may differ from those produced in the Agricultural Production Survey by Statistics New Zealand. These surveys use different survey frames and designs.
[3] The 2023 survey sought data from owners with 40 hectares of forest or more.
[4] All standing and harvest volumes are reported as recoverable volumes
[5] Estimate from the annual roundwood removal statistics.
[6] The restocking area and area awaiting restocking does not include forests under 40 hectares.
[r] revised data
[p] provisional data

Source **National exotic forest estate statistics** NEFD 2023, MPI

Land Use and Returns

Annual Total Value Chain Impact per 1,000 hectares - Value-Add by Land-Use



Export Value Calculations[1,2]

	Million ha	Year to June 2024 exports million $	Export dollar per ha/yr
Horticulture	0.1	7,110[3]	71,100
Dairy	2	24,160	12,080
Forestry	1.8	5,880	3,267
Meat and wool	8.6	11,450	1,331
All pastoral farms	10.7	35,610	3,328

Notes

1 These export return figures do not take into account the different land class ratios used for the four listed industry categories, nor the shift of product across categories, such as beef from dairy cows.

2 These are export figures alone and do not reflect the different domestic consumption levels across the primary sector. Nor do they reflect different ROI levels.

3 Includes wine

Source **Annual total value chain impact per 1,000 hectares – Value-Add by Land-Use** Economic Impacts of Forestry In New Zealand, PwC 2020

Source **Export Value Calculations** SOPI June 2024

Forestry and the Primary Sector

MPI anticipates that the value of forest exports will reach **$6.62 billion** by June 2028. 1

MPI's Prediction for Primary Industry Sector Export Values year ended 30 June 2025

($ billions)

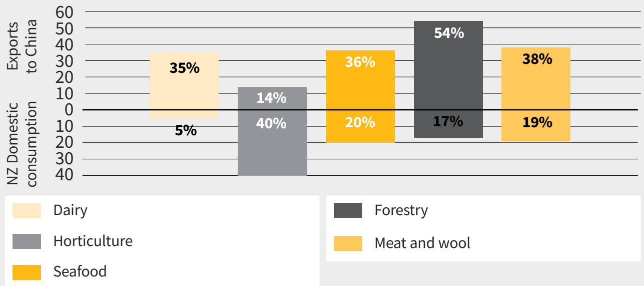
MPI's Prediction for Primary Industry Export Values year to 30 June 2025

($ billions)

Export	Billions $
Whole milk powder	$8.48
Butter, anhydrous milk fat & cream	$5.07
Beef & veal	$4.48
Kiwifruit	$3.47
Lamb	$3.04
Logs	$3.28
Cheese	$2.82
Other forest products	$2.33
Wine	$2.16

Proportion of exports to China by primary sector compared to consumption in New Zealand

(% percentage)



Source **MPI Prediction for Primary Industries Sector Export Values** MPI

Source **MPI Prediction for Primary Industries In-Sector Export Values** MPI

Source **Proportion of Exports to China Primary Sector and Domestic New Zealand Consumption** MPI and various primary sector organisations

Global Forests

4.06 billion
hectares of forests globally, covering 31% of the world's land area. Between 2000 and 2020, 47 million hectares were lost. 1

Planted forests cover
294 million
hectares and increased by 1% each year between 2015 and 2020. 2

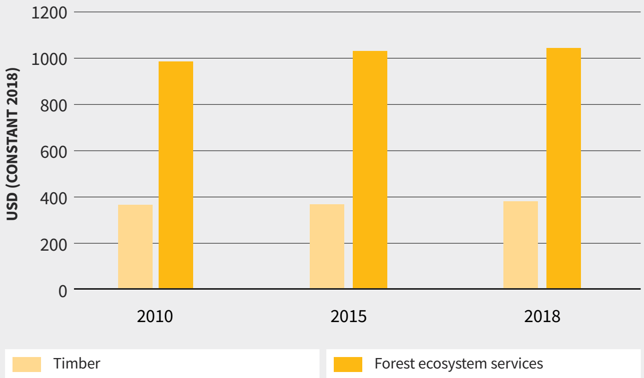
Worldwide carbon storage in trees is
662 billion
tonnes of carbon and increasing.

The ecosystem services forests provide are valued at
$12.64 trillion NZD,
9% of the world's GDP. 3

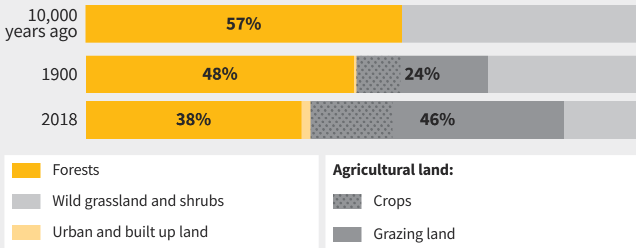
Halting deforestation would prevent
3.6 Gt
of CO_2 emissions per year until 2050. 4

Source **Boxes 1, 2, 3, 4** https://www.fao.org/3/cb9360en/cb9360en.pdf

International Forest Ecosystem Services Wealth Per Capita, 2010-2018



Reduction in Global Forests 8,000 BC to 2018



Notes
[1] The forest ecosystem services shown include only recreation, non-timber forest products and water.

Source **International Forest Ecosystem Services Wealth Per Capita**
FAO: The State of the World's Forests 2022

Source **Reduction in Global Forests 8,000 BC to 2018** OurWorldinData.org

The world has lost

178 million

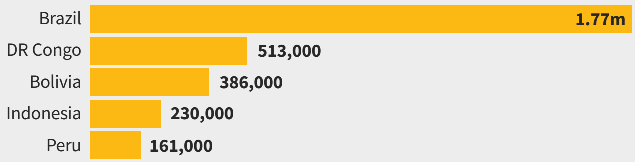
hectares of forest since 1990, which is 6.5 times the area of New Zealand. The rate of loss has fallen from 7.8m ha to 4.7m ha per year, most of which occurs in Africa. [1]

World forests' carbon fell from 668 gigatonnes in 1990 to

662 Gt in 2020. [2]

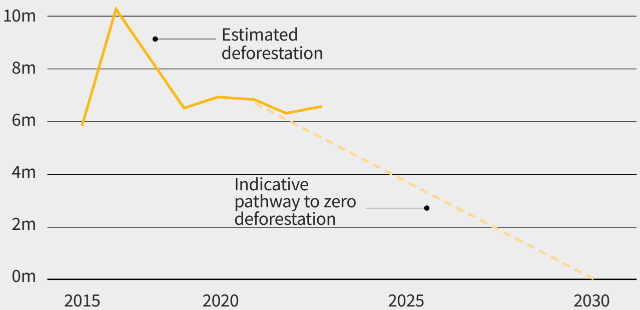
Top 5 countries for primary tropical forest loss

Hectares lost in 2022



World track to end deforestation by 2023

Global deforestation, millions of hectares per year

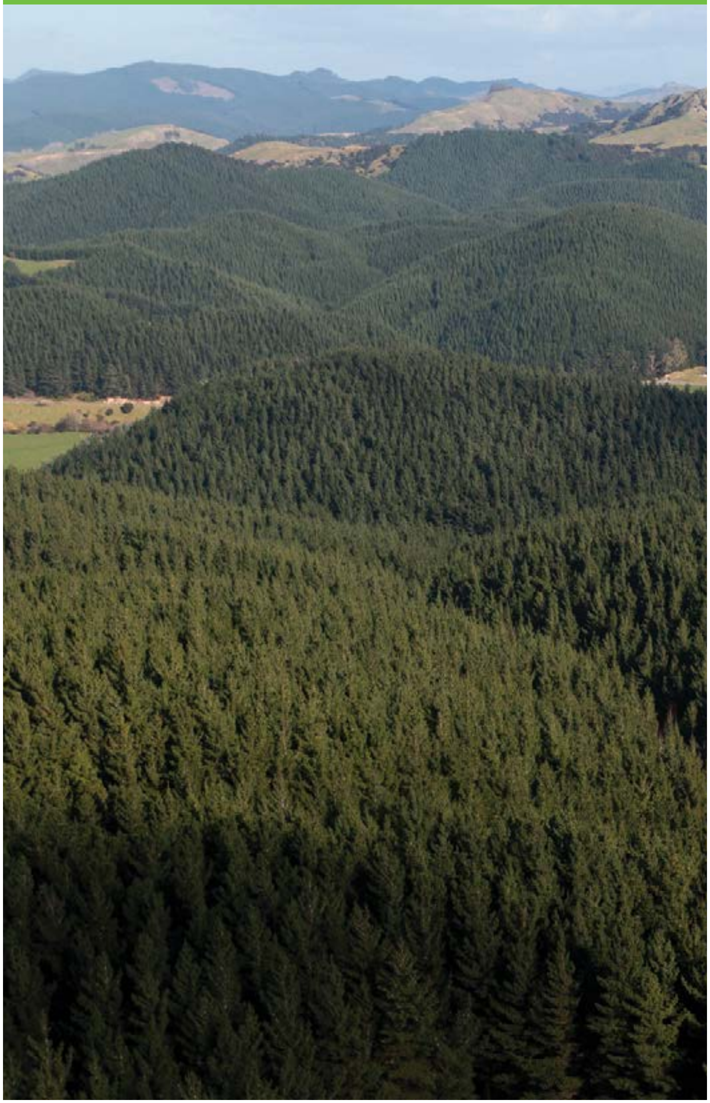


Some year-to-year variability may be due to measurement accuracy

Source **Box 1 & 2** FAO Global Forest Resources Assessment 2020
Source **Top 5 countries for primary tropical forest loss** Global Forest Watch
Source **World track to end deforestation by 2023** Global Forest Watch

SECTION 2

New Zealand Planted Forestry



Planted Forest Mix and Ownership

Forestry Consents Granted – Overseas Investment Office

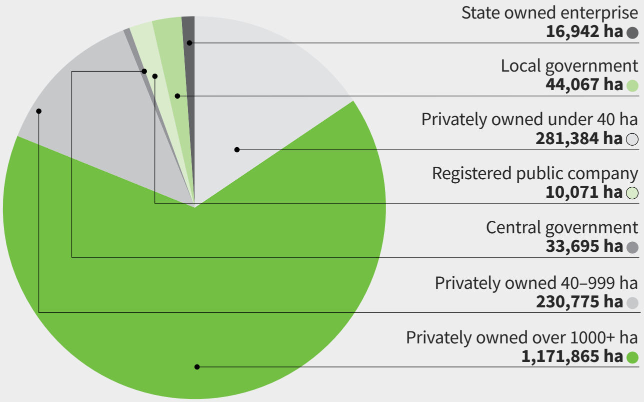
Jan 2023 – Dec 2023

Pathway	Consents approved	Gross total area (ha)	Net area* (ha)	New planting area (ha)
Special forestry one off purchase (existing forestry)	15	30,902	4,611	N/A
Special forestry one off purchase (farm conversion)	11	9,505	9,505	5,220
Benefit to New Zealand – Forestry	4	2,351	2,351	1,200
Total	**30**	**42,758**	**16,467**	**6,420**

*Net area represents the total land area proposed to be transferred into foreign ownership under consents granted during the relevant period. For example, if a New Zealander sells 10 hectares to someone from overseas, the whole 10 hectares is shown. However, if the seller was a company that was 50% New Zealand owned and 50% foreign owned then only five hectares would show in that column. Five hectares represents the "net" change in foreign ownership of New Zealand land.

All approvals up to August 2023 were granted under the special forestry test, pending full implementation of the Overseas Investment (Forestry) Amendment Act 2022, which reintroduces the benefit to New Zealand test.

Planted Forest Ownership (ha) [1,2,3,4]



Notes

[1] Ownership is based solely on the ownership of the forest irrespective of the ownership of the land.

[2] Figure represents percentage of net stocked planted production forest area by ownership type.

[3] The legal entities included in the "Privately owned" category are private companies, partnerships, individuals and trusts, which includes Māori trusts and incorporations.

[4] "Central Government" forests are predominantly Crown-owned forests on Māori lease-hold land. These forests are managed by Crown Forestry.

Source **Forestry Consents Granted** Toitū Te Whenua Land Information New Zealand
Source **Planted Forest Ownership (ha)** NEFD 2023, MPI

NZ Plantation Forest Ownership – Underlying Land Status

As at 31 December 2023

Firm/Entity	Underlying Land Status (Productive area (ha))				
	Freehold	Leasehold			Total
		Crown	Māori Inc.	Other	
Kaingaroa Timberlands Limited	1,402		187,773		189,175
Manulife Investment Management Forest Management (NZ) Ltd	83,966	7,952	55,508	16,360	163,786
Rayonier Matariki Forests	57,425	27,097	17,966	17,806	120,294
Ernslaw One	60,908	23,456	7,095	1,927	93,386
OneFortyOne	22,637		39,628	298	62,563
Summit Forests NZ Limited	4,683	18,115	24,340	2,456	49,594
Tasman Pine Forests Ltd	25,306		9,044	2,249	36,599
Pan Pac Forest Products	6,504	817	28,287	–	35,608
Ngai Tahu Forestry	35,253				35,253
Aratu Forests Ltd	31,783		2,130	1,100	35,013
Global Forest Partners LP	9,217			90	9,307
Wenita	10,525			23,362	33,887
Roger Dickie NZ	32,686				32,686
Juken New Zealand	9,907	14,593	6,675	524	31,699
Port Blakely Ltd	28,277		228	1,624	30,129
Forest Enterprises	28,133	2,008		557	30,698
China Forestry Group Corporation	15,154	7,049	73	7,649	29,925
Lake Taupo Forest Trust	24,830		1,000	3,371	29,201
Crown Forestry (MPI)		1,482	18,264	8,897	28,643
City Forests	23,436			1,751	25,187
Lake Rotoaira Forest Trust	7,717		431	1,385	9,533
Totals	**519,749**	**102,569**	**398,442**	**91,406**	**1,112,166**

Notes

Total production forest area as at 31 December 2023

Source **NZ Plantation Forest Ownership – Underlying Land Status** FOA

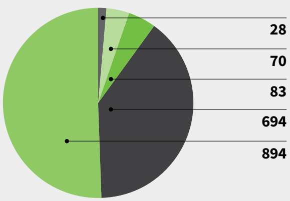
Commercial Planted Forest Ownership and Management

As at 31 December 2023

Firm/Entity	Forest Management Productive Area (ha)	
	(TIMO)	Property Management
Kaingaroa Timberlands Limited		189,176
Manulife Investment Management Forest Management (NZ) Ltd		163,786
P F Olsen Ltd		140,000
Rayonier New Zealand Ltd		
Ernslaw One	78,061	15,325
OneFortyOne		62,563
Summit Forests NZ Limited		49,594
Tasman Pine Forests Ltd		
Pan Pac Forest Products		35,837
Juken New Zealand		31,699
Forest Enterprises	18,720	11,977
Port Blakely Ltd		30,129
Aratu Forests Ltd		28,817
Crown Forestry (MPI)[1]		29,175
Roger Dickie NZ	32,686	
Forest Management NZ Ltd		35,232
Ngai Tahu Forestry		28,101
Wenita		28,678
City Forests		20,083
Global Forest Partners LP	8,253	
Forest 360		34,000
NZ Forest Managers Ltd		89,130
Totals	**137,720**	**1,023,302**

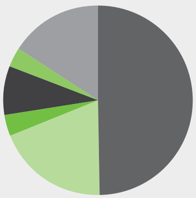
Number of Forest Owners by National Size Class

As at 1 April 2023



Forest Area by Forest Owner National Size Class

As at 1 April 2023



10,000+ ha | 1000–9,999 ha | 500–999 ha
100–499 ha | 40–99 ha | < 40 ha

Environmental Certification

As at 31 December 2023

Company	Environmental Certification Body	
	FSC (ha)	PEFC (ha)
Rayonier New Zealand Ltd	159,936	159,936
PanPac Forest Products Ltd	46,147	
NZ Forest Managers Ltd	65,591	
Wenita Forest Products Ltd	29,184	
Aratu Forests Ltd	23,578	23,578
Juken New Zealand Ltd	30,919	
PF Olsen Ltd	16,091	
Summit Forests NZ Limited	28,460	
Kaingaroa Timberlands Limited	188,239	188,239
Port Blakely Ltd	37,310	
Southland Plantation Forest Company of New Zealand	13,926	
M&R Forestland Management Ltd	3,947	
China Forestry Group Corporation	26,204	
Tasman Pine Forests Ltd	35,549	
Ngai Tahu Forestry	45,827	
Forest Enterprises	25,409	
City Forests Ltd	23,338	
Ernslaw One Ltd	129,881	
Manulife Investment Management Forest Management (NZ) Ltd	171,518	171,518
Craigpine Timber Ltd	2,266	
OneFortyOne	79,939	
Total	**1,183,259**	**543,271**

P13 Notes
This table is designed to identify who manages NZ forests.
Within "management" there are 2 main categories:
1) Timber 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.
[1] All forests are managed by Crown Forestry, though day to day supervision is contracted to a range of forest management companies.

Source **Commercial Planted Forest Ownership and Management** FOA
Source **Number of Forest Owners by National Size Class** NEFD 2023, MPI
Source **Forest Area by Forest Owner National Size Class** NEFD 2023, MPI

P14 Notes
[1] Crown Forestry forests are managed under an FSC licence held by NZ Forest Managers
n.b. Productive Area = Net Stocked Area + Area Awaiting Restocking
Total Certified Area = Total Forest Area as recorded on FSC certificate

Source **Environmental Certification** FOA

Tātaritanga: Analysis of Māori forestry interests in 2024

Native forest in Māori ownership
785,652 ha
All distinct sub-categories are aggregated:
North Island lowland podocarp, North Island elevated podocarp, South Island beech, South Island podocarp, Regenerating bush on farm land, and Virgin native bush.

Exotic forest owned by Māori
190,181 ha

Under 100 ha
54,562 ha

Between 100 & 1,000 ha
78,175 ha

Over 1,000 ha
57,000 ha

Ex-Crown Forest Land bought by Māori, covered in exotic plantations currently under lease
511,817 ha

Crown lease forest on Māori land
33,862 ha

Crown Forest Land to be bought by Māori (AIP) in years ahead
31,638 ha

Bare land owned by Māori that's appropriate and available for planting
528,900 ha

Source **Tātaritanga (analysis of Māori forestry interests in 2024)** estimates by Ngā Pou a Tāne

Current Returns

Value of Māori forestry assets
$4.5 billion

Annual sales from Māori forests in 2022
$62.8 million
This accounted for 1% of all forestry product sales of $6.14b made by forestry companies in New Zealand in 2022.

Approximately **15,400 Māori** are employed in forestry and wood processing.

5-yearly average annual sales from Māori owned forests
$78 million

Māori constitute
44%
of forestry's national workforce.

Māori business owners and those in senior management roles represent
2%
of all forest industry senior management and executive roles.

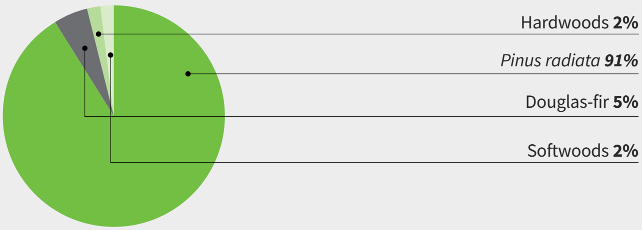
Notes
Forests on Māori freehold land accounted for 7.3 percent of the national forest area but only six percent of the net CO_2 removal. This is due to a lower area specific rate of the net CO_2 removal: -1.39 kt CO_2/ha across all forests on Māori freehold land compared to -1.71 kt CO_2/ha across all forests at the national level. The lower area-specific rate of removal results from the greater proportion of pre-1990 forests on Māori freehold land (20 percent) compared to that proportion at the national level (15 percent).

Source **Tātaritanga (analysis of Māori forestry interests in 2024)** estimates by Ngā Pou a Tāne

Planted Forests by Species

Species Distribution for 2023

As at 1 April 2023



Approximate Harvest Age Over the Past Five Years

Species	Harvest Age
Pinus radiata	28 years
Douglas-fir	40.4 years
Cypress	31.7 years
Eucalypts	22.3 years

91%

of the planted forest area in New Zealand
is made up of *Pinus radiata*.

1

Minor Plantation Species

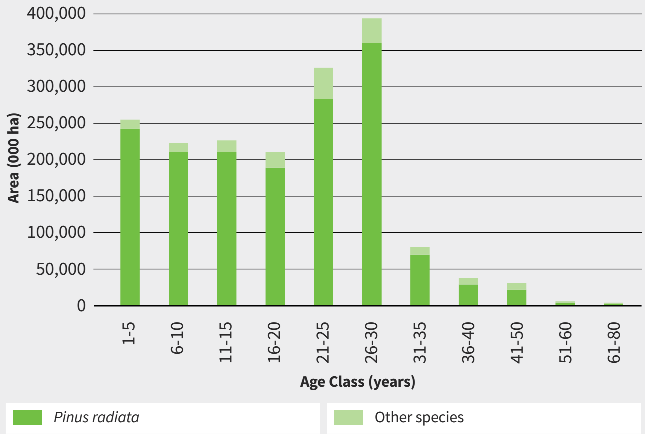
Other pines; *P. nigra, P. muricata, P. ponderosa*
Other softwoods; Redwoods, Larch, Cryptomeria, Cypress
Indigenous species; Kauri, Tōtara, Black Beech (Tawairauriki)
Other hardwoods; Poplars, Acacia, Willows, Black Walnut, Paulownia, Oaks
Non-durable eucalypts; *E. obliqua, E. fastigata, E. regnans, E. nitens, E. saligna, E. botryoides.*
Durable eucalypts; *E. globoidea, E.bosistoana, E.quadrangulata, E. pilularis, E. muelleriana.*
Most durable species include; *E. microcorys, E. cladocalyx*, Tōtara, Silver Pine (Manoao), Robinia, Puriri

Source **Species Distribution for 2023** NEFD 2023, MPI
Source **Approximate Harvest Age Over the Past Five Years** NEFD 2023, MPI
Source **Box 1** NEFD 2023, MPI

Net Stocked Area by Age Class

Forest Area by 5 Yearly Age Class (ha)

As at 1 April 2023



Source **Forest Area 2023 by 5-yearly age class (ha)** NEFD 2023, MPI

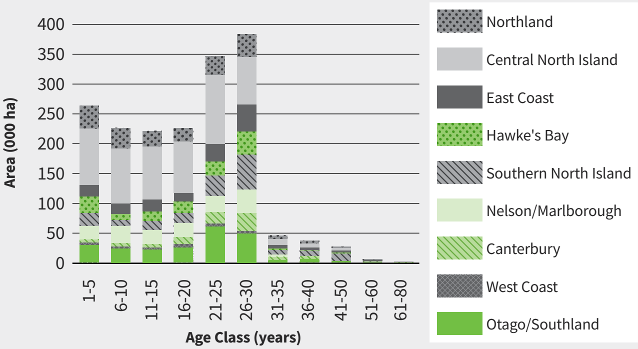
Planted Forest Area by Region

Area Planted in all Species by Wood Supply Regions

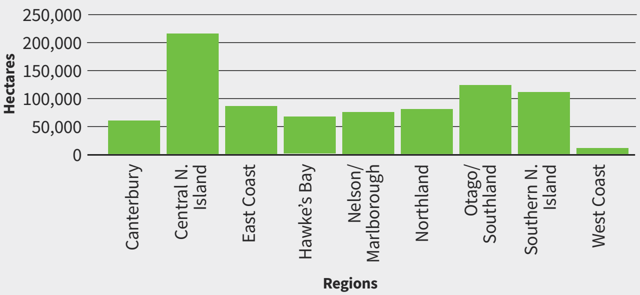
Region	Estimated Total Forest Area (ha) 2021	2022	2023	%
Northland	194,024	**200,032**	**204,443**	11%
Central North Island	560,004	**564,857**	**582,220**	33%
East Coast	157,297	**158,549**	**158,232**	9%
Hawke's Bay	139,559	**141,445**	**144,892**	8%
Southern North Island	176,252	**177,395**	**181,247**	10%
Nelson/Marlborough	167,921	**168,242**	**167,972**	9%
Canterbury	95,286	**94,819**	**94,700**	5%
West Coast	30,285	**29,399**	**29,771**	2%
Otago/Southland	219,362	**222,733**	**225,322**	13%
Total	1,739,990	**1,757,471**	**1,788,799**	**100%**

Forest Area by Age Class and Wood Supply Region

As at 1 April 2023



Forest Area Planted in *Pinus radiata* by Wood Supply Region (ha)

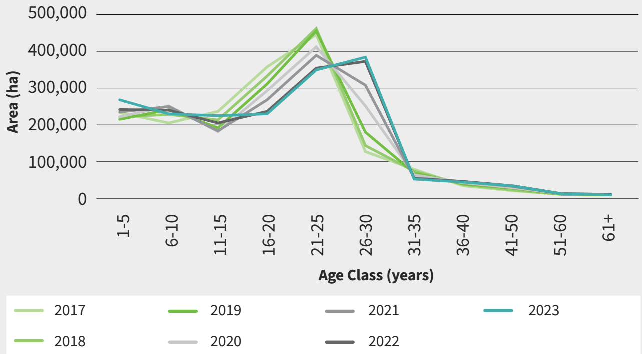


Source **Area Planted in all Species by Territorial Authority** NEFD 2023
Source **Forest Area by Age Class and Wood Supply Region** NEFD 2023
Source **Forest Area Planted in *Pinus Radiata* by Wood Supply Region** MPI

Planted Forest Age and Volume

The average age of plantation trees was **18.8 years** in April 2023, a 1% increase from the previous year's average tree age. 2

Age Class Over Time



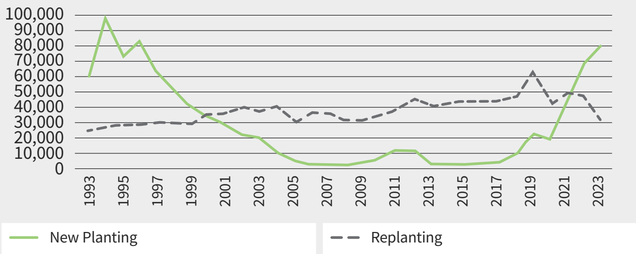
Source **Box 1** NEFD 2023, MPI
Source **Box 2** NEFD 2023, MPI
Source **Age Class Over Time** NEFD 2023, MPI

Forest Planting, Harvest and Deforestation

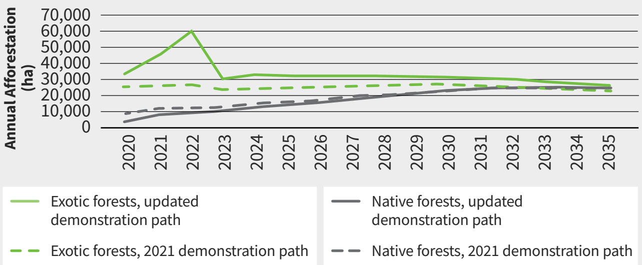
92,540 ha of plantation forest was planted in 2022, comprising 28,540 ha of replanting and 64,000 ha of new planting.

1

Estimated Area of New Planting and Replanting



Updates to the Demonstration Path for Forests

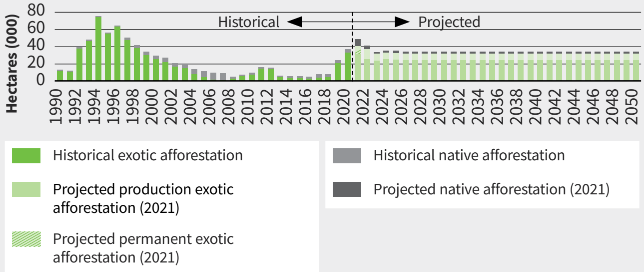


The Climate Change Commission anticipates an additional **360,664 ha** of exotics and **251,560 ha** of indigenous forests will be planted or regenerated between 2024 and the end of 2035.

2

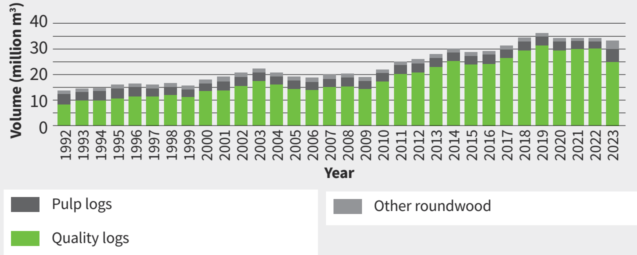
Source **Box 1** MPI
Source **Estimated Area of New Planting and Replanting** MPI
Source **Updates to the Demonstration Path for Forests** Climate Change Commission, 2023
Source **Box 2** Advice on the Fourth Emissions Budget (2036–2040) CCC December 2023

Projections for Afforestation to 2050



Plantation Forest Harvest

Year ended March 2023



Tree Stock Sales from 2014 to 2023 (millions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pinus radiata	45.8	49.3	48	56.6	84	88.4	91.8	114	113.2
Douglas-fir	2	2.2	2	1.4	1.9	0.8	1	1.3	1.5
Other softwoods	0.5	0.4	0.7	0.9	1.4	1.5	2.2	3.2	3.1
All hardwoods	1.3	0.8	0.7	1	1.5	1.2	1.5	1.5	1.5
TOTAL	**49.51**	**52.7**	**51.31**	**59.9**	**88.8**	**91.9**	**96.5**	**120**	**119**

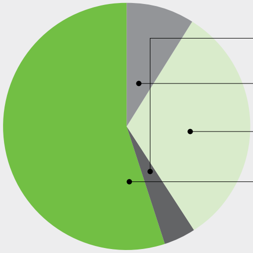
Estimated Percentages of Total Area of Radiata Pine Planting by Categories

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Open pollinated seedlings	38	36	31	28	25	30	47	36	54	68	73
Control pollinated seedlings, cuttings/clones	62	64	69	72	75	70	53	64	46	32	27

Source **Box 1** MPI
Source **Tree Stock Sales from 2014 to 2022** Tree Stock Sales, MPI
Source **Estimated Percentages of Total Area of Radiata Pine Planting by Categories** Tree Stock Sales, MPI

Forest Management Trends

Radiata pine by Tending Regime



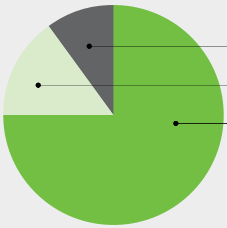
	2019 (ha)	2020 (ha)	2021 (ha)	2022ʳ (ha)	2023ᵖ (ha)
Pruned with production thinning	140,340	138,756	136,901	137,642	**139,513**
Pruned without production thinning	547,067	537,746	520,965	509,968	**524,533**
Unpruned with production thinning	50,733	52,932	58,122	66,202	**71,737**
Unpruned without production thinning	787,621	815,685	855,603	873,670	**882,824**

r Revised p Provisional

59% of the *Pinus radiata* forest estate is under an unpruned management regime. 1

Production thinned radiata forest accounts for **13%** of the total estate area. 2

Pinus Radiata Harvest Volume by Log Type

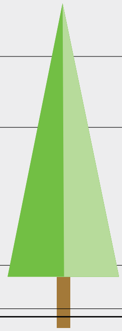


Source ***Radiata Pine* by Tending Regime** NEFD 2023, MPI
Source **Box 1** NEFD 2023, MPI
Source ***Pinus Radiata* Harvest Volume by Log Type** NEFD 2023, MPI

Typical Log Out-turn

Direct Sawlog Regime

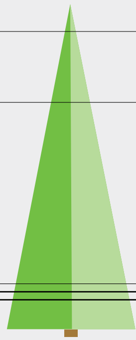
Pruned and thinned. Final Crop Stocking 228 stems per hectare.



	Length	Volume	Value
Waste	8 m	0.18 m^3	0%
Industrial grade logs	8 m	0.31 m^3	7%
Sawlogs	15 m	1.15 m^3	43%
Pruned logs	5 m	0.64 m^3	50%
Stump	0.2 m	0.03 m^3	0%
Total	**36 m**	**2.3 m^3**	**100%**

Structural Regime

Thinned. Final Crop Stocking 487 stems per hectare.

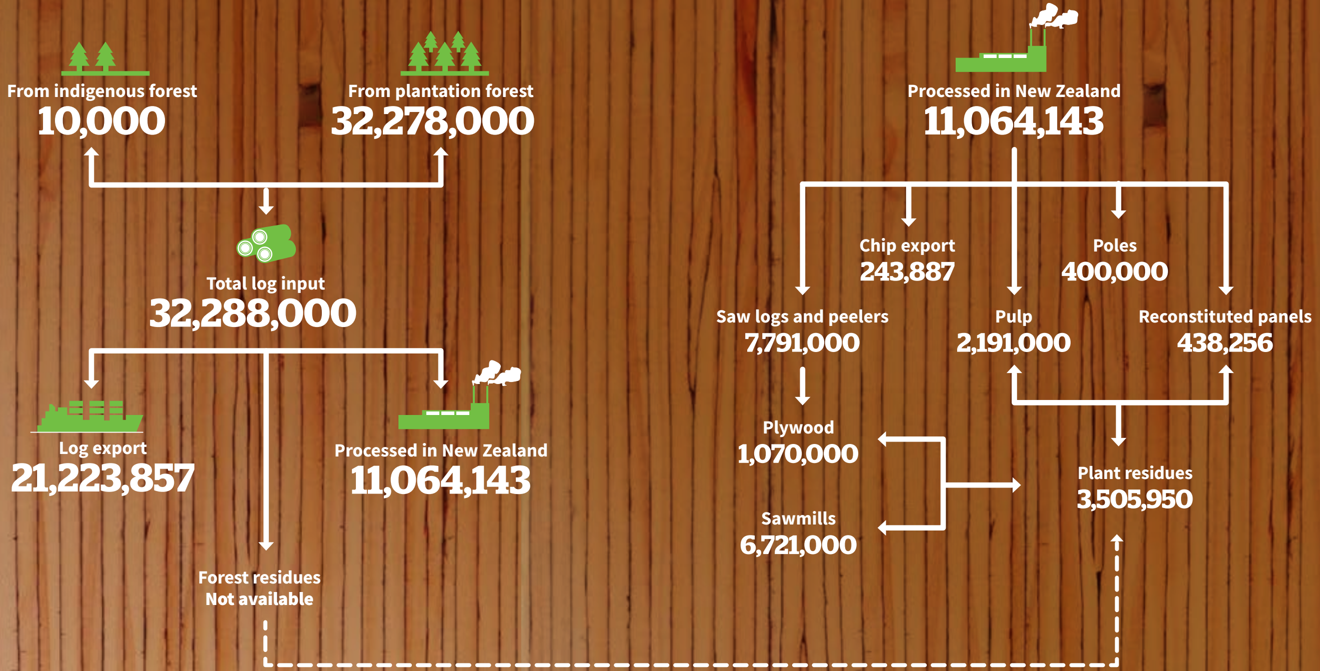


	Length	Volume	Value
Waste	8 m	0.24 m^3	0%
Industrial grade logs	8 m	0.41 m^3	20%
Sawlogs	19 m	0.95 m^3	80%
Pruned logs	0 m	0.00 m^3	0%
Stump	0.2 m	0.01 m^3	0%
Total	**35 m**	**1.61 m^3**	**100%**

Source **Direct Sawlog Regime & Structural Regime** Scion

Log Flow in the New Zealand Forestry Industry

For Year Ended December 2023, in tonnes



The indigenous tree harvest now represents less than **0.03%** of the total.

Source **Log Flow in the New Zealand Forestry Industry** MPI

Pest and Pathogen Fact Sheets


Black-stain root disease


Brown spot needle blight


Common pine shoot beetle


Daño Foliar del Pino


Eastern five-spined bark beetle


European pine shoot moth


Giant pine scale


Pine pitch canker


Pine processionary moth


Pine wood nematode


Port-Orford-cedar root disease


Rapid ʻŌhiʻa Death


Red turpentine beetle


Spongy moth


Sudden Oak Death


Western gall rust

More information

More information on forest pests and pathogens, including Fact Sheets, can be found at www.nzfoa.org.nz/pinenet

Report a pest or pathogen

- 0800 80 99 66 pest and diseases hotline
- MPI online report form report.mpi.govt.nz/pest/details/

FIND A PEST

Download on the App Store

GET IT ON Google Play

Source **PineNet** https://www.nzfoa.org.nz/pinenet

SECTION 3

Export and Production

Top Export Destinations

For Year Ended March 2023

World Totals
$NZ 5,779,104,096

Logs	3,250,083,840
Panels	389,843,531
Paper & Paperboard	342,484,547
Pulp	622,884,971
Sawn Timber & Sleepers	865,140,751
Other Forestry Products	308,666,456

1. China (People's Republic of)
$NZ $3,247,124,600

Logs	2,908,293,680
Panels	9,474,202
Paper & Paperboard	20,245,471
Pulp	241,339,566
Sawn Timber & Sleepers	66,583,320
Other Forestry Products	1,188,361

2. Australia
$NZ $563,260,400

Logs	532,769
Panels	55,592,167
Paper & Paperboard	193,883,595
Pulp	55,135,851
Sawn Timber & Sleepers	136,748,543
Other Forestry Products	121,367,475

3. South Korea
$NZ $385,045,014

Logs	236,733,668
Panels	377,959
Paper & Paperboard	10,737,373
Pulp	86,360,471
Sawn Timber & Sleepers	50,388,258
Other Forestry Products	447,285

4. United States
$NZ $354,783,084

Logs	3,722
Panels	48,684,611
Paper & Paperboard	5,714,631
Pulp	0
Sawn Timber & Sleepers	290,494,055
Other Forestry Products	9,886,065

5. Japan
$NZ $334,787,866

Logs	36,556,562
Panels	185,571,905
Paper & Paperboard	489,206
Pulp	4,023,328
Sawn Timber & Sleepers	17,595,055
Other Forestry Products	90,551,810

6. Indonesia
$NZ $124,003,813

Logs	95,307
Panels	19,618,027
Paper & Paperboard	8,342,105
Pulp	53,487,588
Sawn Timber & Sleepers	22,337,539
Other Forestry Products	20,123,247

7. Taiwan
$NZ $96,588,369

Logs	27,642,101
Panels	7,120,980
Paper & Paperboard	4,648,622
Pulp	24,183,735
Sawn Timber & Sleepers	32,782,220
Other Forestry Products	210,711

8. Thailand
$NZ $89,755,371

Logs	0
Panels	38,995
Paper & Paperboard	1,405,002
Pulp	58,665,989
Sawn Timber & Sleepers	28,311,948
Other Forestry Products	1,333,437

9. Malaysia
$NZ $79,980,672

Logs	0
Panels	1,305,095
Paper & Paperboard	17,368,267
Pulp	34,324,960
Sawn Timber & Sleepers	23,617,468
Other Forestry Products	3,364,882

10. Vietnam
$NZ $70,089,593

Logs	4,048,986
Panels	21,173,974
Paper & Paperboard	2,175,688
Pulp	14,992,250
Sawn Timber & Sleepers	27,413,228
Other Forestry Products	285,467

11. Philippines
$NZ $60,714,654

Logs	404,707
Panels	26,431,290
Paper & Paperboard	11,852,263
Pulp	9,413,048
Sawn Timber & Sleepers	12,474,222
Other Forestry Products	139,124

12. Other
$NZ $372,970,660

Logs	35,772,338
Panels	14,454,326
Paper & Paperboard	65,622,324
Pulp	40,958,185
Sawn Timber & Sleepers	156,394,895
Other Forestry Products	59,768,592

Source **Top Export Destinations** MPI

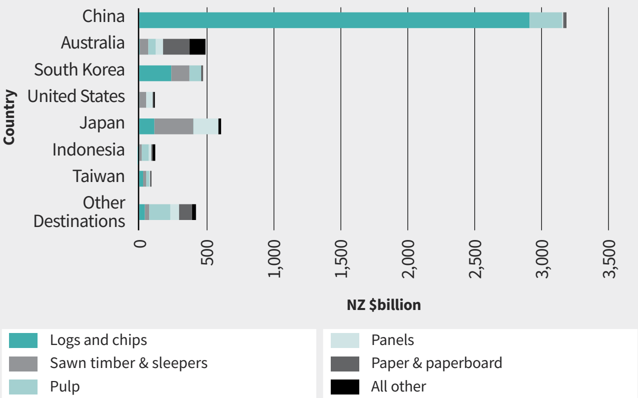
Export Value by Destination and Product[1]

For year ended 31 December 2023

Total Export Value ($NZ) by Main Countries of Destination

Country of Destination	Total Export Value (NZD$million) 2020	2021	2022	2023
China	2,970	3,855	3,624	3,247
Australia	517	574	638	563
South Korea	366	419	507	385
United States	335	360	407	354
Japan	289	299	386	334
Indonesia	121	163	170	124
Taiwan	85	130	134	96
Thailand	157	125	123	89
Malaysia	139	116	12	79
Viet Nam	123	121	103	70
Philippines	115	87	81	60
Netherlands	62	84	76	54
India	65	79	89	32
Hong Kong	37	54	66	29
Fiji	52	42	22	15
All Other Destinations	206	257	308	205
Grand Total	**5,639**	**6,765**	**6,746**	**5,736**

Exports of Forestry Products by Main Countries Destination

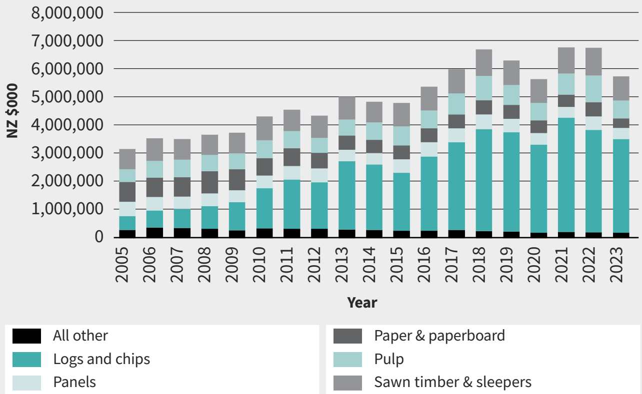


Notes
[1] Values are NZ$ f.o.b. and may include items, e.g. some plywood items, for which no quantities are given.
[2] All other forestry products include chips, mouldings, manufactures of paper and paperboard, furniture and miscellaneous forestry products.
[3] Other countries are all other countries to which New Zealand has exported forest products during the year.

Source **Total Export Value ($NZD) by Main Countries of Destination** MPI
Source **Exports of Forestry Products by Main Countries Destination** MPI

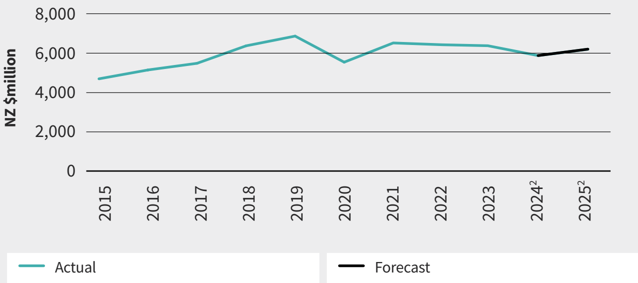
Major Forest Product Export Earners[1]

For year ended December 2023



Forestry Product Export Values

For year ended June



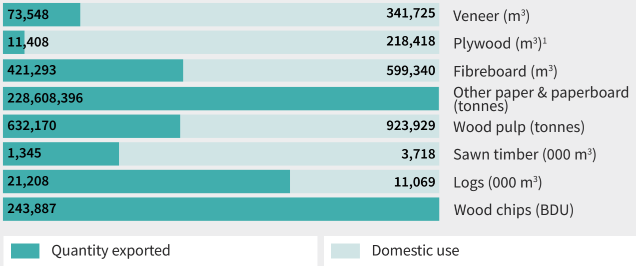
Notes
[1] Paper and paperboard includes Newsprint data, therefore differs from Statistics NZ data
[2] Forecast

Source **Major Forest Product Export Earners** MPI
Source **Box 1** MPI
Source **Forestry Product Export Values** MPI

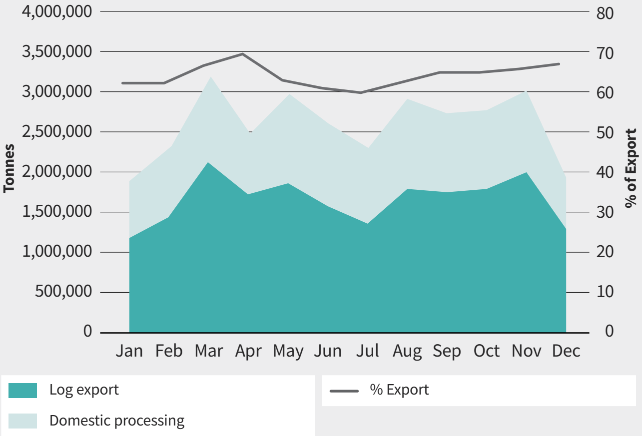
Production and Exports of Selected Forestry Products

For year ended 31 December 2023

Exported vs Domestic Use



Total NZ Plantation Forest Harvest Volumes 2023



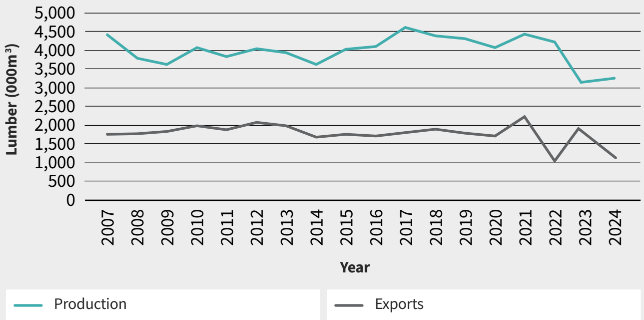
Notes
[1] Plywood includes laminated veneer lumber
[2] Exports excluded re-exports

Source **Quality Exported vs Domestic Use** MPI
Source **Domestic Export Volumes** MPI
Source **Box 1** SOPI December 2024

New Zealand Lumber and Log Production and Exports

Lumber Production and Exports

Total harvest to 31 March 2024



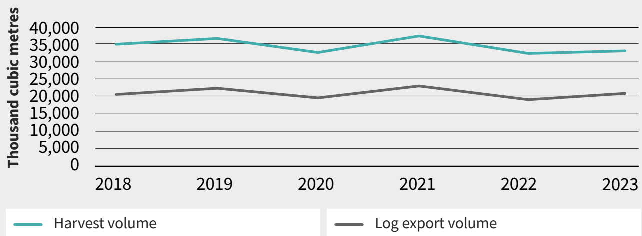
Forestry Export Revenue, 2018-23 ($NZ million)

For Year Ended 30 June

	Actual				Forecast		
Year to 30 June	**2020**	**2021**	**2022**	**2023**	**2024[2]**	**2025[2]**	**2026[2]**
Logs	2,877	3,854	3,810	3,388	3,420	3,460	3,500
Sawn Timber & Sleepers	809	910	1,010	937	850	930	960
Pulp	646	663	760	846	610	700	790
Paper & Paperboard	492	438	430	433	350	430	470
Panels	438	389	400	463	370	370	380
Chips	56	61	60	78	80	80	80
Other Forest Products[1]	222	215	250	208	200	210	210
Total	**5,539**	**6,531**	**6,720**	**6,353**	**5,880**	**6,170**	**6,390**
Y/Y % Change	**19.5%**	**8.1%**	**2.7%**	**-3%**	**-7%**	**5%**	**3%**

Log and Processed Timber Production and Export

Total harvest

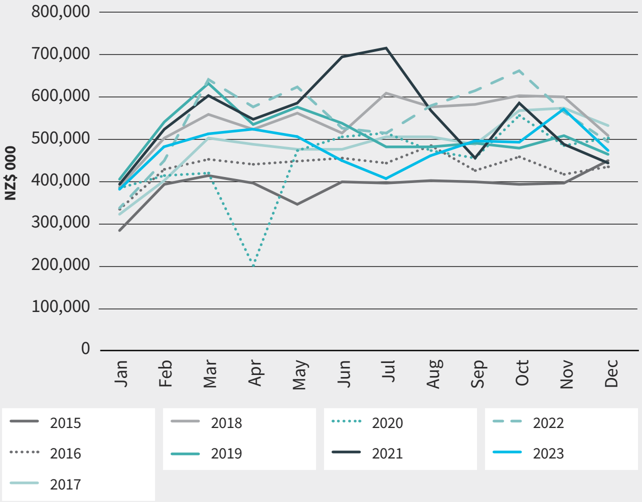


Notes
[1] Other forest products include: structural or moulded wood, furniture and prefabricated buildings
[2] Forecast

Source **Log and Processed Timber Production and Export** FOA
Source **Forestry Export Revenue, 2018-24** MPI
Source **Log and Processed Timber Production and Export** FOA

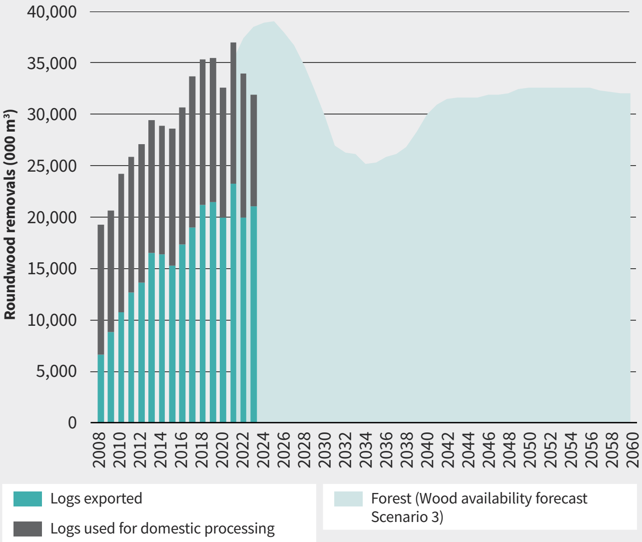
New Zealand Logs

Forestry Export Revenue by Month and Year $NZ



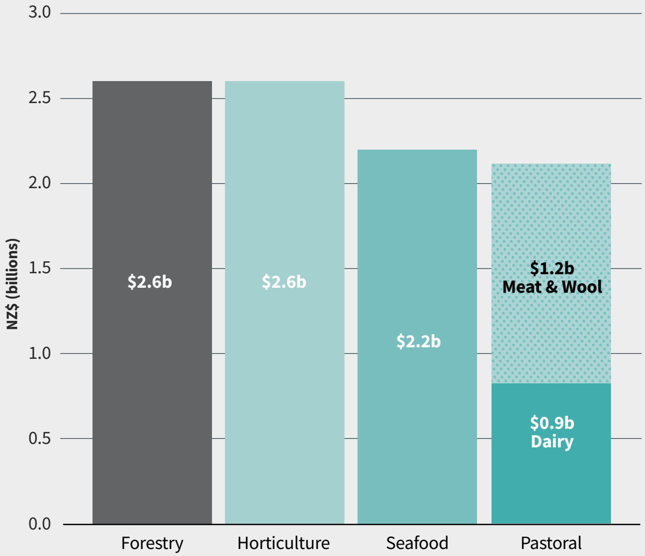
Volume of Logs used in Domestic Processing versus Exported

For Year Ended December



Source **Export and Domestic Log Prices** Overseas Merchandise Trade by month, StatsNZ
Source **Volume of Logs used in Domestic Processing versus Exported** MPI
Scenario 3: Margules Groome Wood Availability Forecast 2021 – 2060

Anticipated additional export sector returns in 2030



Source **Plantation Forest Harvest** MPI
Source **Anticipated additional export sector returns in 2030**
Fit for a Better World July 2020 – Background analysis on export earnings in the primary sector

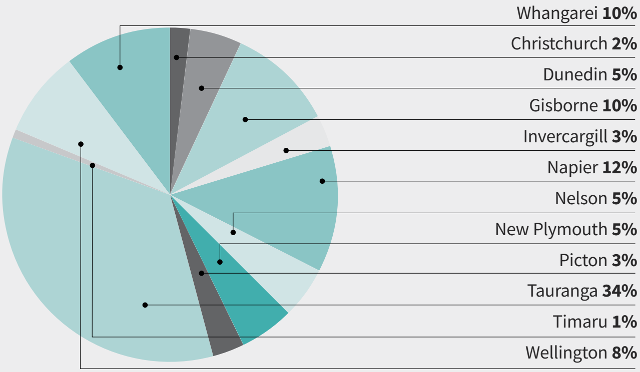
Log Exports by Port

For Year Ended December 2023

Log Export Quantity and Export Value by Port

Port of Loading	Export Quantity (000 m^3)	Export value ($NZ 000)
Auckland	34.7	8,409
Christchurch	430	73,559
Dunedin	1,013	147,645
Gisborne	2,214	344,720
Invercargill	662	108,515
Napier	2,535	365,430
Nelson	1,146	168,339
New Plymouth	1,008	176,699
Picton	724	102,763
Tauranga	7,250	1,073,709
Timaru	300	43,659
Wellington	1,794	282,088
Whangarei	2,092	354,542
Total	**21,207**	**3,250,083**

Logs Export Quantity Percentage by Port[1]



Notes
[1] Ports with <1% not included.

Source **Log Export Quantity and Export Value by Port** MPI
Source **Logs Export Quantity Percentage by Port** MPI

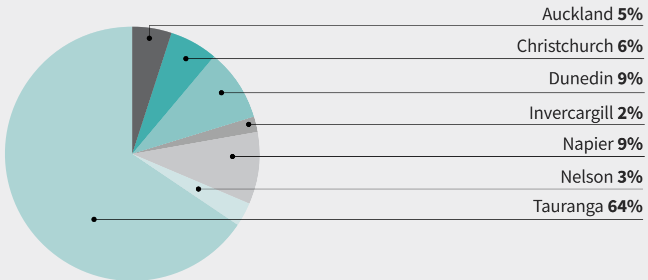
Sawn Timber Exports by Port

For Year Ended 31 December 2023

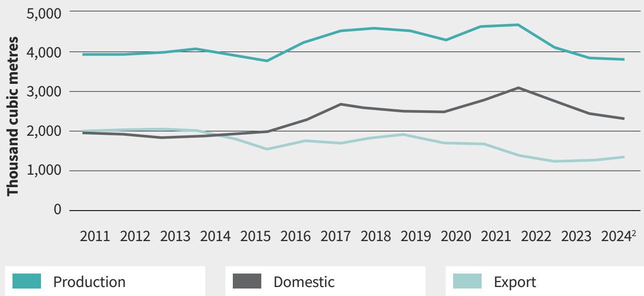
Sawn Timber Export Quantity and Export Value by Port

NZ Port	Export Quantity (000 m^3)	Export value ($NZ 000)
Auckland	67	45,397
Christchurch	81	44,045
Dunedin	125	47,420
Gisborne	1	2,074
Invercargill	26	16,533
Napier	125	56,725
Nelson	45	21,753
New Plymouth	0.21	24
Tauranga	867	622,104
Timaru	0.97	92
Wellington	3	4,286
Whangarei	3	4,682
Total	**1,344**	**865,048**

Sawn Timber Percentage Export Quantity by Port[1]



Domestic demand for sawn timber



Notes
[1] Ports with <1% not included.
[2] Forecast

Source **Sawn Timber Export Quantity and Export Value by Port** MPI
Source **Sawn Timber Percentage Export Quantity by Port** MPI
Source **Domestic demand for sawn timber** June SOPI 2024

Forest Processing Industry 2023

Updated December 2023

Northland

- BBS Timbers Ltd, Whangarei
- CHH Woodproducts, LVL, Marsden Point
- Colville Sawmill Company
- Croft Poles Ltd, Whangarei **(S)**
- ETC 2006 Ltd, Marsden Point
- Juken New Zealand Ltd Northland Mill, Kaitaia **(S)**
- Juken New Zealand Ltd Triboard Mill, Kaitaia
- Kaihu Valley Sawmill, Mamaranui **(S)**
- Kiwi Timber Protection Ltd, Whangarei **(MW)**
- Mac Direct Ltd, Patumahoe **(S)**
- Marusumi Whangarei Ltd, Marsden Point
- Mt Pokaka Timber Products, Kerikeri **(S)**
- North Sawn Lumber, Marsden Point
- Northpine Sawmill, Waipu **(S)**
- Rosvall Sawmill, Whangarei **(S)**
- Timpack Industries Ltd, Auckland **(MW)**
- Waipapa Pine, Whangarei **(S)**

Auckland

- Abodo Wood Ltd, Auckland
- Anderson & O'Leary Ltd, Pinepac, Whenuapai
- Big Tuff Timber Products Limited, Puhinui
- Central Frame and Truss, Auckland
- Claymark Ltd, Henderson **(MW)**
- Claymark Ltd, Thames **(S)**
- Cypress Sawmill, Waitoki **(S)**
- Herman Pacific Ltd, Silverdale **(S)**
- Max Birt Sawmills, Pōkeno **(S)**
- Jenkin Timber, Auckland
- JSC Timber, Kumeu **(MW)**
- Kopine, Thames
- Max Birt Sawmill, Ohinewai **(S)**
- Oji Fibre Solutions, Penrose **(PTP)**
- Pallet Supplies Company Limited, Manukau
- Papakura Timber Processors Ltd, Papakura **(S)**
- Timberlab Solutions Ltd, Auckland
- Topuni Timber Ltd, Kaiwaka
- TTT Products Ltd, Tuakau **(PO)**
- G J Weck and Sons Limited, Papakura

Central North Island

- Alkieman Custom Jointing Ltd, Tokoroa
- Central Wood Recyclers Limited
- CHH Woodproducts Kawerau Sawmill, Kawerau **(S)**
- CHH Woodproducts, Plywood, Tokoroa **(P)**
- Claymark Profiles, Rotorua
- Claymark Rotorua Sawmill Ltd, Rotorua **(S)**
- Claymark Sawmills, Katikati **(S)**
- Donnelly Sawmills, Rotorua **(S)**
- Hautapu Pine Products Limited, Taihape **(PO)**
- Hume Pine, Rotorua
- Kiwi Lumber, Putāruru **(S)**
- KLC, Rotorua
- Laminated Beams Ltd, Papamoa
- Laminex Group, Taupo
- Les O'Leary Limited, Tokoroa **(S)**
- Lockwood Group, Rotorua
- Lumbercorp N.Z. Ltd, Huntly
- LumberOne Ltd, Tauranga
- McAlpines, Rotorua **(S)**
- North Sawn Lumber Ltd, Ruakaka
- Oji Fibre Solutions Kinleith Mill, Tokoroa **(PP)**
- Oji FS Tasman Ltd, Kawerau **(PP)**
- Otorohanga Timber Company, Otorohanga
- OTC Timber Co Ltd, Otorohanga
- Pedersen Kawerau Limited **(PP)**
- Pedersen Kinleith Limited **(PP)**
- Permapine, Reporoa
- Pacific Pine Industries, Putāruru **(S)**
- Pine Sawmills, Rotorua **(S)**
- Pukepine Sawmills (1998) Ltd, Te Puke
- Pure Pine Mouldings, Te Puke
- Red Stag Timber, Rotorua **(S)**
- R.H. Tregoweth Ltd, Te Kūiti **(S)**
- SCA Hygiene Australasia, Kawerau **(PP)**
- Sequal Lumber, Kawerau **(S)**
- Tauriko Sawmill & Timber Supplies, Tauranga
- Tenon Manufacturing Ltd, Taupō **(S)**
- Timpack Industries Ltd, Mount Maunganui **(MW)**
- Waitete Sawmills Ltd, Te Kūiti
- Whakatāne Mill Ltd, Whakatāne **(PP)**
- Winstone Pulp International, Ohakune **(S, PP)**
- WJ Mouldings Ltd, Tauranga
- WPI Tangiwai Sawmill & Pulpmill, Karioi **(S, PP)**

East Coast

- East Coast Lumber Ltd
- Juken New Zealand, Gisborne Mill
- Kiwi Lumber (Gisborne) Limited, Gisborne
- Wood Engineering Technology Ltd, Gisborne **(S)**

Hawke's Bay

- East Coast Lumber, Wairoa **(S)**
- Napier Pine, Napier **(S)**
- Pan Pac Forest Products Ltd, Napier **(S, PP)**
- Ruahine Timber 2017 Limited, Ormondville **(PO)**
- The Pallet Company Ltd, Napier
- Tumu Timbers, Hastings

Southern North Island

- Clelands Timber Products Ltd, New Plymouth **(S)**
- Davis Sawmilling Co, Featherston **(S)**
- Eastown Timber Products Ltd, Whanganui **(S)**
- Juken New Zealand, Masterton **(S/PP)**
- Kaimata Sawmills, Inglewood **(S)**
- Kiwi Lumber, Dannevirke **(S)**
- Kiwi Lumber, Masterton **(S)**
- Lumber Processors, Pahiatua **(S)**
- Mangorei Plus, New Plymouth **(S, PO)**
- Mitchpine Ltd, Levin **(S)**
- Pukeko Sawmills, Lepperton **(S)**
- Taranakipine, Bell Block **(S)**
- Taranakipine Ltd, New Plymouth
- Taranaki Sawmills Ltd
- Techlam, Levin
- Ticehurst Timber Processors Ltd, Carterton
- Timpack Industries Ltd, New Plymouth **(MW)**
- Value Timber Supplies Ltd, Inglewood
- W Crighton & Son Ltd, Levin **(S)**

Nelson/Marlborough

- CHH Wood Products, Nelson Sawmill, Eves Valley **(S)**
- D&E Taylor Timbers Ltd, Hope
- Eurocell Wood Products, Nelson

Forest Processing Industry 2023

Continued

Goldpine Ltd, Richmond	
Halswell Timber Limited, Nelson	
Heagney Bros Ltd, Blenheim	
Motueka Lumber Co, Motueka	(S)
Nelson Forests Ltd, Renwick	(S)
Nelson Pine Industries, Richmond	(PP)
Oji Fibre Solutions (NZ), Tasman	
Plankville Ltd, Richmond	(S)
Prowood Ltd, Motueka	(S)
Southpine Ltd, Nelson	(S)
Southwood NZ Limited, Motueka	(S)
Timberlink New Zealand Ltd, Blenheim	
Timpack Industries Ltd, Nelson	(MW)
XLAM, Nelson	(MW)

Canterbury

Adams Sawmilling Co Ltd, Ashburton	(S)
Ashley Industrial Services Ltd, Oxford	(S)
Belfast Timber, Christchurch	
Bennetts Sawmill Limited, Oxford	(S)
Brindle Sawmills Ltd, Christchurch	(S)
Canterbury Roundwood 2006 Ltd, Rangiora	(MW)
Canterbury Woodchip Supplies Limited, Arundel	(CEF)
Daiken, Rangiora	(MW, PP)
Fraemohs Industries, Kaiapoi	
John Fairweather Specialty Timber Solutions, Sefton	(S)
Loburn Sawmill Limited, Loburn	(MW)
Lumberworx Ltd, Christchurch	(MW)
McAlpines, Rangiora	(S)
McVicar Timber Group Ltd, Christchurch	(S)
Mitchell Bros Sawmillers Ltd, Darfield	(S)
Niagara Sawmilling, Ashburton	
Philip Wareing Ltd, Methven	
Point Lumber Ltd, Washdyke	(PO)
Southern Pine Products Ltd, Christchurch	
SRS New Zealand Ltd, Rolleston	(S)
Starwood Products Ltd, Timaru	
Steve Murphy Limited, Kaiapoi	
Stoneyhurst Timbers Ltd, Christchurch	(S)
Sutherland & Co Ltd, Kaiapoi	
Temuka Timber & Firewood, Temuka	
Timpack Industries Ltd, Timaru	
Triple Trees Ltd T/A Waitohi Timber, Temuka	
Westco Lumber Ltd, Christchurch	(S)

West Coast

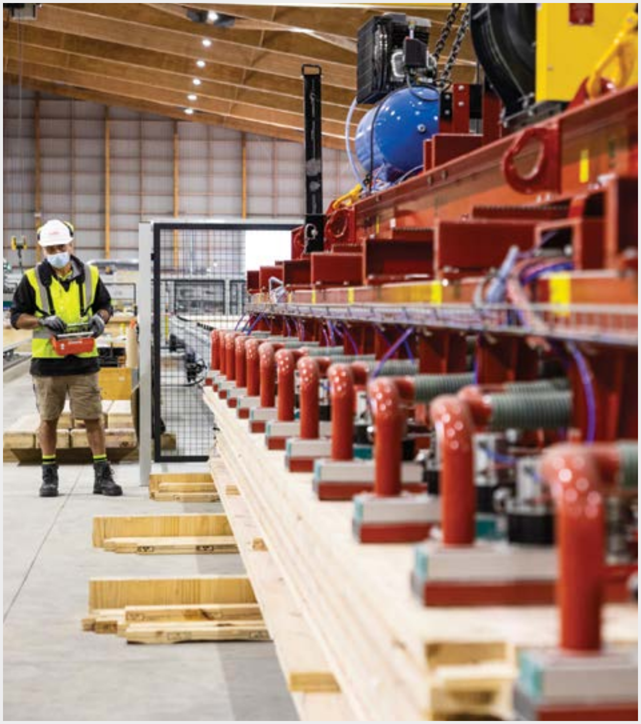
International Panel and Lumber Ltd, Greymouth	(PP)
NZ Sustainable Forest Products Ltd, Reefton	(S)
Southern Pine Products Ltd (Stillwater), Greymouth	(S)
Stillwater Lumber Ltd, Stillwater	(S, WP)
Westco Lumber Ltd, Hokitika	(S)
Westimber Limited, Ngahere	(S)

Otago Southland

Beven West Sawmilling Ltd, Invercargill	(S)
Craigpine Timber Ltd, Winton	(S)
Daiken Southland Ltd, Mataura	
Findlater Sawmilling Ltd, Winton	
Gorton Timber Co Ltd, Milton	
Hewvan Enterprises Ltd, Palmerson	
Hollows Timber Co Ltd, Balclutha	
Lindsay & Dixon, Tuatapere	(S)
Ngahere Sawmilling Co, Gore	(S)
Niagara Sawmilling Co Ltd, Invercargill/Ashburton	(S)
Otago Lumber, Gore	(S)
Pan Pac Otago, Mosgiel and Milton	(S)
Pankhurst Sawmilling (2015) Ltd, Riverton	(S)
Pooles Timber Ltd t/a Great Southern, Invercargill	(S)
Southwood Exports, Awaura	
Stuart Timber Co Ltd, Tapanui	(S)
Timpack Industries Ltd, Dunedin	(MW)
Truss Tech, Cromwell	
Young Brothers (2016), Mosgiel	(PO)

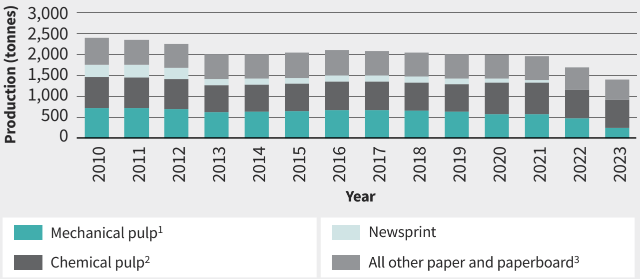
Sawmills

Processing Plants	
Fibreboard (MDF & Hardboard)	F
Particleboard (including Strandboard)	P
Plywood	PL
Poles	PO
Pulp and Paper	PP
Veneer/LVL/CLT	V
Paper/Tissue/Paperboard	PTP
Chip Export Facilities	CEF
Manufactured Wood Products	MW

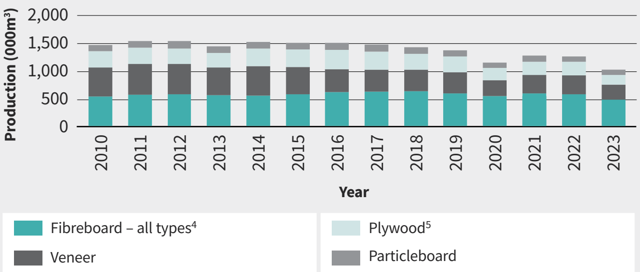


Paper, Pulp and Panel Production

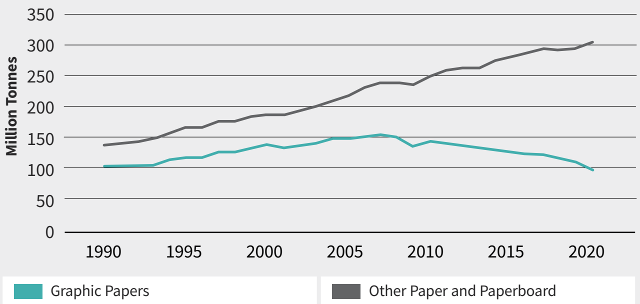
Paper and Pulp Production 2010-2023



Panel Products Production 2010-2023



Trends in the Production of Two Main Types of Paper Product, 1990-2020



Notes

1 Mechanical Pulp is those export items in HS item grouping 4701.
2 Chemical Pulp is those export items in HS groupings 4702, 4703, 4704 and 4705.
3 All other paper and paperboard includes printing and writing paper, other paper and paperboard.
4 Fibreboard includes MDF, hardboard & softboard.
5 Plywood includes laminated veneer lumber.

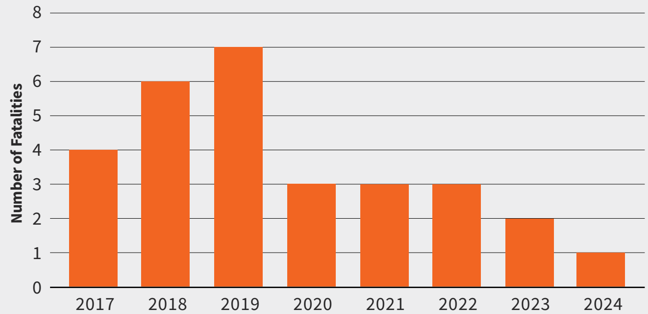
Source **Paper and Pulp Production** MPI
Source **Panel Products Production** MPI
Source **Trends in the Production of Two Main Types of Paper Product** State of the Worlds Forests, 2022

SECTION 4

Health, Safety and Training

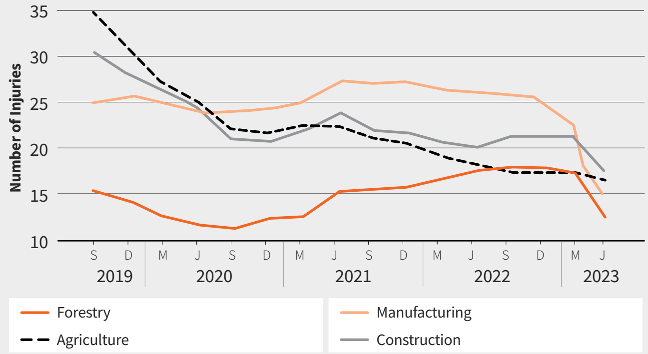
Health and Safety in the Forest Industry 2017-2023

Fatalities as at December 2024



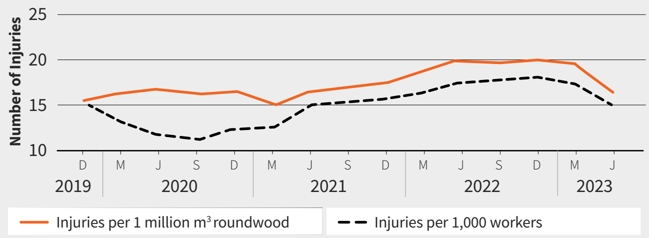
Injuries to Workers[1]

Rate of injuries to workers resulting in more than a week off work (per 1,000 workers)



How Do We Compare?[2]

Rate of injuries to workers resulting in more than a week off work



Notes

1 Rolling average last four quarters per 1000 workers.

2 Rolling average last four quarters.

Source **Fatalities** WorkSafe/MPI/FISC

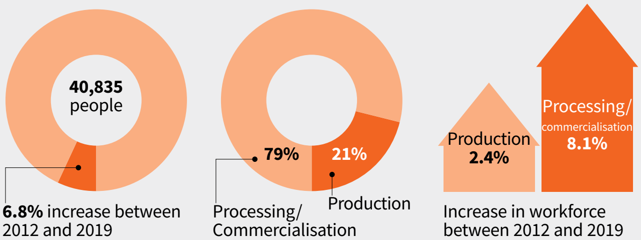
Source **Injuries to Workers** WorkSafe/MPI/FISC

Source **How Do We Compare?** WorkSafe/MPI/FISC

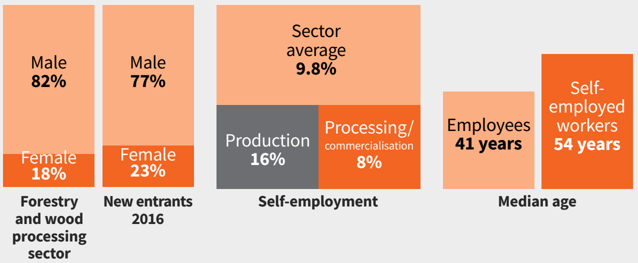
Forestry Workforce

Workforce count

The forestry and wood processing workforce makes up 11.1 percent of the food and fibre workforce. The sector is significantly more male dominated than other sectors, with men making up 82 percent of workers.

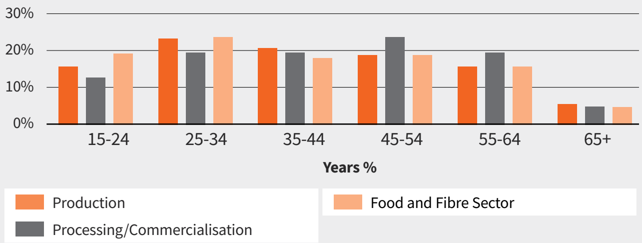


Demographics

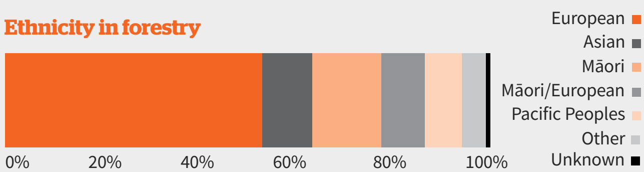


Age profile

The processing/commercialisation workforce has an older profile than the production and food and fibre sectors workforce. Workers aged 55 years and over comprise 24 percent of the workforce.



Ethnicity in forestry



Source **Food and fibre workforce: Snapshot** MPI 2022

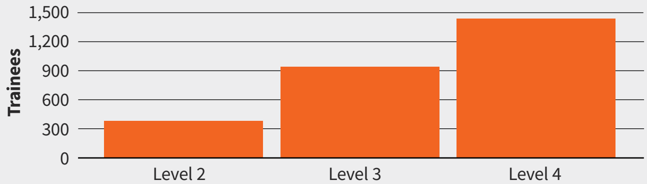
Industry Training

University of Canterbury
34 students completed their degrees at the University of Canterbury School of Forestry in 2023 – **25** with the Bachelor of Forestry Science and **9** with Bachelor of Engineering (Honours) (Forest Engineering). 1

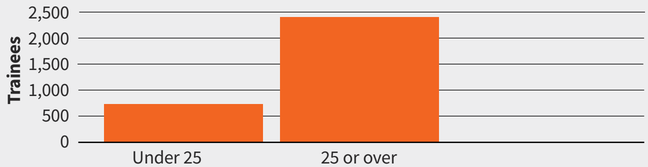
Competenz

Trainee Count

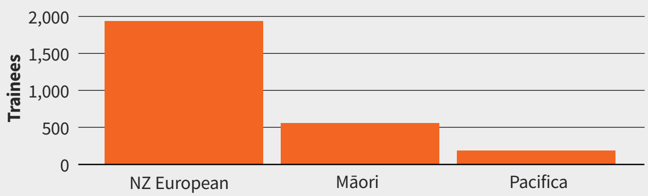
Trainee by Qualification Level



Trainees by Age



Trainees by Ethnicity



Source **Box 1** University of Canterbury
Source **Industry Training** Competenz

SECTION 5

Supplementary Information

Vision for 2050: Forestry will be New Zealand's number 1 primary sector and exemplify the best plantation forest management in the world.

01
Tree growth and forest production efficiency will have both doubled.

02
Our increasingly diverse forests will provide valuable products tailored to our customers' needs.

03
People will be attracted to work in forestry because they will be safe, valued and well trained.

04
Expanding commercial plantation forestry will have been the prime means of achieving New Zealand's net zero carbon goal by 2050, while providing other substantial environmental and social benefits.

05
Our licence to operate will have widespread support.

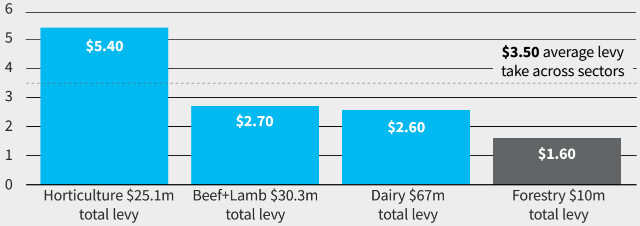
Source **A Forestry Roadmap for Aotearoa New Zealand** Forest Owners Association 2020 – 2050

forestgrowers levy trust inc

Commodity Levies

There are 31 Orders under the Commodity Levies Act, with single orders covering forestry, beef/lamb and dairy sectors. There are multiple orders for seafood, arable crops and horticulture. While the value of exports does not define the full value of any particular sector, it does provide a general impression of the production quantity of any industry and how much support a levy order gives it. The higher the ratio of levy income against the export returns, the greater the degree of support that levy gives to the particular industry. As can be seen below, the three other main export earners enjoy up to twice as much support from their levy payers, compared with the forest industry.

Levy Investment in $ per $1000 Worth of Exports

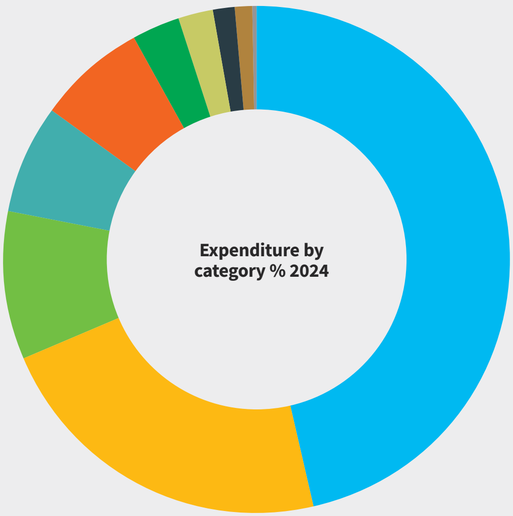


How the Levy is Invested

The current Harvested Wood Material Levy Order runs from 2019 to 2025. It is the second six-year order for wood material that levy payers voted in support of under the Commodity Levies Act 1990. The levy is calculated on the weight (in tonnes) of wood material that is harvested. The Levy becomes payable prior to material entering a mill or processing plant, when it enters a port or when the material is sold. The present levy rate is 33 cents per tonne of harvested wood material.

The Levy generated $10.2 million in 2023, a 5.7% percent decline from 2022.

Investment of the levy is made by a seven-person Board (the Forest Growers Levy Trust) with an independent chair and representation of both large and small-scale foresters. The Trust consults with the sector on how it intends to invest levy-payer's money each year through its annual industry-good Work Programme.
https://fglt.org.nz/



Source **How the FGL is Invested** Forest Growers Levy Trust

46.4% Research, Science and Technology

Research across the value chain, including specific *Pinus radiata* research, diseases, forest fire behaviour, wilding conifer control, propagation, automation, safety, environment and timber processing.

22.1% Operational Costs (incl. Administration)

Represents levy collection and database maintenance costs, business compliance costs and all direct costs associated with supporting FGLT secretariat and the planning, management and delivery of the annual Work Programme.

9.4% Forest Biosecurity

Oversight for forest biosecurity. Surveillance and diagnostics for pests and pathogens of plantation forestry, incursion response preparedness and readiness, including the Government Industry Agreement

7% Promotions

''Wood – Our Low Carbon Future' campaign with Te Uru Rākau, Mystery Creek National Fieldays Forestry Hub. Promotional marketing and sponsorship with print, television, social media, events and highway billboards.

7.1% Health and Safety

The industry commitment to support the work of the Forest Industry Safety Council (FISC) to drive down the number of forest accidents.

2.9% Training and Careers

Advise government agencies and training providers of number and direction of skills required in forest industry, promote training and career pathways for these skills.

2.2% Forest Resources and Environment

Forest growing and environment issues, including Forest Stewardship Council certification, biodiversity and freshwater management and climate change.

1.5% Transport

Working with the Log Transport Safety Council and represents forest growers' transport interests to local and central government. Log Transport Safety Improvement Plan (LTSIP). National safety compliance.

1% Small and Medium Forest Enterprises

Serves the needs of small and medium forest owners, as a conduit between other FOA/FFA Committees, and FGLT Board level in addition to FOA and FFA.

0.2% Fire

Providing plantation forest owners and managers with strategic guidance and coordination on the 4Rs of fire (Reduction, Readiness, Response and Recovery) and to foster collaboration with regulatory agencies, service providers, land management entities and the science community.

New Zealand's Greenhouse Gas Inventory

The Carbon Cycle

Planting trees begins a cycle that continuously removes, releases and re-absorbs 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.
When a structure or product reaches the end of its lifetime, the carbon dioxide is released back into the atmosphere as 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.

New Zealand's Greenhouse Gas Inventory

In 2022, New Zealand's total greenhouse gas emissions were 75.41 million tonnes of carbon dioxide (Mt CO_2-e). In 1990, gross emissions were 65.2 Mt CO_2-e.
In 2022, 24.5 Mt CO_2 was removed from the atmosphere by the forestry sector, compared with 21.2 Mt CO2 in 1990. Forestry sector carbon removals in 2021 reduced total emissions to 59.2 Mt CO_2 or an offset of 24.5 %.
Agriculture continued to be the largest contributor to New Zealand's greenhouse gas emissions, with 53% of the total at 41.7 Mt CO_2-e, compared with energy at 37%.

	Total emissions (million tonnes CO_2-e)	2021–22 Population (millions)	Emissions per each (tonnes CO_2-e)
Sheep	9.0	25.3	0.36
Deer	0.9	0.8	1.1
Beef	7.1	3.9	1.8
Dairy	13.6	6.1	2.2
Cars+	13.8	4.4	3.1
Plantation pines	-19.2	1200	-0.16

Notes
+ Motor Industry Association

Source Stock numbers from SOPI June 2022
Source Emissions, MfE, including New Zealand Greenhouse Gas Inventory 1999 – 2022

Forests Removing Carbon

How is carbon removed from the atmosphere by New Zealand's forests?

Forests act as carbon sinks – a reservoir which removes and stores more carbon from the atmosphere than it releases. Trees use carbon dioxide (CO_2) as part of their 'breathing' cycle – taking in CO_2 and storing it within roots, trunks and branches.
The amount of carbon removed by New Zealand's forests is therefore dependent on the coverage of forestland, the age and species of the trees and the rate of harvest.
New Zealand has committed to reduce net greenhouse gas emissions to 30% below 2005 levels by 2030 and to net zero carbon by 2050.

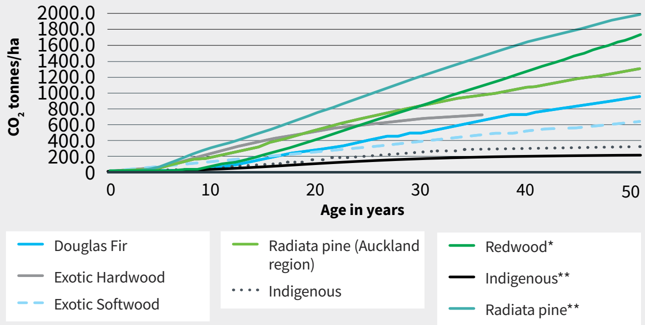
Area by species registered under the Emissions Trading Scheme

at 31 December 2023

Forest Type	Species Group	Area (ha)
Exotic	Douglas Fir	44,300
	Exotic Hardwoods	14,700
	Exotic Softwoods	16,400
	Pinus radiata	442,000
Indigenous		100,700
	2023 Total	**617,900**

At 31 December 2023
71.1% of the total exotic estate
was outside the ETS, compared with 73.4% in 2022.
[1]

Default Yield Tables of CO_2 Storage for Radiata and Other Tree Species



Source **Box 1** MPI
Source **Default Yield Tables of CO_2 Storage for Radiata and Other Tree Species** MPI
* **Redwood rate** Mike Watt and Rob Webster
** **Actual measured forest carbon sequestration**
Dr Euan Mason, University of Canterbury.

Other Benefits and Impacts

Biking in New Zealand's production forests

At least **96** production forests with bike access

Visitor stay characteristics: **3.9** nights and **$292** per day

Number of bikers in 2022 across New Zealand's plantation forests

335,000 visitors from outside host region + **265,000 locals** from within host region = **600,000 bikers** in plantation forests

Economic impacts on host regions by bike visitors to plantation forests

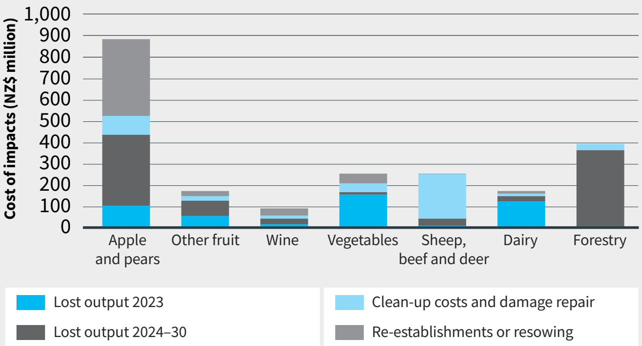
$291 million New spending in 2022

68% spend lift Since 2019 ($173m)

1,490 jobs Supported in 2022

MPI Estimated on-farm impacts from Cyclone Gabrielle

All regions, cost of impacts, NZ$ million

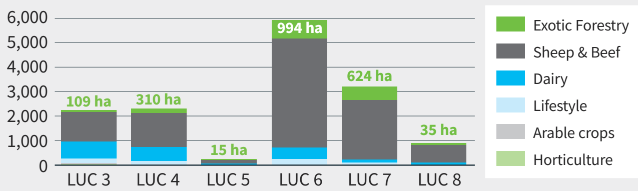


Source Benji Patterson
Source **Estimated on-farm impacts from Cyclone Gabrielle All Regions** MPI

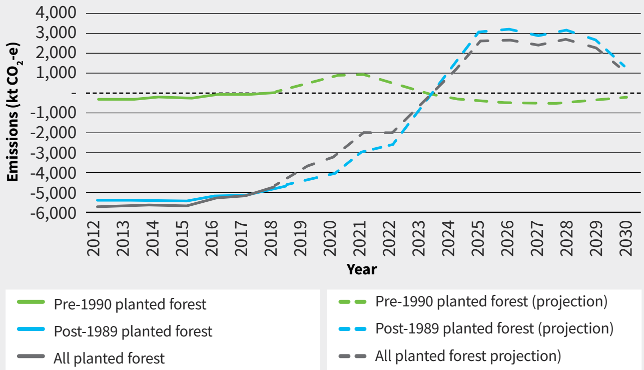
Forestry as a Land Use

Farms Online (15.9m ha) - Land Use by Land Use Capability[1]

(1000s of ha)

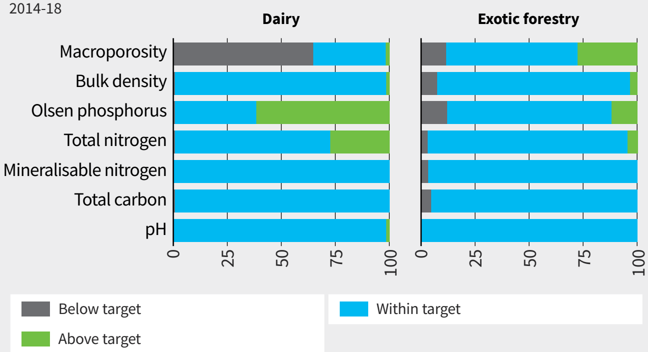


Net Emissions and Removals from Vegetation and Soils on Sheep and Beef Farms



Sites within Target Range of Soil Quality Indicators by Land Use Capability to Ensure Best Yields and Lowest Environment Damage

2014-18



Notes
[1] The highest Land Use Capability class is 1, with classes 1-4 capable of cultivation, to steep class 8 with little or no productive capacity.

Source **Farms Online – Land Use by Land Use Capability** MPI
Source **Net emissions and removals from vegetation and soils on sheep and beef farms** MfE, March 2021
Source **Sites within Target Range of Soil Quality Indicators by Land Use, 2014-18** Manaaki Whenua – Landcare Research

Sector Agreements

New Zealand Forest & Wood Sector Forum 2023
Established by forest owners, farm forestry, wood processing, Māori forestry, energy, transport and others in the forest sector for a unified voice to government and other stakeholders to promote the interests of the forest industry.

Plantation Forestry Rural Fire Control Charter 2021
FOA, FFA, FENZ and Te Uru Rākau New Zealand Forest Service support a charter to encourage working together to develop and promote objectives and actions to improve wildfire management for NZ, and communicate these objectives to our respective members and personnel.

Forestry Sector and Transpower MOU 2018:
FOA, FFA and FICA signed this working relationship MOU with Transpower to promote safety compliance, risk minimisation and works coordination where forestry is near Transpower's lines.

Forest Government Industry Agreement for Biosecurity 2015
The FOA has signed a Government Industry Agreement to protect New Zealand forests from introduced pests, weeds and diseases through sharing of costs and decision making. The Forest Biosecurity Surveillance programme began on 1 July 2016, covering all commercial plantations.

Forest Industry Safety Council 2015
The FOA is participating in FISC as the pan-industry Health and Safety initiative. FISC has an independent cross sector board. FISC's mission is to reduce the rate of serious injury and fatalities in plantation forests, with an ultimate goal of eliminating them.

Cooperation with Farmers 2013
The MOU with Federated Farmers, FOA and FFA is to manage relationships between forest owners/managers and their farming neighbours to promote co-operation and constructive neighbourly relations.

Eliminating Illegal Forest Products 2008
The FOA, WPMA and Pine Manufacturers Association joined NGOs in calling on the New Zealand government, importers, processors, retailers, New Zealand forest and plantation managers and processors of forest and plantation products, to strongly oppose the importation and use of illegally harvested and traded forest products in New Zealand.

New Zealand Climate Change Accord 2007
An agreement between FOA/FFA, the Timber Design Society and eight NGOs acknowledging the contribution of indigenous and plantation forests to mitigate climate change, which also provides a renewable, reusable and recyclable resource. The Accord endorses the principle of polluter pays.

New Zealand Forest Accord 1991 and 2007
The Forest Accord is between forest and timber groups and 10 NGOs to agree on; defining areas unsuitable for forestry, maintaining existing natural forest, recognition of commercial forestry as essential, indigenous forest extraction only on a sustainable basis and new forests not disturbing natural indigenous vegetation.

Terms, Names and Sites

Area and volume
- An average *Pinus radiata* tree yields 2.4 m^3 of wood at harvest.
- 1 hectare of 28 year-old *Pinus radiata* contains between 650 and 800 m^3 of wood.
- 1 hectare grows up to 28 m^3 of wood each year.
- A log truck and trailer carries approximately 30 tonnes of logs.
- A log ship contains approximately 30-35,000 tonnes of logs.
- By weight, the ratio of carbon to oxygen in carbon dioxide is 1-2.66.
- One unit mass of Nitrous oxide (N_2O) has 298 times the Global Warming Potential of a unit of Carbon dioxide (CO_2) over 100 years. Methane (CH_2) has 25 times the GWP of Carbon dioxide.

Abbreviations
AAU	Assigned Amount Unit
CCC	He Pou a Rangi Climate Change Commission
CER	Certified Emissions Reduction
ERU	Emissions Reduction Unit
FAO	Food & Agriculture Organization of the United Nations
FFA	New Zealand Farm Forestry Association
FGLT	Forest Growers Levy Trust
FICA	Forest Industry Contractors Association
FIEA	Forest Industry Engineering Association
FISC	Forest Industry Safety Council
FOA	New Zealand Forest Owners Association
FSC	Forest Stewardship Council
MfE	Ministry for the Environment
MPI	Ministry for Primary Industries
NEFD	National Exotic Forest Description
NZIER	New Zealand Institute of Economic Research
NZU	NZ Units
OIO	Overseas Investment Office
PEFC	Programme for the Endorsement of Forest Certification
SOPI	Situation and Outlook for Primary Industries
Stats NZ	Statistics New Zealand
WPMA	Wood Processors and Manufacturers Association

Facts & Figures organisation sites
Competenz	www.competenz.org.nz
FAO	www.fao.org/forestry
FFA	www.nzffa.org.nz
FGLT	www.fglt.org.nz
FIEA	www.fiea.org.nz
FISC	www.safetree.nz
FSC	www.nz.fsc.org/en-nz
MfE	www.mfe.govt.nz
MPI	www.mpi.govt.nz
NZIER	www.nzier.org.nz
NZFOA	www.nzfoa.org.nz
PEFC	www.pefc.org
Rare Species	www.rarespecies.nzfoa.org.nz
Scion	www.scionresearch.com
Statistics NZ	www.stats.govt.nz
WPMA	www.wpma.org.nz
WorkSafe NZ	www.business.govt.nz/worksafe

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Log Pricing Data

Part 1: Dec-17 to Mar-21

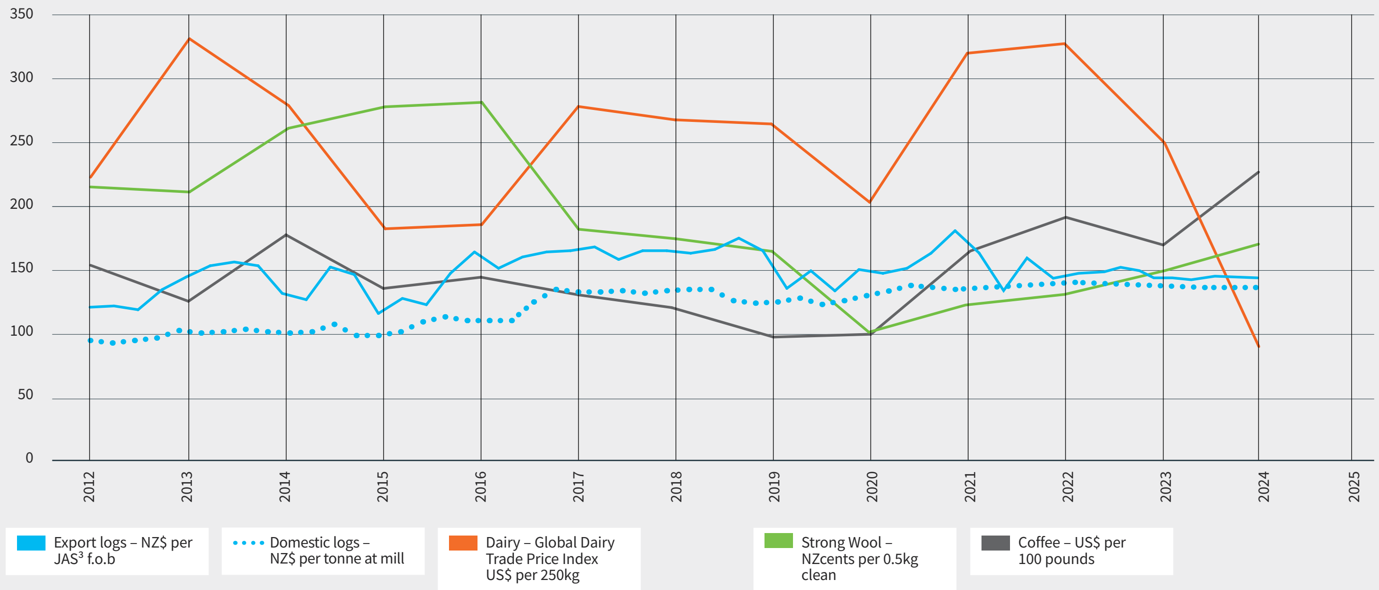
Log Type, Pricing Point, and Market	Dec-17 Quarter	Mar-18 Quarter	Jun-18 Quarter	Sep-18 Quarter	Dec-18 Quarter	Mar-19 Quarter	Jun-19 Quarter	Sep-19 Quarter	Dec-19 Quarter	Mar-20 Quarter	Jun-20 Quarter	Sep-20 Quarter	Dec-20 Quarter	Mar-21 Quarter
EXPORT[1] (NZ$ per JAS m³ f.o.b)														
Pruned	184-222	176-222	175-234	153-236	166-228	169-237	182-221	133-195	164-211	138-187	135-216	167-197	151-286	170-223
A Grade	144-168	147-172	154-175	145-172	150-172	158-183	151-172	121-141	144-156	120-146	111-161	125-141	135-156	150-178
K Grade	137-158	132-165	141-168	133-158	138-162	146-176	143-160	109-137	132-149	112-138	98-149	111-133	126-145	141-166
Pulp	117-148	122-150	130-151	119-152	127-154	135-159	129-144	98-117	116-130	74-122	91-133	102-118	102-131	128-151
Average	**159**	**166**	**166**	**164**	**167**	**176**	**166**	**136**	**150**	**134**	**151**	**148**	**152**	**164**
DOMESTIC[1] (NZ$ per tonne delivered at mill)														
P1	157-195	149-199	150-197	160-195	164-200	168-196	166-196	163-197	158-198	160-194	165-199	164-194	165-192	165-194
P2	120-190	97-191	126-194	143-195	128-195	132-194	125-195	114-191	128-191	129-192	149-194	115-197	125-198	130-197
S1	116-152	124-159	122-151	122-148	122-148	122-148	122-152	122-143	122-137	118-147	127-137	126-148	131-136	132-140
S2	120-144	115-141	120-141	123-143	120-143	122-144	110-147	115-142	120-132	117-132	110-130	117-125	117-135	117-134
L1 and L2	71-143	89-137	82-137	84-141	90-141	84-141	71-144	63-118	91-118	71-121	82-124	83-120	84-121	83-126
S3 and L3	83-134	109-136	109-129	88-130	111-133	104-132	96-135	84-124	88-113	82-117	100-139	93-112	102-119	99-120
Pulp	30-59	31-60	31-66	31-77	32-68	50-79	32-64	31-61	30-60	31-75	31-79	31-60	31-75	28-65
Average	**134**	**134**	**135**	**133**	**135**	**136**	**136**	**127**	**125**	**126**	**129**	**124**	**127**	**131**

Part 2: Jun-21 to Jun-24

Log Type, Pricing Point, and Market	Jun-21 Quarter	Sep-21 Quarter	Dec-21 Quarter	Mar-22P Quarter	Jun-22P Quarter	Sep-22P Quarter	Dec-22P Quarter	Mar-23P Quarter	Jun-23 Quarter	Sep-23 Quarter	Dec-23 Quarter	Mar-24 Quarter	Jun-24 Quarter
EXPORT[1] (NZ$ per JAS m³ f.o.b)													
Pruned	198-269	132-247	128-235	147-267	142-226	157-218	147-225	163-234	115-208	137-221	144-215	166-244	130-222
A Grade	172-196	134-180	112-135	110-168	109-157	133-159	119-156	133-173	103-144	117-150	128-174	118-167	98-139
K Grade	162-189	127-173	102-128	102-159	95-152	115-148	111-148	123-165	89-132	104-140	115-174	106-156	88-131
Pulp	133-178	118-156	88-115	87-218	82-134	112-146	93-128	123-145	73-114	87-123	101-174	85-140	71-114
Average	**182**	**164**	**129**	**155**	**145**	**148**	**149**	**151**	**148**	**145**	**146**	**143**	**144**
DOMESTIC[1] (NZ$ per tonne delivered at mill)													
P1	165-200	165-200	165-201	165-203	159-206	154-205	170-204	185-206	175-206	175-211	175-220	175-225	175-229
P2	128-187	150-202	145-199	145-197	145-204	145-195	145-203	145-198	145-201	162-203	145-196	135-204	155-201
S1	136-145	124-154	137-148	131-146	140-168	135-145	140-144	135-145	132-145	143-143	136-143	125-140	130-145
S2	126-147	113-148	99-139	122-158	123-157	125-141	125-137	125-139	125-135	104-128	105-130	122-134	119-131
L1 and L2	86-136	86-171	86-137	79-129	84-133	84-128	86-135	88-124	88-127	87-128	87-126	94-133	104-114
S3 and L3	97-132	72-142	72-124	97-123	100-150	88-125	101-125	89-128	101-123	93-120	93-120	90-119	107-120
Pulp	31-77	31-79	31-80	32-77	31-77	31-77	32-67	31-77	31-71	31-71	31-72	44-69	44-68
Average	**135**	**139**	**133**	**134**	**140**	**133**	**136**	**135**	**135**	**135**	**135**	**135**	**134**

NZ log, wool and international dairy and coffee prices

For Year Ending 30 June



Notes
[1] Insufficient data available to show J Grade export and Run of Bush domestic prices

Source **Log Pricing Data** MPI
Source **Log, Dairy, Wool and Coffee Prices** Global Dairy Trade, International Coffee Organization, Wrightson Wool, MPI (logs)

Disclaimer
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Forest work and the Big Rigs

Callum aims to run his own forest contracting crew one day.

But the 18-year old's immediate goal is to finish getting his tickets to operate the huge harvesting machinery, which is routine nowadays in a modern plantation forest.

Harvest mechanisation has rapidly increased during the past decade, making the work much safer for Callum and his mates.

There are harvesting machines with cabs to replace chainsaws and 'skidder' vehicles to haul the logs.

Callum got his job at Roxburgh Contracting, through the Year-13 Gateway Programme at South Otago High School.

Now he's set to be a forester for life.

www.woodourlowcarbonfuture.nz

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Manatū Ahu Matua

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