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Report Name: New Zealand Wood Products and Forestry Report

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Report Highlights:

In recent years, wood logs and processed wood products exports have accounted for seven percent of New Zealand's commodity exports. Approximately 38 percent of New Zealand’s landmass features native and exotic forestry; of this area, production forestry currently covers 6.5 percent or 1.8 million hectares of the country. Radiata Pine is the most predominant species planted in production forestry, accounting for over 90 percent. Since 2011, the national harvest has averaged 32.5 million cubic meters of wood, with over half of the logs harvested being exported as rough logs and approximately 44 percent going to domestic processing. China is the largest market for New Zealand rough logs, pulp, and wood products, followed distantly by South Korea, Japan, and Australia.

Executive Summary:

In recent years wood export logs and processed products have accounted for seven percent of New Zealand's commodity exports. New Zealand forestry products are in high demand worldwide – particularly in Asia. Approximately 38 percent of New Zealand's landmass is covered in native and exotic forestry, of this area production forestry currently covers 6.5 percent or 1.8 million hectares. Radiata Pine is the most predominant species planted in production forestry, over 90 percent. Since 2011, the national harvest averaged 32.5 million cubic meters of wood, with over half of logs harvested over this period being exported rough as logs and approximately 44 percent going to domestic processing.

China is the largest market for New Zealand rough logs, pulp, and wood products, followed distantly by South Korea, Japan and Australia. In the first half of 2023, commodity prices for products softened, leaving the industry exposed to commodity cycles.

In 2008, the New Zealand government amended legislation to create an Emissions Trading Scheme (ETS), which would allow for the recognition of carbon sequestration from post 1990 planted forestry. The system puts a price on emissions and recognizes carbon credits (NZUs), which are available for sale and could be sold to other industries to reduce their emissions. The value of these units saw a rapid increase over the last 5 years, leading to a further expansion in exotic forestry.

Note: The GAIN Marketing Year (MY) is the same as the calendar year (CY), January 1 to December 31. For the purpose of this report always refer to MY unless otherwise stated. For foreign exchange rate between New Zealand Dollar and United States Dollar, the rate used in this report is NZ$ 1.00 = US$ 0.59.

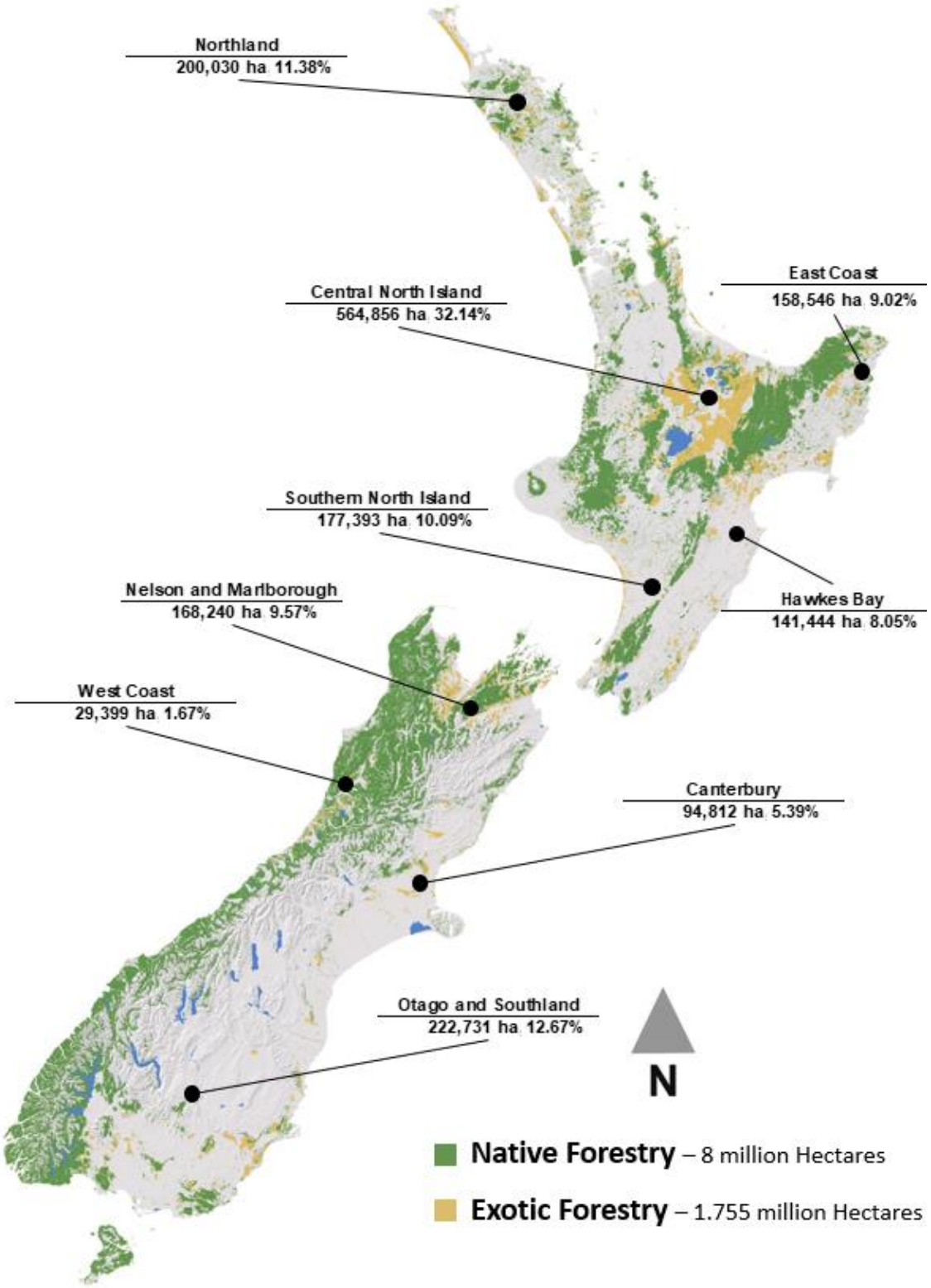
Background – New Zealand Forests

Before people reached New Zealand, more than 80 percent of the land was covered in native forests. As European settlers arrived, they cleared large tracts of land for settlements and to grow food, using the native timber to build towns and fence farms.

Settlers cleared the native forests rapidly, and by 1913, human actions threatened some native species with extinction. To reduce the pressure on native forests, exports of native timber were restricted, and in 1925, incentives were introduced to create plantations of exotic species. Radiata pine was the preferred tree crop because it grew faster in New Zealand than anywhere else. Mass plantings of exotic species in the 1920s, 30s, and 60s created a robust forestry industry that supplied all New Zealand's domestic timber needs and secured the future of the remaining native forest.

Today, native, and exotic forestry covers 10.1 million hectares (ha) of the country's 26.8 million ha, or 38 percent of the total landmass (Figure 1). Approximately 8 million ha of New Zealand forestry consists of native species in national parks, covenants, or private conservation areas. Exotic forestry stands cover 1.8 million ha of land spread right across the country for harvesting for timber. The remaining areas are in reserve to be replanted or are not destined to be harvested.

Figure 1: New Zealand Forestry distribution 2022

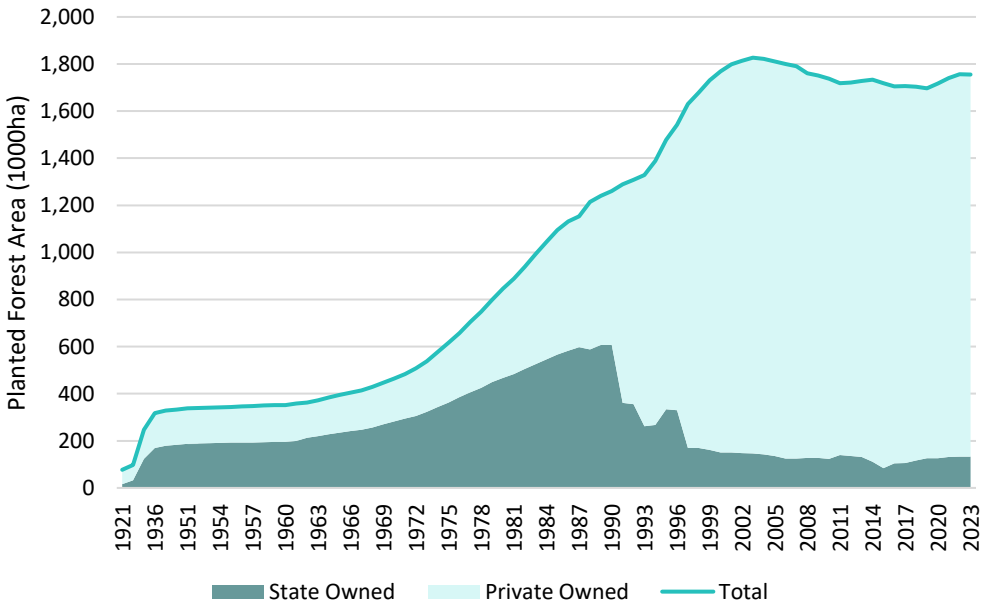


Source: Land Information New Zealand (LINZ) & Ministry for Primary Industries (MPI)

As of April 2022, of all managed forestry blocks in New Zealand, 95 percent (1.7 million ha) is privately owned. With the remaining areas owned by state-owned enterprises and local or central government (Figure 2). A small group of 21 private firms/entities own over 1.1 million ha of exotic forestry in New Zealand.

The early 1980s saw the merger of three national companies to make one of the largest multinational corporations in New Zealand at the time – Fletcher Challenge. The company had investment holdings in construction, forestry, building, and energy, initially just within New Zealand and then internationally, particularly in the United States. One of the major divisions within the corporation was the Forests Division, consisting of the corporation's wood plantation assets and forestry activities, one of the largest in New Zealand at the time. This division was involved in the huge expansion of forestry plantings in the early 1990s. In addition, the company had divisions in pulp and paper processing as well. Towards the end of the millennium, their substantial forestry portfolio went into receivership and eventually led to the demise and sale of assets in wood and pulp Manufacturing. This decision was a major catalyst in an industry shift from wood product processing in New Zealand to the export of logs to offshore processing in China.

Figure 2: Planted Forestry Areas and Ownership 1921-2023



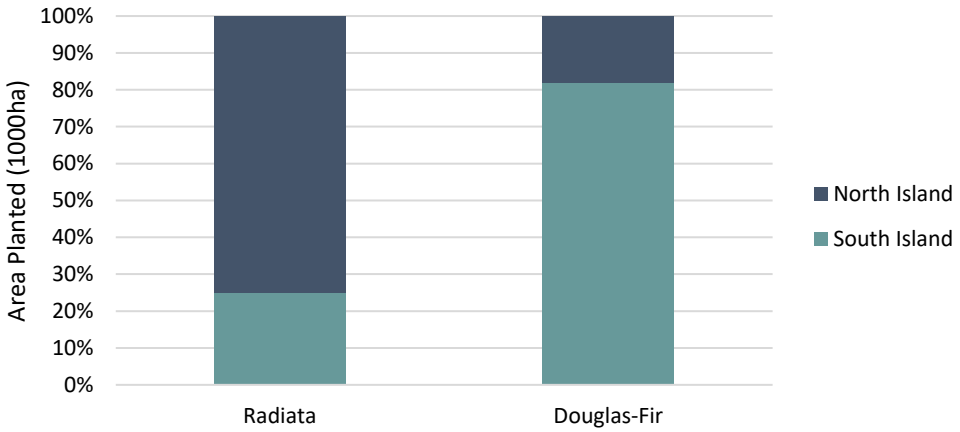
Source: StatsNZ and National Exotic Forest Description

Forestry Areas

Radiata pine (*Pinus radiata*) continues to comprise the predominant areas of forestry, consisting of over 90 percent of the area by species or 1.58 million ha, increasing annually by 0.5 percent per year since 2017. Douglas-Fir (*Pseudotsuga menziesii*) is the second most common species of exotic forestry,

comprising 5.6 percent or 98,399 hectares. Three-quarters of the national Radiata pine areas are in the North Island of the country due to the favourable conditions and altitude for this variety of trees (Figure 3). 82 percent of Douglas-Fir stands are in the South Island, as this type of tree is more suited to colder conditions and higher altitudes.

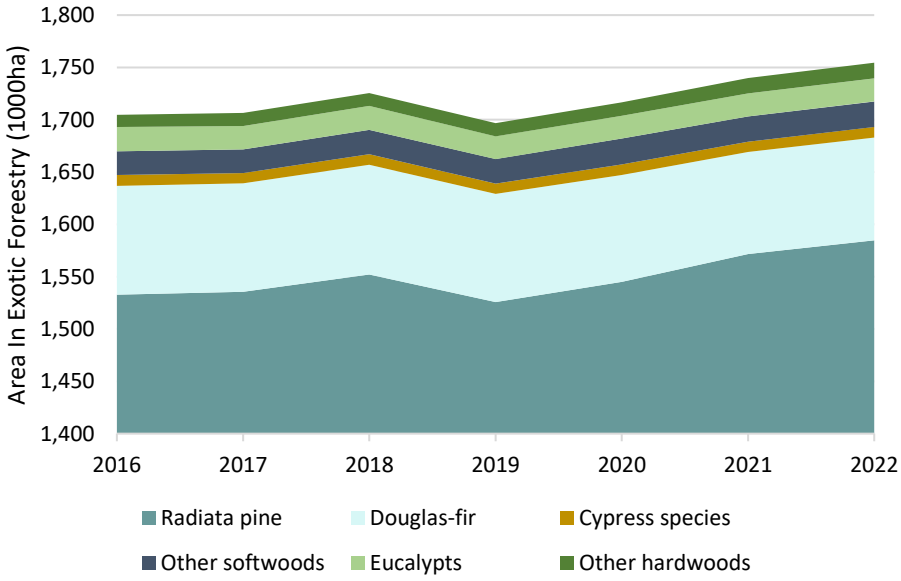
Figure 3: Proportion of Forestry Species by Main Islands



Source: MPI

Other exotic forestry plantations in New Zealand also consist of Eucalypts (1.3 percent, 22,133ha), Cypress Species (0.6 percent, 10,053ha), Other Hardwoods (0.9 percent, 14,990ha), and other softwoods (1.4 percent, 24,228ha). Over the last seven years, the national area in forestry has grown 50,000ha, all of which is Radiata pine (Figure 4).

Figure 4: Areas in Exotic Forestry and Types

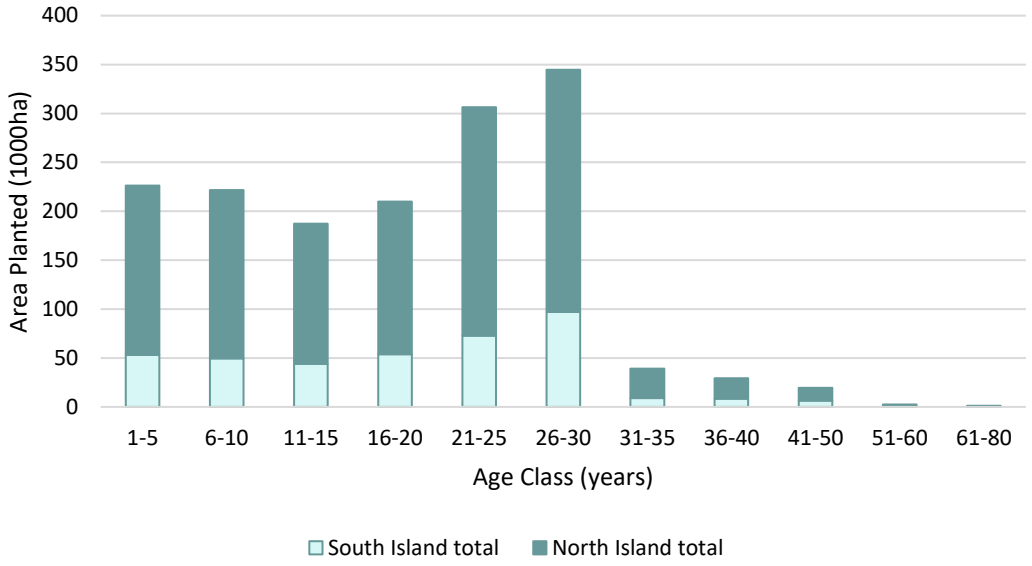


Source: MPI

Production

New Zealand Forestry Area peaked in 2003 at 1.827 million ha (Figure 2). Since 2011, the average annual forestry harvest has been 32.5 million cubic meters (m3) of wood, with the lowest annual volume over this period being 28.1 million m3 in 2011 and the most being 36.4 million m3 in 2017. Production forestry in New Zealand takes approximately 30 years to reach a harvestable age. In the early 1990s, New Zealand embarked on a large planting program of radiata pine (Figure 5), which is now reaching harvest maturity. As a result, some of the biggest harvest years are ahead for timber production. The Ministry of Primary Industries (MPI) yield forecasts average annual wood availability forecast at 35.4 million m3 per annum in the next 5 years.

Figure 5: New Zealand Areas and Age of Radiata Pine Stands



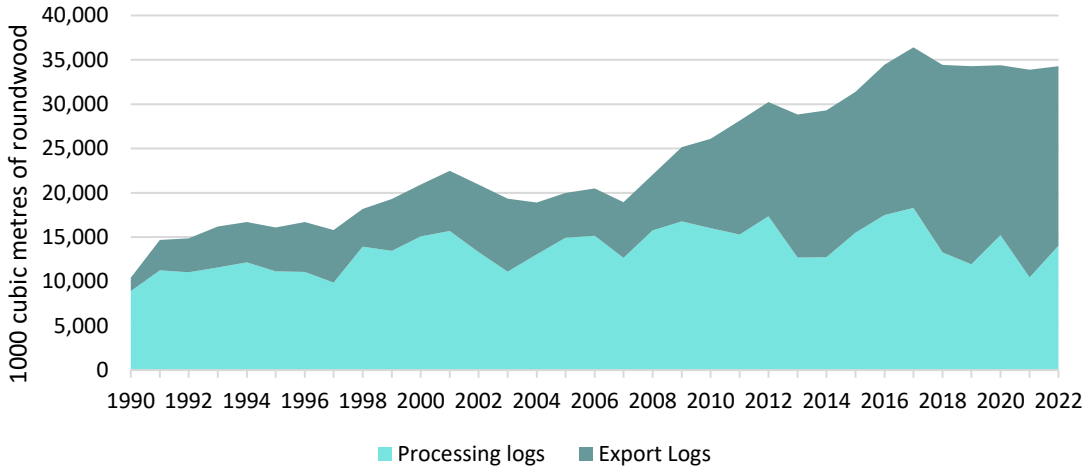
Source: MPI

Domestic Production and Processing

In 1990, 86 percent of the national harvest went to domestic processing for wood products and pulp. This was the highest proportion of logs utilized. This declined to its lowest ever in 2021, comprising only 31 percent of wood harvested. Over the last 30 years, average domestic production has been 13.6 million m3 of logs harvested, and this has been relatively stable from year to year (Figure 6). Meanwhile, exports of rough logs have continued to grow at 8.2 percent per annum since 1990.

Since 2022, the number of building consents in New Zealand was -2.5 percent of the previous year, then -22.6 percent for the first half of 2023. Over this period, the country experienced inflationary pressure, and the Reserve Bank of New Zealand increased the Official Cash Rate from 0.25 percent to 5.5 percent, slowing investment in housing. Which, as a result has negatively impacted the domestic production of wood products and materials.

Figure 6: Volume of Roundwood Harvested and Purpose

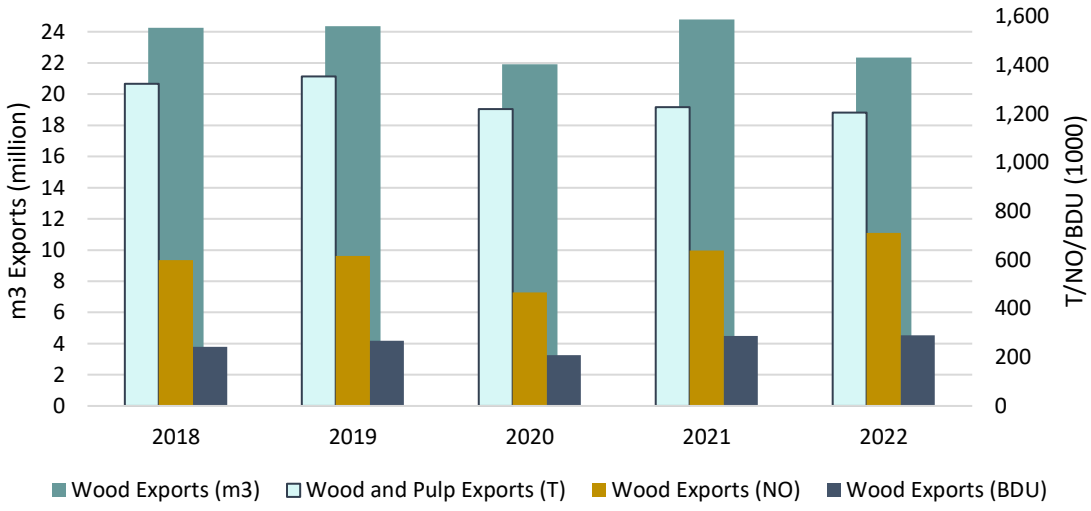


Source: MPI

Exports

In the last 10 years, rough logs for export have surpassed logs destined for processing. In 2022, of the 22.3 million m3 wood products exported, 90 percent were rough wood logs (Figure 7). The remaining volumes of wood exports (m3, T, NO, and BDU) are comprised of various wood panels, paper pulp, and articles of wood. Rough log exports in the last five years have averaged 59 percent of total export revenue from wood and pulp, which in 2022 totaledNZ$6.2 billion (US$3.7 billion).

Figure 7: New Zealand 5 Year Wood and Pulp Exports

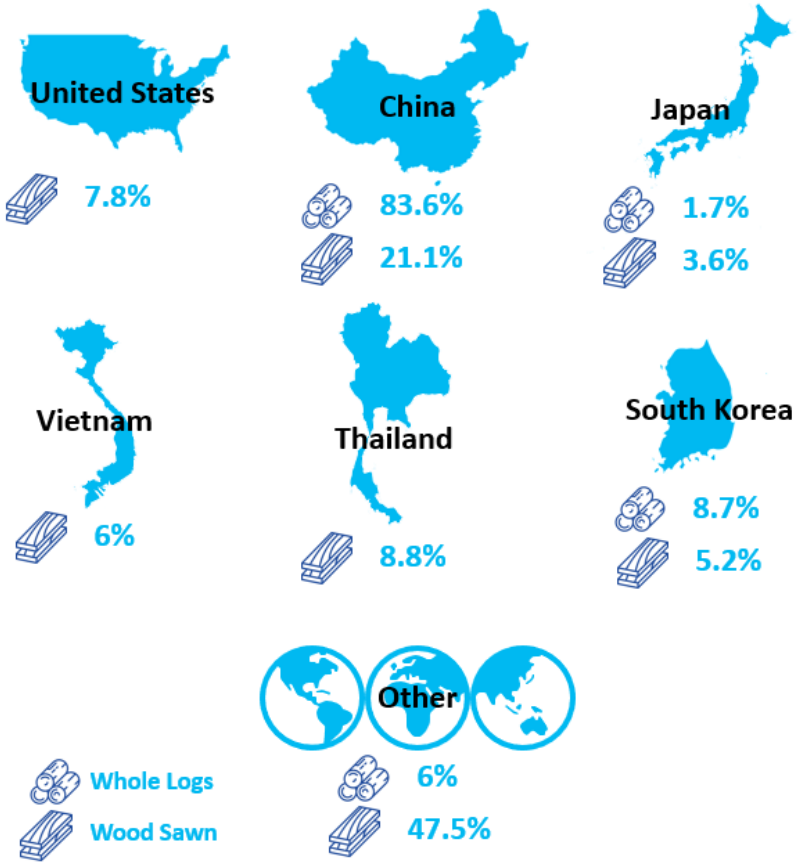


Source: Trade Data Monitor LLC

Key: m3= cubic meters, T= metric tons, NO= number, BDU= bone dry units

Over the last 5 years, China has been, and continues to be, the largest importer of New Zealand rough logs at 83.6 percent (Figure 8). New Zealand consistently only exports logs in substantial volumes to a few countries. Other than China, which is by far the leading export destination, South Korea and Japan are also significant. India was a large consumer of New Zealand logs, taking on average 9 percent of export volumes until 2019, but those volumes were replaced in recent years by exports to the United States.

Figure 8: New Zealand Log and Processed Wood 5 Year Average Exports by Volume



Source: Trade Data Monitor LLC

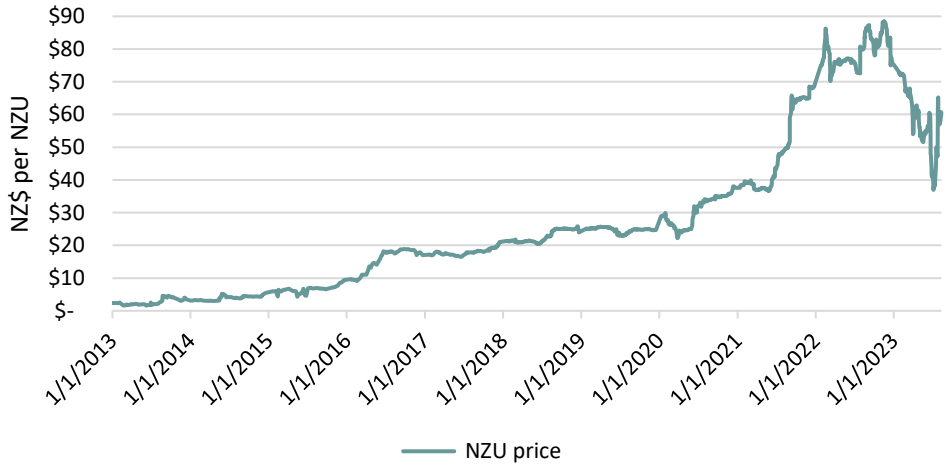
Emissions Trading Scheme

The New Zealand Emissions Trading Scheme (NZ ETS) is an all-gases partial coverage uncapped domestic emissions trading scheme that features price floors, forestry offsetting, free allocation, and auctioning of emissions units. The NZ ETS was first legislated in the Climate Change Response (Emissions Trading) Amendment Act, in September 2008. For forestry owners this would allow for the recognition of sequestration from post 1990 planted forestry to collect tradeable units with other industries in the ETS.

A New Zealand Unit (NZU) is the primary unit of trade for the NZ ETS. An NZU represents one metric ton of carbon dioxide equivalent and can cover emissions and removal. The highest price for a NZU was recorded on November 15th, 2022, at NZ$88.50 (US$55.76). Since this peak, the price has softened but remains somewhat volatile (Figure 9).

According to the Forest Owners Association, there are currently 350,000ha registered in the ETS. As of August 2023, 3,572 account holders are participate in the ETS who own post-1989 forest land in the emissions trading scheme.

Figure 9: New Zealand Unit (NZU) Price



Source: CarbonNews

Carbon Farming Controversy

With the strong carbon price in recent years (Figure 9), New Zealand has seen a rise in investors purchasing or leasing land for planting pine trees. However, not with the intention of managing for harvest in ~30 year, these operations are purely for the issuance of NZUs for trading in the NZ ETS. the term 'Carbon Farming' is commonplace in the media these days. There is a controversy arising around harvesting forestry blocks in the future: there is little to no investment in infrastructure necessary for the harvest or management of the forests, such as roads, skid sites, fire breaks and dams. In addition, the planting density is higher than a production forest, with no thinning or pruning taking place over the forest's lifetime.

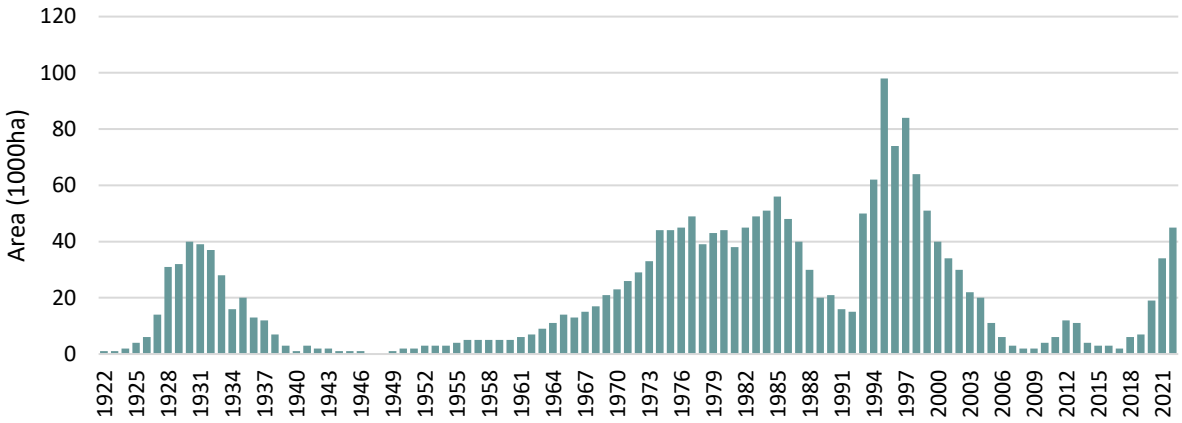
The controversy in rural communities is that carbon farming threatens to de-populate rural communities, as the absence of management provides no employment or revenue stimulus to local personnel and communities. In areas utilized for other purposes such as farming, or production forestry, the situation is different. The absence of management systems around forest thinning, fire breaks, and weed/pest control is a significant concern - leaving regions vulnerable when flooding, wildfires, and pest damage problems arise.

As mentioned, approximately 350,000ha, or 20 percent of forestry registered in the NZ ETS. New Zealand Forestry Owners' Association estimate that less than 30 percent of ETS-registered forestry could be classed as ‘Carbon Farming’, as all their members own managed production forestry, which suggests that there is ~105,000ha of forestry already planted for carbon-only farming.

Future/Outlook

Ministry for Primary Industries forecasts the 2023 to 2027 harvests to average 35.4 million m3 per year, 1.2 million m3 more than previous 5-year average of 34.2 million m3. This analysis results from the extensive planting regime in the 1990s of production forestry (Figure 10). As these cleared areas emerge, the hectares harvested will need replanting, in addition to any new land plantings already planned or forecasted. As a result, the growth in total forestry area over the next decade may be slower than in recent years.

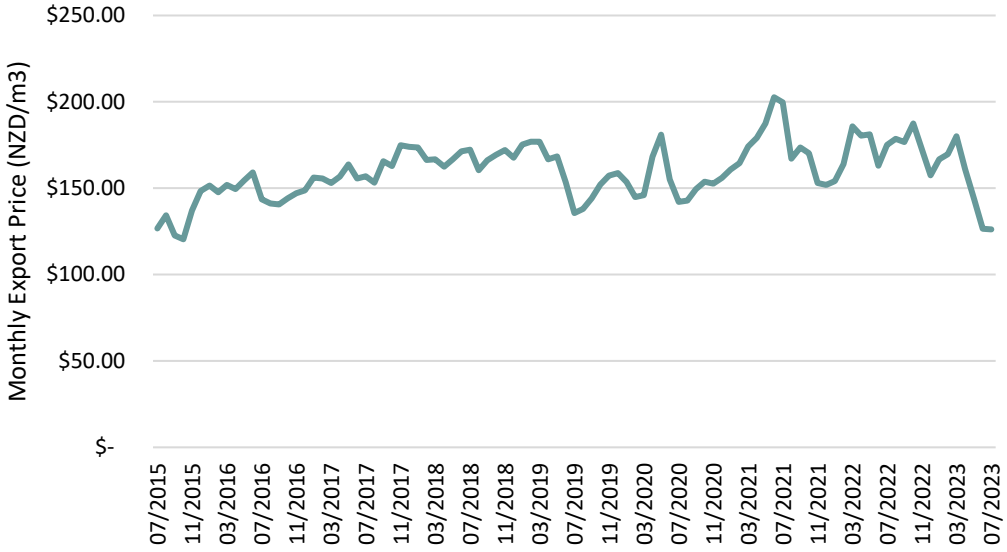
Figure 10: New Land Planted in Production Forest



Source: MPI

In June 2023, the unit price for rough wood exports to China fell to NZ$126m3 (US$74.34m3), the lowest level seen since October 2015 at NZ$120.44 (US$71.06) (Figure 11). New Zealand in 2022 represented 40 percent of total rough wood volume imports into China. However, this was 95 percent pine, a raw product much cheaper than spruce, beech or hardwoods imported from other countries such as Germany and United States. In addition, the high volumes forecasted to be maturing for harvest in the coming years may also contribute to the recent price decrease.

Figure 11: Monthly Rough Wood China Export Unit Price



Source: Trade Data Monitor LLC

The New Zealand Government is looking to invest in its onshore wood processing capability. In August 2022, the Minister of Forestry launched the draft Forestry and Wood Processing Industry Transformation Plan as part of the government's work to add significant value to the sector. This plan outlined the need to invest in processing logs domestically rather than sending them offshore for other countries to extract value. In addition, the plan notes a need to move from a commodity resource producer to creating high-value, low carbon products and jobs for local New Zealanders. However, this growth will also require investment from the private sector to grow domestic opportunities and value addition for wood products at profitable scale. With the current exposure to softening commodity prices and a heavy reliance on the Chinese market for rough wood exports, this would be an investment towards market diversification and reaching the country's net zero emission obligations under the Paris Agreement.

Appendix 1: New Zealand Forestry Table

New Zealand: Indicative Supply Forestry		2016	2017	2018	2019	2020	2021	2022		7yr Average
Area by Species										
Radiata pine	***Ha***	1,532,734	1,535,510	1,551,985	1,525,711	1,545,102	1,571,574	1,584,701		1,549,617
Douglas-fir	***Ha***	104,173	103,726	104,992	103,430	102,236	97,584	98,399		102,077
Cypress species	***Ha***	10,140	9,855	9,965	9,825	10,034	9,970	10,053		9,977
Other softwoods	***Ha***	22,743	22,539	23,415	23,381	24,619	24,027	24,228		23,565
Eucalypts	***Ha***	23,182	22,307	22,777	21,777	21,757	21,950	22,133		22,269
Other hardwoods	***Ha***	11,775	12,492	12,343	12,481	12,827	14,866	14,990		13,111
Total Area in Trees	***Ha***	1,704,747	1,706,429	1,725,477	1,696,605	1,716,575	1,739,971	1,754,505		1,720,616
Area Harvested	***Ha***	47,492	52,257	62,103	36,404	34,383	34,383	44,504		44,504
Area Replanted	***Ha***	42,230	42,312	44,725	55,758	53,696	42,319	46,840		46,840
New Plantings	***Ha***	3,675	5,323	8,293	7,000	19,000	34,000	45,000		17,470
Trees Harvested	***M3***	34,442,050	36,404,461	34,440,690	34,264,019	34,400,817	33,874,868	34,269,425		34,585,190
Yield	***M3/Ha***	725	697	555	941	1,001	985	770		810
Domestic Use										
Logs for Domestic Processing	***M3***	17,013,637	17,157,530	13,033,794	12,543,243	14,891,490	11,371,977	14,063,666		14,296,477
Exports										
Export Logs	***M3***	17,428,413	19,246,931	21,406,896	21,720,776	19,509,327	22,502,891	20,205,759		20,288,713
Other Wood Exports	***M3***	2,719,790	2,745,690	2,840,687	2,643,207	2,405,380	2,293,674	2,149,300		2,542,533
Wood and Pulp Exports	***T***	1,368,844	1,394,047	1,322,718	1,352,407	1,218,115	1,226,377	1,204,666		1,298,168
Wood Product Exports	***NO***	104,991	83,206	112,275	80,689	50,725	63,331	128,301		89,074
Wood Exports	***BDU***	302,378	284,155	242,522	267,851	207,972	287,531	290,235		268,949
Imports										
Other Wood Imports	***M3***	278,374	732,898	351,021	414,933	466,970	792,037	1,279,340		616,510
Wood and Pulp Imports	***T***	80,788	90,908	96,728	91,946	89,698	97,573	99,827		92,495
Wood Product Imports	***NO***	657,677	641,446	645,227	715,839	437,672	596,271	371,197		580,761
Wood Imports	***BDU***	219	214	224	152	227	1,169	169		339

Appendix 2: Wood Products HS Codes

Description	HS Code	Unit
wood and articles of wood; wood charcoal	44	
fuel wood in logs.; wood in chips or particles; sawdust and wood scrap, whether or not agglomerated in logs, briquettes or other forms	4401	BDU
fuel wood in logs etc.; wood in chips or particles; sawdust and wood scrap, whether or not agglomerated in logs, briquettes or other forms	4401	T
wood charcoal (including shell or nut charcoal), whether or not agglomerated	4402	T
wood in the rough, whether or not stripped of bark or sapwood, or roughly squared	4403	M3
hoopwood; split poles; piles, pickets and stakes of wood, pointed; roughly trimmed wooden sticks for walking-sticks, etc.; chipwood and the like	4404	T
wood wool (excelsior); wood flour	4405	T
wood sawn or chipped lengthwise, sliced or peeled, more than 6 mm (.236 in.) thick	4407	M3
veneer sheets and sheets for plywood and other wood sawn lengthwise, sliced or peeled, not more than 6 mm (.236 in.) thick	4408	M3
wood, continuously shaped (tongued, grooved, molded, etc.) along any of its edges or faces	4409	M3
wood, continuously shaped (tongued, grooved, molded, etc.) along any of its edges or faces	4409	T
particle board and similar board of wood or other ligneous materials	4410	M3
fiberboard of wood or other ligneous materials	4411	M3
plywood, veneered panels and similar laminated wood	4412	T
plywood, veneered panels and similar laminated wood	4412	M3
densified wood, in blocks, plates, strips or profile shapes	4413	M3
wooden frames for paintings, photographs, mirrors or similar objects	4414	T
packing cases, crates, drums and similar packings of wood; cable-drums of wood; pallets and other load boards of wood; pallet collars of wood	4415	T
packing cases, crates, drums and similar packings of wood; cable-drums of wood; pallets and other load boards of wood; pallet collars of wood	4415	M3
casks, barrels, vats, tubs and other coopers' products and parts thereof, of wood, including staves	4416	T
tools, tool bodies, tool handles, broom or brush bodies and handles, of wood; boot or shoe lasts and trees of wood	4417	NO
tools, tool bodies, tool handles, broom or brush bodies and handles, of wood; boot or shoe lasts and trees of wood	4417	T
builders' joinery and carpentry of wood, including cellular wood panels, assembled parquet panels, shingles and shakes	4418	NO
builders' joinery and carpentry of wood, including cellular wood panels, assembled parquet panels, shingles and shakes	4418	T
tableware and kitchenware, of wood	4419	T
wood marquetry and inlaid wood; cases etc. for jewelry or cutlery and similar articles, statuettes and other ornaments, of wood; wood furniture nesoi	4420	T
articles of wood, nesoi	4421	T
articles of wood, nesoi	4421	NO
pulp of wood or other fibrous cellulosic material; recovered (waste and scrap) paper and paperboard	47	T
mechanical woodpulp	4701	T
chemical woodpulp, dissolving grades	4702	T
chemical woodpulp, soda or sulfate, other than dissolving grades	4703	T
wood pulp obtainied by a combination of mechanical and chemical pulping processes	4705	T
pulps of fibers derived from recovered (waste and scrap) paper or paperboard or from other cellulosic material	4706	T
waste and scrap of paper or paperboard	4707	T

Attachments:

No Attachments.