Afforestation and Deforestation Intentions Survey 2024

Final Report

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Prepared for Ministry for Primary Industries
By Professor Bruce Manley (School of Forestry, University of Canterbury)

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Executive summary

An accurate picture of the afforestation and deforestation intentions of landowners is important for developing forestry policy settings, creating projections of greenhouse gas emissions and removals, and for New Zealand's country reporting. To this end, MPI has commissioned deforestation intention surveys (of planted forests) since 2005, and afforestation intention surveys (for exotic and indigenous forests) since 2020. The survey has canvased a suitable and consistent group to obtain information on afforestation intentions for exotic and indigenous forest, and deforestation intentions for planted forest through to 2030.

The general approach followed was a telephone survey of:

- Large-scale forest owners - generally owners with more than 10,000 hectares of forest
- Forestry consultants and managers
- Other individuals or organisations identified as undertaking afforestation

A telephone survey was adopted to get a good response rate. Respondents were contacted in November/December 2024 (with some follow-up in early 2025) and asked about their afforestation and deforestation intentions. There were 79 respondents to the survey.

The main survey was carried out at a time when the carbon price was in the range $59/NZU to $64/NZU. The Government announcement on 4 December 2024 to place restrictions on ETS registration based on Land Use Capability (LUC) class occurred during the survey period.

Exotic afforestation

2024 afforestation: intended and achieved

Exotic afforestation is estimated, from the survey results, to be 59,100 hectares in total for 2024. In 2024, the Central North Island region, which includes King Country, had the largest percentage of total afforestation followed by Southern North Island-East and Northland. Some 70% of exotic afforestation from 2022 to 2024 has been in the North Island with 35% of total afforestation in the eastern wood supply regions (East Coast, Hawke's Bay, Southern North Island-East) of the North Island. The percentage of afforestation in East Coast has been at a relatively low level since Cyclone Gabrielle.

The level of afforestation achieved in 2024 (59,100 hectares) is greater than intentions stated in the 2023 survey (51,800 hectares). At the time of the 2023 survey there were two general patterns to the intentions for 2024. Some respondents were accelerating their afforestation intentions because of concerns about changes to the ETS, in particular the limitations, signalled in the National Party 2023 election manifesto, on the area by LUC class that could be registered in the ETS. Other respondents had a large reduction in clients wanting to afforest in 2024 compared to 2023 because of uncertainty around the direction/rules of the ETS. What transpired is that respondents have taken the opportunity to continue/accelerate their afforestation intentions ahead of LUC limitations being announced.

Intended 2025 afforestation

This 2024 survey has found that total exotic afforestation is intended to be 60,600 hectares in 2025. Radiata pine is intended for 86% of this area with eucalypts, redwood and attenuata/radiata pine hybrid next in importance. There is uncertainty about the percentage of area that will be afforested by region in 2025 with land acquisition to be finalised. However, stated intentions suggest a large increase (in 2025 compared to 2024) in the percentage of national afforestation in Otago (up from 8% to 12%) and Southland (up from 11% to 22%).

The total afforestation intended for 2025 is very similar to that achieved in 2024. The general pattern is that respondents are trying to bring forward afforestation ahead of impending changes. It could well be that the area of afforestation in 2025 increases from the surveyed level as respondents digest the implications of the Government announcement on 4 December 2024 and utilise any opportunity that the delay in implementing LUC restrictions may provide to those wishing to undertake afforestation.

Some respondents interviewed prior to the 4 December 2024 announcement expressed concern about the vacuum in policy. However, others were looking forward to restrictions. Some respondents had anticipated (or had received advice) that restrictions would not apply to 2025.

For some respondents interviewed after the 4 December 2024 announcement, the proposal was as anticipated. However, others expressed frustration and even anger at the Government release because of the lack of clarity and the uncertainty that it perpetuated.

Barriers to exotic afforestation reported by respondents include:

- ETS changes and uncertainty
- Requirement for OIO approval by overseas investors
- Local government regulations and difficulty in obtaining a resource consent
- Tree stock availability

More specifically, when asked about barriers to afforestation, virtually all respondents referred to changes and uncertainty about the ETS, including LUC restrictions. Six respondents commented about the OIO approval process although only two thought that it was still a barrier. Seven respondents raised issues about local government regulations including the time and cost involved in getting resource consents. Six respondents highlighted the quantity or quality of tree stocks available from nurseries, particularly availability of the attenuata/radiata pine hybrid.

There is uncertainty even for 2025 afforestation with only 73% of intended afforestation (44,400 ha) confirmed at the time of the survey in November/December 2024. Beyond 2025, the survey found that uncertainty is even greater. Afforestation intentions are dynamic with many respondents waiting to see what happens with land use restrictions, ETS settings and carbon price. It is apparent that future afforestation rates will be driven by central and local government restrictions, ETS settings and carbon price, as well as the availability of key resources.

Indigenous afforestation

2024 afforestation: intended and achieved planted indigenous afforestation

Planted indigenous afforestation is estimated from the survey at 3,500 hectares in 2024 which is the same as the intentions stated in the 2023 survey. There were offsetting differences by category. The area of tall planted indigenous species was 1,700 ha compared to the 1,400 ha intended, while the area of mānuka planted was 1,800 ha compared to the 2,100 ha intended.

Intended 2025 planted indigenous afforestation

The survey found that total planted indigenous afforestation is intended to be 2,200 hectares in 2025. This consists of 1,400 ha of tall planted indigenous species and 800 ha of planted mānuka. Of the 2,200 ha of planting intended in 2025 for indigenous species, only 1,400 ha was confirmed at the time of the survey. The balance was uncertain because funding was yet to be confirmed in some cases.

Indigenous reversion

In the case of indigenous reversion, respondents provided information for the year of ETS registration. This will differ from the year of establishment/afforestation. The area of indigenous reversion registered by respondents in 2024 was 13,800 ha compared to 5,500 ha intended in the 2023 survey. There is an intention by respondents to register 18,600 ha of indigenous reversion in 2025. The level of registration of indigenous reversion has stepped up as land-owners have seen the opportunity for financial return for marginal land. Existing forestry consultants/managers and new entrants have set themselves up for the expansion by employing specialist staff. There is uncertainty over the level of natural reversion that will be achieved, with ETS eligibility to be confirmed in some cases.

Deforestation

This survey found that a very similar level of deforestation is intended by large-scale owners as for the previous 2023 survey. It is estimated from the survey that large-scale planted forest owners intend to convert 1,200 hectares of forest between 2024 and 2030 to non-forest land uses. Conversion by large-scale owners is mainly to infrastructure with some to residential/lifestyle, dairy (or dairy support) and sheep and beef agriculture. Infrastructure includes forest being acquired for a road corridor and a landfill. A majority of the intended conversion by large-scale owners is of pre-1990 forests - just 20 hectares is estimated to be conversion of post-1989 plantations. As large-scale owners intend to plant 300 hectares to offset some of the area converted, the intended area of net deforestation is 900 hectares.

Assuming a deforestation rate of 8.3% of the area harvested, deforestation by small-scale owners during 2024 to 2030 is projected to be around 13,700 hectares in total. From 2024 to 2030 a total of 14,600 hectares of planted forest deforestation is forecast across both large-scale and small-scale owners. Total deforestation decreases to 7,200 ha of deforestation when a lower rate of 3.8% is used for small-scale deforestation and increases to 22,100 ha of deforestation when a higher rate of 12.8% is used.

Introduction

Background

MPI requires information on afforestation intentions for exotic and indigenous forest and deforestation intentions for planted forest. MPI has commissioned a survey of afforestation and deforestation intentions from a suitable and consistent group to obtain reliable estimates of national and regional afforestation and deforestation up to the year 2030. This survey is a repeat of the afforestation intention surveys carried out since 2020 and the deforestation intention surveys carried out since 2005.

This information will be used for government projections of greenhouse gas emissions and removals for future commitment periods, estimating New Zealand's progress towards a low emissions economy, and an indication of the impact of policy changes on the rate of afforestation. Information on afforestation and deforestation also informs future policy scenarios across MPI and helps to assess the broader impacts of land use change.

Definitions

The survey covers deforestation for planted forests only but afforestation of exotic and indigenous species by both planting and natural reversion.

Deforestation

Deforestation is defined in the Marrakesh Accord as "the direct human-induced conversion of forested land to non-forested land".

Deforestation includes:

- A decision not to replant following clearfell with the conversion to another land use.
- Early liquidation of a forest (i.e. removing immature trees with conversion to another land use).

Deforestation excludes:

- Forests harvested and replanted.
- Harvested forests that are not replanted but naturally regenerate back into forest.

For the purposes of the Emissions Trading Scheme (ETS), deforestation is defined in the Climate Change Response Act (2002). Section 179 is reproduced in the Appendix. It legislates that deforestation is deemed to have occurred if:

- a specified stocking has not been achieved within four years of clearing by replanting or regeneration; or
- a specified canopy cover has not been achieved within 10 years of clearing.

The Act was amended by the Climate Change Response (Emissions Trading and Other Matters) Amendment Act 2012 to allow for conversion to not be treated as deforestation in certain cases including, under Section 179A,"in the case of pre-1990 forest land that is the subject of an offsetting forest land application that the EPA has approved under section 186B, the pre-1990 forest land that is cleared may not be treated as deforested if cleared".

Consequently, under the ETS, the area of deforestation is calculated as the area of conversion less the area of offset planting.

Afforestation

Under the definitions of the Marrakesh Accord, "both afforestation and reforestation refer to direct, human-induced conversion of land to forest from another land use. The definitions do not include replanting or regeneration following harvest or natural disturbance, because these temporary losses of forest cover are not considered deforestation. Harvest followed by regeneration is considered a forest management activity. The distinction between afforestation and reforestation is that afforestation occurs on land that has not been forest for at least 50 years, while reforestation occurs on land that has been forest more recently, though not since 31 December 1989".[1]

This survey is concerned with the afforestation/reforestation of post-1989 forest land[2]; i.e.

"Land which meets the forest land criteria, and:

- was not forest land on 31 December 1989; or
- was forest land on 31 December 1989 but was deforested between 1 January 1990 and 31 December 2007; or
- was pre-1990 forest land that was deforested on or after 1 January 2008, and any ETS liability has been paid."

Production forest vs Permanent forest

For the purposes of this survey:

- Production forest is forest that is intended for clearfell harvest.
- Permanent forest is not intended for clearfell harvest. Note that this does not necessarily mean that growers who adopt permanent forestry will choose to register forest in the ETS permanent forestry category.

[1] Section 4.2.5 – Intergovernmental Panel on Climate Change – Good Practice Guidance for Land Use, Land-Use Change and Forestry.
[2] https://www.mpi.govt.nz/dmsdocument/6991/direct

Approach

The general approach followed was a telephone survey of:

- Large-scale forest owners - generally owners with more than 10,000 hectares of forest
- Forestry consultants and managers
- Other individuals or organisations identified as undertaking afforestation

When interviewed, respondents were also asked to identify other known afforestation (actual or intended) in their region. Information was also sought from other sources (for example, mānuka honey producers and seedling suppliers) about known afforestation activity. In order to better capture planting of indigenous species, Trees That Count were included in the survey and provided aggregate data by region for many indigenous afforestation projects not otherwise captured by the survey.

A telephone survey was adopted to get a good response rate. Respondents were contacted in November/December 2024 (with some follow-up in early 2025) and asked about their afforestation and deforestation intentions. Results from individuals were aggregated to maintain data security and ensure that individual respondents cannot be identified.

Afforestation

Respondents were asked for the area that they had afforested in 2024 and the area that they intended to afforest each year from 2025 to 2030. Information was obtained on:

- Area
- Species
- Wood Supply Region
- Whether land availability (and other resources required) has been confirmed
- Barriers to afforestation
- Views on political risk

Deforestation

Respondents were asked for the area that they had converted to a non-forestry land-use in 2024 and the area that they intended to deforest each year from 2025 to 2030. Information was obtained on:

- Area
- Wood Supply Region
- Land-use that area will be converted into
- How much area of offset planting they would undertake. (The 2012 amendments to the ETS enable offsetting; i.e., landowners are permitted (without incurring any liability) to convert area provided that they afforest/reforest a carbon-equivalent area elsewhere in New Zealand)

Year of conversion

In this report the conversion of forest to a non-forest land use is reported as occurring in the year in which the clearfelling activity occurred on that area of land, which is consistent with international LULUCF reporting and accounting. However, this does differ from the definition used in the ETS where the year of deforestation is determined at the point of land use change, rather than the point of clearfell, but with deforestation liabilities (if any) calculated at the time the forest was cleared.

Limitations

Incomplete information

The general response to the telephone survey was very good. All individuals contacted, with one exception, were willing to provide information. One company refused to respond to the survey. Estimates of future afforestation by this company were made, using company responses to surveys in previous years as a starting point.

In some other cases, the information provided was incomplete because the company was not able to provide details. For example:

- Some respondents are still acquiring land and the other resources that they need for afforestation in 2025.
- Many respondents are focusing on the logistics of afforestation in 2025 and are still developing plans for subsequent years.
- Some forests are grown on land under a single rotation lease meaning that the replanting decision will be made by the land-owner rather than the current crop-owner.

Current intentions

Estimates are based on intentions surveyed during November/December 2024 (with some follow-up in early 2025). These reflect perceptions about land-use economics, Government policy implementation, carbon price and other factors as they exist at the time of the survey. Clearly intentions are subject to change due to changes in drivers.

LUC restrictions

Of note here, the Government announcement on 4 December 2024, to place restrictions on ETS registration based on Land Use Capability (LUC) class, occurred during the survey period. The proposed changes[3] are:

- A moratorium on exotic forestry registrations for Land Use Classification (LUC) 1-5 actively farmed land.
- An annual registration cap of 15,000 hectares for exotic forestry registrations on LUC 6 farmland.
- Allowing up to 25% of a farm's LUC 1-6 land to be planted in forestry for the ETS, ensuring farmers retain flexibility and choice.
- The ability for landowners to have their LUC categorisation reassessed at the property level.
- Excluding specific categories of Māori-owned land from the restrictions, in line with Treaty obligations, while ensuring pathways for economic development.
- Transitional measures for landowners currently in the process of afforestation who can demonstrate an intent to afforest prior to 4 December 2024.

Legislation will be introduced in 2025 and is intended to enter into force from October 2025.

The proposed limits on afforestation by LUC class align closely with in the National Party 2023 election manifesto on Reducing Agricultural Emissions.

Carbon price

The main survey was carried out in November/December 2024 at a time when the carbon price was in the range $59/NZU to $64/NZU.

[3] Government release 4 December 2024 https://www.beehive.govt.nz/release/protecting-nz-food-production-and-ets-credibility

Results – Afforestation

Exotic afforestation

There were 79 respondents to the survey of whom 50 intend to undertake afforestation with exotic species in 2025. Total afforestation for exotic species is intended to be 60,600 hectares in 2025 with 80% intended for production and 20% intended for permanent forest (Table 1 and Figure 1).

It should be noted that there is uncertainty about the split between production and permanent forestry after 2025 to the extent that this report does not distinguish between production and permanent forestry from 2026 on.

Table 1: Afforestation estimates (2022-2024) and intentions (2025-2030) for exotic species split between production forests and permanent forests (from previous and current survey results).

	2022	2023	2024	2025	2026	2027	2028	2029	2030
Production (ha)	53,200	59,600	44,600	48,300	0	0	0	0	0
Permanent (ha)	10,900	9,400	14,500	12,300	0	0	0	0	0
Total (ha)	64,100	69,000	59,100	60,600	17,200	13,500	11,200	11,100	13,700

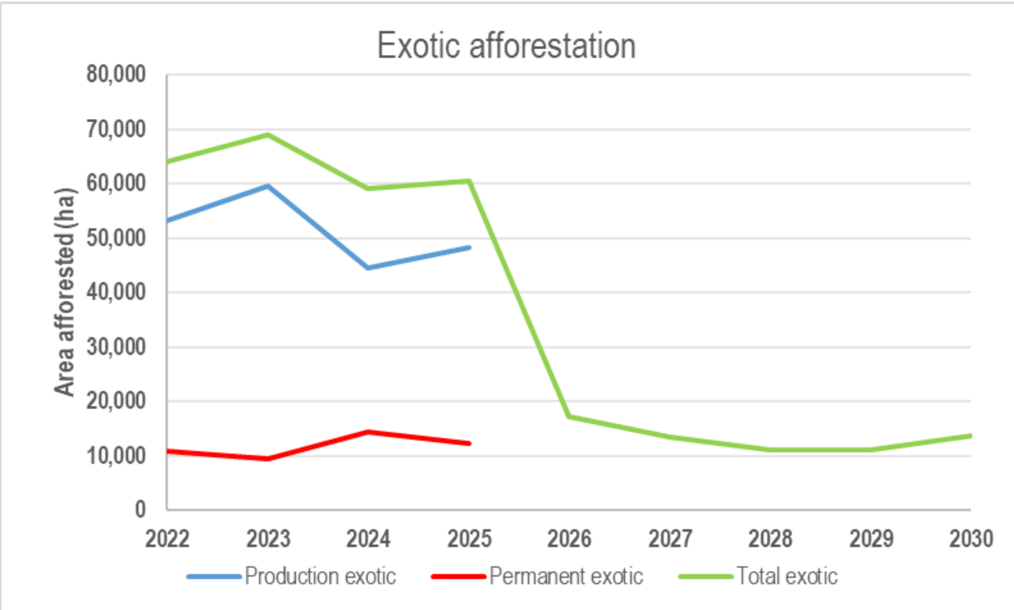

Figure 1: Afforestation estimates (2022-2024) and intentions (2025-2030) for exotic species. Afforestation is split (for 2022 to 2025) between production forests and permanent forests.

The total afforestation intended for 2025 by respondents is very similar to that achieved in 2024. It could well be that the area of afforestation in 2025 increases from the surveyed level as respondents digest the implications of the Government's 4 December 2024 announcement and utilise any opportunity that the delay in implementing LUC restrictions may provide to those wishing to undertake afforestation. In a subsequent update (25 March 2025) on the proposed changes, MPI has advised that "the Government proposes that any land that is already forest land when the change to the law takes effect will be exempt from the new LUC based restrictions”.[4]

Most respondents were aware of the proposed limits on afforestation by Land Use Capability (LUC) class to reduce whole-farm conversions in the National Party 2023 election manifesto on Reducing Agricultural Emissions. Many respondents commented about the proposals.

Some respondents interviewed prior to the December 4 announcement expressed concern about the vacuum in policy:

- “We are concerned about the uncertainty over LUC restrictions. As a consequence, we are putting conditions in place on land purchases. We are not land banking but are buying properties that we intend to afforest in the immediate planting season. We are taking parts of farms (typically 300 ha) and leaving the farm as a going concern.”
- “The potential LUC limits and the slow pace of announcement creates uncertainty, particularly in the context of the coalition government.”
- “Uncertainty over LUC6 restrictions is a barrier to afforestation.”
- “We are no longer purchasing land. There is too much risk under the ETS as we await the Government announcement.”
- “The biggest risk is the political noise. The Government doesn’t want good productive agricultural land to go into forest but they need to recognise the relative economics of forestry versus sheep & beef agriculture, as well as private landowner property rights.”
- “People are holding off because of uncertainty over LUC restrictions.”
- “Our biggest barrier is potential land-use restrictions. The Government is trapped between the need for more trees and Federated Farmers.”
- “Investors have slowed down because of uncertainty about where the Government is going with the ETS. We have a group of investors waiting for the Government announcement.”
- “We accelerated our planting programme in 2024 because of the expected Government restrictions. Our 2025 intentions are lower.”

Some respondents interviewed prior to the December 4 announcement were looking forward to restrictions:

- “Our primary goal is wood production. Any restrictions will likely result in lower land cost.”
- “This may create opportunities for production forestry on better land. Some LUC6 land may become cheaper than LUC7 land. Although a seemingly perverse outcome, as a forestry company it may suit us.”
- “We told the Minister that lock & leave forestry should be prevented by legislation.”
- “It will mean more trees on farms rather than farms of trees.”

Some respondents had anticipated (or had received advice) that restrictions would not apply to 2025:

- “We understand that nurseries had been given an assurance by the government that any intended afforestation would be excluded from LUC restrictions.”
- “Don’t expect that LUC6 restrictions will apply until 2026.”
- “Investors are trying to pre-empt any change by planting in 2025.”

[4] https://www.mpi.govt.nz/dmsdocument/68436-Update-on-proposed-changes-to-limit-farm-conversions-to-exotic-forestry-in-the-Emissions-Trading-Scheme-ETS

- “We don’t see any risk in planting in 2025.”

For some respondents interviewed after the December 4 announcement, the proposal was as anticipated. For example:

- “The announcement was not a shock.”

However, others expressed frustration and even anger at the Government release because of the lack of clarity and the uncertainty that it perpetuated. In particular, there was frustration that, a year after the proposal was announced in the National Party 2023 election manifesto, there were still no details on:

- How the annual registration cap of 15,000 ha on LUC6 farmland would be applied.
- What specific categories of Māori-owned land would be excluded from the restrictions.
- What was required to demonstrate an intent to afforest prior to 4 December 2024.
- Whether demonstration of an intent to afforest prior to 4 December 2024 is required for afforestation in 2025.
- Whether the transitional measure only applies to afforestation in 2025, or could it apply to afforestation beyond that; for example, in the case of a multi-year afforestation project for 2025 to 2027 that was already ‘in process’.
- Would applicants be able to register area in the ETS prior to October 2025 for afforestation in 2026.

Some comments:

- “There is still a high level of uncertainty.”
- “There is a failure to understand the spatial distribution and mixture of LUC classes. Many North Island sheep and beef farms are a mixture of LUC 6 and LUC7 with some LUC1-4 mixed in.”
- “The advice that we gave the Government and its officials over the last year has been ignored.”
- “The announcement has made farm succession harder.”
- “We are still digesting the announcement.”
- “I am trying to digest the announcement but it looks like a very blunt tool.”
- “People won’t plant LUC6 land unless they have an allocation. How will they get certainty about this?”

Some respondents interviewed after the December 4 announcement said that there had been a response by some clients:

- “The phone started ringing after the release with requests to book trees in for the 2025 season.”
- “The announcement provides a great opportunity for landowners to plant their own land with carbon price likely to increase because of a smaller supply of units.”

Given that the survey on exotic afforestation was completed soon after the 4 December 2025 announcement, it is likely that the stated intentions do not fully reflect its implications.

Which species are being used for exotic afforestation?

Radiata pine dominates exotic afforestation (Table 2) although the percentage of afforestation in radiata pine in 2024 and 2025 is lower than in 2022 and 2023. Offsetting this has been an increase in the percentage of afforestation of eucalypts and redwoods. Reported intentions for 2025 are similar to 2024 with a small decrease in the percentage of intended afforestation in radiata pine and a small increase in the percentage of attenuata/radiata pine hybrid.

Table 2: Percentage of actual exotic afforestation in 2022 to 2024 and intended exotic afforestation in 2025 by species

Species	% afforestation			
	2022	2023	2024	2025
Radiata pine	90.8	90.1	87.0	85.8
Attenuata/radiata hybrid	1.4	1.5	1.4	2.8
Douglas fir	0.7	1.5	1.0	0.9
Cypress	0.5	0.6	0.1	0.3
Redwood	2.9	2.9	4.0	3.6
Eucalypts	3.0	2.9	5.3	5.6
Other species	0.7	0.5	1.2	0.9
Total	100.0	100.0	100.0	100.0

Where is exotic afforestation occurring?

Afforestation intentions were grouped by National Exotic Forest Description (NEFD) wood supply region or, in the case of Nelson/Marlborough, Otago/Southland and Southern North Island (SNI), by sub-region. SNI was split into West and East using the Ruahine, Tararua and Remutaka ranges. A small area of afforestation in the Chatham Islands has been included in the Canterbury region.

Caution must be exercised in interpreting regional trends. A small number of property (or part-property) conversions in a season can affect the relative planting rates between regions. However, in 2024, the Central North Island, which includes King Country, had the largest percentage of total afforestation followed by Southern North Island-East and Northland. Some 70% of afforestation from 2022 to 2024 is in the North Island with 35% of total afforestation being in the eastern regions (East Coast, Hawke's Bay, Southern North Island-East) of the North Island (Table 3). The percentage of afforestation in East Coast has been at a relatively low level since Cyclone Gabrielle.

There is uncertainty about the percentage of area that will be afforested by region in 2025 with land still being acquired. However, stated intentions include a large increase (compared to 2024) in the percentage of afforestation in Otago (12%) and Southland (22%) in 2025. A number of large properties are intended for afforestation by their owners, resulting in over a third of national afforestation in 2025 being intended for Otago/Southland.

Table 3: Percentage of actual exotic afforestation in 2022 to 2024 and intended exotic afforestation in 2025 by species by NEFD wood supply region. (Column totals might not add to 100% because of rounding).

Region	% afforestation			
	2022	2023	2024	2025
Northland	9	8	13	8
Central North Island	12	14	18	12
East Coast	18	6	6	6
Hawke's Bay	12	11	11	12
SNI East	12	16	14	7
SNI West	9	12	10	9
Marlborough	3	3	1	3
Nelson	1	0	0	0
West Coast	0	0	0	1
Canterbury	4	7	7	8
Otago	13	14	8	12
Southland	7	9	11	22
Total	100	100	100	100

Barriers to exotic afforestation

Barriers to afforestation reported by respondents include:

- ETS changes and uncertainty
- Requirement for OIO approval by overseas investors
- Local government regulations and difficulty in obtaining a resource consent
- Tree stock availability

When asked about barriers to afforestation, virtually all respondents referred to changes and uncertainty about the ETS. Six respondents commented about the OIO approval process although only two thought that it was still a barrier. Seven respondents raised issues about local government regulations including the time and cost involved in getting resource consents. Six respondents highlighted the quantity or quality of tree stocks available from nurseries, particularly for the attenuata/radiata pine hybrid.

Barriers to afforestation were different to those identified in the 2023 survey. In the 2023 survey, four respondents expressed concern about the powers delegated to councils under the National Environmental Standards for Commercial Forestry (NES-CF). However, these concerns were not raised in the current survey. Some respondents noted the Government proposal on 5 September 2024[5] for resource management reform to make forestry rules clearer and ensure that they are consistent across New Zealand. This includes repealing regulation 6(4A) which currently allows councils to introduce rules in a plan that may be more stringent or lenient than the NES-CF regulations relating to afforestation.

ETS changes and uncertainty took many forms. Most concerns related to restrictions on afforestation on some LUC classes. These have been covered in the previous section. Other concerns related primarily to the ETS annual charge:

[5] https://www.beehive.govt.nz/release/resource-management-reform-make-forestry-rules-clearer

- “The $15/ha/year overhead cost will mean that potential alternative species (redwoods/cypresses/eucalypts) areas will now be radiata pine to reduce uncertainty about the ability to cover overheads.”
- “The ETS admin fee is still a challenge for some at $15/ha. It would be better to tax ETS trades when money is being made.”

There were mixed views expressed about OIO approval processes including:

- “OIO has opened up.”
- “We are not concerned about OIO. OIO has looked favourably on redwoods.”
- “OIO is still too hard to get through.”
- “We mostly deal with New Zealand farmers and so OIO is not an issue.”
- “OIO not a problem now
    - Greenfields (Benefit to NZ test) takes 35 days – no carbon forest is allowed.
    - Land in trees (Forestry test) takes 20 days.”
- “We are not comfortable doing an OIO benefit to NZ test at the moment.”

Concerns were raised about local government regulations, particularly the time and cost involved in getting resource consents:

- “We are frustrated by differences in interpretation by different parts of Horizons Regional Council. We got full support for afforestation of erosion-prone land for production forestry but are now finding it hard to get a resource consent for harvesting.”
- “ECAN is slow in issuing resource consents in flow sensitive catchments.”
- “We are still having to deal with GDC operating in the fallout on the regulatory scene.”
- “We don’t have a workable regulatory framework in Gisborne.”
- “The East Coast regulatory environment is hard to operate in.”
- “We have forests in several regions including Gisborne and Hawke’s Bay. We are still waiting for a GDC resource consent two years after application – it is still being fine-tuned. We ran out of work for our harvesting crew. For a similar example in Hawke’s Bay, the resource consent took two days.”
- “Government needs to enable afforestation by improving the consenting process. Consenting has got too expensive and prohibitive. Mackenzie District is worst, Waitaki District is better.”

Issues raised about tree stock availability include:

- “We can get enough radiata pine seedlings but there is a shortage of CP/clonal tree stock.”
- “We have clients still looking to get radiata pine seedlings. However we expect to get them.”
- “We couldn’t get enough redwood seedlings of suitable quality.”
- “There is a shortage in the supply of the attenuata hybrid.”
- “We would like to get more of the radiata/attenuata hybrid.”
- “We are doing hybrid cuttings under licence because we can’t get enough seed.”

Similar to 2023, labour availability was not an issue. Land availability was also not an issue:

- “We have more land on offer than clients want – although some of the land on offer isn’t suitable for afforestation for production forestry.”
- “Land is not a barrier given the current financial challenges for drystock farming. There are some big blocks available.”
- “We are aware of 100 sheep & beef farms that are on the market, or coming on the market, in the region.”
- “Farmers are looking at farm succession – many can’t see a way forward with sheep & beef.”
- “The heat has gone out of the market. The days have gone for the farm sales where there were 30 utes parked outside.”

Some regions are being avoided for afforestation by some respondents:

- “Won’t buy land in Wairoa or Gisborne
    - Gisborne – compliance uncertainty is causing frustration.
    - Wairoa – rates are too high.”
- “Afforestation in Gisborne District is getting harder and harder.”

Uncertainty about future afforestation

There is uncertainty by respondents even for 2025 afforestation with only 73% of intended afforestation (44,400 ha) confirmed at the time of the survey in November/December 2024. Beyond 2025, uncertainty was found to be even greater with very little confirmed afforestation (Figure 2).

Respondents are focusing on the logistics of implementing 2025 afforestation intentions before turning their attention to subsequent years. The uncertainty over LUC restrictions means that respondents are generally not land banking but are buying properties that they intend to afforest in the immediate planting season.

There were 50 respondents who intend exotic afforestation in 2025. However, only 23 respondents stated an intention to afforest in 2026. Afforestation intentions are dynamic with many respondents waiting to see what happens with land use restrictions, ETS settings and carbon price. It is apparent that future afforestation rates will be driven by central and local government restrictions, ETS settings and carbon price, as well as the availability of key resources.

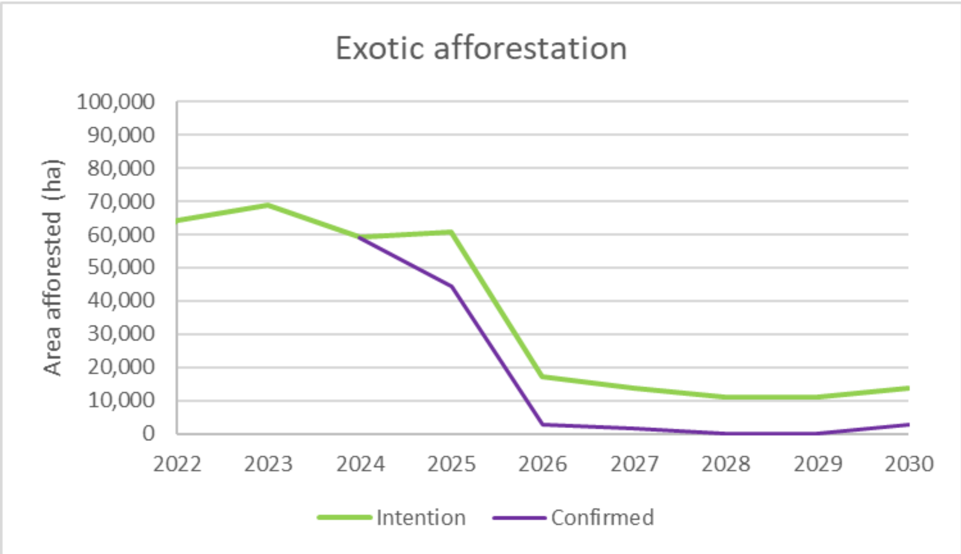

Figure 2: Afforestation estimates (2022-2024) and intentions (2025-2030) for exotic species. Afforestation for which the necessary resources have been confirmed is also shown.

How do intentions from this survey compare with intentions from the previous survey?

A comparison of results from this (2024) survey with those from the previous (2023) survey[6] (Figure 3) reveals that exotic afforestation achieved in 2024 was more than that intended. Total exotic afforestation was intended to be 51,800 ha while the afforestation achieved was 59,100 ha. At the time of the 2023 survey there were two general patterns to the intentions for 2024. Some respondents were accelerating their afforestation intentions because of concerns about changes to the ETS, in particular the limitations, signalled in the National Party 2023 election manifesto, on the area by LUC class that could be registered in the ETS. Other respondents had a large reduction in clients wanting to afforest in 2024 compared to 2023 because of uncertainty around the direction/rules of the ETS. What has transpired is that respondents have taken the opportunity to continue/accelerate their afforestation intentions ahead of LUC limitations being announced.

Other features of the comparison between this (2024) survey with those from the previous (2023) survey are:

- Intended afforestation in 2025 is higher in this survey (60,600 ha) than that stated in last year's survey (17,700 ha). This reflects the opportunity that the delay in implementing LUC restrictions has provided to those wishing to undertake afforestation.
- Intended afforestation for 2026 and beyond is slightly higher than that indicated by the 2023 survey.
- Both the 2024 and 2023 surveys feature a large drop in intended afforestation beyond the upcoming year. In both years, uncertainty over LUC restrictions has caused respondents to focus on accelerating afforestation ahead of the implementation of restrictions.

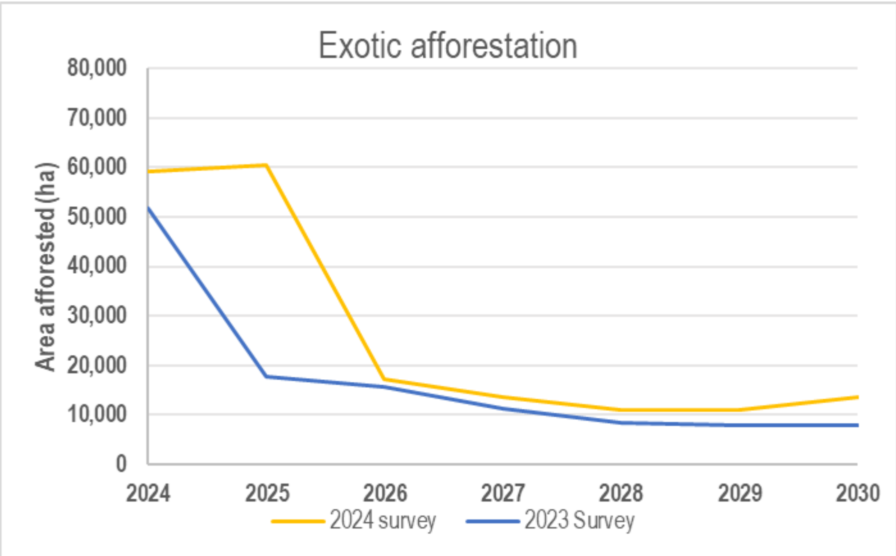

Figure 3: Afforestation intentions for exotic species from this survey (2024) compared to the intentions from the previous survey (2023)

[6] Manley, B. 2024.Afforestation and Deforestation Intentions Survey 2023. MPI Technical paper No. 2024/14

Indigenous afforestation

Planted indigenous forest

Afforestation estimates from the survey for planted indigenous species are presented in Table 4 and Figure 4. There is a decrease in afforestation of planted indigenous species intended for 2025 compared to 2024.The tall planted category refers to afforestation that includes the planting of some tall canopy species, in many cases inter-planted with mānuka.

The area of tall planted indigenous species is relatively static. Some comments:

- “The ETS doesn’t really promote indigenous afforestation given the costs and the relatively low carbon returns. A grant scheme is needed for indigenous species.”
- “We only have about 100 ha of biodiverse native afforestation that includes canopy species. It is a charitable activity rather than an economic activity.”
- We are planting natives including mānuka in riparian strips. A small portion has been planted with production in mind.”

The area of mānuka intended for afforestation by respondents in 2025 is well down on that planted in 2024. Some comments from respondents about mānuka:

- “Given the low honey prices we have stopped mānuka afforestation.”
- “There is still interest in planting mānuka in restoration projects but demand from planting for honey has backed off.”

Table 4: Afforestation estimates (2022-2023) and intentions (2024-2030) by year of planting for planted indigenous species

	2022	2023	2024	2025	2026	2027	2028	2029	2030
Tall planted (ha)	1,500	1,500	1,700	1,400	300	200	100	100	0
Mānuka planted (ha)	2,800	3,500	1,800	800	100	0	0	0	0
Total planted (ha)	4,300	5,000	3,500	2,200	400	200	100	100	0

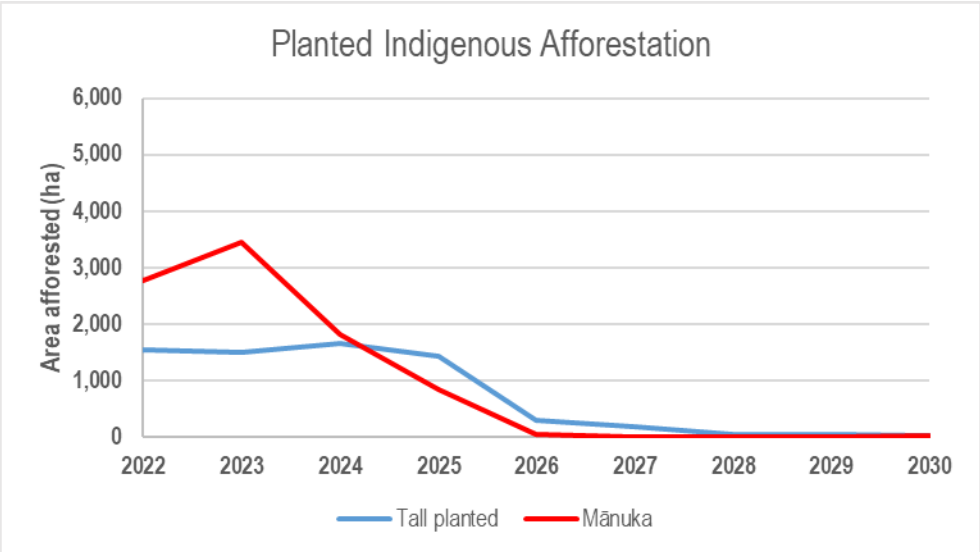

Figure 4: Afforestation intentions by year of planting for planted indigenous species.

As with exotic afforestation, this intentions survey found that there is uncertainty about afforestation intentions, even for 2025 (Figure 5). For example, funding is still being sought for some projects. Of the 2,300 ha of afforestation intended in 2025 for planted indigenous species (mānuka and tall tree species combined), the survey found that only 1400 ha is confirmed.

Respondents are focusing on what is in front of them for 2025. Some respondents did not provide intentions beyond 2025 but are considered likely to continue to afforest but are yet to finalise plans.

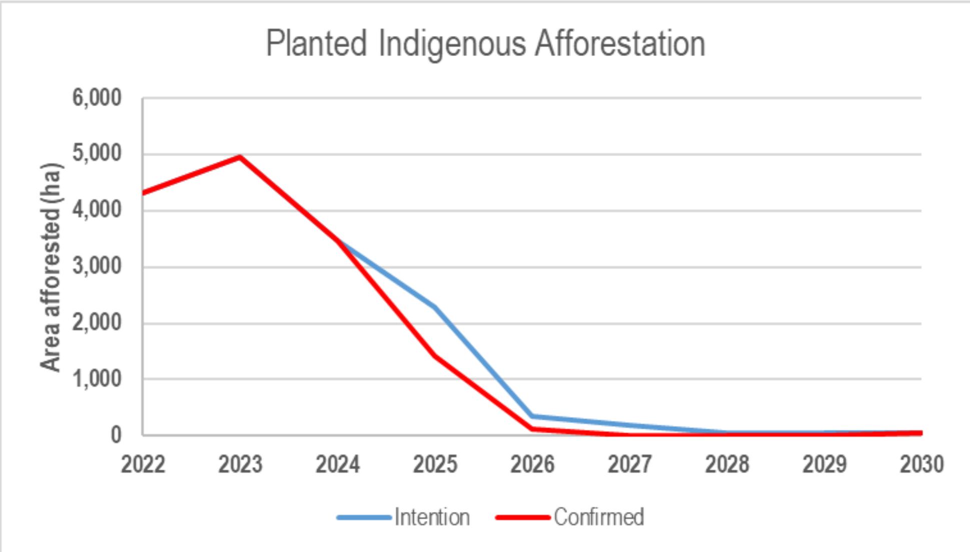

Figure 5: Afforestation intentions by year of planting for planted indigenous species (mānuka and tall tree species combined) also showing confirmed afforestation.

Indigenous reversion

Afforestation estimates from the survey for indigenous reversion are presented in Table 5. In the case of indigenous reversion, respondents provided information for the year of ETS registration. This will differ from the year of establishment/afforestation. There is an intention by respondents to register more indigenous reversion in 2025 than in 2024. The increased area intended for registration in 2025 should be taken with caution given that registration can be a time-consuming process and that area may not be eligible for registration in the ETS. Nevertheless, the pace of registration of indigenous reversion in the ETS is increasing. Relevant comments from some respondents include:

- “We have 6,000 ha to register but didn’t register any of it in 2024. However we have taken on 2 staff to focus on it in 2025.”
- “We registered 2,100 ha in 2024 and expect to register 1,500 ha in 2025. This has been facilitated by us having an ETS specialist”.
- “We registered 4,000 ha in 2024 and intend another 5,000 ha in 2025. This may be the peak year with a lot of the more straight-forward blocks now registered.”

Table 5: Afforestation estimates (2022-2023) and intentions (2024-2030) by year of ETS registration for indigenous reversion

Year of ETS registration	2022	2023	2024	2025	2026	2027	2028	2029	2030
Reversion (ha)	6,100	4,000	13,800	18,600	600	400	400	100	100

Important regions for indigenous reversion are East Coast, Canterbury and Marlborough, followed by Northland. Much of the intended indigenous reversion is driven by funding from 1BT grants and/or ETS carbon units. It has stepped up as land-owners have seen the opportunity for financial return for marginal land. Existing forestry consultants/managers and new entrants have set themselves up for the expansion by employing specialist staff.

Some respondents did not provide intentions beyond 2025 but are considered likely to continue to register indigenous reversion but are yet to finalise plans. In the case of reversion, there is the issue of identifying blocks that are suitable, and determining what proportion can be registered in the ETS. These are unknowns, which iwi, individual landowners and investor groups together with their consultants will need to work through.

How do intentions for planted indigenous afforestation from this survey compare with intentions from the previous survey?

A comparison of results from this (2024) survey with those from the previous (2023) survey (Figure 6) reveals three main differences:

1. Planted indigenous afforestation achieved in 2024 was the same as intended, 3,500 ha. However, there were differences by category that offset each other. The area of tall planted indigenous species was 1,700 ha compared to the 1,400 ha intended. The area of mānuka planted was 1,800 ha compared to the 2,100 ha intended.
2. Intended afforestation in 2025 is higher in this survey than that stated in last year's survey. This is primarily because most respondents to the 2023 survey did not provide intentions beyond 2024.
3. Intended afforestation for 2026 and beyond is similar in this survey to last year's survey. The low levels reflect the focus of respondents to this year's survey on 2025 with most not providing intentions beyond.

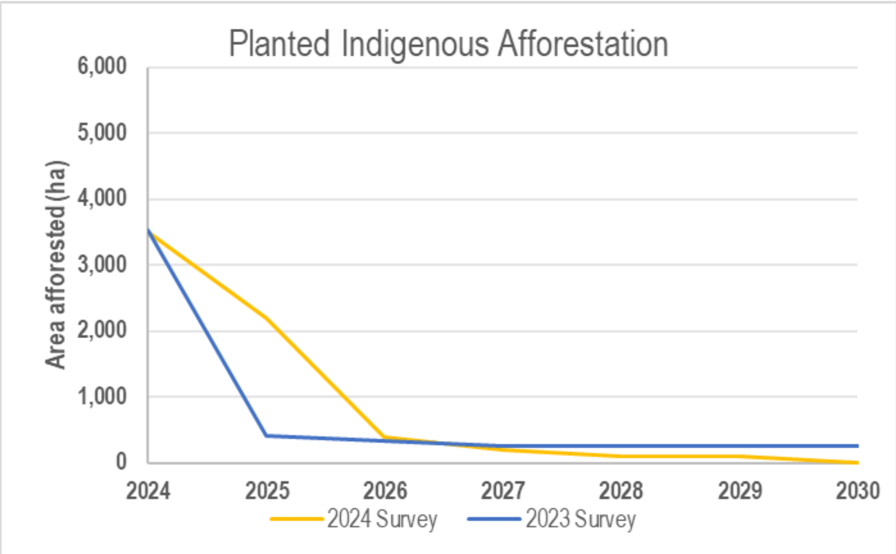

Figure 6: Afforestation intentions for planted indigenous species from this survey (2024) compared to the intentions from the previous survey (2023)

Results – Deforestation of planted forests

Deforestation intentions captured in this survey are little changed from the 2023 survey. Aggregated conversion intentions of large-scale owners are shown in Figure 7. From 2024 to 2030, 1,200 hectares of conversion is forecast. The majority of this is conversion of pre-1990 forests - only 20 hectares is estimated to be conversion of post-1989 plantations.

Intention to use offset planting

Some respondents who intend to convert pre-1990 forest also plan to do offset planting. They intend using the flexible land-use provision and plant a carbon-equivalent area of new land to offset the conversion of 300 hectares of existing forest land between 2024 and 2030. Respondents intend to do offset planting for 23% of conversion on pre-1990 forest land (see Figure 7).

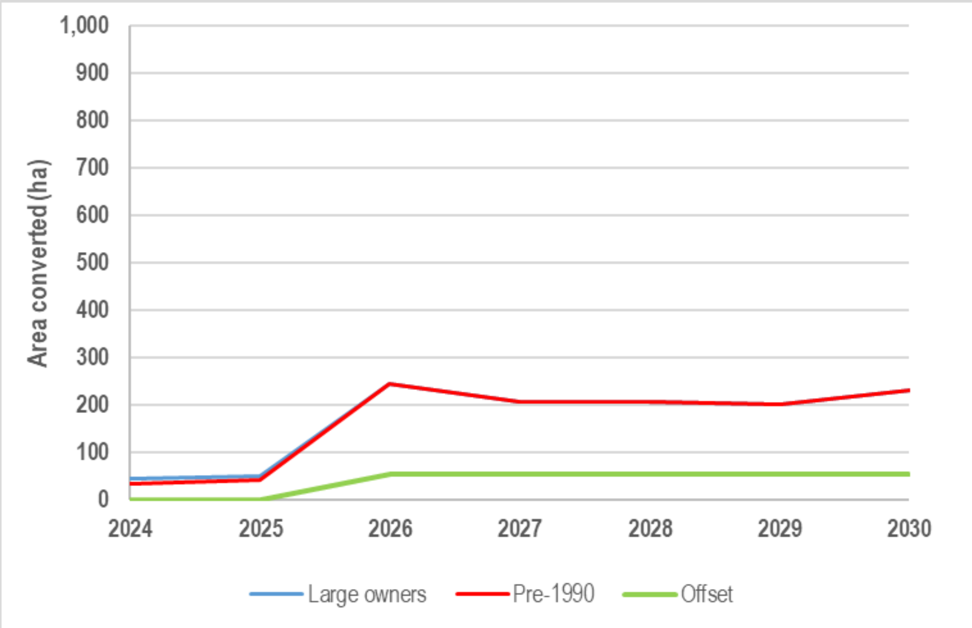

Figure 7: Forecast of conversion from forest to another land-use for New Zealand plantations (large-scale owners only). The 'Large owners' line shows the total intended conversion by large-scale owners while the almost identical 'Pre-1990' line shows their intended conversion of pre-1990 forests. Some of this conversion will be matched by 'Offset' planting. The area of pre-1990 forest to be deforested is the difference between pre-1990 conversion and offset.

Where is most conversion occurring?

Survey results show that some 85% of conversion by large-scale owners during 2024 to 2030 is forecast to take place in the Northland Wood Supply Region.

What land-uses are areas of formerly forested land being converted to?

Based on the information provided in the survey, it is possible to make a broad estimate of the land-use into which land is being converted (Table 6). Conversion by large-scale owners is mainly to infrastructure with some to and residential/lifestyle, dairy (or dairy support) and sheep and beef agriculture. Infrastructure includes forest being acquired for a road corridor and a landfill.

Table 6: Land-use into which area is being converted in 2024-2030 by large-scale owners (refers to 1200 hectares of conversion).

Forest converted to	%
Infrastructure	86
Residential/Lifestyle	7
Dairy (and dairy support)	4
Sheep and Beef	3

What are small-scale forest owners doing?

Forestry consultants and managers throughout New Zealand provided information through the survey about conversion by small-scale forest owners. Some overall patterns emerged:

- In most cases all land being harvested is being replanted.
- Most replanting is into radiata pine although some mānuka is being planted.
- In some regions a small proportion of land is being converted to dairy or sheep and beef agriculture. Typically, these are small blocks where forestry wasn't profitable because of size, or the owner has other land use plans.
- A small proportion of area is being left to revert either deliberately or by default. This includes area that is not being actively converted to another land-use but left to lie fallow. Sometimes this is inter-generational with the parents harvesting but the children not wanting to spend money on replanting.

Manley (2018[7]) carried out a survey of the intentions of forest owners following harvest of post-1989 forests. At the time of this survey the carbon price was in the range $20-22/NZU. Overall results (Table 7) indicated that 2.6% of area was intended to be converted while another 6.6% of area would be sold in cutover state following harvest, returned to its owner, or there was uncertainty about intentions. Results for the first three size classes are most relevant for small-scale owners. These indicated that 2.0 to 8.3% of area would be converted with uncertainty over a further 7.1 to 13.8%. The average value for the three categories with area under 1,000 ha, on an area-weighted basis, is 3.8% conversion with a further 9% uncertain.

Table 7. Summary of intentions after harvesting for all post-1989 owners [Table 14 of Manley (2018)]

	<40 ha	40-99 ha	100-999 ha	>1000 ha	Total
Replant/ mānuka /regenerate	81.2	81.1	90.9	97.2	90.8
Convert	8.3	5.1	2.0	0.3	2.6
Return/Sell/Unknown	10.5	13.8	7.1	2.5	6.6
Total	100.0	100.0	100.0	100.0	100.0

An update of this survey in 2024 confirmed that the clear majority of forest owners, who intend to harvest, do intend to replant. Only 2% of post-1989 area that is to be harvested is intended to be converted to another land use. Owners with over 1000 ha do not intend to convert any harvested area while owners with less than 1000 ha intend to convert 3% of area. However, the 2024 survey did not include small-scale forest owners who do not have their forest professionally managed.

Based on available information, the 8.3% rate of conversion from Manley (2018) has been used for the small-scale forest estate in the base scenario. The 8.3% deforestation has been calculated as the declared conversion rate of 3.8% from Manley (2018) plus half of the uncertain category (i.e. half of 9%). An estimate of the area to be harvested by small-scale owners in 2024 to 2030 was generated

[7] Manley, B. 2018. Intentions of forest owners following harvest of post-1989 forests. MPI Technical Paper No. 2018/55.

based on the New Zealand Wood Availability Forecasts (MPI, 2016[8]). Applying the 8.3% conversion rate to this area gives an estimate of 13,700 hectares of deforestation by small-scale owners during the period 2024 to 2030.

As a sensitivity analysis, lower and higher levels of deforestation by small-scale owners were also evaluated. For the lower level, a deforestation rate of 3.8% has been assumed, calculated as the declared conversion rate of 3.8% from Manley (2018). For the higher level, a deforestation rate of 12.8% has been assumed, calculated as the declared conversion rate of 3.8% from Manley (2018) plus all of the uncertain category (i.e. 9%). Applying the 3.8% and 12.8% conversion rates give estimates of 6,300 and 21,200 hectares of deforestation by small-scale owners during the period 2024 to 2030.

Figure 8 shows the forecast of deforestation for all owners. From 2024 to 2030 a total of 14,600 hectares of deforestation by all owners is forecast when the small-scale deforestation rate of 8.3% is used. This decreases to 7,200 ha of deforestation when the lower rate of 3.8% is used for small-scale deforestation and increases to 22,100 ha of deforestation when the higher rate of 12.8% is used.

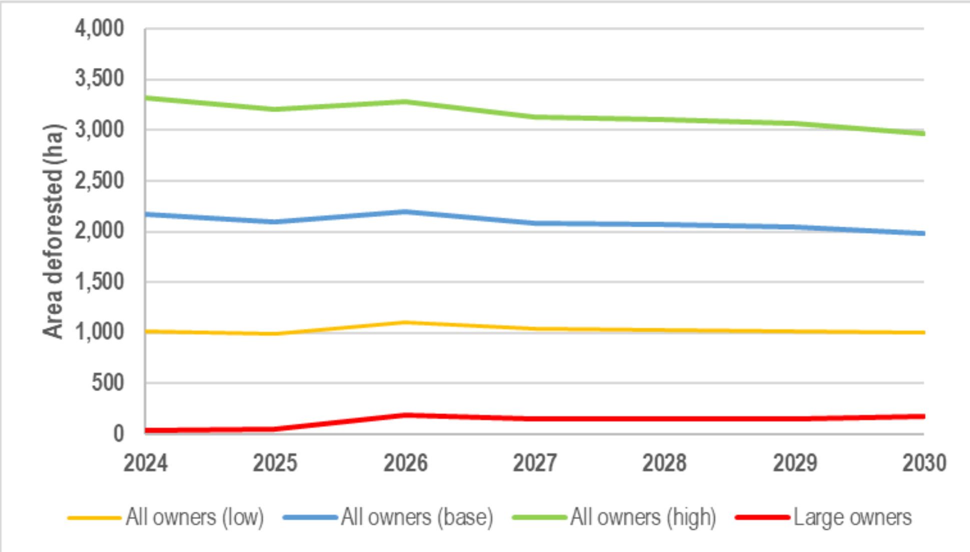

Figure 8: Forecast of deforestation from forest to another land-use for New Zealand plantations (all owners). Large-scale owner intentions are based on converted area less offset area while, for the base deforestation scenario, a 8.3% deforestation rate is assumed for small-scale owners. For the low and high deforestation scenarios, deforestation rates of 3.8% and 12.8% are assumed, respectively, for small-scale owners.

[8] New Zealand Wood Availability Forecasts 2014-2050, Prepared for Ministry for Primary Industries by Indufor Asia Pacific Limited, 2016.

Concluding remarks

Afforestation

This survey will have missed some afforestation projects – particularly smaller projects that are implemented directly by the land-owner rather than through a forestry consultant or manager. In the case of exotic afforestation, the total area of the missed projects is not expected to be material. The additional area is likely to offset some of the reported afforestation area being gross area rather than the net stocked area that will be achieved. Although net stocked area was requested in the survey, some respondents may have provided gross area.

Deforestation

The intended deforestation by large-scale owners is very similar to that recorded in the last deforestation intentions survey in 2023. Large-scale forest owners have estates that are predominantly pre-1990 forests. Given the current carbon price, the area intended for deforestation is small.

Most of the small-scale estate is post-1989 forest. A key determinant of deforestation will be the level of log prices and the rate of return achieved in the current rotation. As is the case for large-scale forests, most small-scale forests are currently being replanted after harvest.

Acknowledgements

The many respondents to this survey are thanked for their openness in freely providing information.

Appendix – Deforestation definitions in the CCRA

Climate Change Response Act (2002)

179 Forest land to be treated as deforested in certain cases

(1) Without limiting paragraph (a) of the definition of deforest in section 4(1), a hectare of forest land must be treated as deforested for the purposes of this Act if the forest species on that hectare have been cleared and,—

- (a) 4 years after clearing, the hectare has not—
  - (i) been replanted with at least 500 stems of forest species; or
  - (ii) regenerated a cover of at least 500 stems of exotic forest species; or
  - (iii) been replanted with at least 100 stems of willows or poplars in a manner consistent with managing soil erosion; or
  - (iv) regenerated predominantly indigenous forest species growing in a manner in which the hectare is likely to be forest land 10 years after the hectare was cleared; or
- (b) 10 years after clearing,—
  - (i) predominantly exotic forest species are growing, but that hectare does not have tree crown cover of at least 30% from trees that have reached 5 metres in height; or
  - (ii) predominantly indigenous forest species are growing, but that hectare is not forest land; or
- (c) 20 years after clearing, predominantly indigenous forest species are growing, but that hectare does not have tree crown cover of at least 30% from trees that have reached 5 metres in height.

(1A) Subsection (1)(a)(iii) applies only if the EPA is satisfied that the relevant local authority has determined that the soil erosion risk of the land is at least moderate.

(2) If forest land is to be treated as deforested under subsection (1),—

- (a) the deforestation is to be treated as having been carried out 4 years, 10 years, or 20 years, after the clearing of the forest species, as the case may be; but
- (b) the liability in respect of the deforestation must be calculated by reference to the age and forest species of the trees cleared 4 years, 10 years, or 20 years earlier, as the case may be.

(3) Nothing in this section limits the EPA's ability to exercise powers under section 121 in respect of the deforestation of a hectare of forest land whenever the EPA considers that—

- (a) the hectare has been converted to land that is not forest land; and
- (b) any obligations imposed under this Act in respect of the deforestation have not been complied with.

179A Forest land may not be treated as deforested in certain cases

(1) Despite section 179 and the definition of deforest in section 4(1),—

- (a) in the case of pre-1990 forest land, pre-1990 forest land that is cleared may not be treated as deforested for the purposes of this Act if the cleared land is exempt land or—
  - (i) is contiguous with the edge of pre-1990 forest land that existed on 31 December 2007; and
  - (ii) is an area that is less than 1 hectare or that is less than 30 metres wide at its widest point; and
  - (iii) is required to be or remain cleared to implement New Zealand's best practice forest management; and
  - (iv) is used only for the purpose of implementing New Zealand's best practice forest management:
- (b) in the case of pre-1990 forest land that is the subject of an offsetting forest land application that the EPA has approved under section 186B, the pre-1990 forest land that is cleared may not be treated as deforested if cleared, —
  - (i) in the case where the land is converted to a use other than forest land (for example, dairy), in the period—
    - (A) beginning on the date that the approval is given; and
    - (B) ending with the earlier of 2 years after the date that the approval was given or 4 years after the date that the pre-1990 forest land was cleared; or
  - (ii) in the case where the land is not converted to another land use and remains forest land, in the period—
    - (A) beginning on the date that the pre-1990 forest land was cleared; and
    - (B) ending 4 years after the date that the pre-1990 forest land was cleared:
- (c) in the case of post-1989 forest land, the post-1989 forest land that is cleared may not be treated as deforested if the cleared land—
  - (i) is contiguous with the edge of post-1989 forest land that existed on the date of registration; and
  - (ii) is an area that is less than 1 hectare or that is less than 30 metres wide at its widest point; and
  - (iii) is required to be or remain cleared to implement New Zealand's best practice forest management; and
  - (iv) is used only for the purpose of implementing New Zealand's best practice forest management.

(2) Subsection (1)(b) does not apply if the EPA revokes its approval of an offsetting forest land application under section 186G(1).

(3) This section applies to land that was cleared before, on, or after the commencement of this section.

Section 179A: inserted, on 1 January 2013, by section 73 of the Climate Change Response (Emissions Trading and Other Matters) Amendment Act 2012 (2012 No 89).