

Greening the margins: Unlocking the potential of small forestry blocks in New Zealand

As New Zealand faces increasing pressure to address climate change, restore ecosystems, and manage land sustainably, converting marginal land into forestry blocks is gaining attention

Marginal land, often unsuitable for agriculture due to poor soil, steep slopes, or erosion risks, can be transformed into small but valuable forestry blocks — either exotic or native forests. However, like any land-use, conversion of farm to forestry has its advantages and disadvantages. This article provides a short summary of some of the key potential benefits and challenges that land owners may wish to explore in more detail.

The potential benefits of converting land to forestry

Carbon sequestration and playing a part in achieving New Zealand's climate goals

By growing forests on land that would otherwise have limited use, landowners can create carbon sinks to earn New Zealand Units (NZUs) under the Emission Trading Scheme (ETS). These NZUs can then be traded or sold to companies needing to offset their emissions. Both native and exotic forests play a crucial role in mitigating climate change by acting as carbon sinks, as follows:

- Exotic species like radiata pine are fast-growing and can sequester carbon quickly in the short term, providing rapid climate benefits. According to a 2021 report from Te Uru Rākau (Forestry New Zealand), radiata pine can sequester up to 30 tonnes of CO₂ per hectare annually, making it a preferred species in carbon forestry projects.

- Native forests, while slower-growing, offer more durable carbon storage over the long term, helping balance carbon emissions across decades. However, the slower growth rate also means that the benefits - both economic and environmental – would take longer to materialise.

Following recent announcements that the government would reduce the ETS auction volumes significantly over the five-year period from 2025 to 2029 (in accordance with advice from the Climate Change Commission), prices for NZU in the secondary market rose to approximately \$61 per NZU. The proposed reductions are for NZUs provided by the government for industrial allocation and purchase at auction – the announcement does not limit the volume of NZUs that can be issued in respect of sequestration by forest growth. As such, "grow-your-own" NZUs are still a viable option.

Notwithstanding that the Government recently announced that agriculture would be taken out of the ETS (see here), for farmers and landowners involved in agriculture the potential conversion of marginal land (that is otherwise unproductive) into small forestry blocks offers a way to offset the greenhouse gas emissions produced by the use of the wider land. Integrating forestry into agricultural operations could help make New Zealand farming more sustainable overall.

Erosion control and land stabilisation

Around one million hectares of land in New Zealand is at high risk of erosion – such land can be expensive to fence and face other practical challenges particularly for farm use. Native trees, such as manuka and kanuka, are known to have extensive root systems that help anchor the soil, making them ideal for erosion-prone areas and said to potentially reduce soil erosion by 50-

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90%. Similarly, exotic species, such as radiata pine, can provide effective erosion control, particularly on steep slopes, protecting vulnerable landscapes from degradation.

Restoring biodiversity and habitats

Establishing native forests offers significant ecological benefits. Native regeneration restores natural biodiversity, providing critical habitats for New Zealand's native wildlife, including birds, insects, and plant species. Native forests help rebuild ecosystems and enhance ecological health, supporting long-term sustainability. Native forests also provide important ecosystem services such as water quality protection, habitat for pollinators, and cultural value.

While exotic forestry offers some environmental benefits, exotic plantations are less effective at supporting New Zealand's native wildlife and ecosystems compared to native forests, and invasive species like wilding pines can spread, displacing native plants and disrupting local ecosystems, leading to biodiversity loss.

Improved water quality

Forested areas, especially with native trees, contribute to better water quality by reducing runoff, sedimentation, and nutrient leaching into rivers and streams, provided such forestry is intended to be established and maintained for an extended period. This is especially important in areas adjacent to waterways, where improved water management can have downstream benefits for ecosystems and human use.

The potential challenges of converting land to forestry

Upcoming restrictions on the conversion of farmland to exotic forestry under the ETS

The New Zealand government announced in December 2024 new rules to limit farmland conversion into exotic forestry under the ETS will shortly be implemented, with the aim of protecting food production while supporting sustainable forestry. The key changes include a general moratorium on registering exotic forests on Land Use Classification (**LUC**) 1-5 farmland that is actively farmed, an annual cap of 15,000 hectares of registered exotic forestry for LUC 6 farmland, and allowing up to 25% of LUC 1-6 farmland to be planted in exotic forestry for ETS. There will be exemptions for Māori land and transitional measures for those that commenced afforestation before December 2024.

The policy allows a first-in, first-served allocation system for LUC 6 land, with no limits on LUC 7-8 or native forest registrations. The relevant legislation has been signaled to come into effect in October 2025 – see our article on these upcoming changes [here](#) for more information.

Loss of productive land for agriculture

As with any potential benefits, there are potential detriments and challenges. The most obvious concern is the potential loss of productive land. Although marginal land is often targeted, exotic forests like radiata pine can dominate landscapes, rendering it difficult or impossible to return to agricultural use after harvest. This loss of pasture or cropping land may in the long term reduce agricultural outputs and impact food production.

Increased fire risk

Forestry plantations, are prone to increased fire risk, especially in New Zealand's increasingly dry and drought-prone regions. Native forests, especially those with fire-resistant species, tend to present lower fire risks, though they are not entirely immune.

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Susceptibility to pests and diseases

Exotic species can be vulnerable to pests and diseases, particularly where the tree stock is comprised of a single species. This can wipe out large portions of a forest if not properly managed. For example, radiata pine is susceptible to diseases like red needle cast and can face threats from invasive pests such as moths. While native forests are generally more resilient due to species diversity, such forests can also be affected by introduced pests, and again require careful management.

Striking a green balance

The debate between exotic and native forestry is ongoing in New Zealand. Many experts advocate for a balanced approach, where both types of forests are utilised depending on land characteristics and management goals. Exotic species like radiata pine can provide fast economic returns and quick carbon sequestration, while native forests offer long-term environmental and biodiversity benefits. The New Zealand Institute of Forestry supports mixed planting strategies, which recognises the role of fast-growing exotic trees to meet short-term climate goals while advocating for native planting to address biodiversity loss and provide cultural value over the long-term.

Want to know more?

Get in touch with our specialist [Forestry Team](#) to discuss any of the above further. We can help you assess how you can unlock the potential of small forestry blocks and put together any necessary legal structures to help you maximise the benefits.