Recloaking Papatūānuku:
How thinking like a forest can build climate resilience throughout Aotearoa New Zealand

Key Messaging:

- Climate change is influencing increasingly impactful and extreme weather events that threaten Aotearoa New Zealand's people, property, and ecosystems.
- New Zealand's primary lever for tackling carbon emissions – the NZ Emissions Trading Scheme (ETS) – represents a broken paradigm that is working against biodiversity restoration and community efforts. Our over-reliance on the ETS has delayed meaningful climate action and created future liabilities.
- It's clear that Aotearoa New Zealand's approach urgently needs a rethink. We propose embedding our aspirational environmental initiative, **Recloaking Papatūānuku**, as a cornerstone. It offers a genuine, nature-based, locally appropriate, multi-generational solution to our climate and biodiversity crises.

Introduction:

Recloaking Papatūānuku is an ambitious environmental restoration proposition aimed at restoring our indigenous forests and wetlands at scale. Pure Advantage's new documentary film—**Think Like A Forest**—supports this bold vision by illustrating our communities' deep connections with forests and the vital role they play in building landscape resilience for climate and biodiversity. Moreover, the film speaks to the compounding and intertwined climate, freshwater, and biodiversity crises that Aotearoa New Zealand faces because of human action and inaction.

Historical and ongoing emissions will drive climate change for decades to come,[1] bringing new pest and disease incursions, rising sea levels, and more frequent and intense extreme weather events. Such events pose serious consequences for our communities, economy, and natural environment, as we saw with damage wrought by Cyclone Gabrielle[2] on the East Coast of the North Island (February 2023) and recent flooding in the upper South Island[3] (July 2025). Our landscapes are not resilient to these increasingly severe storm events.

Despite efforts by successive governments, Aotearoa New Zealand faces significant hurdles in meeting its 2030 Paris Agreement climate target[4] as well as its own 2050 climate target[5]. To meet international climate obligations – and with no domestic pathways yet identified to address a projected shortfall of 84 million tonnes of CO_2 equivalent[6] in emissions savings from its current plan – the Government may turn to buying more offshore carbon credits. Meanwhile, the call for greater action grows ever louder, with the International Court of Justice (ICJ)'s recent landmark ruling[7] that nations can be held responsible for paying reparations for damage caused by their greenhouse gases.

We argue that stepping up effort and truly tackling climate change and biodiversity restoration requires innovation to our current system and rethinking the approach. Aotearoa New Zealand needs to urgently commit to building socio-ecological resilience, decarbonising our economy, and sequestering existing carbon dioxide in a way that delivers co-benefits for people and the planet.

This briefing aims to advance the urgent conversation about what needs to be done.

[1] Ministry for the Environment. (n.d.). Climate Change Data and Information. https://climatedata.environment.govt.nz/

[2] Hawke's Bay Regional Council. (n.d.). Cyclone Gabrielle Flooding. https://hbrc.govt.nz/our-council/cyclone-gabrielle-response/cyclone-gabrielle-flooding

[3] 1News. (2025, June 29). Millions of dollars of flood damage in Nelson Tasman region revealed. https://1news.co.nz/2025/06/29/millions-of-dollars-of-flood-damage-in-nelson-tasman-region-revealed/

[4/5] RNZ. (2022, July 12). Climate target failure would bring overseas scrutiny, government warned. https://rnz.co.nz/news/political/562242/climate-target-failure-would-bring-overseas-scrutiny-government-warned

[6] RNZ. (2025, July 29). Government's First Paris Agreement Report Fails to Address How It Plans to Hit Targets. https://rnz.co.nz/news/world/537178/government-s-first-paris-agreement-report-fails-to-address-how-it-plans-to-hit-targets

[7] RNZ. (2022, November 28). UN's highest court finds countries can be held legally responsible for emissions. https://rnz.co.nz/international/pacific-news/567833/un-s-highest-court-finds-countries-can-be-held-legally-responsible-for-emissions

The Issue: A system working against itself

Recloaking Papatūānuku envisages a strategic policy shift from Aotearoa New Zealand's current singular focus on short-term carbon offsetting, which fails to deliver integrated solutions and co-benefits across climate mitigation and adaptation, landscape resilience, and biodiversity. The long-standing reliance on offsetting emissions with carbon farming – mainly using radiata pine through the ETS – has locked up vast areas of land in economically and environmentally unsustainable plantations, while creating significant unaccounted risks and liabilities for future generations. Current short-term policy settings, with their emphasis on offsetting, fail to prioritise lasting carbon gains and robust landscape resilience for climate and biodiversity, thereby creating a system that works against itself.

Think Like A Forest presents the evidence base for change by demonstrating how people's deep connections with native forests drive landscape resilience outcomes that exotic monocultures cannot replicate. The film illustrates the motivation paradox – as also evidenced in surveys[8] of rural decision-makers – whereby farmers and rural communities already plant and restore native forests for environmental, cultural, and landscape resilience, yet face economic and regulatory barriers along with labour constraints. Despite decades of investment and focus on ETS policy as climate mitigation levers, independent analysis shows Aotearoa New Zealand may still need to spend billions of dollars[9] buying international carbon credits overseas to meet our climate commitments. Large as they are, the unaccounted for nationally determined contribution (NDC) liabilities[10/11] are not visible in Government books.

Currently, these obligations are not formally recognised because historically, there has been no direct financial consequence for not meeting the 2030 target, and government accounts reported a shorter-term outlook. However, this rationale is now being fundamentally challenged. Recent international developments, including the ICJ's ruling, alongside evolving requirements in trade agreements concerning climate commitments, are introducing direct financial risks that demand recognition. Moreover, with the 2030 target now just over four years away, it will soon fall within the regular reporting period. The Treasury New Zealand itself already widely recognises climate change as a long-term fiscal risk in their published documents[12], further underscoring the urgency of this transparent and comprehensive accounting. This creates perverse incentives that make local biodiversity restoration appear less economically attractive, while ignoring the strategic opportunity and long-term savings we could otherwise gain by investing in a more resilient future, today.

Recloaking Papatūānuku reframes native restoration as a strategic investment rather than a cost. It accounts for the true economic values of ecosystem services, avoided climate liabilities, and long-term landscape resilience. This approach would align policy incentives with both climate commitments and biodiversity outcomes while building the enduring carbon sequestration and ecosystem resilience that exotic plantations cannot provide.

The Issue...

We aren't the only ones to have acknowledged these issues. The Parliamentary Commissioner for the Environment, Simon Upton, has warned that current carbon forestry is "effectively locking up huge areas of landscapes forever"[13] while creating future liabilities, and that hopes for native forests at scale under current settings are "misplaced." In his submissions[14] to the Climate Change Response (ETS-Forestry Conversions) Amendment Bill, for instance, the commissioner notes:

"Once the income from carbon runs out – either because the carbon price falls or because the trees stop growing – there will be no income to look after these forests. There will be no way to ensure that the carbon within them remains locked up in the face of fire, disease and extreme weather events. I need not point out that all this is more likely with climate change. If passed into law, this Bill – as well as the lack of regulation of permanent forests more broadly – will contribute to a liability left to future generations to resolve."[15]

All the while, our international biodiversity and climate commitments are becoming increasingly challenging to meet[16]. Waterways are widely degraded, native biodiversity continues to decline, and vulnerable communities face mounting climate risks that poorly located pine monocultures can exacerbate through erosion and flooding. Achieving lasting climate and biodiversity outcomes requires ending the use of carbon forestry as a substitute for comprehensive decarbonisation and strategic ecosystem restoration. Policy must prioritise enduring, well-sited and managed native forests and wetlands as essential infrastructure for climate resilience while delivering critical co-benefits for ecosystem services, biodiversity conservation, and landscape stability.

[8] Manaaki Whenua – Landcare Research (2023). Survey of Rural Decision Makers: SRDM 2023. https://landcareresearch.co.nz/discover-our-research/environment/sustainable-society-and-policy/survey-of-rural-decision-makers/srdm-2023/

[9] Treasury and Ministry for the Environment (2023). Ngā Kōrero Āhuarangi Me Te Ōhanga: Climate Economic and Fiscal Assessment 2023. The Treasury. https://treasury.govt.nz/publications/climate-economic-fiscal-assessment/nga-korero-ahuarangi-me-te-ohanga-2023

[10] McGuinness Institute (2021). An Accounting Dilemma: Does Accounting for our Paris Agreement Obligations Enable or Disable the Climate Change Response? (Discussion Paper DP2021/04-2021/11). https://mcguinnessinstitute.org/wp-content/uploads/2025/02/DP202104-202111-AnAccountingDilemmaDoesA-DRAFT.pdf

[11]/[12] Treasury and Ministry for the Environment (2023). Ngā Kōrero Āhuarangi Me Te Ōhanga: Climate Economic and Fiscal Assessment 2023. The Treasury. https://treasury.govt.nz/publications/climate-economic-fiscal-assessment/nga-korero-ahuarangi-me-te-ohanga-2023

[13] Parliamentary Commissioner for the Environment. (2022). Alt-F: Reset – Examining the drivers of forestry in New Zealand. https://parliament.nz/publications/alt-f-reset-examining-the-drivers-of-forestry-in-new-zealand/

[14] Parliamentary Commissioner for the Environment. (n.d.). Submission on the Climate Change Response (ETS-Forestry Conversions) Amendment Bill. https://pce.parliament.nz/publications/submission-on-climate-change-response-ets-forestry-conversion-amendment-bill/

[15] Parliamentary Commissioner for the Environment. (n.d.). PCE Submission on the Climate Change Response (Land Use Change) Bill. https://pce.parliament.nz/media/yzylh4mg/pce-submission-on-the-climate-change-response-luc-bill.pdf

[16] The Post. (n.d.). NZ highly unlikely to meet 2030 biodiversity targets under plan. https://thepost.co.nz/nz-news/360744239/nz-highly-unlikely-meet-2030-biodiversity-targets-under-plan?utm_source=substack&utm_medium=email

Our Solution: Thinking Like a Forest

Recloaking Papatūānuku proposes a dynamic and lasting solution. Our ambitious environmental restoration initiative aims to enhance and restore more than two million hectares of Aotearoa New Zealand in diverse native forests and wetlands for carbon, biodiversity, climate and landscape resilience. It's a bottom-up, 'tree roots' approach that empowers farmers, Māori, communities, catchment groups and others living in rural landscapes, with government and NGOs supporting in an advisory and enabling role. The initiative is guided by principles of **Kaitiakitanga** (guardianship), **Whakapapa** (intergenerational understanding), and **Mauri** (healthy ecosystem equilibrium). It recognises that to truly build resilience, restoration must be planned spatially at the catchment scale, strategically siting and managing native forests and wetlands in the right locations to reduce erosion, mitigate floodwaters, and enhance native biodiversity within landscapes also used for primary production and where people live.

This approach embraces working with nature's inherent capacity for regeneration to ensure optimal outcomes. It also acknowledges that for landowners to commit to retiring or restoring land – including both less productive and productive areas – they need access to fair, reliable financial incentives that make this work an economically viable part of a farm business. Thinking like a forest also means valuing and protecting our existing old-growth native forests and the immense carbon stores they hold, while addressing the threats they face like pervasive animal browsing pressure and weeds. Recloaking Papatūānuku is fundamentally about the long-term: doing this work now to benefit future generations and designing systems to work with nature's logic, rather than against it.

The path of short-term carbon offsetting with exotic tree monocultures has proven to be a broken paradigm[17] – a system actively working against itself – undermining our climate, biodiversity, and community well-being while creating significant future liabilities. Recloaking Papatūānuku envisages long-term carbon sequestration, reduced soil erosion and increased landscape resilience, improved water quality, enhanced native biodiversity, and resilient communities while removing – and not transferring – risk. For our landscapes and biodiversity, these forest ecosystems offer substantial protection through their deep roots and continuous cover. Together with wetlands, they can deliver vital services like filtering water, reducing flooding, and controlling erosion.

And the immediate benefits? Better coordination and greater financial viability for the restoration work already underway, and a strengthening of the credibility of our clean, green brand, which is so crucial to our economy. We would no longer need to subsidise fossil fuel pollution through cheap forestry credits or see exotic tree plantations being established on inappropriate sites. Instead, we would make more strategic investments in native forests that deliver lasting environmental, cultural, and economic benefits, all while genuinely reducing our national emissions. Ultimately, this isn't about finding new ways to offset emissions, but transitioning to high-integrity restoration incentives and investing ETS revenue in biodiversity restoration that truly works.

[17] Parliamentary Commissioner for the Environment. (2022). Alt-F: Reset – Examining the drivers of forestry in New Zealand. https://pce.parliament.nz/publications/alt-f-reset-examining-the-drivers-of-forestry-in-new-zealand/

What needs to happen: A new path forward

To realise this vision, Aotearoa New Zealand needs a strategic, coordinated effort built around four key opportunities for government:

1. Recloaking Papatūānuku is an aspirational environmental initiative that needs to be embedded as a cornerstone rethinking of our climate and biodiversity approach. What is needed is a joint climate and biodiversity strategy that elevates nature-based solutions within integrated policy frameworks for both mitigation, adaptation and resilience. This action could be translated into **a national climate and landscape infrastructure resilience plan –** requiring building a shared understanding of the multiple co-benefits: carbon sequestration, erosion control, flood mitigation, freshwater quality, biodiversity gains, and cultural reconnection.
To propose how this can become a reality, we've drawn on the thinking of others. The following interventions are levers in the system that would unlock and enable conditions for Recloaking Papatūānuku.

2. Transparently account for climate liabilities by requiring The Treasury New Zealand to recognise Nationally Determined Contribution obligations as quantified financial liabilities on government balance sheets. This accounting reform will reveal the true economic value of domestic biodiversity restoration compared to overseas visible international carbon credit purchases.

3. Reform the ETS by implementing PCE recommendations to phase out forestry offsets for fossil fuel emissions, scale separate biogenic trading schemes rewarding permanent native canopy, transition away from clear-fell harvesting in mapped high-risk areas, and establish risk-based pricing where forestry companies pay for environmental damage rather than externalising costs to communities and taxpayers.

4. Scale investment by redirecting ETS revenue[18] – through hypothecation and other climate financing – to support native forest and wetland restoration, prioritising high-risk lands and whenua Māori.
We can also expedite scaling of a nature credit market that attracts private and philanthropic investment, establishes clear methodologies and standards for quality outcomes, while ensuring ongoing funding mechanisms for maintenance and monitoring.

These changes would unlock and enable the opportunity for coordinated action.

By building on existing restoration programmes and strengthening engagement with catchment groups and Māori landowners, we can foster capability building and develop a national community of practice for shared knowledge and tools. Crucially, restoration planning must be spatially intelligent, ensuring native forests and wetlands are located strategically to maximize benefits for landscapes, biodiversity, and community resilience.

[18] Parliamentary Commissioner for the Environment. (2022). Alt-F: Reset – Examining the drivers of forestry in New Zealand. https://pce.parliament.nz/publications/alt-f-reset-examining-the-drivers-of-forestry-in-new-zealand/

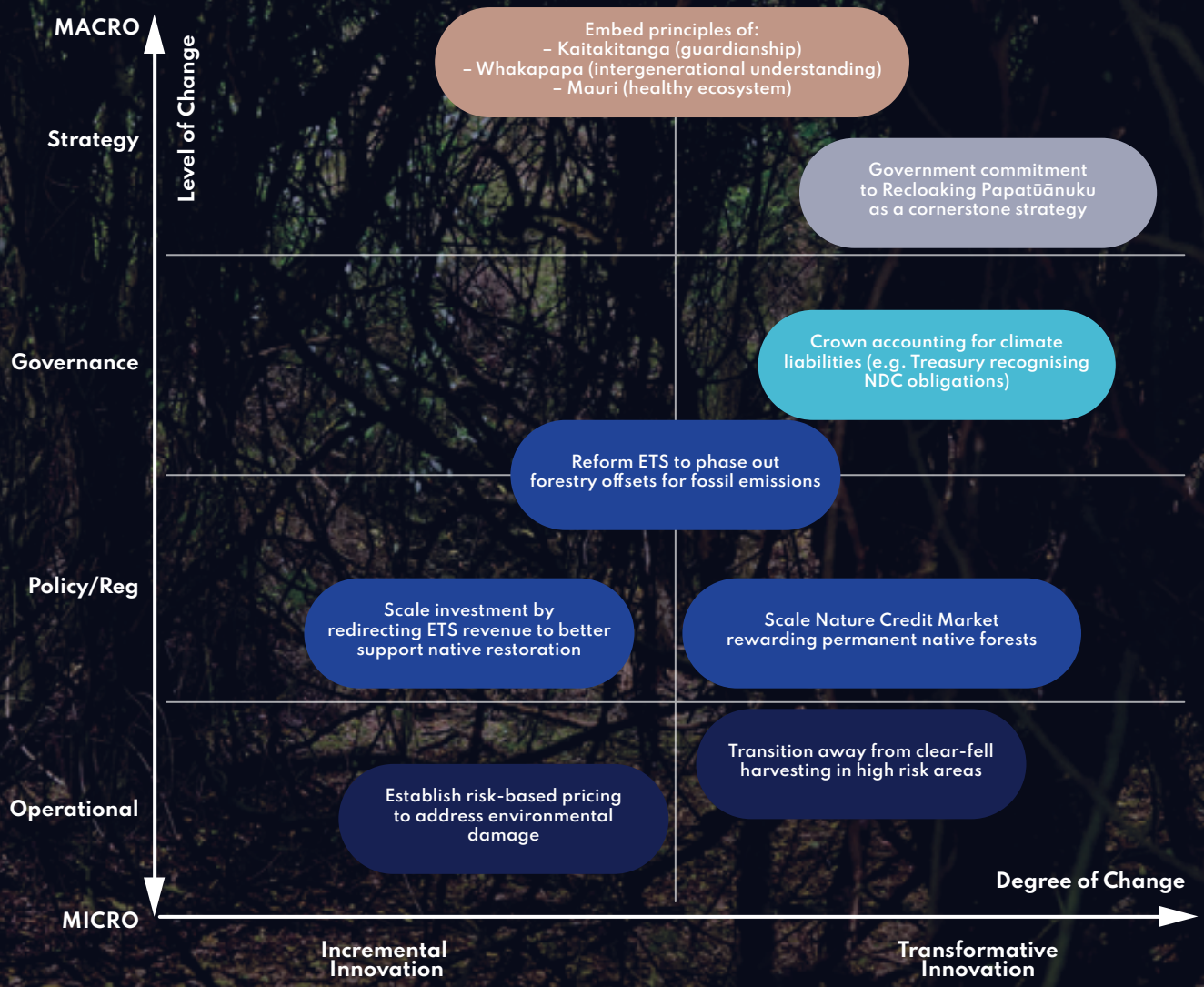

Diagram 1: Recloaking Papatūānuku as a systems innovation (diagram inspired by Climate KIC Climate Innovation Insights 1.3)[19]

[19] Climate-KIC. (2017, March). Insight 03: Proof 4. https://www.climate-kic.org/wp-content/uploads/2017/03/Insight03_Proof4.pdf

Conclusion: Why New Zealand needs to start Recloaking Papatūānuku:

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Aotearoa New Zealand stands at a critical juncture. The path of short-term carbon offsetting has proven to be a broken paradigm, actively undermining our landscape, biodiversity, and community well-being while creating significant future liabilities.

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Recloaking Papatūānuku offers a fundamentally different approach: one that aligns our economic incentives with the regenerative logic of our natural world. By investing in permanent native forests and wetlands, and guided by science, community insights, sustainable practices and mātauranga Māori, we can deliver genuine emissions removals and build ecological and community resilience. We can dignify the essential care work of restoring our landscapes and foster cultural reconnection and unlock lasting economic prosperity.

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Our vision calls for true partnership across all of Aotearoa – Māori and non-Māori, urban and rural – shifting from policy done to communities, to policy done with them.
It shifts our current model to enable Māori-led restoration on Māori land and farmer-led efforts across rural landscapes, helping communities reconnect with their whenua. It also requires thinking beyond short election cycles and committing to restoration that benefits future generations.

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The case for avoiding the pitfalls of stranded assets, future liabilities, and continued perverse risk pricing is compellingly clear. We have a path forward. What is needed now is the political courage and foresight to embrace this regenerative future over an extractive past.

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By acting boldly and decisively, we can not only meet our vital international commitments, but also lead the world in demonstrating how integrated, nature-based solutions can secure a sustainable future for our landscapes and mokopuna.

The time to Think Like a Forest and begin Recloaking Papatūānuku is now.

Endnotes:

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ABOUT PURE ADVANTAGE

Pure Advantage is an environmental NGO supported by leaders in business and academia. Since 2011, the group has delivered high-quality, research-driven campaigns that have shaped the national conversation on green growth in New Zealand. The success of Recloaking Papatūānuku has enabled Pure Advantage to unite key stakeholders across the country and act as a catalyst for action in nature-based solutions and native forest restoration. Find us **@pureadvantage.org**

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