



WEAVING CLIMATE AND ECOLOGICAL RESILIENCE INTO OUR WHENUA



Ō Tātou Ngahere
RECLOAKING PAPATŪĀNUKU

PureAdvantage™

Briefing for The Prime Minister and incoming Ministers

**Prime Minister
Minister of Climate Change
Minister of Conservation
Minister for the Environment
Minister of Forestry**

November 2023

1 Introduction

- 1.1 In its “*Our atmosphere and climate 2023*” environmental report released just last month, the Ministry for the Environment reaffirmed the increasing pressure that climate change is putting on our natural environment. It reiterated that climate change is threatening the already imperilled biodiversity that underpins our unique ecosystems, and is exacerbating the impacts of other threats, including invasive species, land-use change, habitat fragmentation, fire risk and pollution. These changes, it noted, “have consequences for the things we value most: our safety and security, the places we live and play, our livelihoods and economy and wellbeing.”¹
- 1.2 Meanwhile, it reported that over two thirds of New Zealanders are prone to flooding and sea level rise. With Treasury estimating the damage from Cyclone Gabrielle and the 2023 floods alone to be between \$9 billion and \$14.5 billion,² the fiscal impacts from increasingly frequent and severe weather events will be significant, affecting agriculture, horticulture, fisheries, forestry, and tourism.³
- 1.3 However, the report further acknowledges that:⁴

“[a] rich biodiversity and resilient ecosystems have the potential to shield us from the worst consequences of climate change. They absorb some greenhouse gases and act as a buffer against extreme weather events and other climate impacts, protecting houses, crops, water supplies and vital infrastructure. Conversely, the continuing loss of biodiversity and degradation of ecosystems will weaken their ability to provide benefits and protection to the extent that we risk reaching points of irreversible change. Human activities are undeniably driving these losses. We are approaching environmental tipping points in many areas, beyond which large and often irreversible changes will be unavoidable.”

- 1.4 The situation is precarious and must be addressed urgently. The role of, and need for, Nature-based Solutions (**Nbs**) to do so has never been more pressing. As the first Emissions Reduction Plan advocates, Nbs present a cost-effective, multi-benefit opportunity to address multiple ecological and climate-related challenges simultaneously and synergistically, whilst also helping build resilience and safeguarding adaptive capacity.
- 1.5 It is in this regard that Pure Advantage and its partners including mana whenua groups have been deeply involved in championing the case for restoring New Zealand’s lost and degraded native forests. Through the [O Tātou Ngahere – Our Forest](#) research programme,⁵ a diverse range of experts and research was brought together, including from the primary sector, in support of the

¹ Ministry for the Environment, New Zealand’s Environmental Reporting Series: Our atmosphere and climate 2023, at 5.

² Ibid, at 7.

³ Ibid.

⁴ Ibid.

⁵ A collaboration between Pure Advantage and the foresters and scientists of Tāne’s Tree Trust.

urgent need to restore and weave new native forests across our landscapes for climate and ecological resilience while delivering a range of co-benefits, including carbon sequestration and storage.

- 1.6 Pure Advantage and Tāne's Tree Trust have invested significant resources into exploring how the vision of O Tātou Ngahere - *Our Forest* could be achieved in practice. The result is [Recloaking Papatūānuku \(RP\)](#), a professionally-researched plan and economic model to strategically reforest and restore an initial 2.1 million hectares of New Zealand's native forests over the next 10 years, with the potential to more than double that coverage over the long term. It is both ambitious but achievable. Its implementation is urgent and essential.
- 1.7 The aim of this briefing is to briefly summarise:
- (a) The context within which RP has been developed;
 - (b) What RP proposes;
 - (c) The opportunities that will be unlocked by its implementation;
 - (d) Possible funding models; and
 - (e) Current support for RP.
- 1.8 We also outline recommendations for incoming Ministers to begin delivering on this vision.

2 Recloaking Papatūānuku

2.1 Context

- 2.1.1 New Zealand continues to face a number of environmental challenges. These include the steady decline of our indigenous biodiversity and freshwater quality, and increasing vulnerability of our landscapes and communities to climate-related impacts.
- 2.1.2 Our current regulatory settings and incentives for mitigating climate change and biodiversity loss are failing to:
- (a) Drive urgent gross emissions reductions at source and at scale;
 - (b) Secure enduring, biodiverse and resilient long-term carbon sinks that will sequester and store carbon from hard-to-abate industries across generations;
 - (c) Reverse the decline of indigenous flora and fauna species;
 - (d) Protect freshwater and marine ecosystems;
 - (e) Encourage land-use diversification over intensification; and
 - (f) Build climate and ecological resilience into our landscapes and communities.
- 2.1.3 These are critical and interdependent issues that require a step change in urgency and ambition of action.

- 2.1.4 Within the global context, New Zealand is also not on track to meet its climate change commitments under the Paris Agreement. Climate Action Tracker has described New Zealand's approach thus:⁶

*The New Zealand government plans to purchase emissions credits to achieve its 2030 NDC target using international offsets, in anticipation of an emissions overshoot. This would amount to New Zealand having to purchase international offsets amounting to around 75–102 MtCO₂e over time given the NDC's emissions budget is 571 MtCO₂e, **which would set an alarming precedent for significant offset purchasing to meet an NDC. New Zealand is set to meet by far the highest proportion of its target (two thirds of the action required) through buying international offsets compared with any other OECD country.***

*These purchases would be linked to the NZ-ETS, to ensure that credits auctioned by the Government are backed by reductions in emissions overseas. However, **this exposes New Zealand to highly volatile prices in EU-ETS markets as well as increasing concerns about the quality of international offsets, given the high uncertainties around the verification, permanence and principles of additionality.***

- 2.1.5 The Treasury has estimated that the cost of international offsets to meet our Nationally Determined Contribution (NDC) could range from NZ\$3-24 billion.⁷ This represents the potential for a significant transfer of New Zealand's wealth offshore.
- 2.1.6 Below we set out how investing in a national initiative of indigenous reforestation and restoration presents a cost-effective, high value opportunity to address many of these challenges comprehensively, simultaneously and domestically, whilst restoring the credibility and integrity of New Zealand's international climate change and biodiversity efforts, and the NZ Inc brand more broadly.

2.2 *Summary of proposal*

- 2.2.1 RP proposes to strategically restore and enhance an initial 2.1 million hectares of native forest over the next 10 years comprising:
- (a) The enhancement of existing degraded and naturally regenerating native forest;
 - (b) Supported natural reversion; and
 - (c) Establishing new forests..
- 2.2.2 These figures are indicative and are informed by analysis that identifies up to 5 million hectares of land in Aotearoa New Zealand that has ecological potential to support reforestation of native forests (i.e. excluding urban and smaller, community-scale opportunities). However, these forests

⁶ <https://climateactiontracker.org/countries/new-zealand/> (last accessed 19 October 2023).

⁷ Climate Economic and Fiscal Assessment 2023, at 80.

will not necessarily be in large blocks but woven through landscapes and complementing other land uses, including agriculture.

- 2.2.3 In practice, target areas across a range of private, public, and Māori land would be identified in close collaboration with interested stakeholders (e.g. catchment groups, farmers, land owners) and a programme of action, and associated funding and investment model(s), developed to optimise and realise the many co-benefits that indigenous forests deliver.

2.3 Opportunities

Demonstrate bold, cross-cutting leadership on climate change and biodiversity

- 2.3.1 New Zealand has committed to prioritising domestic action on climate change and championing the deployment of NbS to address climate change and biodiversity loss simultaneously and synergistically.⁸
- 2.3.2 RP presents a globally pioneering approach to the implementation of a relatively low-cost NbS at a national scale that will deliver extensive environmental, social and economic benefits. Furthermore, RP is feasible and can be delivered now. Doing so would demonstrate bold leadership on, and commitment to meeting, New Zealand's international and domestic climate change and biodiversity targets.⁹
- 2.3.3 National-led governments have a strong history of executing ambitious and visionary initiatives, including the National Cycleways Project and Predator Free 2050, the legacy benefits of which transcend generations. RP should be one of this government's cornerstone environmental initiatives.

Secure an intergenerationally enduring, biodiverse, climate-resilient carbon sink

- 2.3.4 New Zealand needs to secure an intergenerationally enduring, biodiverse, climate-resilient carbon sink to meet our Paris Agreement commitments and reduce, or indeed avoid, future NDC liabilities.
- 2.3.5 New Zealand's native forests are some of the highest-sequestering in the world.¹⁰ Although indigenous species have slower sequestration rates initially, they sequester more carbon in the long-term, and are longer-lived than many exotic species.¹¹

⁸ Aotearoa New Zealand's First Emissions Reduction Plan 2022 refers.

⁹ Including under the Paris Agreement, Climate Change Response Act, Kunming-Montreal Global Biodiversity Framework, and in support of the Global Goal for Nature.

¹⁰ <https://www.pnas.org/doi/full/10.1073/pnas.0901970106>

¹¹ Ibid.

- 2.3.6 Biodiverse native forests are also regenerative and more resilient to increasing climate-related risks, including wildfires, windthrow, and pest and disease incursions, than monocultural exotic ‘carbon’ forests.¹²

Over-deliver on future NDCs under the Paris Agreement

- 2.3.7 The modelling suggests that the reforestation of 2.1 million hectares with a diverse mix of native tree and shrub species over an initial 10-year planting programme beginning 2024 could:
- (a) cost approximately \$9-12 billion by 2050 (covering expected and discounted costs); and
 - (b) sequester approximately 1500 million TCO₂ between 2024 and 2100 at a considerably lower average abatement cost per TCO₂ (~\$32/TCO₂) compared to international offsets (~\$60/TCO₂).¹³
- 2.3.8 It further indicates that by investing in the reforestation and restoration of New Zealand’s native forests now, New Zealand will generate significantly more carbon removals than is likely to be required to meet our future NDCs. As Article 6 markets mature, we can expect that our high integrity carbon removals will command a premium in international offset markets, creating a national asset for future New Zealanders.

Build landscape and climate change resilience

- 2.3.9 RP promotes a diversified, mosaic approach to land-use whereby biodiverse native forests are woven into and across the landscape, either complementing or providing a viable transition pathway away from existing less productive land-uses.
- 2.3.10 To this effect, RP presents an opportunity for productive farmland to strategically incorporate pockets of native forests to support sustainable and climate-resilient food production, help meet freshwater management requirements and improve the health of downstream receiving environments, reduce water inputs, improve animal welfare conditions, and increase the productive capacity of the land.
- 2.3.11 In support of this, one of the approaches in RP’s funding model involves the Crown paying landowners a yearly land incentive for successfully maintaining healthy permanent native forest (currently modelled at 150% of the average productivity of their land) in return for the carbon credits generated by that forest. As a result, landowners could diversify their on-farm income, and destock and retire less productive parts of the landscape.
- 2.3.12 Similarly, with rigorous long term investment and management, RP can facilitate the transition of plantation forests to native forests on erosion-prone land that cannot or should not be harvested. As a result, erosion-prone land can be stabilised indefinitely, adverse effects from harvest-induced

¹² <https://newzealandecology.org/nzje/3331>

¹³ Based on the International Energy Agency’s midpoint forecasts.

sedimentation lessened or avoided, flood risks and landslides mitigated, and disaster-related financial losses can be materially reduced.

“Nature-positive New Zealand” – the opportunity for NZ Inc

- 2.3.13 New Zealand’s recent free trade agreement with the European Union suggests that trading partners will increasingly hold each other accountable for their climate commitments. Climate Action Tracker assesses New Zealand’s climate policies and actions as “Highly Insufficient”.¹⁴ With a string of “Fossil of the Day” awards at recent UNFCCC COPs and one of the highest emissions per capita in the OECD, New Zealand is increasingly at risk of being viewed as a laggard. Continued inadequate climate action will have significant implications for New Zealand’s international trade relations, market access, and premium product positioning.
- 2.3.14 RP is an opportunity to bolster the credibility of New Zealand’s clean, green reputation around which the NZ Inc brand has been built, on which its tourism industry depends, and in relation to which the nation’s primary produce commands a premium. The potential for RP to make New Zealand a nature-positive nation should not be overlooked.

2.4 *Analysis*

- 2.4.1 Extensive modelling and analysis underpins the economic case for RP, which is optimised around the objective of spending less than the cost of international offsets to meet our NDCs over the medium to long term.
- 2.4.2 Even applying a wide margin of uncertainty, the results are highly favourable of the proposition.
- 2.4.3 Although we have not yet modelled co-benefits, including reduced or avoided disaster losses, conceptually we are confident they will further support the economic rationale for RP.

2.5 *Stakeholder engagement and support*

- 2.5.1 Pure Advantage and a range of signatories, including mana whenua groups, have engaged widely on RP to ensure that it is well-grounded and supported, including with industry groups Beef + Lamb, Fonterra, catchment groups and with Māori landowners.
- 2.5.2 Feedback has been overwhelmingly positive, with a growing and diverse coalition of proponents keen to progress its realisation on the ground.
- 2.5.3 The growing Recloaking Papaptūānuku alliance of signatories includes: Tāne’s Tree Trust, Mana Taiao Tairāwhiti, Te Weu, The Tindall Foundation, Trees That Count, Environmental Defence

¹⁴ <https://climateactiontracker.org/countries/new-zealand/> (last accessed 20 October 2023).

Society, FOMA, Forest & Bird, Greenpeace, WWF NZ, Riversun, Future Farmers, NEXT Foundation, NZ Farm Forestry Association, The Reforestation Fund, Carbon Crop.

- 2.5.4 We have also engaged with head and senior agency officials across MfE, DoC, MPI, LINZ, The Treasury, and MFAT. Our most recent meeting with Ray Smith, James Palmer, Penny Nelson and Adrienne Meikle indicated a keen appetite to further explore the economic and wider opportunities and benefits for RP, and we look forward to further engagement with the new Government to progress this.

3 Recommendations

- 3.1 We recommend that Ministers:

- (a) Position RP as a new flagship environmental initiative and demonstrate early action to address climate change and biodiversity loss by **announcing to the New Zealand public the Government's commitment to explore the feasibility of RP as a major plank in New Zealand's response to the climate and biodiversity crises, including in proposals it plans to submit at UNFCCC COP 28.**

Ministers should be aware that Pure Advantage, together with WWF New Zealand (as an official COP 28 observer organisation), have been invited to present RP in a side event at the COP 28 thematic date for Nature, Land Use, and Oceans on 9 December 2023. This event will consider the emerging role of nature in meeting NDCs, and bring together political representatives, businesses, investors and media to highlight the critical role of nature in the global climate response. Ministers are invited to attend this side event, which would provide a fitting opportunity to demonstrate strong leadership by the new Government on addressing climate change and biodiversity loss together by **reiterating its domestic announcement to a global audience.**

- (b) **Commit formal support, including investment, for further modelling, engagement, and the establishment of a farmer, landowner, Māori, inter-agency task force to develop an implementation strategy and roadmap before the 2023 forest planting season.**

- 3.2 In addition, and relatedly, we further recommend Ministers:

- (a) Continue to explore and implement innovative approaches to strengthen the incentives for the restoration of diverse permanent native forests, including through the development of a carefully designed biodiversity incentive scheme;
- (b) Support changes to the Emissions Trading Scheme that:

- (i) enable the qualitative differentiation of forestry removals (to recognise and reward environmental integrity and co-benefits); and
 - (ii) restrict the permanent forest category to native forests;
- (c) Commit considerable long-term resourcing into animal and plant pest control, including through the Department of Conservation, Predator Free 2050, and RP; and
- (d) Continue to support research and development support for native forest species, including the scaling up of nurseries, and associated skilled labour.

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