Submission on

Helping nature and people thrive: Exploring a biodiversity credit system for Aotearoa New Zealand

To: The Ministry for the Environment and Department of Conservation

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Submitter details

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The Parliamentary Commissioner for the Environment

The Parliamentary Commissioner for the Environment was established under the Environment Act 1986. As an independent Officer of Parliament, the Commissioner's role is to review the environmental management system. He has broad powers to investigate environmental concerns and make recommendations to improve environmental outcomes. The Commissioner is wholly independent of the government of the day. The current Parliamentary Commissioner for the Environment is Simon Upton.

Introduction

I am providing some preliminary feedback on the consultation into investigating a biodiversity credit system for Aotearoa New Zealand. It is clear from the consultation document that the Government's thinking appears to be at an exploratory stage – hence my comments will be fairly high level. If the Government makes some high-level decisions around key considerations, such as the ones I have listed at the bottom of this submission, they should consult again for more detailed feedback before proceeding with the design of any such system.

The consultation document is not clear on whether the system will apply to private or public investment or both. I have based my comments on the assumption that if a biodiversity payment system were established, biodiversity payments would be predominantly funded through *private* investment rather than public investment (noting that the government may provide funding for development of the system itself and may choose to contribute some funding towards particular projects or outcomes). If the system were to be used to direct a large proportion of *public* funding, the most appropriate approach is likely to differ, as it would bring a range of different risks and opportunities that would require separate thinking. I have also assumed that this new system would be targeted primarily at activities on private land – but recognise there are already some situations where private investment is directed at actions on public land and more may eventuate (e.g. where public funding is lacking and unlikely to be secured in the future, but biodiversity gains are achievable with sufficient funding).

Biodiversity needs a boost

There are currently many privately funded and voluntary efforts to protect and enhance indigenous biodiversity being carried out around the country. These projects range considerably in size and scope and, when combined, represent substantial contributions by motivated parties seeking to have positive impacts on our indigenous biodiversity. Such private endeavors should be encouraged and applauded. Yet even when these voluntary efforts are added to the considerable public investments being made in conservation, the fact remains that our indigenous biodiversity is still in trouble. There is huge unmet potential to improve biodiversity outcomes in New Zealand, on both public and private land.

Exploring ways of bolstering voluntary efforts and better aligning them with various national, regional and local biodiversity objectives is a worthy endeavour. Biodiversity underpins many ecosystem services, some of which can extend considerable distances, so improvements on one parcel of land typically spillover providing some benefit to others. As such, efforts on private land can help achieve wider public benefits such as improved environmental, social and cultural values at a local or regional scale, complementing the efforts of publicly funded environmental activities. Yet currently there is a lack of economic incentives for landowners to conserve or improve biodiversity on private land, for the benefit of others, with existing levers generally promoting land use that generates market returns. I therefore support the Government exploring options for a system that enables financial incentives for voluntary actions leading to positive, measurable outcomes for biodiversity.

Beyond biodiversity credits

While the idea of facilitating a new flow of private funding in support of biodiversity has appeal, I have some reservations about the scope of the consultation. It is unclear to me why the focus is solely on the development of a biodiversity *credit* system, rather than taking a broader view that considers other alternative financial approaches to fund improved biodiversity outcomes. Potential alternative approaches include, but are not limited to:

- changes to the tax system
- biodiversity certificates (such as under the Australian Government's Nature Repair Market,[1] which issues a single certificate to a project capturing key, standardised information that can be traded),
- direct biodiversity payments, and
- resilience bonds.[2]

Some of these approaches are mentioned in the consultation document, but the focus of the consultation questions remains on the development of a credit system.

There are some key challenges and risks with a biodiversity credit system. For instance, while credits may be attractive from a market development/trading perspective, deciding what constitutes a fungible "unit" of biodiversity will be challenging at best and could lead to perverse outcomes if inappropriately applied (if, for example, it directs funding to 'easy' activities that maximise credit

[1] See https://www.dcceew.gov.au/environment/environmental-markets/nature-repair-market
[2] Hall, 2023. Land Use in Tairāwhiti & Financing Biodiversity – Briefing Paper for Mana Taiao Tairāwhiti. https://manataiao.files.wordpress.com/2023/04/david-hall-land-use-in-tairawhiti-financing-biodiversity-1-1.pdf

generation rather than activities that would be most transformative for biodiversity). Biodiversity is hard to quantify because it is complex and multidimensional; there is no widely accepted universal metric. It can be measured in a multitude of different ways that may lead to variable conclusions about biodiversity status or trends.[3] Selecting an appropriate metric for the quantification of biodiversity credits that accurately reflects the complexity of biodiversity and avoids perverse outcomes is crucial in order to maximise positive outcomes for the environment. But this is no simple task. Many of the international approaches highlighted in the consultation document are still grappling with the challenge of what constitutes an appropriate metric.

This is not to say that alternative financing approaches would be without their challenges or would necessarily turn out to be better for biodiversity than a credit system. But they should at least be considered and compared. Rather than consulting only on a biodiversity credit scheme, the Government should take a wider view and consider a broader range of potential approaches to private financing that leads to positive outcomes for biodiversity.

I have chosen to discuss a biodiversity *payment* system for the remainder of this submission, to capture the other options that could be considered.

Considerations for a biodiversity payment system

Below, I offer some high-level feedback on important considerations for any potential biodiversity payment system, including a biodiversity credit system**.**

Approach

Funding for biodiversity can be directed at outputs, such as projects and activities, or outcomes.[4] In simple terms, outcomes are the ends that actions are orientated towards, while outputs are the means to achieving those ends. When it comes to public funding, the government tends to fund outputs when it wants to achieve certain environmental outcomes. This is because it is hard to establish, define and measure outcome-based key performance indicators and there are difficulties associated with attribution between activities and environmental outcomes. Examples include predator and weed control (such as Predator Free 2050 and the National Wilding Conifer Control Programme) and tree planting initiatives (like the Hill Country Erosion Programme and One Billion Trees - although the latter does include some outcome-based payments for achieving a certain level of survival). Private investment into biodiversity also tends to follow an output approach.

The benefit of funding outputs is that funds can be made available to overcome the upfront costs of carrying out the work, which often means the difference between an action being carried out or not. It is also easier to determine when the output has been completed, whereas outcomes can take much longer to achieve and be more complex to assess. However, the success of those actions will depend on a number of factors, some of which are beyond the control of those doing the work (such as extreme events or incursions from new pests or diseases). The risk with funding outputs is that the funding may be spent without achieving the desired outcomes (i.e. an actual increase in biodiversity).

[3] Hill et al., 2016. Reconciling Biodiversity Indicators to Guide Understanding and Action. *Conservation Letters,* 9: 405-412. https://doi.org/10.1111/conl.12291.
[4] See page 47, https://pce.parliament.nz/media/0qger2rr/environmental-reporting-research-and-investment-do-we-know-if-were-making-a-difference.pdf.

From nature's point of view, it is the outcome that matters most. Taking an outcome-based approach to a biodiversity payment system would help to ensure that payments have an agreed level of impact, i.e. actual and sustained gains in biodiversity. Rewarding outcomes also allows for different ways of achieving those outcomes, which in turn can encourage innovation. But the challenges of outcome-based payments must not be overlooked. These include: the complexity of assessing outcomes; long lag times between actions and achieving the outcome; and potentially substantial upfront costs to landowners of actions that result in incremental positive outcomes over time. Cashflow is already the key barrier to planting native trees under the Emissions Trading Scheme; the seedlings tend to cost more and require more maintenance than exotics (like *Pinus radiata*) and the carbon sequestration benefits are considered too slow to justify the debt finance required.

Pragmatically, it may be that some combination of upfront project or activity-based payments and outcome-based payments that reward achievement of key milestones over time are needed. If outcome-based funding is deemed too challenging, the use of output-based funding with metrics and criteria that are closely aligned with the outcomes, and supplemented with outcome-based measures where available, could be an alternative approach.

Additionality

Additionality is a crucial principle that must be embedded into any prospective biodiversity payment system where claims of nature-positive activities are being made. It ensures that rewarded actions and outcomes go beyond business as usual and demonstrate measurable, positive outcomes for biodiversity, building confidence and integrity in the system. Additionality of actions that avoid negative impacts on biodiversity can be more challenging to prove but could be demonstrated where there is robust evidence of an imminent and provable threat to the biodiversity in question. Such evidence could be used to assess eligibility of projects that avoid biodiversity loss rather than lead to biodiversity gains. In many cases, additionality will be challenging to determine. Significant policy work will be required to ensure that biodiversity outcomes funded through a payment or credit scheme are not duplicating or displacing gains that would have happened anyway.

Monitoring, reporting and verification

Knowing what the current baseline biodiversity 'state' is and what gains are being made requires a robust monitoring, reporting, and verification (MRV) system. The administrative costs associated with MRV can be significant. This typically includes documentation of management plans, regular monitoring including on-site checks, clear and transparent reporting, and verification by a third party. There are several points to consider in terms of fiscal sustainability:

- Ongoing administration costs associated with MRV need to be properly funded and can be significant over the long term. If this cost is not accounted for it can undermine the effectiveness of the scheme.
- The temporal lag between activities/interventions and enhanced biodiversity outcomes means long-term monitoring will be required in many cases.
- While an outcomes-based approach may lead to better biodiversity outcomes, it is likely to be a more data intensive approach which would require a higher level of funding for MRV purposes than a project-based or activity-based approach.

Robust MRV will require more investment in data collection and scientific research to improve knowledge around monitoring and measuring biodiversity. Luckily, many of the investments

needed in data and science (e.g. monitoring) are the same regardless of whether a credit scheme or some other biodiversity payment scheme is chosen, or whether the scheme is activity, project or outcome-focused (recognising that the amount of data required for the different approaches may vary, as noted above). The investment required can start now and need not be delayed until decisions are made. Technological developments in remote sensing and artificial intelligence may well reduce the costs of monitoring and verification over time.

Timeframes

Investment in the environment can't be an on-again, off-again affair. Long-term funding is often needed to maintain gains through, for instance, weed and pest control. The level of ongoing funding required will almost certainly change over time, with the type and intensity of pressures (e.g., the incursion of a new invasive species, damage caused by extreme events, or fluctuations in pest populations in the surrounding landscape), but ongoing costs should be expected. Consideration needs to be given to the timeframes over which actions need to take place and how the improved state will be maintained in the future (a future that is facing increasing threats from climate change, I might add). There may be different ways of achieving this. GreenCollar's NaturePlus credit scheme,[5] for example, addresses the challenge by allowing credits to be generated from successfully maintaining an improved environmental condition.

Without some form of assurance that investors will continue funding over a sufficiently long period to secure the gains made, project participants may be vulnerable to stop-start injections of funding that ultimately threaten the achievement and longevity of desired outcomes. Investors, on the other hand, may want a guarantee that the outcomes they are funding are enduring, and insured against unexpected events. Approaches to building assurance into the system will need to be explored to address the risk of impermanence. Demonstrating how an outcome will be funded in the long-term and maintained in perpetuity might also reduce concerns around 'greenwashing', particularly if integrated into a system that ensures additionality.

Market demand

Regardless of the design, the scale of a successful biodiversity payment system will depend on the level of investor demand. Here I consider the role that two key types of demand for biodiversity investment could play: voluntary payments and offsets.

The voluntary biodiversity market

The implication in the consultation document is that by setting up a biodiversity credits system there would be a ready market of willing buyers. I am unconvinced of this. There may indeed be some progressive companies who wish to claim they are "nature neutral" or even "nature positive" under such a system. As companies can already claim direct voluntary support for individual high-profile projects or species now, I would question how much additional demand a structured scheme might generate. As with the voluntary carbon market there will need to be careful scrutiny of any claims of being "nature neutral" or "nature positive" and under what circumstances these claims are appropriate to make (if any). With the advent of the international Taskforce for Nature-related Financial Disclosures (TNFD), this market may well be bolstered. However, given the scale of the biodiversity problem in New Zealand, the overall impact of a voluntary market may be limited. In short, the level of demand this will generate needs to be explored to make sure it is worth the

[5] See https://greencollar.com.au/real-measured-verified-results-for-nature-world-first-scheme-delivers-biodiversity-credits-from-vegetation-and-koala-projects/

investment in set up costs (such as development of the market, standards, methodologies, and MRV system).

Where biodiversity is funded through voluntary investment in a payment system (i.e. any biodiversity gains are truly additional and not associated with any biodiversity losses due to development or similar), there could be more flexibility in the approach taken. While a focus on rewarding outcomes would be more likely to achieve long-term benefits, funding projects and activity-based work would be relatively low risk from an *environmental* perspective as the worst-case scenario would likely be no net change in biodiversity (recognising that it could allow companies to claim they support nature positive activities, fuelling concerns of greenwashing and a loss of confidence in the system).

The biodiversity offset market

Expanding eligibility from parties voluntarily investing in biodiversity to those that are required to offset negative impacts elsewhere might increase demand. But there are substantial risks associated with biodiversity offsetting, including non-equivalence of exchange (is it like-for-like), inappropriate ecological application (attempting to offset a loss of biodiversity that is irreplaceable or highly vulnerable), and non-delivery of gains and benefits (through deficiencies in the offsetting scheme of supporting environmental management institutions). There has been recent high-profile criticism of some biodiversity offsetting programmes, such as the New South Wales Biodiversity Offsets Scheme.[6]

The goal of biodiversity offsetting can be either to ensure no net loss or more ambitiously, to ensure a positive net gain. Because the activities that require offsetting in the first place reflect a 'guaranteed' biodiversity loss, it would be crucial to ensure that offsets resulted in 'guaranteed', verified and lasting positive outcomes for biodiversity. In contrast to voluntary investors, it would be inappropriate for offsets to fund activity- or project-based biodiversity work, as the worst-case scenario would be a net decline in biodiversity (if the funded projects or activities failed to achieve biodiversity gains, and the environment was damaged elsewhere). The need for thorough assessments of outcomes funded by offsetting means that a highly robust (and most likely expensive) MRV system would be essential.

Given the risks and uncertainties involved in biodiversity offsetting, the precautionary approach suggests that the goal of achieving a positive net gain should be applied. Under the Resource Management Act 1991 and the Natural and Built Environment Act 2023, offsetting is the last step in the mitigation hierarchy and should only be considered after all reasonably practicable on-site measures have been exhausted. The National Policy Statement for Indigenous Biodiversity includes guidance on the principles for biodiversity offsetting.[7]

Given its inclusion in resource management legislation, offsetting is likely to happen in some situations regardless of the existence of a biodiversity payment system. A portfolio of verified, high-quality projects that benefit biodiversity, developed through a biodiversity payment system, could help direct offsetting payments to actions that have a high likelihood of achieving measurable positive *outcomes* for biodiversity. Ideally these would be suitable projects close to the impact site or within the same ecological district. A portfolio-based approach would provide a degree of independence between those offsetting and those carrying out positive biodiversity actions.

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[6] See https://www.theguardian.com/environment/2022/aug/30/utterly-damning-review-finds-offsets-scheme-fails-to-protect-nsw-environment

[7] See https://environment.govt.nz/assets/publications/biodiversity/National-Policy-Statement-for-Indigenous-Biodiversity.pdf

If offsetting was to be included, the system should clearly differentiate between voluntary investors and those offsetting due to regulatory requirements. This could ensure transparency and avoid disincentivising investors and landowners that don't want to be associated with offsetting activities. If offsetting was included, it would be crucial to ensure that a biodiversity payment system did not affect a party's decision to offset rather than avoid, minimise, or mitigate any adverse effect on the environment.

If designed well, the inclusion of offsets could help alleviate some of the market design and operational issues associated with such a scheme. This includes the aforementioned increase in demand, but also reduced administration and transaction costs by establishing shared market infrastructure (e.g. registries, an MRV system, etc.). It could also allow for a more coordinated approach to planning conservation activities and bring benefits in terms of ecological economies of scale. However, I question whether those benefits would outweigh the risks.

Role of the government

The consultation document described two broad roles the government could play to support a biodiversity payment system:

- **Market enablement:** where it provides policies and guidance for the development and uptake of voluntary schemes in New Zealand, and potentially funding for system development as the market is established.

- **Market administration:** where it establishes and manages a voluntary biodiversity scheme and is active in the ongoing management and administration.

The role the government should play depends on the type of investment expected, the target land type and the extent to which the public benefit from the investment. If voluntary private investment is the predominant funding source and this is primarily targeted at private land for mostly private benefit, as assumed here, it would be more appropriate for the government to focus on market enablement rather than market administration. Including offsetting activities may change how active the government needs to be in administering the system.

Government officials should be one of many partners at the table working in an enabler/facilitator role. They should help work through the issues with a focus on the science needed to verify and monitor any such system to ensure environmental integrity. There may be a role for the Department of Conservation and iwi to act as project aggregators and approvers. If the government chooses to invest public funding into some biodiversity projects, it could play a role in filling gaps where private investment has primarily funded particular activities, ecosystems, or species and not others (e.g. due to charismatic bias).

Role of mana whenua

Any biodiversity payment system must be co-developed with mana whenua to ensure the end product aligns with and enables the aspirations and values of Māori. Māori could form a significant proportion of the participants within any such system. Māori own over 1.5 million hectares of land (5.5% of New Zealand's land area), much of which is marginal and not suited to productive land use. As Māori whenua cannot be sold, existing options to secure financial support for the improvement of marginal areas are limited. A biodiversity payment system could offer a mechanism to overcome this, enabling Māori to exercise rangatiratanga and kaitiakitanga. Co-developing any

biodiversity payment system with Māori would ensure te ao Māori and mātauranga Māori are appropriately embedded from the outset, in line with Wai 262.

Key focus areas for further work

If the Government chooses to progress this work, it should in the first instance focus on addressing the following issues:

- **Look beyond credits** – consider the suitability of other types of biodiversity payment systems, like biodiversity certificates, resilience bonds, and direct payments, as well as credits.

- **Private vs public** – clarify whether the purpose of any biodiversity payment system is to incentivise biodiversity benefits on private and/or public land and whether this is funded through private and/or public investment.

- **Voluntary investment vs offsetting** – assess the risks and benefits of including voluntary and non-voluntary (i.e. offsetting) activities within a biodiversity payment system.

- **Additionality** – identify ways to ensure that activities that represent voluntary actions over and above business as usual are appropriately labelled so as to help build integrity and transparency into the system (such as through a robust MRV system). For example, if mandatory offsetting is included in any biodiversity payment system it should be clearly distinguishable from voluntary activities.

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