



University of Otago Business School

New Zealand BIOFIN Assessment Biodiversity Expenditure Review

July 2026

"Wild beasts and birds are by right not the property merely of the people today, but the property of the unborn generations, whose belongings we have no right to squander." Theodore Roosevelt, 26th U.S. President.

绿水青山就是金山银山 Chinese proverb meaning:

Clear waters and green mountains are as valuable as mountains of gold and silver.

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Glossary

ANZBS	Aotearoa NZ Biodiversity Strategy
BER	Biodiversity Expenditure Review
BFP	Biodiversity Finance Plan
BIC	Biodiversity Investment Contribution
BIOFIN	The Biodiversity Finance Initiative
BIR	Biodiversity Investment Ratio
B + L	Beef plus Lamb (Sheep and Beef industry)
CBD	Convention on Biological Diversity
DoC	Department of Conservation
FNA	Financial Needs Assessment
GBF	Global Biodiversity Framework
GDP	Gross Domestic Product
GST	Goods and Services Tax
J4N	Jobs for Nature fund
MBIE	Ministry of Business, Innovation and Employment
MFAT	Ministry of Foreign Affairs and Trade
MfE	Ministry for the Environment
MPI	Ministry for Primary Industries
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-governmental Organisation
NZ	Aotearoa New Zealand
NZD	New Zealand Dollar
OECD	Organisation for Economic Co-operation and Development
PCE	Parliamentary Commissioner for the Environment
PIR	Biodiversity Finance Policy and Institutional Review
PSGE	Post Settlement Governance Entities
RMA	Resource Management Act 1991
SBN	Sustainable Business Network
SBC	Sustainable Business Council
SEEA	System of Environmental-Economic Accounting
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank
WEF	World Economic Forum
WWF	Worldwide Fund for Nature

Definitions

Biodiversity	The range and variety of life on earth
Biodiversity Finance	Raising and managing capital, and utilizing economic incentives to support sustainable biodiversity management, ecosystem conservation, and restoration.
Biosecurity	Preventing, containing, eradicating and managing invasive species
Deferral	Delayed investment
Natural Capital	Natural capital is New Zealand's stock of natural assets—including geology, soil, air, water, and all living things. This report is interested in the biodiversity component (all living things).
Restoration	The restoration or the rehabilitation of degraded ecosystems where biodiversity and ecosystem outcomes are the primary objective.
Sustainable use	Use of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, to meet the needs and aspirations of present and future generations.
The BIC	A biodiversity finance solution indexed to consumption growth that is independent and enduring for the purpose of investing in low-cost high biodiversity benefit projects. 'Natural Capital Fund' is used interchangeably with the BIC. They are the same.

1. Executive Summary

As the economy grows, invest more in biodiversity

This report identifies key gaps in New Zealand's biodiversity funding and outlines four pragmatic, evidence-based recommendations to address New Zealand's biodiversity loss and investment deferral.

The New Zealand BIOFIN Assessment recommends biodiversity finance measurement, a natural capital policy, and a fund. As the economy grows, invest more in biodiversity.

University of Otago Business School New Zealand BIOFIN Biodiversity Expenditure Review is independent. It is the first time New Zealand has estimated what it spends on biodiversity. BIOFIN is a United Nations methodology used in 133 countries. The BIOFIN method provides a comprehensive review of biodiversity finance, expenditure patterns, and ecosystem prospects.

The Assessment found that the Department of Conservation (DoC) remains the largest funder of biodiversity outcomes, followed by regional authorities, the Ministry for Primary Industries, and NGOs.

Despite biodiversity's critical role in exports, tourism, and intergenerational wellbeing, New Zealand's spending on biodiversity declined from \$1,183 million in 2023/24 to \$1,155 million in 2025/26. New Zealand's spending on restoration was \$46 million (0.01% of GDP). Restoration is a priority area for increasing investment. Biodiversity outcomes have a proven relationship to biodiversity investment.¹

The BIOFIN BER recommends a new biodiversity investment fund that grows as the economy grows. The fund uses biodiversity cost benefit targeting for public and private sector restoration projects. Cost benefit targeting invests where biological benefits are high, and costs are low, returning the best cost benefit ratio. Restoration delivery models with community involvement achieve good cost-benefit ratios.

The fund can be called Natural Capital Fund or the Biodiversity Investment Contribution – The BIC. As well as a highly effective investment design, it will reduce biodiversity investment deferral: the practice of consuming now and kicking the 'cost' down the road. Prolonged deferral is called fiscal imprudence. The estimated opportunity cost of deferrals ranges from \$100B to \$270B NZD over the next 50 years.²

The new fund, indexed to economic growth would target currently unfunded high-impact restoration projects. The BIC is a rules-based, low-administration biodiversity finance solution for the benefit of future generations that grows. The minimum proposal adds \$25 million to New Zealand's biodiversity finance landscape in 2027/28. It will provide security to our private sector biodiversity restoration stakeholders that government is contributing stable, meaningful, biodiversity finance.

To be successful, the fund is accompanied by a Natural Capital Policy that recognises natural capital as an asset and actively seeks to reduce deferrals.

The United Nations, OECD, World Wide Fund for Nature, World Bank, and World Economic Forum confirm global ecosystem collapse is a high risk because of the biodiversity finance gap. The Global Biodiversity Framework, signed by 196 nations including New Zealand, commits to improve enduring biodiversity finance. The finance gap has resulted in global wildlife populations declining 73% in the past 50 years, and New Zealand faces a biodiversity crisis with approximately 4,000 threatened species. This indicates unsustainable development. Yet New Zealand households spend more on cosmetics.

Recommendations

University of Otago Business School NZ BIOFIN Assessment BER recommendations are as follows:

- **Measure Biodiversity Investment:** Repeat the BIOFIN Assessment in 2029.
- **Introduce the BIC:** Cross party parliamentary support to introduce the BIC Fund.
- **Natural Capital Policy:** Recognise natural capital as an asset and reduce investment deferral.
- **Complete the BIOFIN Assessment:** Estimate future finance needs and funding options.

Biodiversity investment and Natural Capital policy adoption are essential to New Zealand's unique natural heritage and sustainable long-range economic foundations.

2. Introduction

Purpose of the Biodiversity Expenditure Review

This report enables New Zealand biodiversity stakeholders to know what we spend, who spends it, the biodiversity categories we spend in, and how to address expenditure and funding gaps to improve outcomes.

The purpose of the New Zealand BIOFIN Biodiversity Expenditure Review (BER) is to analyse public, private, and civil society biodiversity expenditures as a New Zealand baseline. We cannot manage what we do not measure. It is independently led by the University of Otago Business School.

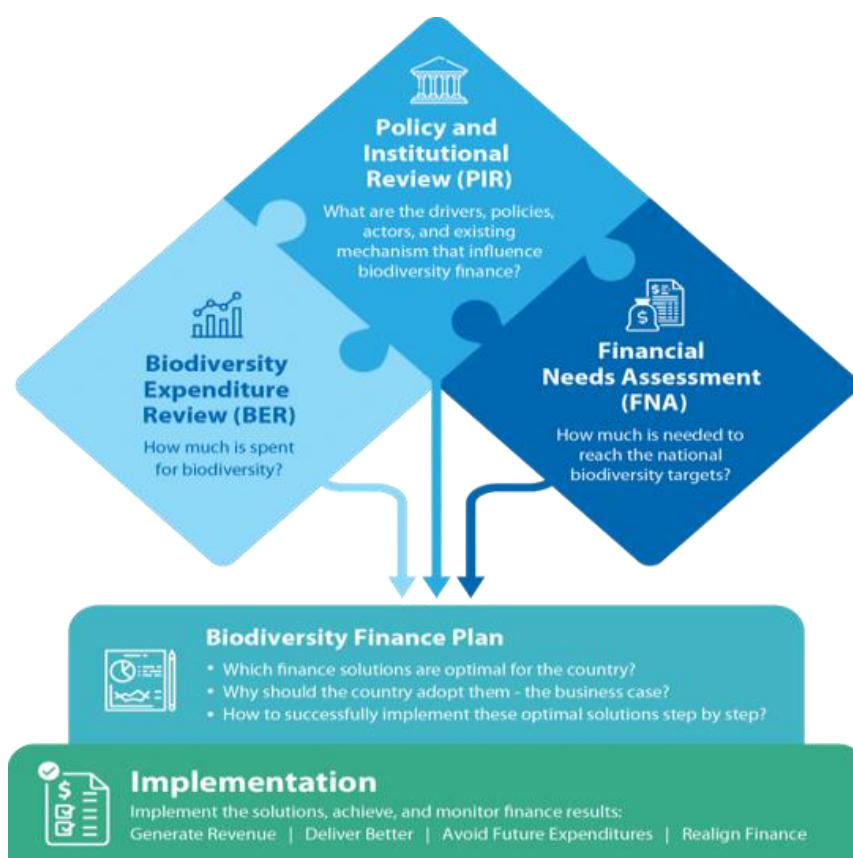
The New Zealand BIOFIN Assessment vision is a strong nature-positive economy as an endowment to our children. Biodiversity integrity (intact ecosystems), representation (rare ecosystems) and risk reduction (including endangered species) can be called nature positive / biodiversity net gain (BNG) when conditions improve.

In this report ‘investment’ and ‘expenditure’ are used interchangeably to mean finance spent on maintaining and restoring biodiversity (biodiversity finance). Good investment leads to better natural capital asset condition, reduces cost deferral to our children, and moves towards halting biodiversity loss in New Zealand.

Natural capital is New Zealand’s stock of natural assets—including geology, soil, air, water, and all living things. It is the foundation of our economy and well-being, acting as a "stock" that provides essential goods (like timber, food, and fresh water) and ecosystem services (like pollination, flood control, and carbon absorption and other ecosystem services). It also enshrines intrinsic and intergenerational non-use values. Our focus is on the living things.

The BER is the second BIOFIN report in the left diamond of this BIOFIN method diagram.

Figure 1: BIOFIN Document Series



Source: BIOFIN Workbook, 2024

Report structure

The first section outlines the BIOFIN BER method, noting deviations from the UN BIOFIN approach. The second section provides BIOFIN expenditure results disaggregated by sector, category and Convention on Biological Diversity (CBD) target. The report finishes with conclusions and four early BIOFIN recommendations.

Current government environmental measures in New Zealand do not tell us biodiversity expenditure results disaggregated by sector, category and CBD target across the public and private sectors. The BIOFIN method enables New Zealand to:

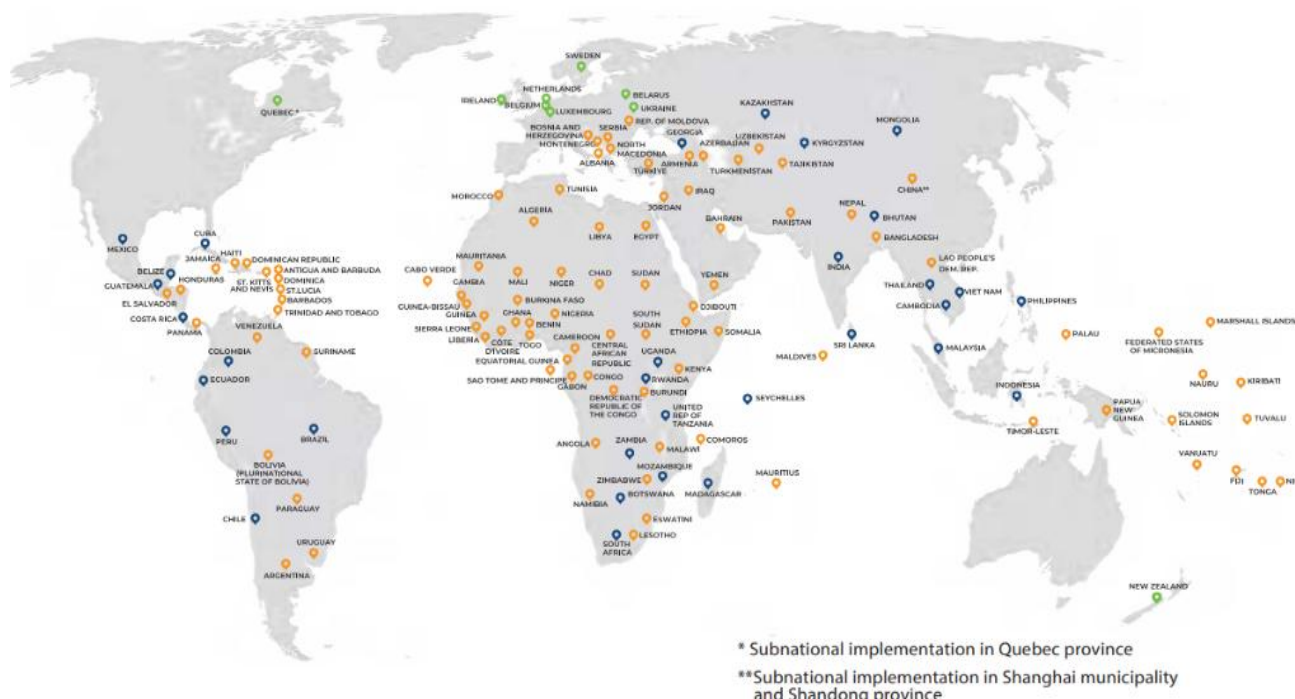
- Help monitor the trend towards or away from nature positive.
- Monitor biodiversity investment as % of GDP.
- Understand the spend detail, trends, challenges and opportunities.
- Reduce natural capital investment deferral. Deferral is delayed investment.
- Improve our United Nations international Convention on Biological Diversity obligations.
- Establish finance needs for priority projects.

This report will complement rather than replace existing government reporting.

Why the BIOFIN method?

The Assessment uses the United Nations Global Biodiversity Expenditure Taxonomy to classify biodiversity expenditure. After establishing the size and nature of the biodiversity investment gap, the method draws on a toolkit of over 150 international biodiversity finance solutions to choose from to fill the gap. The process builds on the pillars of engagement, partnerships, and technical work customised to the country. It is tried, tested, and successful in securing over USD 2.7 billion of new biodiversity finance internationally so far.

Figure 2: BIOFIN Nations 2024



 Implementation stage (UNDP)

 Design stage (UNDP)

 Design stage (other)

3. New Zealand BIOFIN BER Method

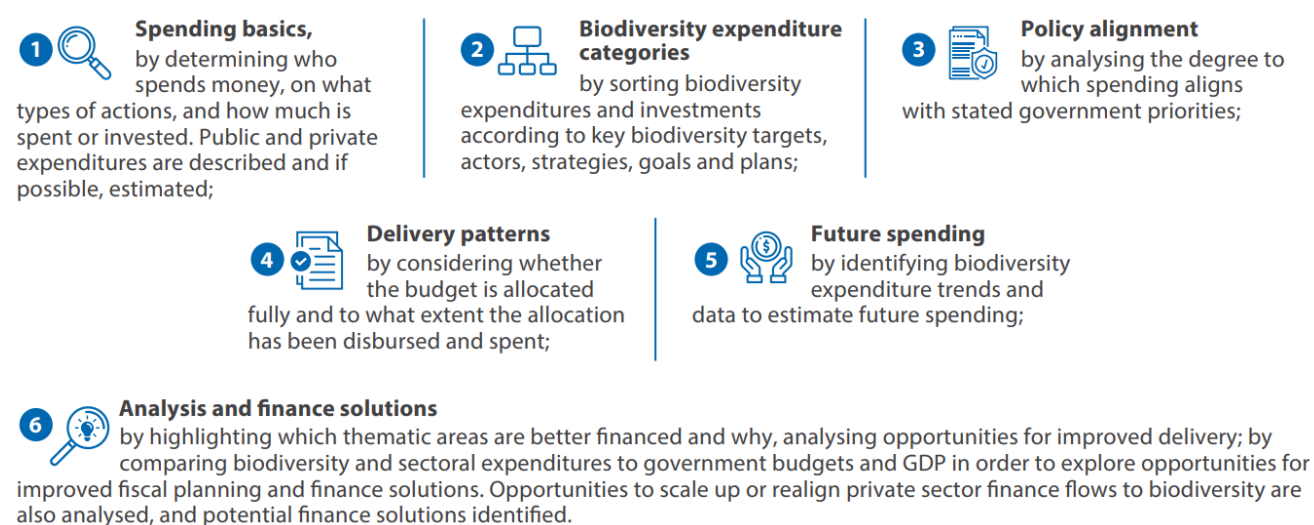
The BER Methodology

The section sets out the BIOFIN BER methodology.

NZ BIOFIN Assessment is independently led by the University of Otago using both public and private information. Collaboration and information sharing are vital. This impartial, open approach, similar to Sweden, Ireland, Belgium, and the Netherlands, ensures free access to non-binding reports, with confidential data managed under Otago University Business School Ethics Approval ID3632883.

There are five main BER steps explained below in the context of the New Zealand BIOFIN Assessment.

Figure 3: BIOFIN BER steps



Step 1: Preparation

The BER preparation involved scoping, stakeholder assessment, identifying data sources, and setting up a data management system, guided by openness, voluntary participation, and independence.

Open and transparent: The NZ approach is open and participatory, relying on voluntary involvement from government and private sectors. Data is managed using an excel spreadsheet, following Otago University ethics approval ID3632883. All agencies participated with public information they have.

Governance and political participation: Strong governance was provided by the BIOFIN Reference and Working Groups, including former Department of Conservation staff and other experts. The process reports directly to parliamentary committee, with communications open to all political parties.

Independence: Independence ensured political neutrality, with civil service participation but no formal engagement.

Step 2: Scope, Categories and Attribution Rates

This assessment focuses on New Zealand public and private biodiversity finance. Regulation reviews, case studies, and detailed analyses are excluded due to their complexity. Information is gathered collaboratively from various sectors for a comprehensive stocktake. The implementation phase is out of scope, as this depends on joint decisions by government, parliament, private sector, and biodiversity stakeholders.

Table 1: BIOFIN BER Scope

In scope	Out of scope
Positive Finance	Harmful finance (due to limited resources)
2023/24 and 2025/26	All other financial years.
Central Government Expenditures	Regulatory rules-based studies
Regional Government Expenditures	Detailed case studies and analysis
Māori expenditures	Local Government
Business and Finance Institutions	Legislative reviews (RMA, Conservation Act etc.)
Landowners and primary industries	Emissions Trading Scheme
Non-Governmental, Community, and Philanthropic expenditures	Political election commitments.

Expenditures, Categories and Attribution rate

A biodiversity expenditure refers to spending intended to benefit biodiversity or mitigate pressures on it. Such expenditures are categorised and attributed based on their purpose, with any actions harmful to biodiversity excluded. Both the BIOFIN BER and System of Environmental-Economic Accounting (SEEA) focus on the intended purpose of activities, but SEEA only considers the primary purpose, while BIOFIN includes secondary purposes.

The BER method includes secondary biodiversity expenditures because they address wider biodiversity targets and align with the CBD principle of mainstreaming biodiversity. As a result, BIOFIN applies attribution rates to account for these secondary expenditures. Attribution is the portion of a budget relevant to biodiversity. All figures are in New Zealand Dollars (NZD) unless otherwise stated.

New Zealand's BER assigns higher attribution rates based on category and purpose, reflecting an emphasis on direct, on the ground, nature-positive investment, such as species recovery and habitat restoration. The BIOFIN categories, attribution guidelines, and descriptions are detailed in Table 2, developed in consultation with regional councils. Each category spend is linked to specific biodiversity outcomes.

Table 2: BIOFIN BER Categories and attribution rate

BIOFIN Classification	Outcome, New Zealand context and examples	Attribution approach
1. Access and Benefit Sharing	Not used. Spends were allocated to other categories.	Not used.
2. Biodiversity Awareness and Knowledge	Covers campaigns, activities, and initiatives to boost biodiversity awareness, including monitoring, research, education, and communications. Involves community engagement, science participation, and partnerships with Māori in resource management, but excludes conservation outcome monitoring (Cat 7&8).	Biodiversity science, freshwater ecology, coastal ecology. Core work is 40-80%, non-core at 1% -50% (cat 6-12).
3. Biosecurity	Preventing, containing, eradicating and managing invasive species through species-focused animal and plant management, including multi-purpose pest control (e.g. possum control for TB and biodiversity), distinct from site-based pest control in protected areas (Cat 7&8).	Pest work attribution at 70 or 80%, agricultural is a low attribution - 0-5%.
4. Green Economy	Covers circular economy (nature-based solutions, energy and resource efficiency, waste, and related commercial investments) and climate (emissions reduction, adaptation, new technology, and carbon storage research).	Low attribution <10% probably <5%

BIOFIN Classification	Outcome, New Zealand context and examples	Attribution approach
5. Biodiversity Planning and Finance	Covers biodiversity planning, policy, finance, legal matters, coordination, and enforcement, including freshwater, strategy development, resource consents, compliance, and national regulations.	Consents: 20% Compliance: 15% General advice: 10% Policy & planning: 10-30% Legal/finance: 1-10%
6. Pollution Management	Biodiversity gains from reducing or preventing pollution, such as spill response, clearing rubbish from beaches, and lowering contaminants.	Very low attribution <10% probably <5%
7. Conservation	Ecosystem integrity and representation, endangered species, enhancement, risk reduction and avoiding biodiversity loss on public and private land. Includes threatened species and ecosystem programmes, site led pest plant and animal control including landscape predator free, fencing and site management, native plantings and restoration of an existing ecosystem, wetland enhancement, marine reserves and coastal care, purchasing land, fish passage remediation. Direct expenditure and third-party funding recorded separately to mitigate double counting.	90-100%
8. Restoration	The restoration or the rehabilitation of degraded ecosystems where biodiversity and ecosystem outcomes are the primary objective. This can include restoring conservation land by reducing risks to integrity such as predators or re-creating habitat where it has been lost. E.g. restoring wet pasture back into wetland dominated by native wetland plants, reforestation, planting corridors between remnant ecosystems. This category can cross over with category 7.	90-100%
9. Sustainable use	Initiatives targeting sustainability of primary production which have direct and indirect outcomes for biodiversity. Land, freshwater and marine. Catchment management, reducing contaminants into waterways, lake/estuary water quality management, treatment wetlands. Including sustainable use research and monitoring.	Riparian, bush blocks, and wetland fencing and planting 60-80%. Erosion control (poplars etc) is a low attribution.

Attribution rates served as a guideline only. Higher rates were applied when work was directly focused on biodiversity, and lower rates when it was a secondary aspect. There are situations where new biodiversity spend is a consequence of development or exploitation and that before the activity biodiversity was in a better state. Not all spends are the same. Some allocations and attributions were applied to large total budget, whilst others were 'dissected out' and then attributed, depending on the return on work effort.

Step 3: Collecting data

Collecting the data was conducted in accordance with the University of Otago ethics approval ID3632883. Many organisations were comfortable sharing information on a trust basis from the public and private sector. Knowing the purpose and intent of the BIOFIN Assessment was to benefit better biodiversity investment was beneficial.

Expenditure years

Data was collected for the 2023/24 and 2025/26 financial years. Additional years were not collected due to resource limitations. Future assessments are recommended for 2027/28 and 2029/30 using the BIOFIN method. Table 3 summarises the six main data sources.

Table 3: BER Data

Segment	Data source	Notes
Central Government	Treasury actuals for 2023/24 and Treasury budgeted expenditure (2025/26). Agency annual reports and budgets were used as an integrity check treasury data for MfE, DoC, MPI, and MFAT and MBIE. The PCE Estimate of Env Exp. for 2023/24 and 2025/26 was used for the rest of government. Barbara Kuriger helped enable central agency participation.	Treasury accounts were accurate to agency annual reports. MfE supplied a breakdown of the government J4N projects. MBIE provided a breakdown of research funds. MBIE records have a 1-year lag so 2026 was estimated. DoC line items for natural heritage and recreational were not disaggregated. MPI attributions were made by the NZ Assessment lead based on a commercial / biodiversity split for Biosecurity NZ. MFAT provided a breakdown of overseas biodiversity aid. The PCE provided informal overall support with contacts and method. The New Zealand government agencies were exemplary in participating.
Regional Government and Unitary Authorities	Regional Council Annual Report for 2023/24 and long-term plan 2025/26 budget. Regional Councils were the first group to complete the Assessment.	Fourteen of the Sixteen Regional Councils / Unitary Authorities completed a BIOFIN proforma expenditure template internally. NZ BIOFIN Webinars provided online support. The remaining two Councils participated in checking the BIOFIN led categorisation.
NGOs, Community Groups and philanthropy	The Charity Services Website Annual Reports for (2023/24). Sample of groups directly via email request for budgeted expenditure (2025/26) resulted in a sample set of 38 returns, mainly from larger NGOs. Most reports for 2025/26 had not been lodged.	A search of environmental and conservation organisations resulted in a longlist of approximately 1200 organisations. Expenditures grouped by \$0-100k - 833, 100k-500k = 205, and 500k above = 170. Sample for 0-180k, all assessed above \$180k. Email request was sent to \$200k plus large organisations for an estimated expenditure change and % government funding for 2025/26 (double counting mitigation). The Regional Community Charities were separately accounted by Esther Whitehead.
Landowners and primary industry	Responses from Beef + Lamb (B+L), Forestry Owners Association (FOA), DairyNZ, Seafood NZ, HortNZ.	B+L had the highest confidence rating due to data from the annual estimate of environmental expenditure. Most data needed additional estimating, categorisation and attribution by the NZ BIOFIN team. There is an opportunity for industry to voluntarily collect this data to tell a good biodiversity story.
Finance institutions and business	Requests were made for data to the SBN and Sustainable Business Council (SBC) and other private sector bodies. The BIOFIN estimate of expenditure is very likely to be an underestimate.	No data is available in the industry at an aggregate level because it is not collected. There is an opportunity for industry to voluntarily collect this data to tell a good biodiversity story. It is evident that many businesses contribute to NGO biodiversity work as donations and sponsorship.
Māori expenditures	➤ Māori expenditures are included in the Government and NGO line items.	From the NGO reports, there is a large Māori investment of time and resource into biodiversity. There is an opportunity to collect this data to tell a good story.

Step 4: Analysing the data

Interpretation:

Data was analysed in a excel master worksheet with 742-line items for 2023/24 and 2025/26, with filters for key data points like BIOFIN Category, Organisation, Sector, Targets, Amount, Attribution Rate, Biodiversity Amount, Double Accounting Adjustment, Year, Confidence Rating, Funding, and Source, enabling sorting and integrity checks for the report.

BIOFIN Category totals reflect attributed spending, not full organisational budgets. For example, of DoC's \$814m 2025/26 budget, \$494m was attributed to biodiversity whilst the remainder was attributed to other purposes. Some data is inconsistently categorised between groups (e.g., conservation vs. restoration), so similar attribution rates are used to maintain consistent totals. Some data, particularly from business and finance, was incomplete and estimated at a high level, resulting in low confidence and likely underestimation, as noted in the results.

Mitigating Double counting

Double counting is when an expenditure is recorded twice, such as a government fund counted again by a recipient group or duplicated by a local organisation. To prevent this, government funding was tracked, and government funded expenditures by a third party or Regional Council / Unitary Authority were reversed out. Integrity checks separated out third-party expenditures, and adjustments were made when funding sources were unclear. Despite efforts, some margin of error remains, reflected in the confidence rating for each entry.

Confidence Level

Three confidence ratings were used. High confidence rating 1 is used where budgets and actuals are used and categorised by an organisational expert or could be confidently sorted by the NZ BIOFIN Assessment Lead. Rating 2 includes some uncertainty on category or attribution and 3 is estimated.

Step 5: Project Future Expenditures

Step not used. This will be done in the BIOFIN financial needs assessment.

Figure 4: New Zealand relies on natural capital for exports and our children's living life support system.



4. New Zealand Context

New Zealand Context

(December quarter 2025 largely sourced from Stats NZ website – 13 April 2026)³

Population

In December 2025, New Zealand's population reached 5,342,000, with median ages of 39 for females and 38 for males. The population grew by 0.6%, mostly due to natural increase and migration. Auckland is the largest city with 1.8 million people. Most live in the North Island. By 2048, the population is projected to reach 5.55–6.65 million. The top five ethnicities are listed from the 2023 census are provided in Table 4, with British, Irish, other European, Filipino, Tongan, and Cook Islands representing most of the remainder.

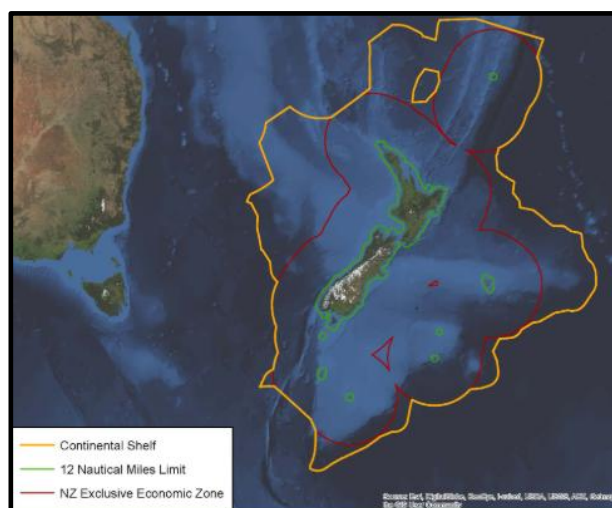
Table 4: Population ethnicity

Ethnic group	Number	Percent
NZ European	3,099,858	62.1
Māori	887,493	17.8
Indian	292,092	5.8
Chinese	279,039	5.6
Samoan	213,069	4.3

Land and Sea

- Total Land Area: Approx. 268,000 km².
- Marine Area: Over 4 million km² (Exclusive Economic Zone). It is the 5th largest internationally.
- Coastline: ~15,000 km in length (mainland and islands).
- Territorial Sea: ~168,000 km² (within 12 nautical miles).
- Land Cover (2023): 50% exotic cover, 47% indigenous cover, 2% water bodies, and 1% urban.

Figure 5: EEZ and Protectorate zones



Economy

In December 2025, New Zealand's GDP was \$445 billion NZD, growing 0.2% in the quarter. Unemployment was 5.4%, with a current account deficit of \$16.3 billion (3.7% of GDP) for the year, and annual inflation at 3.1%.

The Ocean⁵

Between 1982 and 2023, New Zealand's ocean regions experienced rising sea-surface temperatures (0.16–0.26°C per decade), increasing ocean stratification, and reduced oxygen levels. Ocean acidity, especially in subantarctic waters off Otago, rose by 8.6% (1998–2020). Sea-level rise is a growing threat to low-lying coastal areas, causing inundation, erosion, saltwater intrusion, and drainage problems, which have led to the loss of shorebird nesting sites and threaten seagrass habitats essential to fish populations.

Land-based activities such as dairy farming, horticulture, and urbanisation have increased nutrient runoff, resulting in algal blooms and marine life harm. Plastic pollution is significant, with 67% of beach litter in 2023 made up of plastics, endangering seabirds and marine species through ingestion and entanglement. Fisheries data from 2024 show that while 88% of stocks were fished sustainably, 12% (including black cardinalfish, oysters, and orange roughy) were overfished or depleted, with six stocks collapsed.

Bycatch remains a concern: in 2024/25, 477 marine mammals and 2,225 seabirds were caught, and bycatch of protected corals increased, affecting slow-recovering species. Many marine species are at risk, with 35% of indigenous marine mammal species (2024) and 91% of indigenous seabird species (2021) threatened or at risk. Invasive species are on the rise, with 44 newly established non-native species between 2010 and 2022.

Coastal habitats provide vital ecosystem, cultural, and economic benefits, but have been degraded: active sand dunes have declined by 80% since the 1950s, and seagrass coverage fell by 40–90% in affected harbours. Mangroves have expanded due to sedimentation. Sea-level rise threatens about 219,000 properties valued at \$180 billion (2023) and infrastructure worth over \$26 billion if sea levels rise by 0.6 metres.

The Land⁶

Many of New Zealand's native land species face high extinction risk due to land-use changes, pollution, invasive species, and climate change. Nearly all reptile species (94%), and major portions of terrestrial birds (78%), frogs (93%), bats (80%), and vascular plants (48%) are now threatened or at risk, with populations mostly declining. Over a third (36%) of invertebrates are also threatened, though data is limited.

Ecosystem degradation has weakened resilience to withstand extreme weather and climate impacts. Native land cover is now below 30%, down from over 80% before human settlement. Lowland forests, crucial for biodiversity, are fragmented and vulnerable to invasive species and agriculture.

Exotic plantation forests offer some refuge but cannot replace native ecosystems. With over 1,800 exotic plant species now wild, weeds threaten a third of threatened native plants. Wilding conifers cover about 2 million hectares, and pests like possums, deer, and goats further harm native flora and fauna.

Plant diseases add further risks, including to species important to Māori. The combined effects of weeds, pests, land-use change, and disease continue to threaten New Zealand's biodiversity and terrestrial ecosystem health.

Freshwater⁷

Freshwater quality in New Zealand faces major challenges. From 2019 to 2024, nearly half of groundwater sites failed E. coli standards at least once. About 45% of rivers and 9 out of 92 monitored lakes were unsuitable for swimming. Many native freshwater species are at risk due to declining water quality, invasive species, sediment, contaminants, and altered water flows.

Around 90% of historical wetland area has been lost, but remaining wetlands are vital for threatened and taonga species. Wetland losses persist, weakening ecosystem functions like carbon storage and water purification. Over 200 freshwater animal and plant species have been introduced. Most rivers and streams had good habitat conditions, but many lakes were in poor ecological state and almost all had invasive plants. Many indigenous freshwater species are threatened or at risk, with population trends mostly stable or declining.

Figure 6: Indigenous freshwater species extinction threat status



Our people⁸

People and the environment in New Zealand are closely linked, with human behaviour such as consumption, waste, and economic activity driving environmental changes that affect wellbeing and culture. While innovation can reduce some impacts, ongoing degradation threatens health, as seen with contaminated food sources and unsafe E. coli levels.

Outdoor recreation and wellbeing rely on healthy ecosystems. Environmental decline limits access and cultural benefits, especially for Māori, whose connections to land and cultural identity are impacted. Accessible urban green spaces help restore these relationships.

Climate change and extreme weather threaten sites of ecological and cultural value, risking loss of mātauranga Māori and cultural practices. Reduced river flows, pollution, and invasive species also compromise taonga species and traditional food gathering. Generational Māori knowledge (tohu) is threatened by ecosystem decline and the loss of taonga species, risking the preservation and transfer of mātauranga Māori, including the maramataka (Māori lunar calendar).

Our livelihoods

New Zealand’s economy depends on natural resources, with agriculture, forestry, fisheries, and tourism directly linked to the environment. In 2024, primary industries contributed \$53.3 billion to exports and \$16.9 billion to tourism. Climate change poses major risks to these sectors, causing crop disruptions, marine damage, and costly extreme weather events. Climate change affects soil, freshwater, agriculture, fisheries, and tourism through changing weather, biodiversity loss, and environmental decline. Adaptation strategies are vital to protect livelihoods and support sustainable growth including irrigation efficiency, erosion protection, wetland restoration, flood mitigation, and avoiding nutrient stripping.

The BIOFIN Assessment Table 5 identifies eight characteristics that shape the New Zealand biodiversity finance landscape.

Table 5: Characteristics that shape the New Zealand Biodiversity Finance Landscape

Characteristic	NZ Description	Biodiversity Finance Significance
1. Demographics	Low population density (20 people per km ²); 83% urbanised.	Less pressure per person but limited domestic biodiversity funding.
2. Biodiversity & Isolation	High vulnerability to invasive predators; underrepresented ecosystems.	High elimination and management costs, ongoing financial impacts.
3. Culture	Blend of Māori and diverse heritage; strong nature connection.	Supports intergenerational biodiversity investments.
4. Sovereignty & Agreements	Independent democracy, active in global biodiversity agreements.	Commits to funding targets under global frameworks.
5. Land Ownership	32% public conservation land; Remainder is a mix of private, Māori, and state land.	High level of public finance can reduce administrative overheads.
6. Ethics & Values	Focus on equality, honesty, DIY spirit, and low corruption.	Strong community-led, cost-effective biodiversity projects.
7. Political System	Westminster democracy; coalition governments.	Policy instability affects biodiversity investment continuity.
8. Data Infrastructure	Centralised, trusted data systems, overseen by Chief Data Steward.	Enables open, accurate biodiversity finance reporting.

5. Results

The BIOFIN Expenditure Review will show biodiversity finance in four sections.

1. Total biodiversity spending
2. Sector analysis
3. BIOFIN Taxonomy Groups
4. Spend by Biodiversity Target



Total New Zealand biodiversity expenditure

The New Zealand BIOFIN Assessment estimates biodiversity expenditure in 2023/24 to be \$1,182m and in 2025/26 it is estimated to be \$1,154m. This 'attributed spend' specific for biodiversity.

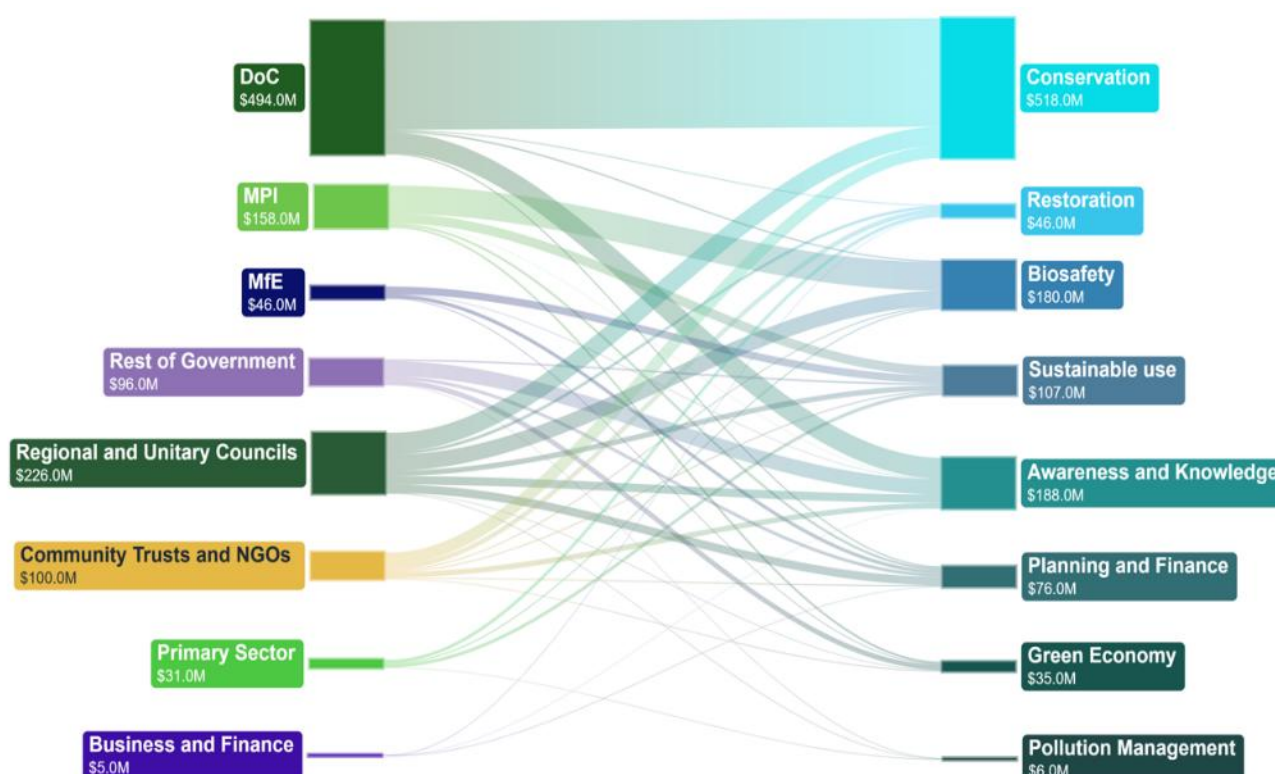
Comparing 2023/24 and 2025/26

Biodiversity finance has fallen in both public and private sectors despite economic growth. If investment had kept pace at 0.28% of GDP, it would have risen by \$80m but instead dropped by \$28m creating a \$108m gap with a GDP tracked investment projection, due to policy changes and shifting priorities. The ratio is nominal (not inflation adjusted). Stop start multi-year programmes can leave biodiversity projects stranded. Sunk (already committed) biodiversity investment is often lost rather than banked because the risks (predators) quickly amplify.

Analysis of 2025/26

The financial flows (attributed) for organisations to BIOFIN categories is in Figure 6.

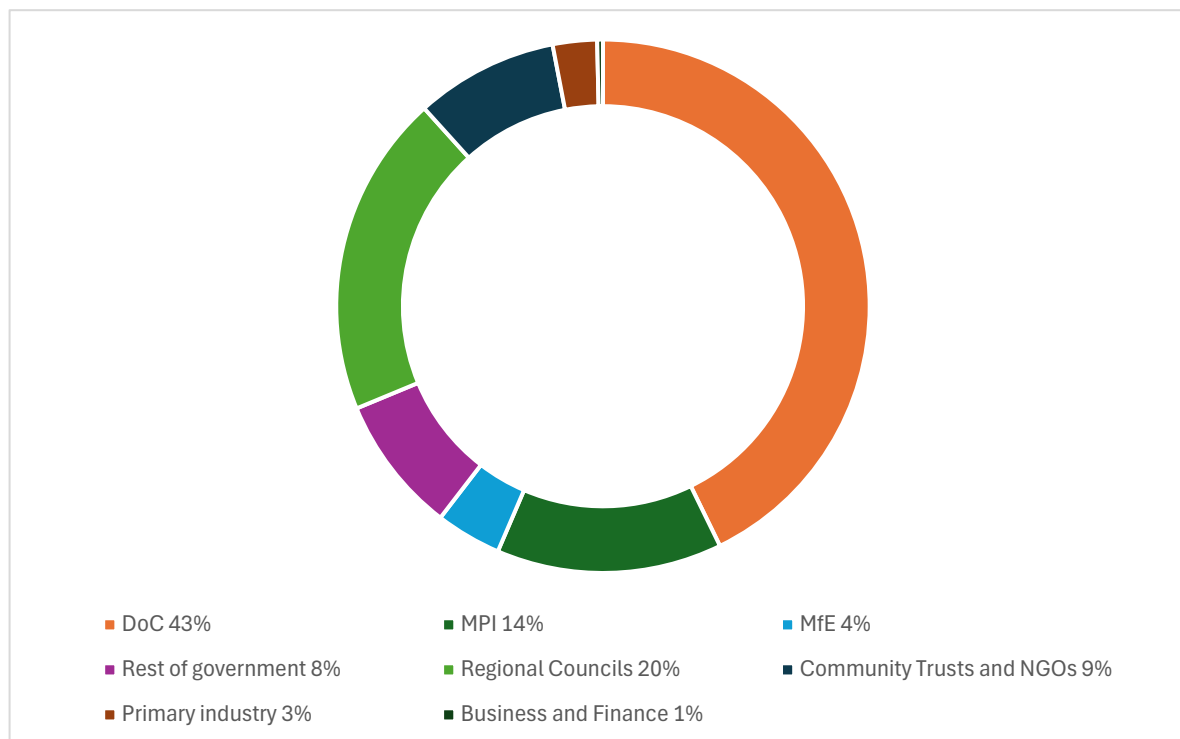
Figure 7: Financial Flows for biodiversity spend 2025/26



The core biodiversity spend is mainly provided by DoC, MPI and Regional/Unitary Authorities. DoC leads the financing of conservation, MPI funds biosafety and regional councils deliver regional outcomes. MBIE research funds support biodiversity knowledge and awareness. Charitable trusts and primary industries, including farmers and landowners, are the largest private sector contributors.

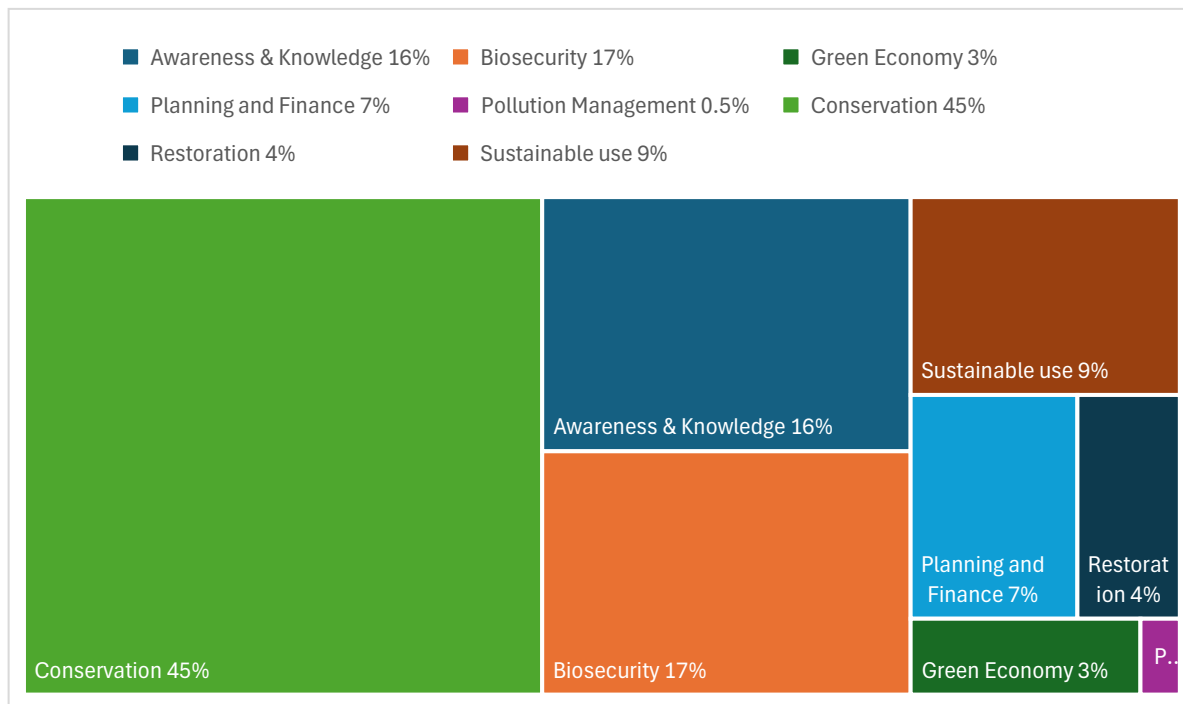
Finance mapping to BIOFIN categories is challenging due to overlapping purposes and outcomes. Some budgets have biodiversity as a secondary aim, making attribution difficult, and some data is unavailable. Central agencies and councils are reliable figures, but estimates for NGOs, industry and business are less certain. While reporting varies, the approach gives a broad overview, and only biodiversity-specific expenditure is included.

Figure 8: Biodiversity Funding 2025/26



Conservation, restoration and biosafety make up 66% of the spend in 2025/26.

Figure 9: BIOFIN Expenditure Category 2025/26



Biodiversity investment proportionate to GDP

The BIOFIN Biodiversity Expenditure Review Baseline (BER) is New Zealand's combined public and private biodiversity spend as a share of GDP. In 2023/24 the Biodiversity Investment Ratio (BIR) baseline was 0.28%. In 2025/26 it decreased to 0.26%. New Zealand households spend more on cosmetics.

When investment is reduced, the finance available for biodiversity maintenance and restoration declines. We are deferring the cost of maintaining our children's life support system. A cycle of ongoing degradation and loss in New Zealand increases the risk of ecosystem collapse. Internationally, a high risk of global ecosystem collapse is an urgent concern of the WB, OECD, WWF, UN, WEF, IPBES, and proactive governments such as the United Kingdom.

The BIR baseline uses the StatsNZ GDP estimate of \$417,000 million NZD for 2023/24 and \$445,000 million NZD for 2025/26. The Assessment includes every second financial year, so 2024/25 is not included. Our two measures are:

1. Total biodiversity spend on all BIOFIN categories.
2. Core biodiversity spend on conservation, restoration, and biosafety.

This is the New Zealand BIOFIN BER baseline ratio.

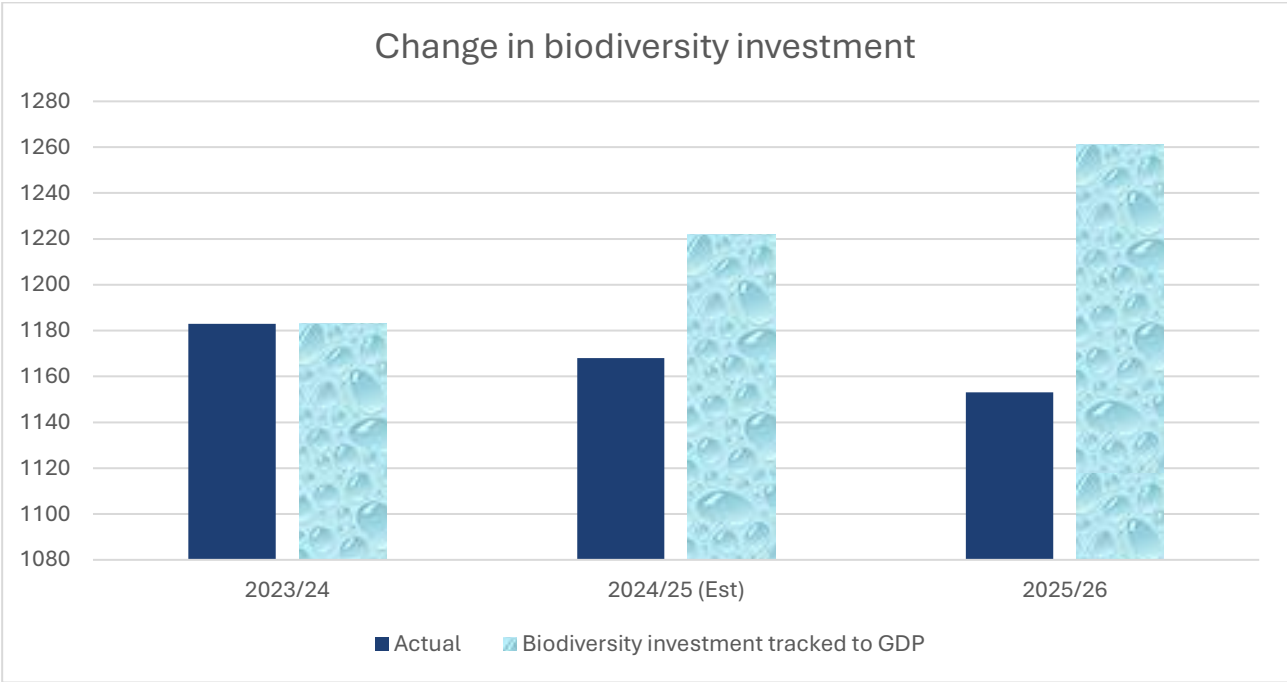
Table 6: BIOFIN Biodiversity Expenditure Review (BER) baseline

Year	Year and category	Total \$m NZD	Biodiversity spend to GDP
2023/24	Total Biodiversity spend	1,183	0.28%
	Core Biodiversity spend	751	0.18%
2025/26	Total Biodiversity spend	1,155	0.26%
	Core Biodiversity spend	744	0.17%

In the graph below, the solid blue bars are actual biodiversity investment, including an estimated actual for 2024/25. The light blue bars show the hypothetical biodiversity investment level if investment was indexed to GDP growth. If Biodiversity investment increased indexed to economic growth, it would have risen by approximately \$80m between 2023/24 to 2025/26. Instead, it has declined by \$28m. The gap between the two figures is approximately 9%.

Investment is not keeping pace with growth. Biodiversity outcomes are **not** correlated with economic growth. However, biodiversity outcomes have a proven relationship to biodiversity investment.⁹

Figure 10: Change in biodiversity investment 2023/24 – 2025/26



Sector Analysis

Central Government



Photo Credit: Amanda Sinclair

Central Government biodiversity expenditure is estimated to be \$794m in 2025/26. This is principally funded from crown revenues.

Central government is New Zealand’s primary funder of biodiversity, providing nearly 70% of total biodiversity finance in 2025/26, as estimated by the New Zealand BIOFIN Assessment. The Department of Conservation spends around 42% and MPI 14%. Most funding is allocated to government agencies through the Treasury ‘Vote’ system.

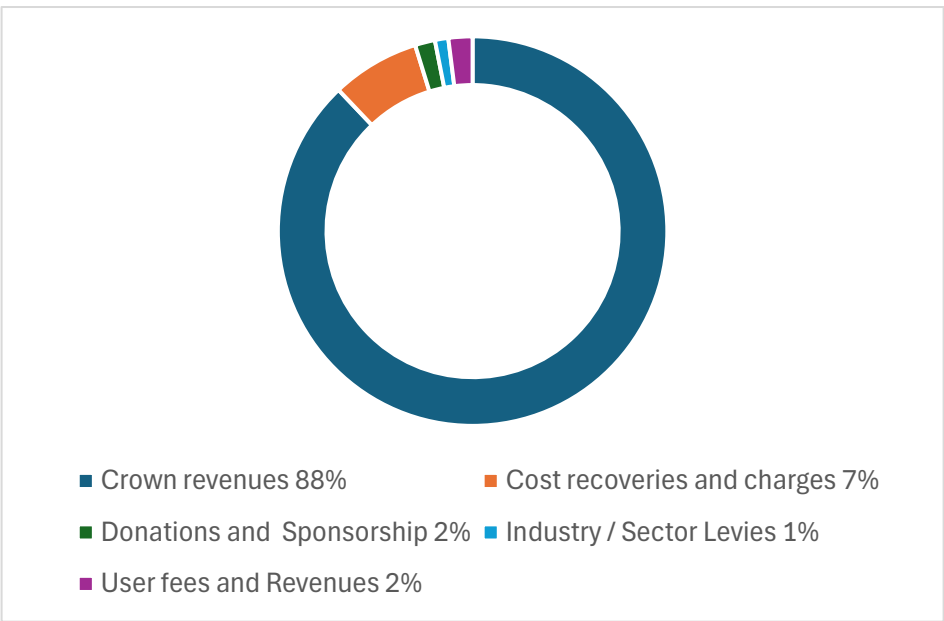
The Department of Conservation natural heritage budget prioritises ecosystem and endangered species investment and programmes to maintain and improve ecological integrity. Control programmes manage threats at a lower ecological integrity whilst elimination is for eliminating the threat and maintaining the ecosystem at a higher level of integrity. DoC also supports research, recreational opportunities, and community engagement. Across central government, predator control and elimination costs between \$100 million and \$400 million annually, reflecting realised financial cost inherited from earlier decisions.

Central government investment is vital for both the economy and environment. For instance, a Brown Marmorated Stink Bug incursion could cost up to \$3.6 billion by 2038 and impact horticulture exports by as much as \$4.2 billion.¹⁰ Biosecurity New Zealand delivers services to help mitigate such risks. Each insect incursion costs roughly \$20 million to eradicate and incurs ongoing management costs.

Other departments, including MfE and MBIE, contribute through policy, planning, grants, and research, fostering better planning and innovation in biodiversity.

DoC, MfE and MPI Government Funding

Figure 11: Funding DoC, MPI, and MfE Biodiversity Expenditure



DoC, MPI, and MfE spend around \$700m on biodiversity in each year. Crown revenue is the main finance source, with cost recovery possible via levies, mainly by MPI. Government efforts to generate private funding for public goods yields diminishing returns on effort. Over 82% of biodiversity finance is public and innovation occurs in the public and private sector.

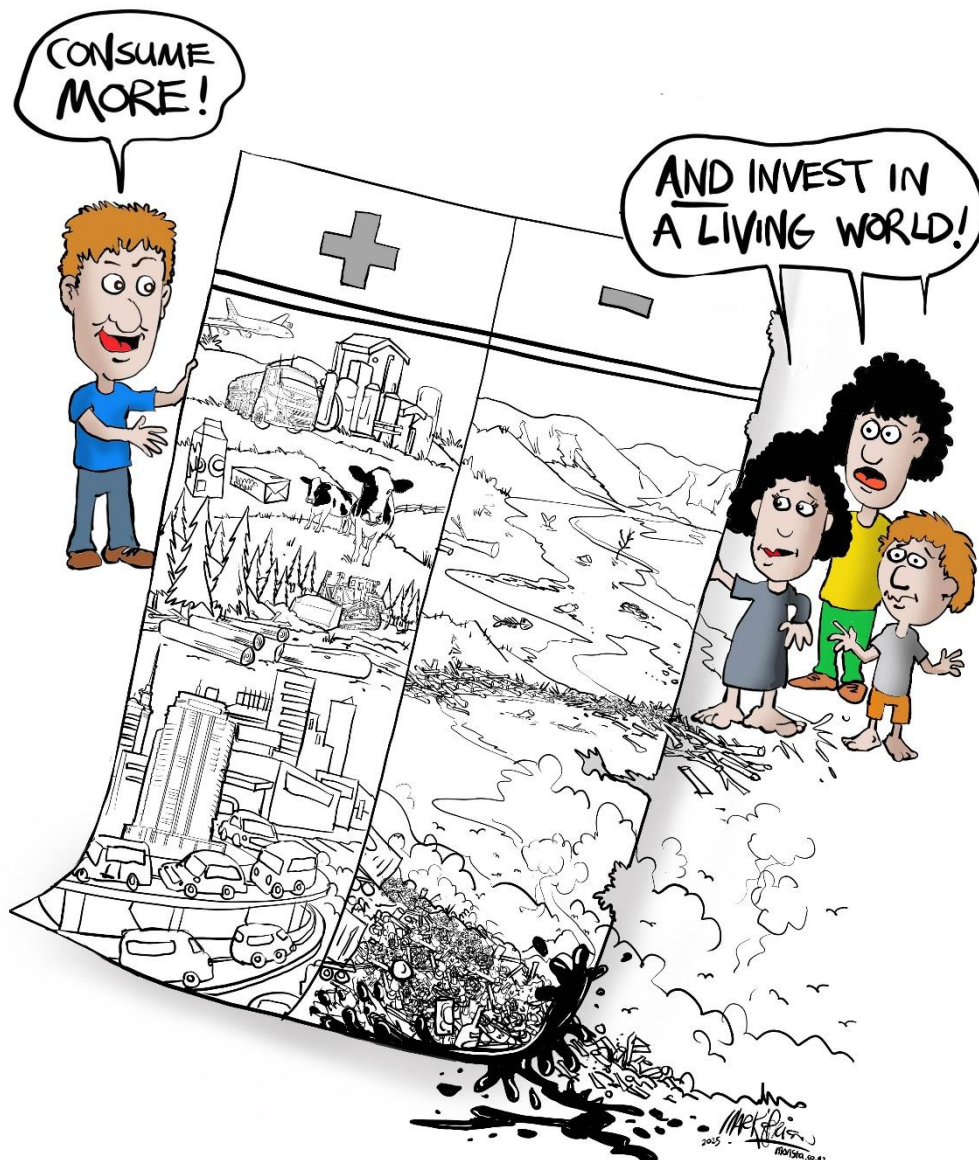
MPI's cost recovery policy aims to ensure those who benefit or create risks contribute, while also considering the impact on taxpayers and affected businesses.¹¹

The link between biodiversity finance and maintaining natural capital

Asset condition for natural capital (biodiversity component), just like physical assets, has investment to maintain and restore it.

Government sectors like Education, Transport and Health use finance to maintain physical assets like schools, roads and hospitals. This same approach should be used for natural capital.

Natural capital supports the economy, wellbeing and incorporates the intrinsic values of nature. Failing to treat natural capital as an asset is economically and administratively outdated. The gap between existing and needed investment can be described as a deferral. Deferred investment leads to declining natural capital asset condition.



KICKING THE CAN DOWN THE ROAD ONLY HURTS OUR CHILDREN

Regional and Unitary Authorities



Photo Credit: Bay of Plenty Conservation Trust

Regional and Unitary authority expenditure is estimated to be \$226m in 2025/26. It is principally funded from general and targeted rates. Council biodiversity-related expenditure is specifically attributed to projects with direct or secondary biodiversity outcomes.

Regional councils in New Zealand are key to protecting and enhancing biodiversity through responsibilities under the Resource Management Act and related laws. They set rules for land, water, and coastal use, regulate activities like land clearing and wetland drainage, and balance environmental protection with economic development. These rules safeguard communities, rural production, responsible business, Māori, and natural habitats and species. These rules safeguard communities, rural production, responsible business, cultural values, and natural habitats and species. The rules help protect natural capital benefits for current and future generations.

Councils also fund and coordinate biodiversity management and restoration on the ground, the coast and the sea. This includes funding and coordinating rural pest, plant and animal control programmes (e.g., controlling goats, possums, rats, and invasive weeds), supporting wetland and riparian restoration, and working to improve freshwater ecosystems. Regional councils often collaborate with landowners, iwi (Māori tribes), community groups, and central government agencies to deliver large-scale conservation projects, including catchment-based initiatives to restore rivers, lakes, and estuaries.

Councils support biodiversity with monitoring, research, and community engagement, offering advice, grants, and incentives for habitat protection and restoration. They also play a vital role in responding to biosecurity threats in coordination with central government.

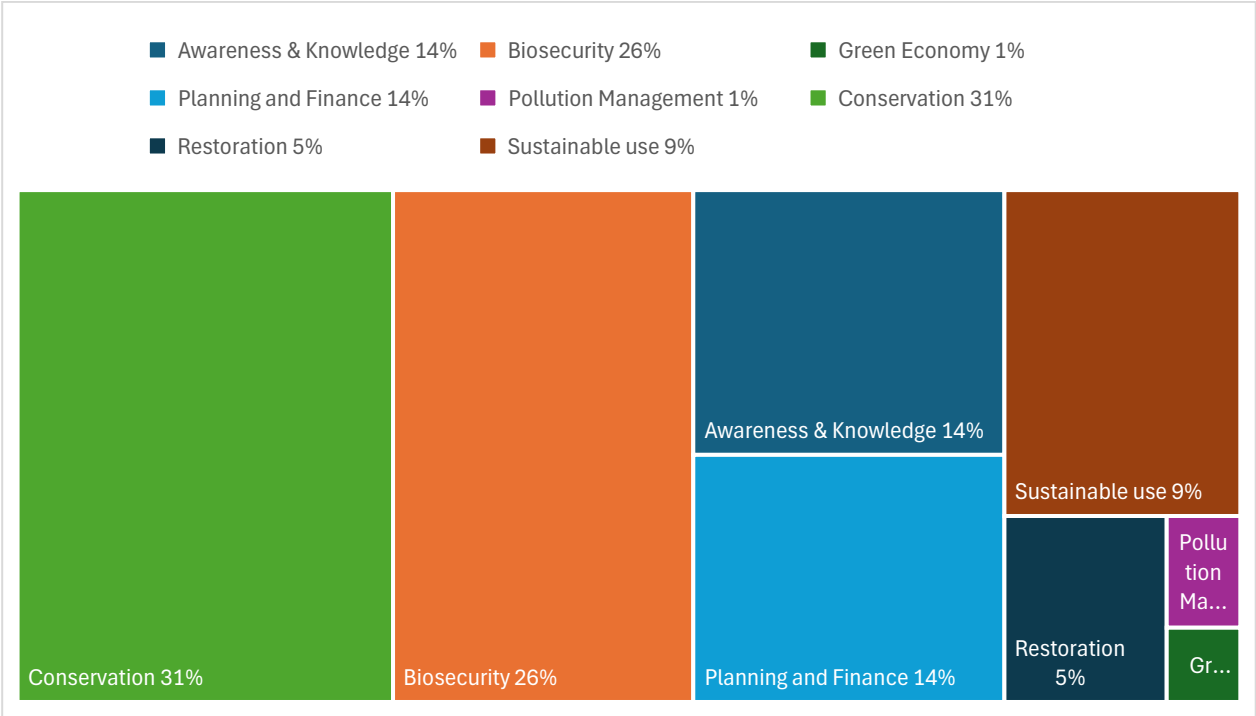
Regional and Unitary Authorities are the second-largest biodiversity finance investors after DoC, contributing nearly 20% of national biodiversity finance in 2025/26.

Councils' local knowledge and community connections enable them to address region-specific priorities and foster strong partnerships for biodiversity action. Councils are a critical component of the biodiversity finance because of regional catchment-based priorities and local knowledge. Regional priorities can differ from national priorities because a region may elevate the importance of regional extinction risk or degradation of remnant ecosystems higher than a national body.

Councils support ecosystem restoration and catchment groups. Some Councils track improvement with input and outcome measures; for example, Bay of Plenty Regional Council protects at least five new priority biodiversity sites each year. Maintaining biodiversity after predator elimination costs less than initial elimination efforts.

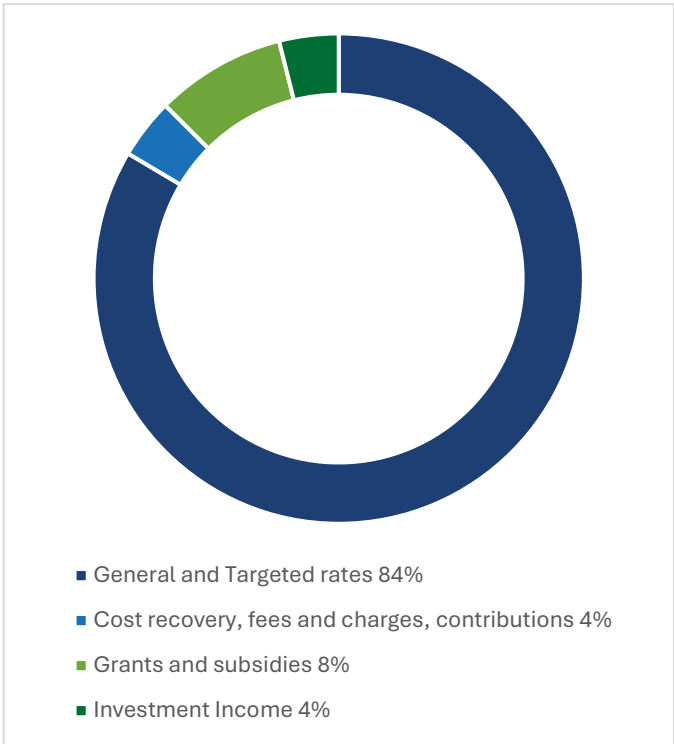
Councils invest in all 8 BIOFIN Categories, with most spending on conservation, biosecurity, awareness, knowledge, and sustainable use. This indicates their broad importance for biodiversity across BIOFIN categories and New Zealand sectors, particularly the rural community.

Figure 12: BIOFIN Expenditure Category 2025/26



Council biodiversity spending is mainly funded through rates (including targeted rates), cost recovery, grants/subsidies, and investment income. Most councils receive central government grants for biosecurity, and five Councils have specific rates for biodiversity and nature.

Figure 13: Council Biodiversity Funding mix



General and targeted rates are the primary funding sources for Councils. Council biodiversity funding levels remained steady between 2023/24 and 2025/26, despite some reductions in government biosecurity funding.

Council biodiversity spending comes from rates, cost recovery, grants/subsidies, and investment income. Several councils use targeted rates for biodiversity and receive central government biosecurity grants.

Biodiversity has public good characteristics and is typically publicly funded.

Non-Governmental Organisations (NGOs)



Photo Credit: Amanda Sinclair

NGO expenditure is estimated to be \$100m in 2025/26, slightly down from \$104m in 2023/24. A subset of 34 NGOs provided estimates for 2025/26. Of this subset, 17 reported decreased funding, 13 saw increases, and 4 had no change between 2023/24 and 2025/26. The assessment found that stable funding is preferable, enabling more strategic and effective investment compared to short-term projects.

This group includes philanthropy, community trusts, environmental advocacy, care groups, Māori-led initiatives, species protection, and local nature and community groups. Examples are Forest and Bird, Predator Free, Catchment Groups, NEXT, Save the Kiwi, Waikato River Authority, QEII National Trust, Mountains to Sea Conservation Trust, Sika Foundation, Fish and Game, Pure Advantage, Environmental Defence Society, Landcare Trust, Whakatapu Aotearoa Foundation, The Aotearoa Circle Trust, BNZ Foundation, Te Arawa Lakes Trust, Zero Invasive Predators, and more.

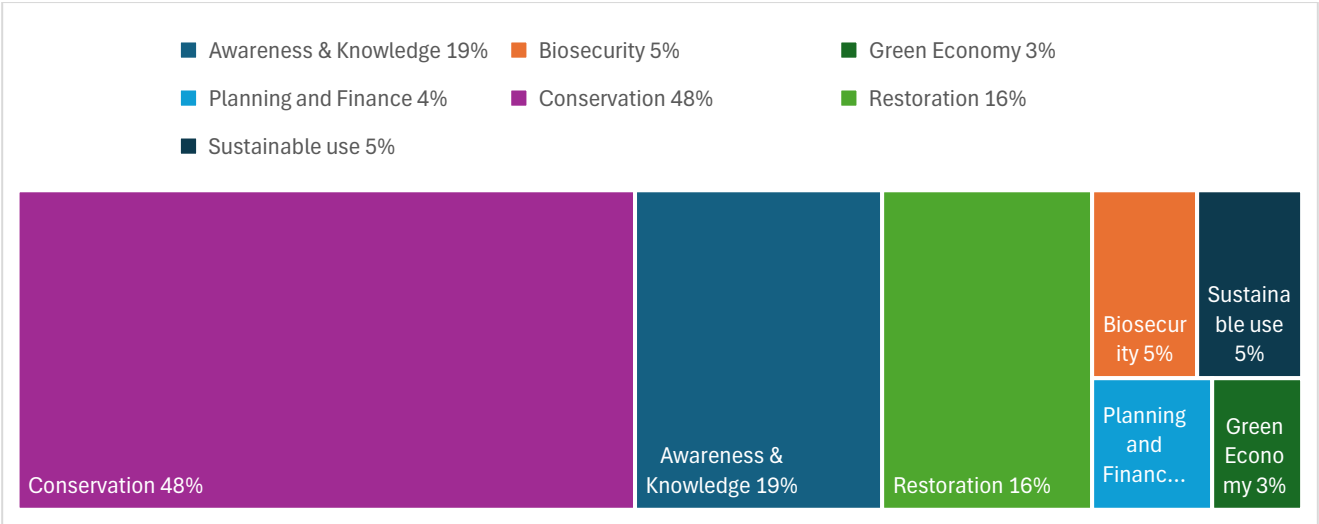
The sample included 1,208 charities registered with the Department of Internal Affairs on the charities register. Annual Reports and expert interviews informed estimates. This task was worse than drinking a warm cup of cat sick. The NGO estimates are biodiversity-specific, not total environmental budgets. NGO spend for community, education, or non-biodiversity outcomes is not included. Central Government and Council funding was excluded to avoid double counting. New Zealand also has 16 regional community trusts. Community Trust expenditure was estimated separately.

When \$49m of voluntary hours are added in together with an estimated \$82m of central and regional government grants and subsidies, the total is \$235m delivery expenditure. That exceeds Council expenditure. The reason that regional and government finance is excluded from the NGO total is to mitigate double counting.

Many New Zealand NGOs may not focus on conservation but include it in their policies, such as hunting and fishing groups. The allocation of public lands and sea often leads to conflict and collaboration among recreational, commercial and indigenous interests.

NGOs are the most diverse and innovative biodiversity sector, with many Māori-led initiatives. With limited funds, projects are funded based on high biodiversity benefit and low cost. Most spending goes to conservation, awareness and restoration.

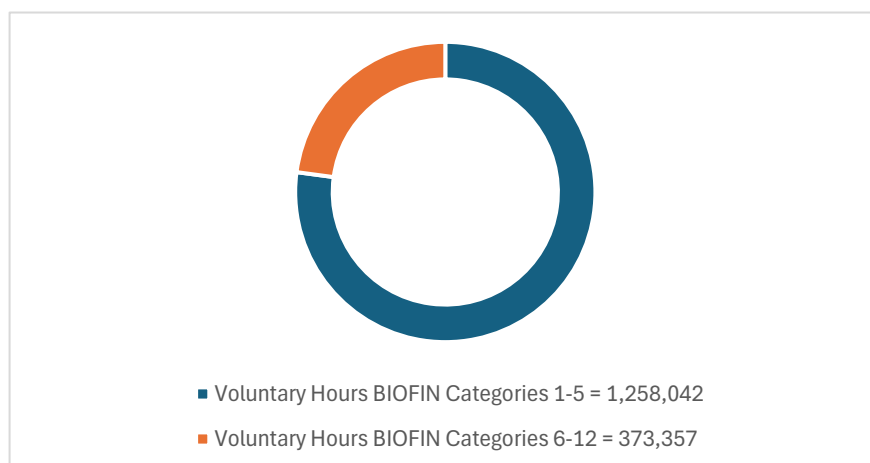
Figure 14: NGO BIOFIN Expenditure Category 2025/26



Volunteer Hours

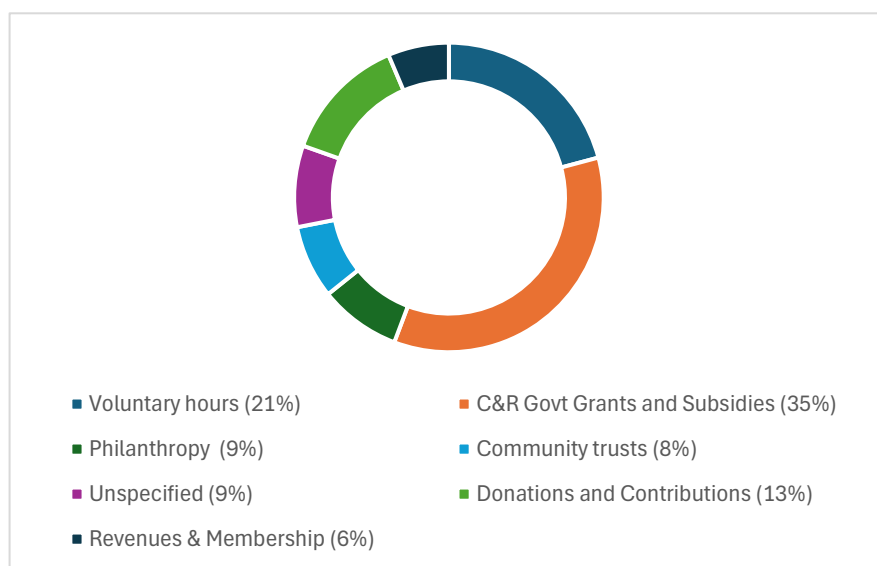
Volunteer hours are estimated to be worth \$49m per annum. The estimate of NGO volunteer hours is based on a sample covering about 8% of active conservation charities, representing 30% of NGO expenditure. Larger NGOs had larger representation in the estimate. Although this estimate is likely to be an underestimate due to sample bias and unrecorded hours, it gives a reasonable indication of voluntary contributions from registered environmental and conservation NGOs. No estimate was made for ‘in kind goods and services’ beyond voluntary hours. This would further increase this estimate.

Figure 15: Estimated NGO Voluntary hours annual average over 2024-2026



A \$30 per hourly rate was used to value over 1.25 million hours for conservation, restoration, and biosecurity at \$38m, and biodiversity awareness, planning, and sustainable use at \$11m, totalling \$49m in volunteer hours. This is highly likely to be an underestimate due to many voluntary hours going unrecorded.

Figure 16: NGO Funding



NGO funding and resourcing is complex and varied, with \$49m from volunteer hours and \$82m from central and regional government grants. The remaining \$104m comes from local businesses, councils, commercial activities, and community trusts. Notably, one regional trust contributes far more to regional biodiversity than others.

Empowering Action

“Empowering Action” (Dr Marie Doole, 2024) examines ways to improve funding and support for community-led conservation in New Zealand. The high number of voluntary hours reflects New Zealanders’ strong commitment. Key recommendations are:

- Stronger cooperation among groups, landowners, and agencies.
- More efficient, tailored funding models to support sector needs and volunteers, improving outcomes and reducing costs.
- Better measurement and communication of community conservation achievements.
- Diversifying and increasing resources for community-based conservation from both traditional and new funding sources.

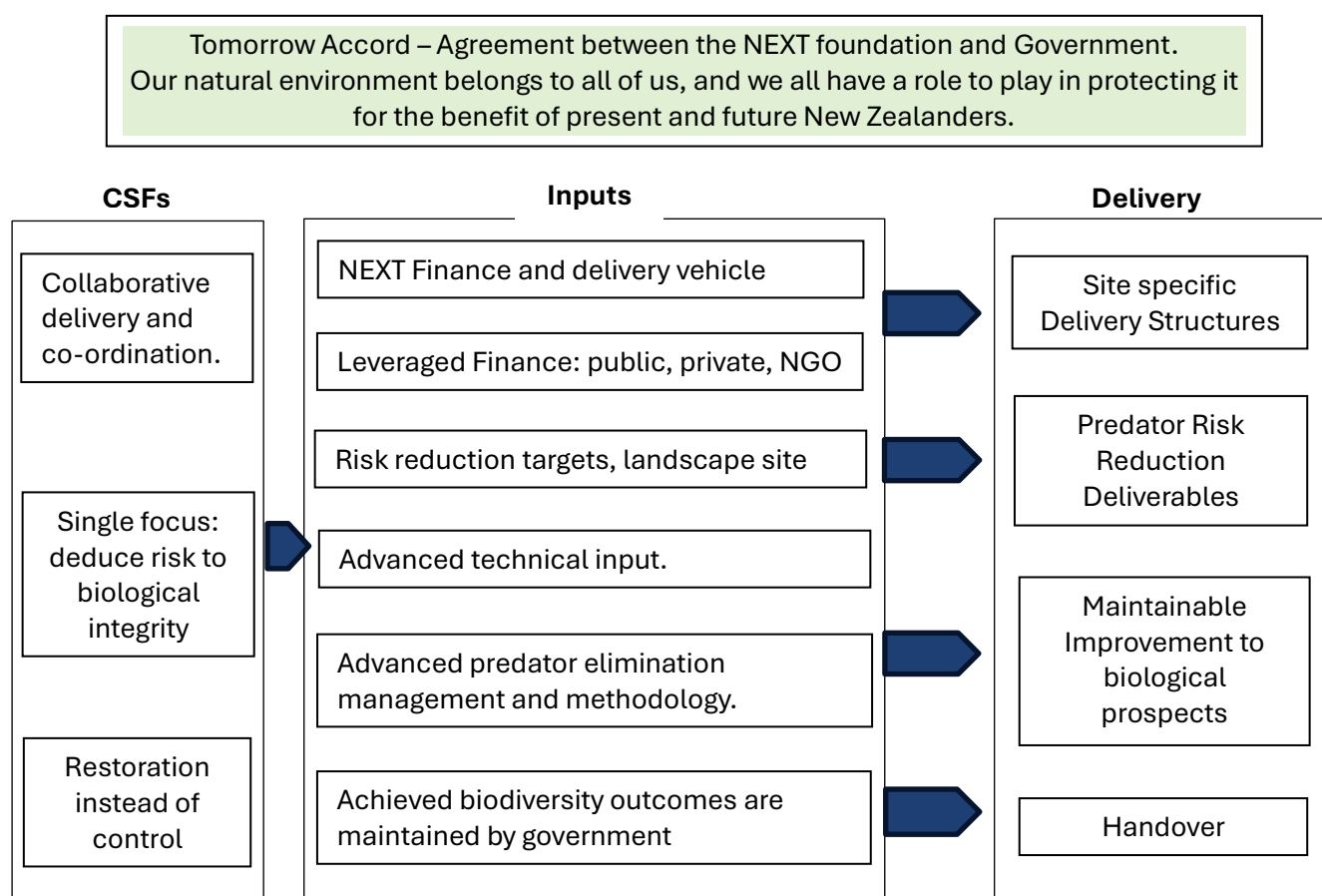
NGO philanthropic investment

NGO philanthropic investment involves funds from personal wealth, managed funds, or inheritance, used to support nature. This includes donations, credits, sponsorships, or partnerships with government departments. NEXT exemplifies this, offering clear purpose and management.

The NEXT Delivery model

NEXT serves as an example of a successful NGO delivery model in New Zealand. NEXT is a private sector philanthropically funded organisation. Rather than funding conservation, NEXT operates as a vertically integrated delivery organisation, partnering with government and philanthropic sources. Its focus is landscape-scale restoration, such as the 113,000-hectare South Westland programme, with the model detailed in figure 17. NEXT's vision is Inspiring New Zealand to become the world's first Nature Positive Country.¹² The diagram below is the BIOFIN Assessment Leads' interpretation of the model.

Figure 17: The NEXT Delivery Model



*CSF – Critical Success Factors.

NEXT projects are transferred to Government upon completion. Predator elimination lowers ongoing costs, which includes ongoing perimeter maintenance and outbreak management using advanced technology.



Photo Credit: Predator Free NZ Trust.

Māori Investment in Biodiversity Protection and Restoration



Photo credit: Manu Caddie of Cousin Joey, planting 10,000 native seedlings, and ongoing help with Nama Ono and Te Pa o Penu.

This section draws on the reflections and experience of Manu Caddie.

A distinctive aspect of biodiversity investment in Aotearoa New Zealand is the growing influence of Māori entities as both governance bodies and landowners. Their involvement has become central to national biodiversity outcomes, operating across a range of institutional forms and land types.

Guided by *kaitiakitanga*—the principle of reciprocal care for the environment—Māori biodiversity investment is holistic and intergenerational, delivering ecological restoration, cultural revitalisation, employment, and climate resilience.

Māori participation occurs through *hapū*, *marae*, trusts, incorporations, *iwi* authorities, Post Settlement Governance Entities (PSGEs), *whānau* collectives, and *papakāinga*, governing significant areas of indigenous ecosystems and holding recognised authority over biodiversity decisions.

Māori biodiversity investment frequently sits outside traditional definitions of “NGO” activity. In many regions, *iwi* and *hapū* organisations undertake functions historically associated with environmental NGOs—such as predator control, ecological restoration, species monitoring, environmental education, biodiversity planning, and catchment-scale coordination. Unlike NGOs, Māori entities are rights holders, landowners, employers, cultural authorities, and intergenerational governance institutions. Most Māori entities rely on commercial investments, philanthropy, or government contracts to fund conservation activities, rather than regular member donations.

Programmes like Jobs for Nature have shown the scale of Māori-led restoration, with Raukūmara Pae Maunga covering 130,000 hectares and combining ecological restoration, workforce development, and cultural revitalisation under *iwi* leadership. Its governance is jointly led by *iwi* representatives from Ngāti Porou and Te Whānau-ā-Apanui, with independent expertise and Crown participation.

Raukūmara Pae Maunga positions environmental restoration as both ecological and social investment, generating jobs, infrastructure, research capability, and youth development opportunities for East Coast communities, while restoring indigenous biodiversity. The programme adopts landscape-scale and intergenerational perspectives, framing restoration as a multi-generational commitment linked to cultural identity, regional resilience, and future economic opportunity. This approach contrasts with shorter-term project models, underscoring the importance of long-term institutional capability and governance stability.

Similar trends are evident in other *iwi* and *hapū*-led initiatives across the North Island. In the Kaimai-Mamaku ranges and adjacent landscapes, Māori entities, *marae* groups, and *iwi* environmental units have established extensive trapping networks, pest control, and native restoration activities. These efforts, often in partnership with councils, the Department of Conservation, philanthropic funders, and community groups. They integrate *mātauranga Māori* with western ecological science and mobilise significant volunteer labour and local knowledge.

Māori biodiversity investment also occurs through Māori land governance entities, particularly *ahuhenua* trusts and Māori incorporations managing diverse landholdings in sensitive environments. Increasingly, Māori landowners pursue long-term land-use transitions to restore indigenous ecosystems, maintain economic viability, and strengthen connections between *whānau* and *whenua*.

Whāngārā Farms' "He Rau Ake Ake" initiative exemplifies a 100-year plan combining biodiversity restoration, afforestation, wetlands, cultural mapping, and climate resilience, integrating taiao in business planning, optimising ecological, social, and commercial outcomes together and protecting culturally significant sites. Culturally significant sites are protected, and tikanga-based decision-making is embedded in future land-use planning—a growing trend among Māori landowners.

Totaranui Nama Ono Trust demonstrates smaller-scale restoration, transitioning erosion-prone land to indigenous cover through native planting, pest control, and volunteer engagement, serving as a model for landscape transition. Covering 128 hectares south of Ruatōrea, the project combines native planting, pest and browser control, fencing, ecological research, and restoration planning, with volunteer management and engagement from ecological experts and Māori land governance agencies. Since 2023, Totaranui Nama Ono Trust has established a native nursery, predator-proof fencing, and planted over 10,000 natives, involving volunteers and local stakeholders. The project is emerging as a model for other Māori landowners seeking landscape transition.

These examples demonstrate that Māori biodiversity investment is often highly leveraged. Modest public investment can mobilise substantial co-investment through landowner contributions, volunteer labour, governance time, mātauranga, local networks, and stewardship commitments. Māori entities frequently accept lower short-term economic returns for long-term environmental and intergenerational outcomes, representing an unrecognised biodiversity subsidy to New Zealand society.

Māori entities are increasingly important participants in New Zealand's biodiversity finance landscape. Their investments are driving indigenous ecosystem restoration, predator control, catchment resilience, climate adaptation, and cultural revitalisation at nationally significant scales. However, many Māori organisations face persistent barriers: limited access to long-term finance, fragmented funding systems, high transaction costs, workforce constraints, and policy settings that inadequately recognise the integrated nature of Māori biodiversity investment.

Future biodiversity finance frameworks in Aotearoa New Zealand must better recognise Māori entities not only as stakeholders or delivery partners, but as major long-term biodiversity investors and governance institutions. This includes acknowledging the role of Māori landowners and PSGEs as intergenerational stewards of biodiversity assets and ensuring finance systems support Māori-led restoration, governance, and sustainable land-use transition.

There are many more Māori-led taiao protection and restoration initiatives across Aotearoa all needing ongoing investment to maximise whānau/volunteer efforts.



Photo credit: Manu Caddie

Business and Finance Investment



Photo Credit: New Zealand Sustainable Business Network

GBF Target 15 asks business and transnational companies and financial institutions to monitor impacts on biodiversity, promote sustainable consumption and increase positive impacts. Sector biodiversity investment expenditure is estimated to be \$8.5m in 2025/26. Confidence in business and finance sector biodiversity investment estimates is low because very little data is aggregated by the industry representative bodies. Actual investment is likely higher than reported here because information is incomplete, business contributions to NGOs are counted in NGO totals rather than here.

This sector covers all goods and services-producing industries in New Zealand, excluding government and primary industries.¹³ It includes:

- Professional, scientific and technical services (\$37B)
- Owner operated property operations (\$33B)
- Construction (\$32B)
- Financial and insurance services (\$26B)
- Wholesale trade (\$19B)
- Transport, postal and warehousing (\$18B)
- Electricity, gas, water, and waste services (\$11B)

This is the largest sector by spend, but no aggregate biodiversity investment data is available. The New Zealand BIOFIN Assessment lacked resources for detailed analysis. Understanding investment patterns is important due to the sector's size relative to national finance allocations.

Main investment areas are NGO direct investment and company sustainability investment.

Business donations and sponsorship for biodiversity

Investing in biodiversity is essential for sustaining life and supporting future generations. Taking without giving back leads to ecosystem collapse, and business and finance play a crucial role in improving this relationship. Ethical business practices are preferable to illegal or unethical ones. Taking for consumption and personal wealth without giving back is increasing seen as unethical, considering the impact of the finance gap on our children's future with a living life support system.

Biodiversity finance from business and finance institutions includes donations, credits, or sponsorships to NGOs and government departments, such as the Department of Conservation's partnerships with Air New Zealand, Dulux, One NZ, Meridian Energy, and Fonterra. NGO examples like Orokonui Ecosanctuary and The Brook Waimārama Sanctuary rely on business donations, which provide lasting financial support for ecological projects.

Donations and sponsorship let businesses focus on their operations while third parties handle biodiversity with the help of the donations and sponsorship, benefiting both communities and the environment.

Company sustainability investment

Company sustainability means reducing or improving the biodiversity impact of business operations, including supply chains. Setting policies for acceptable suppliers may enhance effectiveness. Companies may also invest in conservation or restoration where the company operates. e.g. by developers, utilities, and transport.

Businesses should prioritise improving operations and consider supporting conservation NGOs. It is better to invest \$10 in biodiversity and spend \$1 recording it than invest \$1 in biodiversity and spend \$10 to record it.

Primary Industry



Photo Credit: Seafood New Zealand Year in Review 2025

Primary industry expenditure is estimated to be \$31m of expenditure in 2025/26, slightly up from \$27m in 2023/24. Confidence ratings varied from industry to industry. The sheep and beef industry had the most reliable data.

On Land

Roughly 35% of New Zealand's land is used for sheep and beef farming, 10% for dairy, 8% for forestry (mainly pine), and 2% for horticulture and crops. Primary industries are vital to the export economy and national identity. It is impressive to see the biodiversity efforts in this sector.

Sheep and Beef



Photo Credit: David Norton

The industry supports sheep and beef farmers to protect and improve New Zealand's indigenous biodiversity. Farmers act as kaitiaki, or guardians of the land, and Beef + Lamb New Zealand promotes policies supporting on-farm biodiversity.¹⁴ Annual environmental spending estimates are collected using sampling across farm types.

Sheep and beef farmers are estimated to contribute \$14m annually to core biodiversity outcomes. Many farmers set aside land for conservation without external funding, with over 2 million hectares of remnant vegetation and ecosystems on sheep and beef farms. The opportunity cost of this is considered a normal business expense, providing a significant biodiversity benefit for New Zealand. Rather than commoditising nature, many farmers view these areas as assets and invest in improving biodiversity prospects for future generations.

QEII Conservation in New Zealand refers to the **Queen Elizabeth II National Trust (QEII)**. It is an independent statutory organisation and charitable trust that partners with private landowners to legally protect native biodiversity, cultural heritage, and open spaces on their land long term. QEII is proud of its work over nearly 50 years to use, frugally, very modest Crown funding to catalyse very substantial contributions of land and investment by private landowners to create a network of nearly 200,000 hectares of private land conservation areas.

The QEII's ambition is to support landowners to add the most important remaining biodiversity areas to that protected land network and support 5,500 QEII covenant owners to care for their protected areas from pests, weeds and climate extremes.

Dairy



Photo Credit:

<https://www.dairynz.co.nz/environment/land-and-soil/biodiversity/>

Dairy uses land more intensively than sheep and beef, typically on flatter areas. Dairy farmers understand that strong biodiversity supports productive farm systems. The industry, through DairyNZ only, invests around \$4 million in biodiversity guidance, research, and partnerships, with members also funding practical on-farm solutions. There is additional investment from the industry not included here. As such, this is an underestimate for the industry because of additional investment made by farmers and corporates including donations and on farm efforts. DairyNZ supports farmers in adopting riparian planting and wetland restoration to improve water quality and habitats, with many projects funded by dairy farmers. The challenge for the industry is overall environmental degradation outweighing the benefit of new farms.

Forestry



Photo Credit: Grey Sherley

<https://rarespecies.nzfoa.org.nz>

Plantation forests in New Zealand offer crucial habitats for threatened species like kiwi, falcon, frogs, and bats. These forests contain approximately 200,000 hectares of indigenous remnants and wetlands, supporting many species through effective management.¹⁵ Internalising the cost of managing forestry debris and wilding pines without recourse to public funds or third parties is a challenge for the industry.

Horticulture



Horticulture is a significant contributor to New Zealand's economy and involves intensive land use. Through its 'A Lighter Touch' programme, the industry supports four biodiversity projects, including understory planting and native plantings, which enhance beneficial insects and reduce agrichemical use to improve sustainability. Over seven years, stakeholders have provided more than \$1 million in support for these efforts.

Photo Credit: Olivia Prouse <https://a-lighter-touch.co.nz/>
Native perennial plantings alongside vegetable crops

Fisheries



New Zealand's seafood industry supports marine biodiversity through ecosystem-based management, large seabed closures, and sustainability efforts. Over \$2 billion in annual exports are increasingly tied to sustainability, with 45% of fish landings Marine Stewardship Council certified. Current legislation is not fit for purpose, and achieving 30% marine reserves remains challenging. The suggested method of establishing marine reserves is a Māori framework. Approximately 30.5% of New Zealand's marine environment is protected, mainly through areas that restrict bottom trawling across about 30% of the seabed. Bottom fishing now impacts only 2% of New Zealand's waters each year, and that area is decreasing. Bycatch is reduced using targeted gear such as bird-scaring lines and acoustic deterrents.¹⁶

Recreational fishing is also a large economic driver in New Zealand, contributing more than \$1.7 billion in total economic activity annually. It directly generates upwards of \$638 million in GDP, injects at least \$188 million into government tax revenues, and supports over 8,100 full-time jobs across the country.¹⁷

Spend by BIOFIN Taxonomy Group

BIOFIN Category 2: Biodiversity Awareness and Knowledge

Biodiversity Awareness and Knowledge expenditure includes MBIE science funding, DoC recreational activities, and NGO advocacy. In 2025/26, \$188m or 0.04% of GDP was attributed to biodiversity awareness and knowledge in New Zealand. DoC contributed 41%, the rest of government 31%, Regional Councils 16%, and NGOs 11%.

Key Finding: Over 1000 Non-Governmental Organisations (NGOs) are the backbone of community conservation and environmental education in New Zealand. By translating complex scientific data into accessible, localized action, they fill critical gaps in government capacity. They empower everyday Kiwis, iwi, and local groups to protect taonga species, restore ecosystems, and participate in grassroots environmental education. Government and industry bodies also provide key support, sharing information at the local level, such as MPI's 'Science for Farmers' at community conferences.

Biodiversity awareness and knowledge is about easy and timely access to quality data and information to support all efforts in halting biodiversity loss or in maintaining or increasing current biodiversity levels. In terms of knowledge generation, it includes formal and non-formal education, such as technical training, biodiversity communication and scientific research, as well as indigenous and local communities' knowledge.

Investment Benefits: Technology advancement and efficiency savings, risk mitigation, delivery monitoring, cost benefit targeting, prioritisation and effort, and natural capital asset condition.

MBIE research grants and Crown Research Institutes (CRIs) represent significant biodiversity investment, with an estimated \$53m attributed in 2023/24. This includes research supporting sustainable industries on land and sea, especially when aligned with national strategies.

The DoC budget for recreational management was \$224m in 2023/24 and \$254m in 2025/26. The Assessment attributed 20% to biodiversity awareness and knowledge.

Aotearoa New Zealand's research system has some of the highest institutional overhead rates in the OECD. Publicly available information shows universities usually charge overheads exceeding 100%, while some research agencies have 250% indirect cost charges. One opportunity for the New Zealand biodiversity investment model is to transition from high overheads to low overheads so that there is a higher financial allocation to delivery. This applies to all BIOFIN categories.

Figure 18: Biodiversity awareness and knowledge

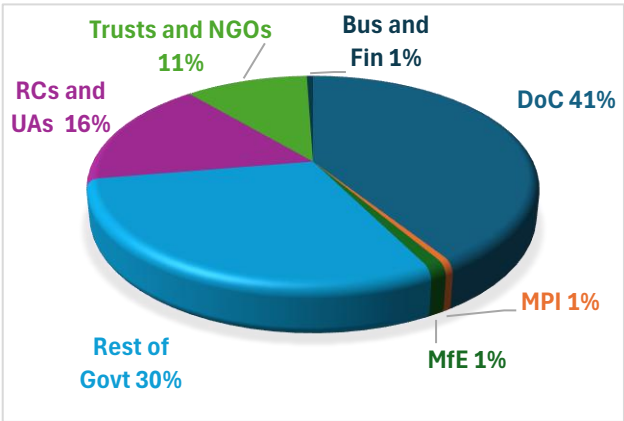
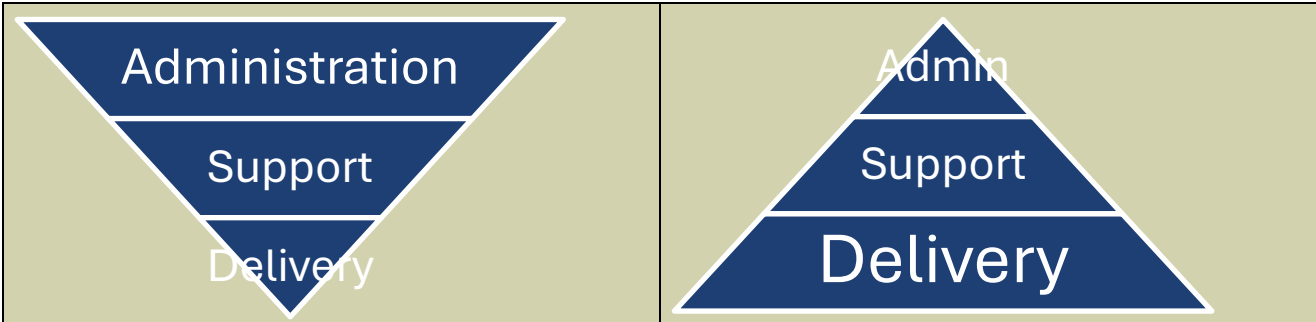


Figure 19: Rebalancing biodiversity finance towards delivery



BIOFIN Category 3: Biosecurity

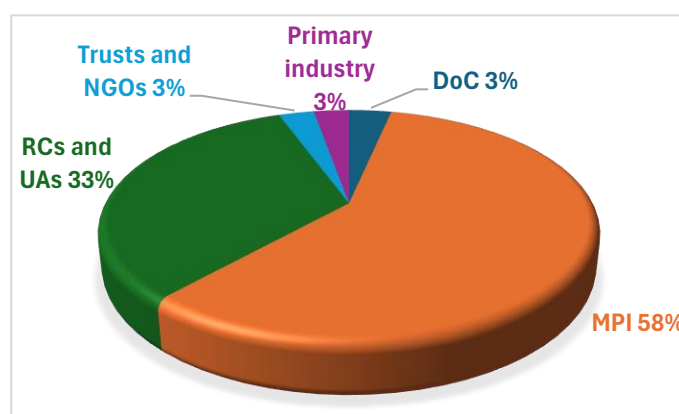
‘Biosafety’ in New Zealand is called biosecurity. Biosecurity spend is estimated to be \$180m or 0.04% of GDP was during 2025/26, a decrease from the previous year, partly due to J4N coming to an end. Of this, 58% came from MPI and 33% from Regional Councils.

Key Finding: Effective biosecurity helps avoid extra costs. In 2025/26, about \$80 million was spent on controlling invasive species after they arrived, and approximately \$400 million went towards conservation and restoring areas affected by invasive species, including predators. The costs we face today are often due to decisions made in the past.

Biosecurity includes prevention, containment, and eradication of invasive alien species. In New Zealand we do pre-border, at the border, and post-border management. Preventing, containing, eradicating and managing invasive species through species-focused management (e.g. possum control for TB and biodiversity), is BIOFIN category 3. Site-based pest control in protected areas is BIOFIN categories 7&8.

Investment Benefits: Commercial benefits, quantified risk mitigation, ecosystem services and natural capital asset condition improvement.

Figure 20: Biosecurity Funding (Biodiversity component)



The overall biosecurity spend is significantly higher when including commercial protection, with interventions often targeting threats to both business and biodiversity.

Information here is based on Biosecurity New Zealand, part of the Ministry for Primary Industries (MPI). Biosecurity New Zealand works to keep out pests and diseases, managing threats at and beyond the border, to protect the country’s unique environment and primary industries.

The biosecurity system has three layers: pre-border, border, and post-border, relying on international standards, risk assessment, surveillance, readiness and response, and pest and disease management to protect New Zealand’s economy and natural capital. Nearly 15,000 unwanted pests and diseases threaten New Zealand, with controls in place before, at, and after the border to reduce these risks.

Pests lower primary industry productivity and value, add costs, restrict exports, harm tourism, and require expensive controls. They threaten native species and ecosystems through competition, predation, disease, and habitat damage. Pests and diseases may cause travel restrictions, harm wilderness, reduce food, affect homes, or spread illness.

Biodiversity costs of invasive species establishment in New Zealand

Invasive species and disease pose the greatest threat to New Zealand's biodiversity, due to its unique island ecosystem and endemic species, including birds that refuse to fly. Land-based predators such as possums, rats, feral cats, ferrets, stoats, weasels, hedgehogs, and mice target native wildlife. Ungulates spread diseases causing Kauri dieback and damage regenerating vegetation, impacting habitats and forest recovery.

Managing invasive species post-border incurs substantial ongoing costs, underscoring the value of investing in prevention and border management. In 2025/26, around \$80m was spent on post-border eradication of invasive species under BIOFIN Biosecurity, but over \$400 million was allocated to conservation and restoration, largely for managing these threats. Actual costs are likely higher due to unrecorded voluntary work. The total annual cost is estimated to exceed half a billion dollars, leading to considerable degradation of New Zealand’s natural capital.

This highlights the crucial role of MPI and Regional Councils in safeguarding biosecurity and biodiversity for New Zealand’s economic and environmental wellbeing.

BIOFIN Category 4 & 6: Green economy and pollution

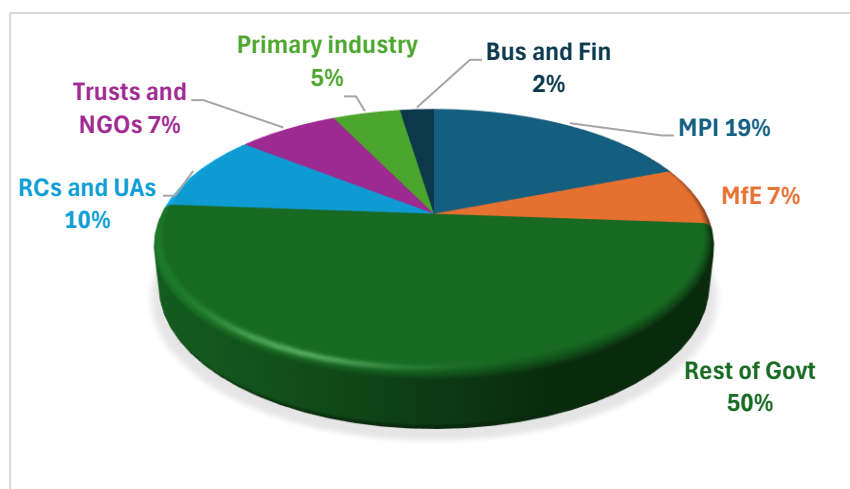
Estimated 2025/26 spends for biodiversity is \$35m for the green economy and \$6m for pollution management or 0.009% of GDP, down from 2023/24. The New Zealand green economy effort is significantly larger than this when we consider investment in the circular economy to reduce consumption or improve consumption efficiency (such as using less harmful alternatives, reducing or reusing materials). These are largely benefits that do not deliver direct biodiversity outcomes.

Key finding: An estimated \$6 billion is spent on the green economy and pollution management in New Zealand. Most of this spend (99.3%) directly benefits people. The remainder of 0.7% benefits biodiversity. Circular economy efforts include climate action, but results show a disconnect between climate initiatives and tackling biodiversity loss. More effort can be made to benefit nature.

A green economy improves human well-being and social equity while reducing environmental risks. Pollution is the release of harmful substances into the environment faster than they can be safely managed. Managing pollution prioritises prevention, followed by reduction, reuse, recycling, and disposal.

Investment benefits: Production efficiencies, internalising externalities, reducing consumption impacts on natural capital.

Figure 21: Green economy and pollution



Improved national measurement for biodiversity gains and losses would support circular economy efforts. Currently, nature's degradation is not reflected in New Zealand's national accounts. A recent estimate puts the costs avoided by investing in biodiversity targets at \$270 billion over the next 50 years.¹⁸

The circular economy would also benefit from a cause and effect-based approach to biodiversity finance. New Zealand's effects-based approach (e.g., RMA) addresses impacts but not root causes. Preventative 'balancing' finance indexed to consumption acts like a fence at the top of a cliff alongside existing effects-based solutions that act like ambulances at the bottom. This is a key recommendation of the report using a new biodiversity finance solution called the biodiversity investment contribution (The BIC).

Pollution and landfills

New Zealand has over 300 old landfills. Waste Management is increasingly involved in their remediation, as seen at Tiromoana Bush, where restoration has enhanced ecology, aesthetics, recreation, and water quality. This is the same area photographed 15 years apart.



Photo Credit: Waste Management New Zealand

BIOFIN Category 5: Biodiversity Planning and Finance

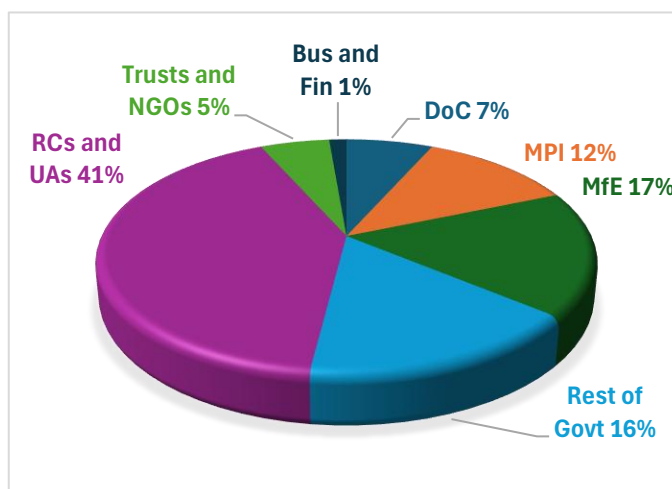
Biodiversity Planning and Finance spend is estimated to be \$75m or 0.016% of GDP for 2023/24 and remained constant in 2025/26. Central government and Regional Councils provided 94% of the funding. NGOs also spend on engaging planning processes to advocate effective delivery of biodiversity outcomes.

Key finding: The rural community in New Zealand is considered the backbone of the economy because of food and fibre exports and our connection to farming, rural communities, regional culture, our rural environment and our future. Regional Councils and Unitary Authorities provide 41% of the category finance and deliver additional central government priorities. Council planning and finance supports sustainable land management such as catchments group support and erosion control, farmer led restoration projects, biosecurity and pest management, pollution management and response, cost recovery after events, help with farm planning, and policy for common good outcomes. Councils help rural communities to work together.

This category covers planning, policy, finance, legal frameworks, and coordination across all biodiversity areas at national, regional, and local levels. Each country varies in how these instruments are defined, their legal force, and how they are put into practice. Sometimes, 'plan' refers broadly to strategies or sets of actions. This covers enforcement, including freshwater, strategy development, resource consents, compliance, and national regulations.

Investment Benefits: Polluter and beneficiary pays, safeguards for important ecosystems and ecosystem services, sustainability, fiscal prudence.

Figure 22: Biodiversity planning and finance benefits



This spending category is complex, with regional councils divided into four areas: resource consents, compliance, advice, and policy/plans. Policies guide sustainable resource management, advice informs use, consents permit activities, and compliance ensures adherence to conditions. This planning approach is under review and excluded from the BIOFIN Assessment, which focuses on non-regulatory biodiversity finance.

There is a notable gap in ocean policy and planning finance, as highlighted by the BIOFIN PIR.

In 2024, the Environmental Defence Society reviewed New Zealand's conservation management, identifying four land-based priorities: reforming the Conservation Act and Wildlife Act, modernising protected area legislation, and increasing funding.

'Restoring the Sea' recommends a comprehensive National Marine Spatial Planning Framework for New Zealand's vast and threatened marine environment. Marine spatial planning can help integrate management, restore coastal ecosystems, support the economy, and empower communities. Conflicting legislation, including the Marine Reserves Act and Fisheries Act, needs review.

Globally, fish and seafood exploitation has major impacts—75% of marine fish stocks are fully exploited, over-exploited, or depleted. In New Zealand, less than 0.5% of the marine environment is fully protected, far below the CBD target of 30%.

BIOFIN Category 7&8: Conservation and Restoration

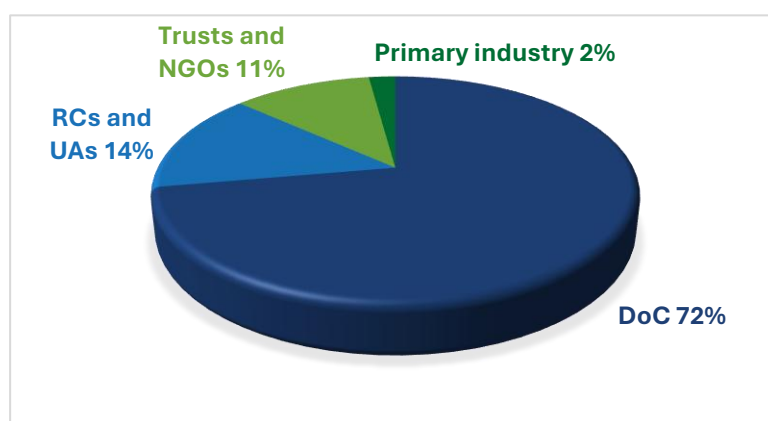
Conservation and Restoration spend is estimated to be \$564m or 0.126% of GDP during 2025/26, up from 2023/24. Some of this change may be explained by J4N transitions at central government level within DoC. In 2025/26 approximately 72% of the biodiversity finance is provided by DoC and 14% by Regional Councils. The remaining portion comes largely from NGOs and the primary industries.

Key Finding: Restoration in New Zealand is underfunded despite offering high returns on investment. Conservation and restoration outcomes can be measured using improvement to ecosystem prospects and ecosystem integrity.

Conservation covers biodiversity protection at genetic, species, and ecosystem levels, both within and outside natural habitats, including area-based protections and targeted actions for key species. Restoration focuses on restoring degraded ecosystems and preserving those still intact, aiming for a net gain in biodiversity and improved ecosystem functions.

Investment Benefits: Commercial benefits, ecosystem services and natural capital asset condition improvement.

Figure 23: Conservation and Restoration Funding



Some restoration and conservation spend can fall in either category, so similar attribution rates in both categories are used to maintain consistent totals.

Conservation and Restoration is principally funded by the Department of Conservation, Regional Councils, and NGOs. Conservation totals \$518m, or 0.12% of New Zealand's GDP. Restoration totals \$46m or 0.01% of GDP. Restoration excludes catchment management which is captured under the BIOFIN sustainable management category.

Effective investment in both categories can be measured by ecosystem integrity or ecosystem prospects; how intact is the natural capital (biodiversity component).

Cost benefit targeting is used to invest in restoration and conservation outcomes where the costs are low and the benefits are high. Cost benefit targeting is one of the most effective biodiversity investment methods in New Zealand and internationally for this reason. The NEXT delivery model is a very good example of cost benefit targeting. Delivery models with a single focus on reducing risk to biodiversity prospects and community involvement where costs are low, have the highest biological returns and the most effective cost benefit targeting.

It is the view of the New Zealand BIOFIN Assessment that 'Restoration' is significantly under invested in New Zealand despite returning some of the highest benefits. Benefits include asset condition ecological integrity improvement.

Natural Capital Asset Condition

Asset condition reflects the maturity of the asset condition model. The New Zealand natural capital asset condition model is at a low level of maturity. New Zealand has substantial conservation assets, but they need investment and restoration. Tracking overall changes in condition helps assess natural capital improvement or decline based on maintenance or restoration investments.

For instance, improving 1,500,000 hectares of New Zealand public and private sector natural capital assets from level 1 to 2 (see below) over 10 years can be measured in commercial, ecosystem, and asset condition terms. Asset condition also captures intergenerational and intrinsic values, because integrity improvements can result in healthier ecosystems and better assets to hand on to future generations. A

change to asset condition can then enable better monitoring and justification for investment, like physical asset management.

The BIOFIN Assessment finds that restoration in New Zealand is underfunded despite yielding high benefits, especially in asset condition improvement. Cost-effective models with strong community involvement deliver the best outcomes. For example, restoring 1,500,000 hectares from category 1 to 2 at a whole life cost of \$900m over 10 years can estimate commercial and ecosystem services benefits, with an asset register tracking biological integrity condition change, as a proxy for intrinsic and intergenerational values.

Table 7: Natural Capital (biodiversity component) asset condition

Asset		Natural Capital Asset condition			Benefits and Risk	
Ecosystem Type and representation	Area	Level 1 Controlled	Level 2 Managed	Level 3 Functionally restored	Risk profile (Level 2)	Benefit profile (Level 2)
Forest, Coastal, Wetland etc	Coverage	Low level of control 	Top risks removed, i.e. predators eliminated. 	Ecosystem prospects restored 	Predator Risk for example: 1. Predators eradicated. 2. Perimeter monitoring and excursion management in place.	1. Commercial monetised benefits multiplier. 2. Ecosystem services monetised benefits. 3. Asset condition change



Photo credit: Amanda Sinclair

Community conservation

In New Zealand, conservation initiatives lead to **social cohesion** together with **on the ground biodiversity results**.

For example, some predator free programmes have people who may enjoy trapping but are not completely aware of the biological benefits. Others enjoy contributing to the community and having a fun day out planting trees. Involvement also builds awareness.

A 2026 Listener article surveyed New Zealanders and found that most people are supportive of conservation but thought that they were the minority, rather than the survey result that they are the majority. Support from NGOs and Regional Councils is crucial, as most efforts are locally based.

BIOFIN Category 9: Sustainable Use

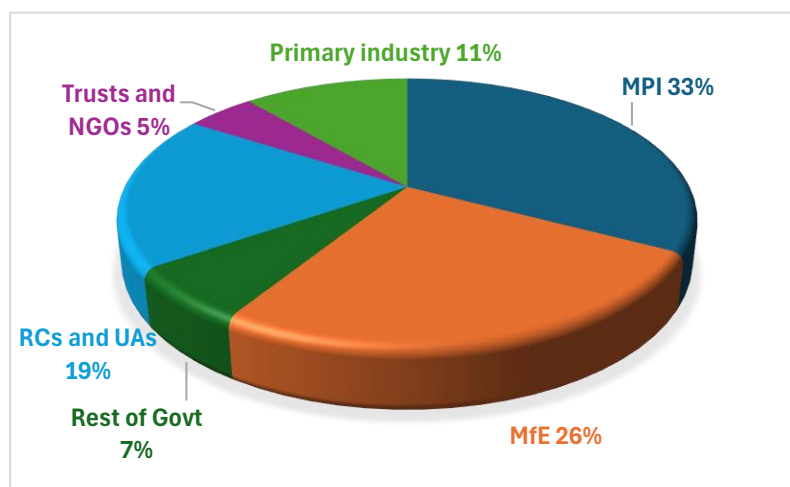
Estimated spends for biodiversity in sustainable use is \$107m or 0.024% of GDP for 2025/26, down from 2023/24. MPI, MfE and Councils are the main funders. Primary industry bodies and members also invest in biodiversity or biodiversity impact mitigation. Together, these four groups fund 89% of this category. Note that sustainable use investment in New Zealand is significantly higher than \$107m, when other purposes such as long-range commercial benefits and health mitigations are considered.

Key finding: Sustainability goes hand in hand with BIOFIN category 5: Planning and finance. Sustainable use is strategically critical to the New Zealand rural economy, fisheries and exports. Sustainable land management by rural communities include catchment management and erosion control, farmer led restoration projects, biosecurity and pest, pollution management cost recovery after events, regional rural support, help with farm planning, sustainable practice. MPI, MfE, Primary Industry Bodies and Councils provide long range support for New Zealand rural economy, fisheries and exports.

Sustainable Use Sustainable use means utilising biological diversity without causing its long-term decline, ensuring it remains available for current and future generations. Unlike the Green Economy Category, it emphasises ecosystem services and production, while also promoting biodiversity outcomes alongside other resource-related benefits.

Investment Benefits: Sustainable farming efficiency improvements, biodiversity impact reduction, pollution reduction, long range whole life export growth, sustainable production practices.

Figure 24: Sustainable use Category 2025/26



Nearly 60% of sustainable use biodiversity finance comes from the Ministry for the Environment and Ministry of Primary Industries, with most channelled to third parties. Regional councils, unitary authorities, NGOs and the primary sector contribute a further 35%, meaning about 70% of all finance supports local or industry-led programmes.

This category includes catchment collectives, supporting rural community led restoration of ecosystems and improved water quality. Funding is often matched by NGOs (including central government third party finance over and above the 5%) and the primary sector, with results measured through enhancements to water and biodiversity. It also increases community cohesion.

Catchment work addresses nutrient runoff and erosion, especially after severe storms. Rural groups and Industry bodies help landowners apply best practice. Productive land is vital for exports.

Sustainable use of the sea is key for both biodiversity and the economy. New Zealand can progress the integrated ecosystem approach in fisheries management, like other OECD countries. Marine ecosystems face threats from sediment, overfishing, mining, nutrients, contaminants, plastics, noise and climate change. Coastal habitat loss, driven by human activity, has lasting impacts on ecosystem services.

New Zealand Biodiversity Finance for GBF Targets

The **Kunming-Montreal Global Biodiversity Framework (GBF)** is a landmark agreement adopted by 196 countries in December 2022 under the UN Convention on Biological Diversity (CBD) including New Zealand. Its aim is to halt and reverse nature loss by 2030 through protecting and restoring ecosystems.

This section summarises how New Zealand's biodiversity spending aligns with both the Global Biodiversity Framework (GBF) and New Zealand's 13 National Biodiversity Targets.¹⁹

This provides a useful baseline for forward financial planning and national target revision. Table 8 provides the line of sight between BIOFIN categories of spend to National and GBF targets.²⁰

Table 8: Connecting biodiversity expenditures to targets

NZ National target (Summarised)	GBF targets	NZ National Target Activity by 2030 (Summarised)	BIOFIN Category
1. Governance, legislation and funding systems	14,19,22,23	Costs and value quantified, monitoring and reporting.	5
2. Māori organisations are rangatira and kaitiaki.	13,17,21,22	Treaty Partnership and Māori cultural and intellectual property rights.	2,5
3. Biodiversity protection is at the heart of economic activity	10,14,15,18,9	Economic tools for protection and restoration of biodiversity for intrinsic and economic values	3,4,5,6,9
4. Improved knowledge, science, data and innovation	1,3,21	Agreed set of indicators and a framework for prioritising high biodiversity value areas.	2,5
5. Mātauranga Māori biodiversity research and management	20,21,22	Treaty partners make decisions based on scientific disciplines and mātauranga Māori.	2,5
6. Contribution to biodiversity globally.	19,22	New Zealand provides leadership on policy and international commitments to biodiversity.	2,5
7. Skills, knowledge and capability.	16,20,21,22,23	Education and campaigns	2,4
8. Resourcing and support for guardians of nature.	19,20,21,22,23	Community action groups, Treaty partners Landowners, businesses are supported.	2,5,7,8
9. Collaboration, co-design and partnership outcome delivery.	20,21,22	Well-connected networks work together in partnership to implement the strategy	2,5
10. Ecosystems and species are protected, restored, resilient and connected.	1,2,3,4,21	Improved baseline information, comprehensive mapping, and improved knowledge to reduce the cumulative effects of pressures on biodiversity.	7,8
11. Biological threats and pressures are actively reduced.	6,9,11	Introduced threats are actively managed to reduce pressures on indigenous biodiversity and maintain cultural and recreational values.	3,7,8
12. Natural resources are managed sustainably.	5,7,9,10,12,16	Marine and freshwater fisheries are managed within sustainable limits and sustainable use practices	4,5,6,9
13. Nature-based solutions and resilience for climate change.	2,8,11	Restoration of indigenous ecosystems contributes to net emissions targets through carbon storage and reduce risks to biodiversity from climate change.	4

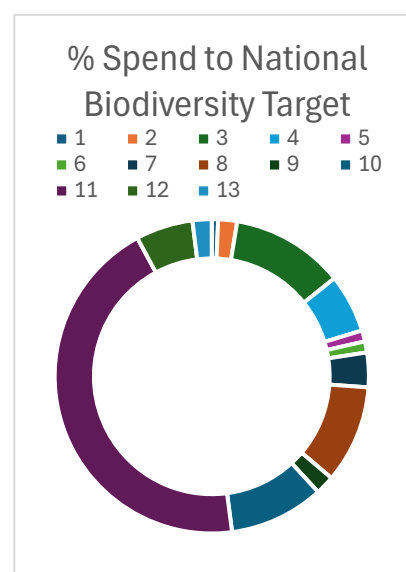
BIOFIN Category 2 includes indigenous peoples and local communities' knowledge and biodiversity scientific research, education and awareness. BIOFIN Category 3 includes generic work such as biosecurity border control, and generic schemes such as wilding pines and pest control, but site-specific work (i.e. PF) is in BIOFIN category 7 & 8. BIOFIN Category 9 includes erosion control associated with farming.

The table below allocates \$1,183m in 2023/24 BIOFIN biodiversity expenditure across the National Targets.

Key agency contributions include DoC: \$465m, MPI: \$155m, MfE: \$79m, other government: \$121m, regional councils/unitary authorities: \$228m, community trusts/NGOs: \$104m, primary sector: \$27m. Voluntary NGO hours and MFAT overseas investment are excluded, and some expenditure data (e.g. business/finance) is incomplete.

Table 9: BIOFIN expenditure to New Zealand national targets

BIOFIN Expenditure to New Zealand National targets	% BIOFIN Finance
1. Governance, legislation and funding systems	1%
2. Māori organisations are rangatira and kaitiaki.	2%
3. Biodiversity protection is at the heart of economic activity	12%
4. Improved knowledge, science, data and innovation	6%
5. Mātauranga Māori biodiversity research and management	1%
6. Contribution to biodiversity globally.	1%
7. Skills, knowledge and capability.	4%
8. Resourcing and support for guardians of nature.	10%
9. Collaboration, co-design and partnership outcome delivery.	2%
10. Ecosystems and species are protected, restored, resilient and connected.	10%
11. Biological threats and pressures are actively managed.	44%
12. Natural resources are managed sustainably.	6%
13. Nature-based solutions and resilience for climate change.	2%
Total % attribution	100%



A substantial portion of New Zealand's conservation effort is focused on National Target 11 to manage biological threats, particularly due to previous decisions and underinvestment by the New Zealand public and private sectors. This is especially evident in the high costs of invasive species management, with deferred investment leading to declining ecosystem health.

Increasing restoration investment would enhance the condition and resilience of natural capital assets, supporting stronger ecosystems and improved biodiversity.

Many National Targets are enabling or supporting efforts to reduce biodiversity loss through economic activity, knowledge and partnerships. Creating clear links between enabling and core investments allows more resources for delivery. The BIOFIN Assessment recommends prioritising restoration and then biosecurity, including a move towards 30% marine reserves and a Māori framework for transition.

Contribution to biodiversity globally

New Zealand is well known for its environmental stewardship, biological reserves, and advanced conservation technology and processes such as predator control. The Ministry of Foreign Affairs and the Department of Conservation (DOC) work together to ensure conservation remains central in New Zealand's international engagement. The New Zealand BIOFIN Assessment estimates that \$55 million of overseas investment in 2023/24 delivers biodiversity benefits where they are most needed.

New Zealand's status as a responsible trade partner depends on sustainable development and adequate biodiversity investment to achieve its international GBF obligations.

Challenges and opportunities in the biodiversity budgeting process

Our challenge is our opportunity

The main challenge for biodiversity budgeting in New Zealand is treating natural capital as an asset addressing the decline in biodiversity investment. Investment maintains and restores the asset. This needs a policy, a fund and measurement.

The New Zealand BIOFIN Assessment takes a nature-positive economic approach, aiming to leave a positive legacy for future generations. As the economy expands, this means actively reversing biodiversity loss and restoring ecological health. Investments that tangibly improve biodiversity integrity and lower risks support robust, nature-positive growth.

New Zealand Parliamentary support

A presentation of the BIOFIN Policy and Institutional Review (PIR) by the University of Otago New Zealand BIOFIN Assessment Lead and members of the BIOFIN Reference Group was received the New Zealand parliamentary Environment Committee on 17 July 2025. The Committee noted Ian Herbert is leading the independent BIOFIN assessment of biodiversity spending in New Zealand, based at the University of Otago Business School.

In the Committee report dated October 2025, the committee's response back to the House of Representatives expressed support for the project.

The committee on requested viewing the results. The committee acknowledged the request for cross-party collaboration to support this initiative, and the parliamentary committee expressed support for the project.

The results of the BIOFIN BER are scheduled to be presented to the committee in July 2026.

The results support the recommendations for a Natural Capital policy, a Natural Capital fund and biodiversity finance measurement.

BIOFIN measurement builds on existing practice in New Zealand

New Zealand has key three existing measures that present biodiversity finance information. They are:

- Parliamentary Commissioner for the Environment's (PCE) Estimate of Environmental Expenditure
- Ministry for the Environment (MfE) / StatsNZ Indicators and Environmental Reporting Series and
- Department of Conservation / MFAT internal and international reports.

The BIOFIN method does not replace any of these important existing reporting needs, it instead, fills a critical gap critical to biodiversity investment measurement. This gap is evident internationally, hence why it is now used in 133 Nations. It is repeatable and comparable.

Table 10: BIOFIN compared to Existing New Zealand measures

Comparison	New Zealand BIOFIN Assessment	Environmental Expenditure	State of the Environment	Conservation
Purpose	Targeted biodiversity finance to halt loss.	Annual estimate of environmental expenditure (PCE),	State of the Environment Indicators (MfE / StatsNZ)	Biodiversity indicators and international reports (DoC/MFAT).
Intended outcome	Enhance biodiversity funding and efficiency, while reducing costs.	Inform Government's environmental spending levels and allocations	Key environmental findings, highlighting human impacts and responses	Central government focus
Sectors	Public and private	Public	Public	Public
Frequency	4-yearly.	Annual	3-Yearly.	Various
Method	United Nations BIOFIN taxonomy	UN SEEA	MfE / StatsNZ – National indicators	International and national measures.

BIOFIN measurement

BIOFIN Measurement was introduced by the United Nations over 10 years ago to serve as a distinct, practical methodology designed to fill specific conservation funding gaps that SEEA could miss.

The primary differences explaining why BIOFIN is used instead of SEEA include:

- **Accounting vs. Action:** SEEA is a statistical accounting framework designed to integrate environmental assets into national economic accounts. BIOFIN is an actionable, policy-driven approach that measures specific biodiversity expenditures to design tailored financial plans.
- **Indirect & Secondary Expenditures:** SEEA strictly follows accounting rules that often exclude "secondary" expenditures, whereas BIOFIN also tracks secondary objectives.
- **Broader Use in Conservation:** BIOFIN was specifically designed to address the fact that standard UN environmental accounting frameworks are often unfit for conservation.

While SEEA excels at standardizing national statistics, BIOFIN provides the targeted data needed to unlock, channel, and manage biodiversity investments. Most nations use both approaches.

Additional benefits for New Zealand include:

- Track biodiversity finance towards or away from nature-positive economic growth.
- Provide economic rationale for investment in natural capital asset condition improvement (improving ecosystem prospects), commercial and ecosystem services benefits.
- Measure biodiversity investment as a percentage of GDP.
- Clarify spending trends, revenue opportunities, avoided costs, and challenges.
- Reduce natural capital investment deferral.
- Support New Zealand's international biodiversity commitments.
- Identify finance needs and efficient funding for priority biodiversity projects.

Unlike other approaches, BIOFIN is uniquely focused on reversing biodiversity loss through strategic biodiversity finance solutions, using a widely used United Nations methodology.

Private sector opportunities to improve the biodiversity budgeting information

Business and Primary Industries: Sectors like sheep and beef already collecting relevant biodiversity expenditure data. Fisheries, dairy, and forestry also have useful data and commitment. Adding up aggregate industry spending, particularly the business and finance sector, would offer a broader understanding of New Zealand's total biodiversity investment.

Conservation and Environmental NGOs: Clear reporting of funding sources and outcomes in annual reports distinguishing between governmental and non-governmental sources, would reduce the effort in the next BIOFIN estimation.

Regional Councils and Unitary Authorities – All 16 Councils participated in the Assessment, attributing their own spends. This can be replicated.

Identification of early finance solutions

Restoration using a public private finance model

The early investment recommendation is restoration. Current restoration spending is \$46m or 0.01% of GDP.

The Assessment finds restoration is significantly underfunded in New Zealand, despite yielding substantial benefits, particularly in asset condition improvement. Delivery models focused on reducing biodiversity risks and involving communities at lower costs achieve the best outcomes and most effective cost-benefit returns because they offer low-cost delivery for high ecological outcomes.

Increased and targeted investment in restoration offers economic, ecosystem, and asset condition gains. Investment should prioritise areas with low delivery costs and high biological returns, with public funding managed independently for transparency and accountability.

Restoration investment purpose and scale

Restoration enhances natural capital assets, maintaining them in better condition with improved ecosystem functionality and biological prospects. The BIOFIN Assessment proposes measuring restoration via a high-level asset register as outlined in table 7. This is common in other industries that have physical assets.

The DoC BIOInvest tool supports investment prioritisation, alongside quantifiable improvements in commercial, ecosystem services, and asset condition.

For example, improving 1,500,000 hectares over 10 years from level 1 to level 2 delivers measurable commercial, ecosystem, and asset condition gains, both in economic rationale and biodiversity prospects. Restoration at sea requires marine reserves.

Restoration finance and governance model

The recommended finance solution for this restoration work is the Biodiversity Investment Contribution (BIC), a low-administration Natural Capital Fund targeted at areas with high benefits and low costs. Credit markets are not suitable for the restoration delivery model, because it is too slow to mobilise, where the funds are coming from is very uncertain and administration costs are too high. In addition, the investment purpose can be obscure and unreliable if investment terms and conditions do not align with of primary ecosystem restoration.

The BIC is indexed, enduring, arm's length, and audited. The benefits are available longer term for future generations. The BIC grows with the economy, offering certainty to private partners, and keeps administration costs low. Appendix 3 outlines the financial and governance model, recommending a minimum public commitment of \$25m in year one from the public sector.

The NEXT delivery model demonstrates effective public-private partnership, requiring secure and reliable government finance to complement private sector funding. The BIC can provide reliable finance.

Completed projects are returned to government / landowner using the approach of the Tomorrow Accord. The suggested method of establishing marine reserves is a Māori framework.

7. Conclusion

The BIOFIN Assessment estimates New Zealand invested NZD 1.15 billion in biodiversity in 2025/26, equivalent to 0.28% of GDP.

Biodiversity spending has not kept pace with economic growth.

It would have risen by \$78 million if indexed to growth but instead fell by \$28 million compared to 2023/24. Biodiversity, as the living part of natural capital, is vital for rural communities, cities and towns, exports, tourism, economic resilience, and intergenerational wellbeing. The BIOFIN Assessment recommends an additional \$25 million in the 2027/28 budget for restoration aligned to the BIC financing principles.

The Assessment finds restoration is significantly underfunded in New Zealand, despite yielding substantial benefits, particularly in asset condition improvement. Delivery models focused on reducing biodiversity risks and involving communities at lower costs achieve the best outcomes and most effective cost-benefit returns.

Increased and targeted investment in restoration, as supported by the BIOFIN BER report, offers economic, ecosystem, and asset condition gains. Investment should prioritise areas with low delivery costs and high biological returns, with an allocation of new BIC public funding managed independently for transparency and accountability.

Key findings conclude that New Zealand should:

1. Measure Biodiversity Investment: The BIOFIN methodology, used in over 133 countries, offers a practical, repeatable, and comparable way to track biodiversity investment. As an endorsed UN method, it helps identify spending and improve investment decisions. New Zealand relies on bespoke or no measurement that risks losing these economic and ecological benefits.

2. Reduce natural capital investment deferral. Government does not currently measure the cost of delayed investment. Initial BIOFIN estimates suggest deferral could cost New Zealand \$100–\$270 billion over 50 years. A Natural Capital Policy can minimise this risk.

3. Introduce a rules-based Natural Capital Fund (The BIC). New Zealand can diversify its biodiversity finance mix. Biodiversity Investment Contribution (BIC) targets high biodiversity returns at low cost, is transparent, and avoids new taxes or bureaucracy. It grows with the economy, supports long-term planning, and ensures accountability.

The BIC minimum manifesto proposal would add just over 2% (\$25 million) to New Zealand's current biodiversity finance mix, providing a practical, rules-based method to invest in natural capital for future generations. Investment is indexed to economic growth, without tax changes and no new regulations. Economic benefits can be measured.

4. Complete the final stage of the New Zealand BIOFIN Assessment. The Financial Needs Assessment and Finance Plan will estimate future funding needs and options, giving a comprehensive, non-binding view of New Zealand's biodiversity finance gap and how to fill it, drawing on over 150 biodiversity finance solutions in the BIOFIN toolkit.

The New Zealand BIOFIN Assessment takes a nature-positive economic approach, aiming to leave a positive legacy for future generations. Biodiversity supports future generations. Favouring short-term profits over long-term ecological health and economic stability undermines our children's wellbeing and living life support system.

8. Recommendations

The New Zealand BIOFIN Assessment makes four early recommendations.

BIOFIN Recommendation 1: BIOFIN Measurement

Carry out a BIOFIN Assessment every four years, with the Parliamentary Commissioner for the Environment leading the next cycle in 2029, supported by DoC.

Among stated benefits, the Assessment will support New Zealand's international reporting. The process should link natural capital condition to investment benefits and estimate the BIR.

BIOFIN Recommendation 2: Adopt a Natural Capital Policy

The New Zealand BIOFIN Assessment team prepare a Natural Capital Policy for government review and adoption in 2026.

This policy will recognise Natural Capital as an Asset Group. It can establish a high-level Asset Register to track changes and investment needed to maintain and improve natural capital asset condition. Addressing prolonged investment deferral is critical, with evidence indicating escalating costs of inaction up to \$270 billion²¹ over 50 years and ongoing environmental deterioration. Prompt adoption of this policy will support prudent fiscal management and safeguard New Zealand's natural capital moving forward.

BIOFIN Recommendation 3: Establish a Natural Capital Fund (The BIC)

Establish cross-party support for the Natural Capital Fund with a minimum 2027/28 commitment of \$25 million, in accordance with the principles of the BIC.

The BIC offers a transparent, rules-based, and audited mechanism for investing in unfunded, high-impact restoration projects, prioritising areas with high biodiversity returns and low delivery costs. The fund is indexed to economic growth, independent, and ensures long-term, nature-positive investment.

BIOFIN Recommendation 4: Complete the BIOFIN Assessment

Complete the final stage of the University of Otago New Zealand BIOFIN Assessment.

Support active participation, support and engagement from central agencies including the Parliamentary Commissioner for the Environment (PCE), Department of Conservation (DoC), and the Ministry for Primary Industries (MPI) to complete the final stage of the University of Otago New Zealand BIOFIN Assessment.

Participation, support and engagement do not require endorsement of conclusions or recommendations.

Appendix 1: The Global Biodiversity Framework (GBF)

The **Kunming-Montreal Global Biodiversity Framework (GBF)** aims to halt and reverse nature loss by 2030 through protecting and restoring ecosystems. The GBF sets four long-term goals for 2050 and 23 specific targets for 2030, focusing on measurable action and outcomes.

- Stronger cooperation among groups, landowners, and agencies.
- More efficient, tailored funding models to support sector needs and volunteers.
- Improved measurement and communication of community conservation achievements.
- Increased and diversified resources for community-based conservation.

Article 6 requires parties to:

- Develop national strategies for biodiversity conservation, reflecting relevant CBD measures.
- Integrate biodiversity conservation into relevant sectoral or cross-sectoral plans and policies.

Biodiversity loss and climate change are closely linked. Achieving GBF goals is key to meeting the Paris Agreement objectives. The UNFCCC and CBD were developed together, with the UNFCCC supporting CBD aims by addressing climate change impacts on biodiversity.

Table 11: GBF Targets (Summarised)

TARGET	Summary text
THEME	Reducing threats to biodiversity
TARGET 1	Halt biodiversity loss including ecosystems of high ecological integrity, close to zero by 2030.
TARGET 2	By 2030 at least 30 per cent of areas of degraded ecosystems are under effective restoration.
TARGET 3	By 2030 at least 30 per cent of terrestrial and inland water areas are effectively conserved.
TARGET 4	Ensure urgent management actions to halt human induced extinction of known threatened species.
TARGET 5	The use, harvesting and trade of wild species is sustainable, safe, and legal, & halt overexploitation.
TARGET 6	Eliminate, minimize, reduce and or mitigate the impacts of invasive alien species on biodiversity.
TARGET 7	Reduce pollution risks and the negative impact of pollution including excess nutrient loss.
TARGET 8	Minimize climate change impact and ocean acidification on biodiversity and increase resilience.
THEME	Meeting people's needs through sustainable use and benefit-sharing
TARGET 9	Use of wild species is sustainable, for social, economic, and environmental benefits for people.
TARGET 10	Agriculture, aquaculture, fisheries, and forestry are managed sustainably.
TARGET 11	Restore, maintain, and enhance nature's contributions to people, including ecosystem functions.
TARGET 12	Significantly increase green and blue spaces in urban and densely populated areas.
TARGET 13	Ensure the fair and equitable sharing of benefits that arise from the utilization of genetic resources.
THEME	Tools and solutions for implementation and mainstreaming
TARGET 14	Ensure the full integration of biodiversity and its multiple values into policies, regulations, poverty eradication strategies, strategic environmental assessments, national accounting.
TARGET 15	Take measures to enable business and large and transnational companies and financial institutions to monitor impacts on biodiversity, promote sustainable consumption & increase positive impacts.
TARGET 16	By 2030, reduce the global footprint of consumption in an equitable manner.
TARGET 17	Establish and implement biosafety measures and measures for the handling of biotechnology.
TARGET 18	Progressively reduce harmful incentives for biodiversity by at least \$500 billion per year by 2030 and scale up positive incentives for conservation and sustainability.
TARGET 19	Substantially and progressively increase the level of financial resources from all sources, including domestic, international, public, and private resources.
TARGET 20	Strengthen capacity-building and development, access to and transfer of technology.
TARGET 21	Ensure that the best available data, information, and knowledge are accessible.
TARGET 22	Ensure access to justice and information related to biodiversity by indigenous peoples and local communities, as well as by women and girls, children, and youth.
TARGET 23	Gender equality in the implementation of the Framework for women and girls.

Appendix 2: New Zealand Natural Capital Policy

New Zealand Natural Capital Policy

New Zealand does not have a Natural Capital Policy. Because New Zealand does not have a natural capital policy, investment can be deferred and not recorded. Over the next 50 years, deferred natural capital maintenance is estimated between \$100B (biodiversity investment required) and \$270B (including opportunity costs and broader benefits from improved management aligned with Global Biodiversity Framework Targets).

Delayed maintenance in physical and natural capital infrastructure is called 'deferral'. Prolonged deferral can lead to fiscal imprudence; a lack of caution or foresight in managing financial resources.

Natural capital is New Zealand's stock of natural assets—including geology, soil, air, water, and all living things. It is the foundation of our economy and well-being, acting as a "stock" that provides essential goods (like timber, food, and fresh water) and services (like ecosystem services, pollination, flood control, and carbon absorption).

The main emphasis of the policy is the living component of natural capital.

New Zealand Natural Capital Policy Purpose

The purpose of the policy is to improve planned maintenance and restoration investment in natural capital. This will decrease Natural Capital deferrals.

The current situation

The BIOFIN Assessment finding support the position that New Zealand is postponing significant biodiversity investment, placing long-term ecological and economic risks on future generations, despite the fundamental role of natural capital in supporting our society. Current investment is inadequate and deferred costs is not measured. While official reports such as the state of the environment reports document this decline, deferral is not tracked. This is like deferring maintenance on physical assets such as the Air New Zealand fleet but not recording the risk or the deferral.

Given the scale of the issue, the BIOFIN Assessment recommends a Natural Capital Policy. The cost of inaction could exceed the level of New Zealand's national public debt.

Scope of a Natural Capital Policy

The New Zealand BIOFIN Assessment Lead shall draft this policy for Parliament, formally recognising Natural Capital as an Asset Group.²²

The policy should offer a simple principles-based framework and practical measurement method to achieve the policy purpose. A high-level Asset Register could track changes in asset condition, serving as a proxy for intrinsic and intergenerational values.

Will the problem get worse if we do nothing?

The issue is worsening, with inaction projected to cost over \$270 billion in 50 years (WWF New Zealand / EY, 2024). Ongoing decline is documented in government environmental reports annually.

Natural Capital Framework

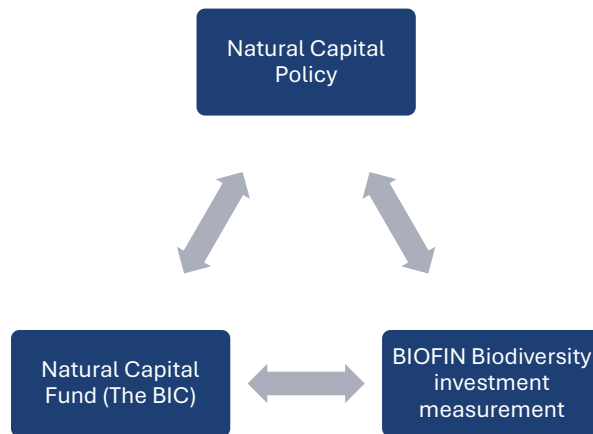
A Natural Capital framework includes a policy, measurement and finance. The BIOFIN Assessment recommends a Natural Capital Policy, a Natural Capital Fund and BIOFIN measurement. We can call this the Natural Capital Framework.

The Natural Capital Framework consists of:

1. Biodiversity investment measurement (BIOFIN) including natural capital condition change.
2. A Natural Capital Policy
3. A Natural Capital Fund (also called the BIC).

These three components are linked to form a natural capital framework.

Figure 25: National Capital Framework



What are the benefits?

1. Improve natural capital asset condition through planned maintenance and restoration.
2. Decrease Natural Capital deferrals.
3. Natural capital maintenance and restoration as economic infrastructure.
4. Planned transition towards ecosystem restoration.
5. Improved delivery of the New Zealand commitments to the Global Biodiversity Framework.
6. Improved uptake of United Nations guidance and international best practice.
7. Improved maturity for New Zealand's natural capital management (biodiversity component).

Selected Supporting Reports

- HM National Security Assessment on Global Biodiversity Ecosystem Collapse (2026)
- United Nations A Shift New Zealand's economic policy today restores our children's future (2025)
- United Nations BIOFIN Workbook 2024. UNDP (2024)
- United Nations Natural Capital Declaration. (Cited 2026)
- United Nations System of Environmental Economic Accounting (SEEA). (Cited 2026)
- The Economics of Biodiversity: The Dasgupta Review. Unabridged. (2021)
- Intergovernmental Panel on Biodiversity and Ecosystem Services (2019)

Appendix 3: The Natural Capital Fund (The BIC)

This Appendix is intended for political and policy decision-makers. Appendix 4 provides the economic rationale for the BIC. The BIC and ‘Natural Capital Fund’ are used interchangeably.

The Natural Capital Fund (the BIC)

New Zealand postpones natural capital maintenance costs to future generations, despite its importance to long range economic infrastructure, national security, and fiscal stability. The BIC is a straightforward, transparent, rules-based fund that grows with consumption and targets high-impact biodiversity outcomes. Biodiversity supports exports, tourism, economic resilience, and intergenerational wellbeing.

Policy Purpose

Provide targeted investment in natural capital through planned maintenance and ecosystem restoration. This will also decrease natural capital investment deferrals. The minimum manifesto commitment is \$25m. The fund grows as the economy grows. This can provide stable new biodiversity finance for critical projects that are currently unfunded and diversifies the current biodiversity finance mix in New Zealand.

The Assessment finds restoration is significantly underfunded in New Zealand, despite yielding substantial benefits, particularly in asset condition improvement. Increased and targeted investment in restoration, as supported by the BIOFIN BER report, offers economic, ecosystem, and asset condition gains. Investment should prioritise areas with low delivery costs and high biological returns, with public funding managed independently for transparency and accountability.

Restoration at sea requires marine reserves.

How significant is this problem?

New Zealand has experienced persistent under-investment in biodiversity and fragmented, stop-start funding, resulting in a weak pipeline of investable projects and ongoing natural capital deterioration. The problem is worsening with an estimated cost of inaction of more than \$270B NZD over the next 50 years (WWF New Zealand / EY, 2024). Consumption is the largest indirect driver of international biodiversity loss (IPBES, WWF, OECD, WB, UN).

- Problem 1: The global living planet (WWF, 2024) index has collapsed by 73% in monitored wildlife populations in 50 years and declining. Global consumption and production are the most significant indirect pressure. The United Nations is requesting urgent action saying there is a short fall in biodiversity finance.
- Problem 2: Investment isn’t keeping pace with growth, increasing long-term fiscal risk. A significant shortfall in biodiversity investment has left New Zealand with approximately 4,000 species threatened or at risk of extinction.

Policy solution

Establish a transparent multi-year natural capital fund that grows as the economy grows. Transition towards a nature positive economy.

The BIC responds to the problem by:

- Introducing a new rules-based fund with enduring compounding investment that maintains New Zealand’s economic infrastructure and standard of living by maintaining and restoring natural capital as the economy grows.
- Offering immediate relief for our most critical unfunded biodiversity projects delivered by community groups, iwi, local and central government, landowners and business.
- Reducing endangerment, extinctions, and climate risk to remaining ecosystems.

By complementing other biodiversity finance mechanisms, the Natural Capital Fund is intended to become a stable part of New Zealand’s biodiversity finance infrastructure over time. The seeding finance of \$25m NZD represents \$5 per New Zealander.

Expenditure Model

The minimum viable manifesto commitment is \$25m in year 1 for eligible unfunded projects. Eligible projects are those that reduce species endangerment, protect key ecosystems, enhance ecosystem integrity, and offer high biodiversity benefits at low cost. They may receive multi-year funding with performance triggers. BIC funding is new investment-focused finance, and not a substitute for Department of Conservation funding.

Governance Model

A board of 6-8 experts from existing public and private sector organisations is proposed and the Board is to form an administrative secretariat and an investment committee who offer investment advice to the Board. It is proposed that the Board have a clear mandate to prioritise and invest in natural capital. Natural capital integrity and representation (biodiversity) is the investment outcome.

It is proposed that the board has the following responsibilities.

- a) manage the funds in waiting.
- b) approve investments after considering the advice of the investment committee.
- c) to approve an annual BIC investment up to a financial cap.
- d) audit and approve the monitoring report from last year's projects and investments (and remove poor performing projects) and
- e) agree to the multi-year appropriation in detail for the coming year.

The investment committee has three responsibilities to prepare the:

- a) Board investment advice.
- b) monitoring report on the performance of investments.
- c) multi-year appropriation prioritisation plan in detail for the coming year.

It is proposed DoC will not administer either governance body due to a conflict of interest, as they would be funding recipients and fund management is not DoC's core function. However, it would be prudent for DoC expertise to be reporting to the Board.

Funding Model

The revenue model enables biodiversity investment as we consume. It is compound investment over time to grow the funding allocation.

Revenue can be collected from consumption either by government or a governing body. The most efficient approach is a rules-based allocation linked to GST growth, as it is the most efficient collection method and automated. The BIC is not a tax, nor does it require a GST rate change; instead, it is an appropriation from future GST revenue, supplementing but not replacing DoC Vote increases. Investing as we consume is a balancing loop to consumption and production pressure on natural capital. It is a non-regulatory cause-based intervention to complement existing effects-based interventions.

Funding model rules

The BIC funding model is rules-based. It indexes the annual fund growth to growth in GST revenue (as a practical proxy for consumption).

Finance logic: linking the BIC's annual increment to consumption growth means BIC biodiversity investment can keep pace with the pressures associated with consumption and economic growth, while remaining modest, capped, and fiscally predictable.

The key features are:

- A) Invest as we consume. The model increases investment in natural capital over time, which helps reduce long-term intergenerational risk from consumption and biodiversity decline.
- B) Investment rises when consumption rises. When the economy grows and consumption increases, BIC funding can increase as well (within a financial cap).

C) Why GST? GST is a broad-based, stable measure of consumption. Using GST growth provides a simple, transparent way to set the annual increment without creating a new tax or collection system.

D) Appropriation rule and cap. The annual increment is capped at 5% of the increase in GST revenue. For example, if GST revenue increases by \$0.25 billion, the maximum annual increment is \$12.5 million whilst the minimum increment is zero. The Board can recommend a rate between 0% and 5% each year.

E) Baselined and compounding. Funding is baselined (carried forward) and compounds over time. In weak growth or recession, the annual increment may be low or zero; however, the BIC continues to invest using the existing baseline funding from prior years.

F) Voluntary contributions. Individuals, businesses and philanthropists can make voluntary contributions to complement (not replace) the rules-based appropriation.

G) Independent administration. The fund is administered independently from day-to-day government, consistent with an arm's-length model (for example, similar in principle to the NZ Super Fund model).

A strong nature positive economic approach can be achieved by investing in natural capital

The BIC is a nature positive finance solution that helps to achieve net biodiversity gain (NBG).

Nature-positive



Biodiversity maintained or gained by investing as we consume.



Leave nature in the same or a restored state.

Biodiversity investment to maintain and restore nature.

Consume now and invest now

Nature-negative



Biodiversity is lost and the maintenance cost is deferred to our children.



Our children lose biodiversity.

Defer the maintenance cost to our children.

We consume now; they pay later.

Why support this proposal?

The BIC offers a practical, rules-based mechanism for sustaining New Zealand's natural capital. It is indexed, enduring, arms-length from government, and audited, focusing on ecological investment for future generations. By indexing to consumption growth, the BIC adapts to economic cycles without requiring GST rate changes or new regulations. Even in recessions, baseline funding ensures continued investment. This system, which markets cannot deliver, secures a pathway towards nature-positive GDP growth and treats natural capital as economic infrastructure.

The BIC avoids large upfront Crown spending, instead providing a modest, capped investment that grows with the economy and supports reliable planned investment and delivery. It enhances value for money through cost-benefit targeting and builds a pipeline of impactful projects, becoming a dependable part of New Zealand's biodiversity finance infrastructure and improving social cohesion.

The BIC is enduring, prioritized, audited, and operates independently. BIOFIN Assessment modelling shows it is more effective than tree planting or green bonds, targeting high-benefit, low-cost biodiversity projects. With capped operating costs and transparent, competitive investment, as consumption grows, so does the investment in New Zealand's living life support system for future generations.

Appendix 4: The Biodiversity Investment Contribution (The BIC)

The Economics of Biodiversity Supplementary – forging a new international biodiversity investment solution

The purpose of this discussion paper is to provide a semi-structured and semi-informal overview of the rationale to introduce Biodiversity Investment Contribution (The BIC). The BIC is a new intergenerational biodiversity finance solution. It is an endowment fund for gifting nature to our children in perpetuity. It has similar principles and characteristics of a centralised pension scheme. It follows the concept that retired people they are important to care for in perpetuity in our economy. So are our children.

The paper provides different problem perspectives and the reasons for the BIC solution principles. It is written from a macro-economic intergenerational lens and applied to New Zealand.

Biodiversity has public good characteristics. It can be no-rivalrous and no-excludible meaning it benefits us all or disadvantages us all when it fails. Ecosystems and natural capital provide a living life support system through ecosystem services such as purifying our air and water to providing food, timber, and wellbeing. Natural capital is New Zealand's stock of natural assets—including geology, soil, air, water, and all living things.

Life forms possess intrinsic value over and above economic value. This is the value of life forms over and above human consumption or human economic benefit.

Biodiversity has intergenerational equity characteristics that it can be maintained and restored so our children have the same opportunities to a living life support system and experience a living planet.

Our life support system has a high risk of collapse across all critical global ecosystems.

Problem Definition

The United Nations, OECD, World Wide Fund for Nature, World Bank, and World Economic Forum confirm global ecosystem collapse is a high risk because of the biodiversity finance gap. The Global Biodiversity Framework, signed by 196 nations including New Zealand, commits to improve enduring biodiversity finance.

Global wildlife populations have collapsed 73% in the past 50 years²³ and continuing to decline. New Zealand faces a biodiversity crisis with approximately 4,000 threatened species. The finance gap is not the only contributor, but it is essential to fill the gap to halt the ongoing cycle of biodiversity loss. Yet New Zealand households spend more on cosmetics.

New Zealand has a nature negative economy because biodiversity is lost year after year. Spend on biodiversity is 0.26% of GDP in 2025/26, down from 0.28% in 2023/24. Prolonged deferral is called fiscal imprudence. The estimated cost of deferrals in New Zealand ranges from \$100B to \$270B NZD over the next 50 years.²⁴

The problem can be unpacked into three contributing issues:

1. Earth's living life support system (natural capital), is not treated as an asset.
2. Markets are incentivised to liquidate natural capital for consumption.
3. Long term biodiversity investment is insufficient and deferred year on year.

What is a nature positive economy?

A nature positive economy maintains and restores biodiversity as the economy grows, funded by biodiversity finance.

Natural Capital is not treated as an asset

At present, New Zealand does not treat natural capital as an asset. The estimated \$100B to \$270B of deferrals in New Zealand on natural capital (biodiversity component) is not recorded by government and there is no natural capital policy to fix this.

To understand why the natural capital is not valued, we need to go back to 1442. Luca Pacioli was an Italian mathematician that is referred to as the father of accounting and bookkeeping. He codified double entry; one entry on the balance sheet and one entry in the profit and loss. Our living life support system was not under as much pressure as it is now, so the system did not value our living life support system. Over 500 years later, we still use the double entry accounting system. But the problem of our declining living life support system has not been fixed on the balance sheet as I will explain.

Let's jump forward to David Ricardo, born 1772 and the **Ricardian Rent Model** - The law of rent states that the rent of a land site is equal to the economic advantage obtained by using the site in its most productive use. The theory accounts for gain; an asset and a rent to provide goods and services to markets. The loss of the living life support capacity is not accounted in the model because it is about personal gain and still not a big issue back then. Like the 1400s, loss of biodiversity, loss of vital ecosystem services is not valued in the model. The model drives land tenure and markets today.

In 1848, John Stuart Mills was born. He was an English philosopher, political economist, politician and civil servant. He contributed widely to social theory, political theory, and political economy. Mills recognized the logical conclusion of unlimited growth was destruction of the environment and a reduced quality of life. He concluded that if the earth must lose that great portion of its pleasantness for the mere purpose of a larger, but not a better or a happier population, he hoped that a sustainable state could be achieved long before necessity compels it. His thinking was not new, it has existed for thousands of years, particularly in indigenous populations.

In intergenerational economics, 'sustainable use' can draw on the definition of the Convention on Biological Diversity, 1992. Ecological sustainability is the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations'.

Nicolas Kaldor was born in 1908, and Sir John Hicks was born in 1904. They conceived the **Kaldor-Hicks efficiency theory** - an economic concept stating that a resource allocation is efficient if the total gains from a change outweigh the total losses. Under a sustainability model, more people benefit because the benefit is spread over more people over time. Sustainability is efficiency over the longer term.

However, Ronald Coase (Nobel Memorial Prize winner in economics 1991) developed what is now called the **Coase Theorem** - The Coase Theorem states that if property rights are clearly defined and transaction costs are negligible, private parties can bargain to resolve economic externalities efficiently. This is a static model which has a fundamental flaw.

David Pearce's 1989 work highlighted that current economics do not value the loss of the living life support system as an asset, incentivising its destruction for short-term returns.

The understandable glitch from 1442 and static Coase Theorem now present a big problem. Private transactions can bargain to resolve economic externalities without recourse to future costs borne by third parties. Short term gain resides over strategic long range economic prospects or intergenerational equity. From an economic lens, prolonged mismanagement is called fiscal imprudence. From a behavioural lens, we kick the cost and degradation down the road to our own children. The burden and the problem is getting much worse.

Sir Partha Dasgupta's 2021 report on the Economics of Biodiversity confirms that increasing consumption drives biodiversity loss, echoing Mills' concerns that short-term profit and population growth undermine our life support systems. Natural capital degradation is omitted from the balance sheet regardless of the impact on our children.

Recognising our life support system as a natural capital asset allows us to establish a simple asset register, monitor its condition, and restore it through investment. Improvements in biodiversity are measurable in commercial, ecosystem, and asset condition benefits, capturing both intergenerational equity and intrinsic values. This approach enables effective asset management similar to managing physical assets. Natural capital is a particularly important asset because we pass the asset onto our children. It is their living life support system.

Consumption drives biodiversity loss

Since 1970, biodiversity has sharply declined. The Living Planet Index shows a 73%²⁵ decline in global wildlife populations, and Aotearoa New Zealand has about 4,000 species at risk.

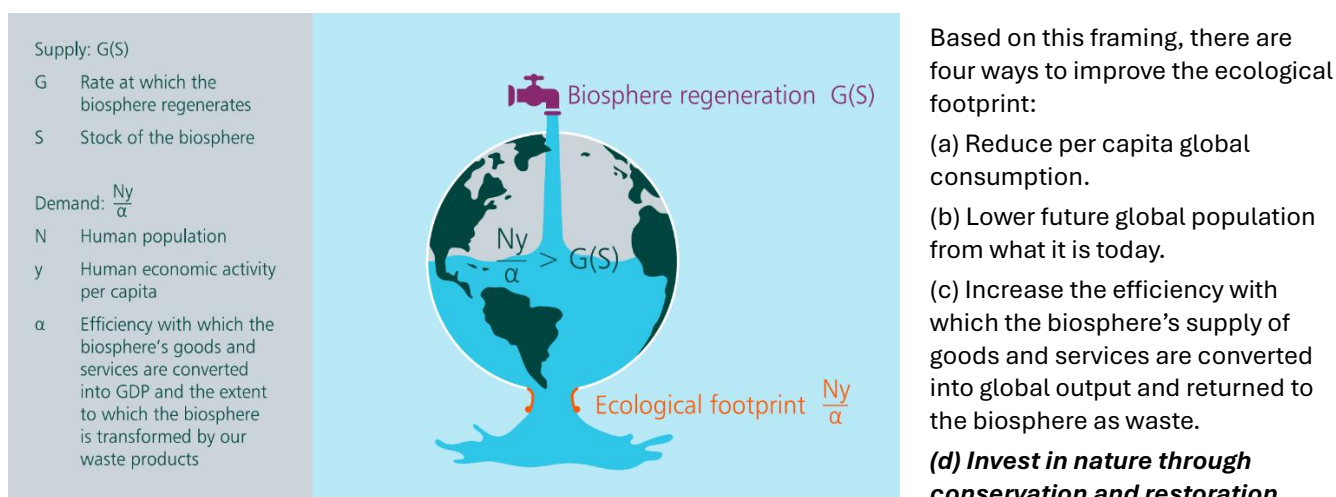
The human population has more than doubled in the past 50 years, rising from 3.7 billion in 1970 to nearly 8.1 billion by 2023. Global biodiversity loss is primarily driven by consumption, with production responding to growing demand.

In 2026 the United Kingdom HM National Security risk report states ‘Ecosystem degradation is occurring across **all** regions (globally). Every critical ecosystem is on a pathway to collapse (irreversible loss of function beyond repair).

Biodiversity loss is intensified by population growth, increased material consumption, and longer lifespans. Consumption is highest in high-income countries (73% increase since 1970), and continues to rise globally, with developing nations following suit. Consumption is approximately five times larger in high income countries than low-income countries.²⁶

Ecological footprint illustrates that rising consumption and population, without improved efficiency, causes ongoing global biodiversity loss.

Figure 26: Ecological footprint



Source: Dasgupta, P., 2021

Responding to consumption and the finance gap at the same time

Two financial methods to improve biodiversity outcomes are to: (a) reduce biodiversity consumption through lower-impact production and consumption, and (b) increase investment in biodiversity. While Sir Partha Dasgupta focused on consumption, my approach also includes investing in nature as an economic output.

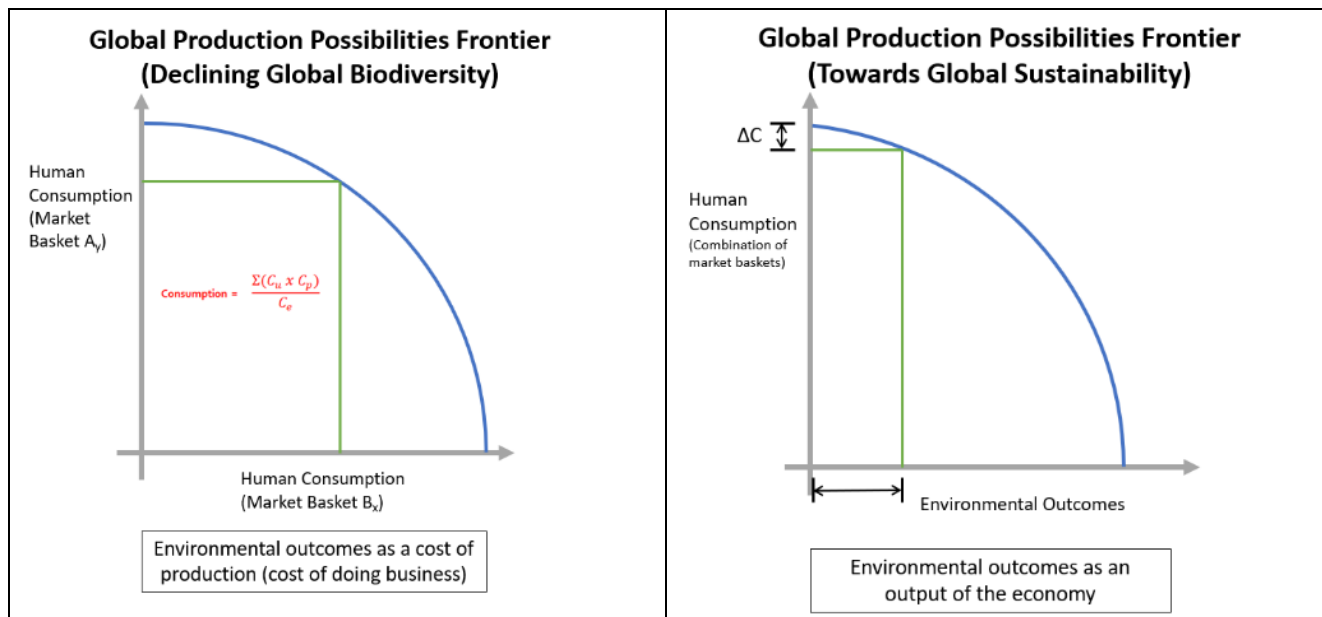
This involves a balance sheet entry and a balancing loop, with the BIC as the balancing loop to boost biodiversity investment, and a balance sheet entry showing maintenance and restoration of the natural capital asset. This will also reduce deferral.

Global Production Possibilities Frontier

The **Production Possibilities Frontier (PPF)** is an economic model and graph showing the maximum possible output combinations of two goods or services that an economy can produce. It assumes fixed resources and, in our case, we are using global biodiversity. Graph 1 treats biodiversity only as a production input whilst graph 2 treats it as a natural capital asset.

Natural Capital maintenance can become an output of the economy. This is shown as the horizontal axis in graph 2. A small amount of consumption (estimated at 0.5%²⁷ of global GDP is repurposed to invest in natural capital for our children's living life support system. Aggregate consumption depends on population (C_p), units consumed (C_u), and production efficiency (C_e). In our example, the environmental outcome is investment in natural capital for our children's living life support system.

Figure 27: Global Production Possibilities Frontier



Ian Herbert, 2019, Doctor of Business Administration Enrolment proposal.

Investing as we consume

Investment is not keeping pace with growth. Biodiversity outcomes are **not** correlated with economic growth. However, biodiversity outcomes have a proven relationship to biodiversity investment.²⁸

New Zealand postpones natural capital maintenance costs to future generations, despite its importance to long range economic infrastructure, national security, and fiscal stability.

The proposed system solution (balancing loop) is to invest in biodiversity as the economy grows.

The BIC is a straightforward, transparent, rules-based fund that grows with consumption and targets high-impact biodiversity outcomes. It enables natural capital to be maintained and restored whilst providing a balancing loop to consumption. At the same time, it reduces deferrals.

Six principles of the Biodiversity Investment Contribution (The BIC) balancing loop

A balancing loop is a feedback mechanism in systems thinking that promotes stability. The BIC uses six key principles, developed over eight years, to break the cycle of biodiversity loss, aimed at keeping the approach simple and focused on biodiversity outcomes.

1. Risk reduction to biodiversity is the primary purpose of the investment

The investment aims to halt biodiversity loss and foster a nature-positive economy. Restoration is assessed by improvements in natural capital integrity and ecosystem function, as highlighted by the New Zealand BIOFIN Assessment.

2. Broad-based low-rate indexed contribution

The BIC is a broad-based, low-rate contribution designed for future benefit, not to curb current consumption like a Pigouvian tax. Since biodiversity loss is linked to consumption, the BIC uses this as its base, functioning like a pension by investing now for future biological stability and benefits. This approach also ensures fiscal prudence for natural capital, avoiding deferring costs to future generations.

3. Future generations are the primary beneficiary of investment

Biodiversity investment primarily benefits future generations, delivering long-term market, ecosystem, and intrinsic values. Clearly defining beneficiaries ensures finance is not misused for current consumption, while most of the economy remains available for present use.

BIC revenue comes from overall consumption, with higher contributors paying more. As a broad-based, low-rate tool, BIC advances intergenerational equity with little effect on society's most vulnerable.

BIC generates new funding for biodiversity, supporting intergenerational equity by allocating a small portion of today's consumption for future sustainability. Its effect is minor compared to other economic factors like input costs and tax changes.

4. Investment finance indexed to consumption growth

The BIC unlocks balancing investment proportionate to consumption. i.e., as we consume, the system transformation is that we invest in biodiversity at the same time. As consumption rises, investment rises, as consumption falls, no new investment is allocated beyond the baseline. It is a systems approach in that it enables the balancing loop of investment to counteract the reenforcing effects of consumption. Future generations have no means to incentivise us to leave them nature or be compensated for current day over consumption of biodiversity via markets. The BIC provides a way to partly redress this issue, by joining other biodiversity finance solutions such as government 'Votes' and philanthropy.

5. Whole life cost benefit targeting

Cost benefit targeting is used internationally and in New Zealand to a high level of effectiveness. The New Zealand BIOFIN Assessment stocktake supports the view that cost benefit targeting is the most effective biodiversity investment method in New Zealand and internationally because investments are made where the biodiversity benefits are high and the costs are low. The NEXT delivery model is a very good example of this model in action. The DoC BIOInvest model should help to achieve cost benefit targeting.

It is the view of the New Zealand BIOFIN Assessment that 'Restoration' is significantly under invested in New Zealand but returns some of the highest benefits. Benefits include asset condition change. The costs are not equal among delivery models. Delivery models with a single focus on reducing risk to biodiversity prospects and community involvement where costs are low, have the highest biological returns and the most effective cost benefit targeting.

The economic benefits provide commercial, ecosystem service and asset condition improvements. Costs are measured in whole life costs over a longer period, like physical assets. Areas for investment are selected based on low delivery costs and high biological returns. Restoration improves the natural capital asset so that the natural capital asset can be maintained in a better condition, with ecosystem functioning and better biological prospects. The New Zealand BIOFIN Assessment suggests restoration outcomes can be measured by a change in integrity: how intact is the natural capital (biodiversity component).

6. Independent audit and governance

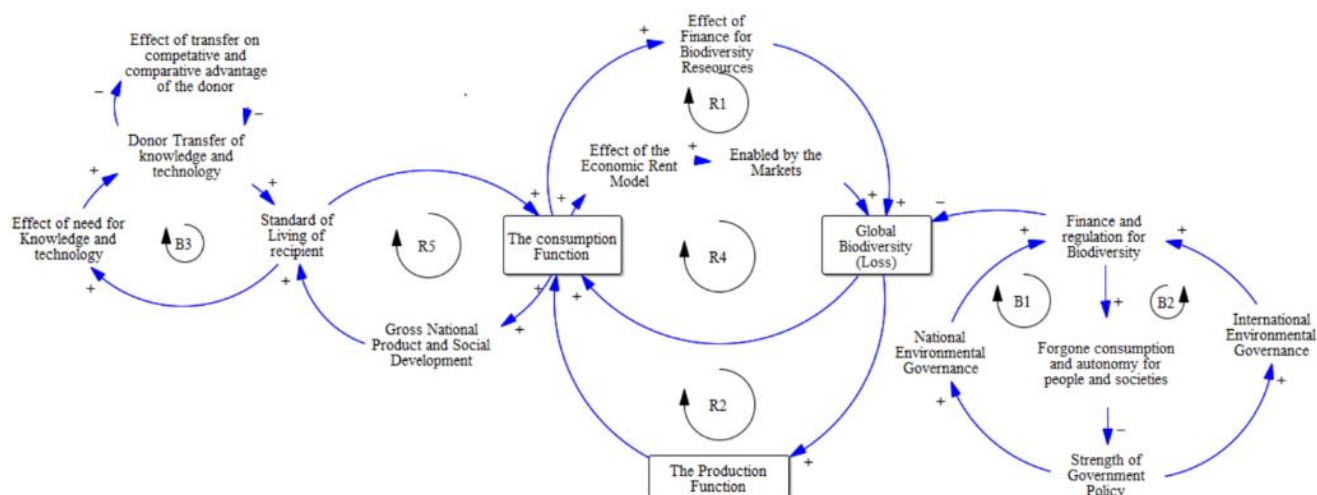
Independent governance and audit function to reduce political interference for competing consumption objectives, including jobs, political pledges, and political gain. The audit function is for transparency and results monitoring. This also enables efficiency from the reduction of governmental administration and political policy changes.

This is an important principle of the BIC because often government allocations are not keeping pace with economic growth, and in some cases, governments are using natural capital deferral or exploitation to fund the economy, social redistribution, or debt repayment. This is a prolonged cycle, often across changing governments. Prudence is more likely at arm's length under a singular purpose of natural capital maintenance and restoration (biodiversity component).

Systems modelling the problem and a solution to consumption

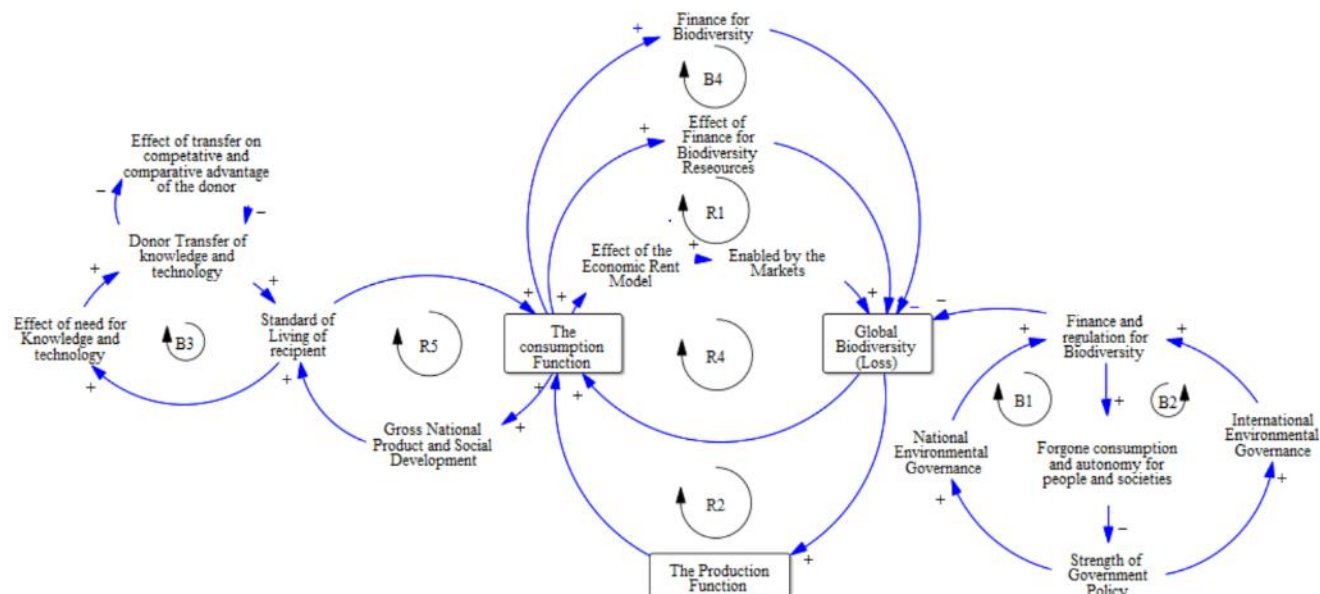
The root definition can be described in the following causal loop diagram. Note the 'consumption function' means aggregate consumption rather than the traditional economic use of the term. This is soft systems dynamic methodology – a systems dynamics approach to model and understand problems and solutions in the real world using offline system dynamics. Note that the balancing loop in Figure 29 is linked to consumption rather than government as per independent governance and audit.

Figure 28: Problem Causal Loop Diagram



The solution causal loop diagram adds a balancing loop called ‘Finance for Biodiversity’, or the BIC. It is part of the consumption and production cycle, enabled by markets. It is arm’s length from government because it is linked to consumption rather than national environmental governance. It would represent a very small component of the current biodiversity finance mix, but desk top testing show this could be more effective than credits, off sets, plant a tree schemes and green bonds because of cost benefit targeting and low revenue collection administration costs. This would provide a very good cost benefit ratio compared to other solutions.

Figure 29: Solution Causal Loop Diagram



Revenue collection options

There are several ways to collect the revenues from consumption. Collection can either be done by government or a governing body.

Table 12: Revenue collection options

Approach	Method	BIC Principles	Effectiveness
Point of production	Expense in company accounts	Aligned	Medium
Point of sale	GST or additional charge	Aligned	High
Club Good	Levy	Aligned	Medium
Voluntary contribution	Voluntary donations	Not aligned	Low
Other	Targeted	Not aligned	Low

Possibly the most cost-effective method is an indexed % of the GST revenue increase (on the increase for the year rather than all revenue from GST – this is principle 4: investment is indexed to consumption growth. It has also had the lowest revenue collection administration cost because it is already collected.

What is the trade off?

The trade-off is a reallocation of a finance from consumption now to biodiversity investment for future generations. There will be different perspectives on this.

Table 13: Trade off perspectives and impacts

Perspective	Impact
Future generations	Positive
Treasury	Mixed (efficiency is positive)
Consumers	Mixed (efficiency is positive)
Biodiversity Outcome Managers	Positive
Investment recipients	Positive

Future generations: Positive benefit that biodiversity is bequeathed to them.

Treasury: Rules based allocation of revenues reduce the ability to trade off based on political agendas.

Consumers: Benefit in that as they consume, investment is made in Biodiversity for future generations.

Biodiversity Outcome Managers (Government and non-governmental): Improves biodiversity outcomes as the economy grows.

Investment recipients: Additional financial solution in the biodiversity finance landscape.

Flexible indexed rate setting

Rate setting can be variable up to a specific rate ceiling. For example, from 0% to a ceiling of 10% of GST revenue growth. If GST revenue grows by \$500m, and the cap is set at 5% of growth for that year, the new BIC finance that is available is \$25m. If the economy grows \$2B in that year, it represents 0.0125% of economic growth. The output of this \$25m of investment for the purpose of restoring natural capital in a better condition, with better ecosystem functioning and better biological prospects. Benefits are measured by a change in integrity: how intact is the natural capital (biodiversity component) and ecosystem services and commercial values can be monetised. The intergenerational and intrinsic values are represented in the asset condition register and measured by change to biological integrity / intactness. It is a simple but highly effective way to do double entry by using a condition register, measuring change in all four values.

Appendix 5: The Biodiversity Investment Ratio (The BIR)

The Biodiversity Investment Ratio (The BIR)

Economics deals with allocating scarce resources, and finance is one such resource. Measuring what portion of GDP is allocated to biodiversity offers a clear perspective on national priorities and allows comparisons with other spending.

Definitions

BER – Biodiversity Expenditure Review (What is spent on biodiversity)

FNA – Financial Needs Assessment (What needs to be spent to achieve the biodiversity strategy)

GDP – Gross Domestic Product (Total monetary value of a nation's final goods and services)

BIR - Biodiversity Investment Ratio (Gap between existing and needed biodiversity expenditure)

The New Zealand BIOFIN Assessment introduces a simple, effective and results orientated Indicator to measure the biodiversity finance gap called the Biodiversity Investment Ratio (BIR).

$BIR = (FNA - BER) \div GDP$.

The BIR is a bottom-up method for a nation to estimate the biodiversity finance investment gap using a BER and FNA.

BIOFIN Reconciliation Method

The BIOFIN Workbook 2024 provides guidance on methods to estimate the gap using an additional reconciliation step described in the BIOFIN Workbook 2024 FNA section. This step is needed for most nations because the BER and FNA need to be reconciled.

Benefits of the BIR for Target 19

A ratio is an easy-to-understand high-level indicator of the biodiversity finance gap. GDP ratios are used in most industries and all national Treasuries as an economic resource allocation indicator. Biodiversity finance is an economic resource allocation.

The BIR enables consumption to be expressed as a proxy ratio (using GDP) to biodiversity investment. Consumption is the largest indirect driver of biodiversity loss (IPBES, 2020 & Dasgupta 2021).

Biodiversity finance to maintain and restore nature provides a systems 'balancing loop' to consumption. A systems balancing loop helps reduce the impact of constantly increasing consumption. It represents investment in our children's living life support system as an economic output as we consume.

Secondly, the biodiversity finance gap can be described as a deferral. Deferral is delayed maintenance and restoration expenditure. Prolonged deferral can be described as financial mismanagement (fiscal imprudence). The BIR helps to measure the deferral in easy-to-understand way. Industries like transport, health, education, energy, and physical asset sectors reduce deferrals by maintaining the condition of the asset. Natural capital is no different. The BIR can then be expressed as a target BIR that reduces deferral over time. It is a lead indicator for Goal D, Target 19.

Treating the gap as a deferral enables a clear link between natural capital condition and biodiversity expenditure levels to maintain and restore the asset. As biodiversity investment fills the deferral gap, the asset is maintained and restored on the balance sheet. At a national level, asset condition reporting is more important than the monetised asset value because the benefits are derived from the condition rather than the value.

Many countries delay natural capital maintenance, leading to long-term biodiversity and economic risks that lead to failure to achieve the GBF targets or NBSAPs. The BIR provides a transparent national indicator to measure the gap between actual and needed biodiversity finance, reflecting each country's circumstances and unique FNA & BER measurement reconciliation method.

The BIR is an effective enabler for Target 19

Financial ratios are widely used across sectors. A biodiversity finance gap ratio for Target 19 would be easy to understand and applicable every nation. It is the view of the New Zealand BIOFIN Assessment Lead that the most effective monitoring tool for Target 19 is the BIR, which reflects the gap between required and current biodiversity finance as a share of GDP.

If a nation's BER and FNA are results based, calculating the ratio takes about 10 minutes once a BIOFIN Assessment is completed, addressing a critical gap in Target 19 monitoring. For most countries however, an additional reconciliation step is required. Deriving the BIR is possible for a BIOFIN nation using a reconciliation step either using the BER or FNA oriented approach described in box 5.6 of the BIOFIN 2024 Workbook. The BIOFIN reconciliation approach is flexible, because like the BIOFIN Assessment, it responds to the nation's needs and unique measurement approach to the FNA.

Finally, the BIR is a powerful high-level way to express the financial needs target and unfunded components of the national biodiversity strategy. The FNA and Finance Plan then describe in detail what is being funded and how it is funded to achieve the nation's biodiversity strategy.

Incorporating the BIR into GBF Monitoring

The Biodiversity Investment Ratio (The BIR) is a financial metric for more effective and transparent measurement of Target 19, providing additional benefits beyond existing indicators. The BIR expresses the biodiversity finance gap in relation to economic finance allocation.

Definition: National biodiversity finance gap as a portion of GDP.

Equation: $(FNA - BER) / GDP = BIR$

Data Sources: BIOFIN Library (FNA and BER) and National Stats / World Bank (GDP)

Table 14: BIR monitoring framework

Selected Criteria	The BIR	Existing Target 19 Measures
Simplicity	✓	✗
Applicability	✓	✓
Publicly Available	✓	✓
Comparable / repeatable	✓	✓
Sovereignty	✓	✓
Politically palatable	✓	✓
Local and international	✓	✓
International taxonomy	✓	✓
Meaningful ratio	✓	✗
Target setting	✓	✓
Risk tool	✓	✗
NBSAP alignment	✓	✓
National Capital	✓	✗

Linkage to a new finance solution – The Biodiversity Investment Contribution

As the economy grows, invest more in biodiversity. Many nations defer essential natural capital maintenance as the economy grows, despite its importance to economic stability and national security. The BIR highlights the investment gap for biodiversity as vital natural capital. This gap can be addressed through a mix of finance mechanisms in the Biodiversity Finance Plan. The BIC (see Appendix 3 & 4) is recommended as an additional biodiversity finance solution to fill the gap.

The measurement method

Step 1. Establish a base line (BER).

About 133 CBD signatories have completed or are conducting BIOFIN Assessments, using the BIOFIN taxonomy. The Biodiversity Expenditure Review (BER) shows current national biodiversity spending.

Step 2. Estimate the biodiversity finance needs (FNA)

The BIOFIN Financial Needs Assessment (FNA) calculates the investment required to meet the GBF and national NBSAP, informing a finance plan. It may use various investment methods, not only increasing BER spending.

Step 3. Calculate the gap – The BIR Calculation

The BIR can then be calculated. The BIR Indicator is the national biodiversity finance gap proportionate to GDP. $(FNA - BER) / GDP$ (WB or national data) = BIR. The BIOFIN Workbook 2024 provides guidance on methods to estimate the gap using an additional reconciliation step described in the FNA section. This step is needed for most nations because the BER and FNA need to be reconciled.

The New Zealand BER Baseline

Total spend covers all BIOFIN categories while ‘core biodiversity spend’ is limited to the conservation, restoration, and biosafety categories. GDP estimates from Stats New Zealand are \$417 billion NZD for 2023/24 and \$445 billion NZD for 2025/26 (Dec 25). It is measured in nominal economic terms.

Table 15: Biodiversity Expenditure Review (BER) baseline

Year	Year and category	Total \$m NZD	Biodiversity spend to GDP
2023/24	Total Biodiversity spend	1,183	0.28%
	Core Biodiversity spend	751	0.18%
2025/26	Total Biodiversity spend	1,155	0.26%
	Core Biodiversity spend	744	0.17%

Interpretation: The BER baseline shows how biodiversity finance changes as a share of total resources.

The New Zealand BIR Baseline reveals that biodiversity funding has not matched economic growth. Instead of increasing by \$78m NZD, it fell by \$28m NZD, leaving a \$106m gap over two years, or about a 9% shortfall. This is represented by Figure 9.

This key finding supports introducing the BIC into New Zealand’s biodiversity finance framework.

Summary and Conclusion

The BIR is an easy-to-understand ratio suitable for non-specialists. BIOFIN data covers 133 nations by 2027, while the remaining countries can calculate the ratio using existing budget and biodiversity finance plans.

Each nation’s ratio reflects its unique circumstances and the BER and FNA can be reconciled using the BIOFIN 2024 Workbook.

The BIR offers a valuable headline measure D.4 for GBF Target 19, enabling nations to benchmark biodiversity finance and support investment in natural capital. It marks a significant shift in measuring and funding a nature-positive future.

Endnotes

- ¹ Intergovernmental Panel on Biodiversity and Ecosystem Services (2019).
- ² WWF/EY, 2024
- ³ <https://www.stats.govt.nz/> cited 13 April 2026
- ⁴ Ministry for Primary Industries, 2025, Situation and Outlook for Primary Industries
- ⁵ Ministry for the Environment & Stats NZ. (2025). New Zealand's Environmental Reporting Series: Our Marine Environment 2025 | Tō Tātou Taiao Moana. <https://environment.govt.nz>
- ⁶ Ministry for the Environment & Stats NZ (2025). New Zealand's Environmental Reporting Series: Our environment 2025 | Tō tātou taiao Retrieved from environment.govt.nz.
- ⁷ Ministry for the Environment & Stats NZ (2025). New Zealand's Environmental Reporting Series: Our environment 2025 | Tō tātou taiao Retrieved from environment.govt.nz.
- ⁸ Ministry for the Environment & Stats NZ (2025). New Zealand's Environmental Reporting Series: Our environment 2025 | Tō tātou taiao Retrieved from environment.govt.nz.
- ⁹ Intergovernmental Panel on Biodiversity and Ecosystem Services (2019).
- ¹⁰ NZIER. <https://www.nzier.org.nz/publications/quantifying-the-economic-impacts-of-a-brown-marmorated-stink-bug-incursion-in-new-zealand>
- ¹¹ <https://www.mpi.govt.nz/dmsdocument/30855-Ministry-for-Primary-Industries-Cost-Recovery-Policy-Guidance>
- ¹² <https://nextfoundation.org.nz/vision> cited 28 May 2026.
- ¹³ StatsNZ, year ending 2024, from figure.nz, May 2026.
- ¹⁴ <https://beeflambnz.com/advocacy/biodiversity>
- ¹⁵ <https://rarespecies.nzfoa.org.nz/>
- ¹⁶ <https://www.msc.org/en-au/media-centre-anz/media-releases/press-release/new-zealand-scientists-back-global-call-to-protect-ocean-biodiversity-as-fisheries-show-pathway-forward> cited 28 May 2026
- ¹⁷ <https://rescuefish.co.nz/wp-content/uploads/2020/03/New-Zealand-Fishing-Economic-Report-2016.pdf> cited 2026
- ¹⁸ WWF/EY, 2024
- ¹⁹ DoC (2024) New Zealand's national targets contributing to the Global Biodiversity Framework
- ²⁰ DoC (2024) New Zealand's national targets contributing to the Global Biodiversity Framework
- ²¹ WWF/EY, 2024
- ²² Capturing natural capital in decision making (2017) NZIER.
- ²³ WWF, (2024) Living Planet Index.
- ²⁴ WWF/EY, 2024
- ²⁵ WWF, (2024) Living Planet Index.
- ²⁶ IPBES, 2020
- ²⁷ CBD Global Biodiversity Framework Target 19 (2022).
- ²⁸ Intergovernmental Panel on Biodiversity and Ecosystem Services (2019).



Ian Herbert, New Zealand BIOFIN Assessment Lead. BIOFIN is a United Nations method across 130 nations that measures and plans national biodiversity investment. The Assessment focus is biodiversity finance for ecological prospects. I am an economist, a business case writer, a business owner, visited over 80 countries. All life forms have intrinsic values in addition to economic values.

A problem well put is half solved (John Dewey, 1859-1952). The problem we have in New Zealand is biodiversity investment deferral and biodiversity loss. In 2025/26 New Zealand invested 0.26% of GDP in critical biodiversity life support maintenance and restoration. New Zealand households spent more on cosmetics.



Photo credit: Amanda Sinclair

Biodiversity is the cornerstone of sustainability and climate action.

In memory of Dr Mohamed El-Ashry and Dr Robert Makgill



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