



ORGANICS  
AOTEAROA  
NEW ZEALAND

## **Submission on Helping Nature and People Thrive – Exploring a Biodiversity Credit System**

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To: Ministry for the Environment and Department of Conservation

From: Organics Aotearoa New Zealand

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## **OANZ Introduction**

Organics Aotearoa New Zealand (OANZ) is the national umbrella organisation for the organic sector. It works in Treaty partnership with Te Waka Kai Ora (National Māori Organics Authority) to grow Hua Parakore and organics within Māori communities.

The vision of Organics Aotearoa New Zealand is to make the world more sustainable through organics. Our mission is to achieve excellence and endurance in organic agriculture and commerce and grow the organic sector in New Zealand. Our members act individually and work collectively to nurture and protect the environment and to enhance the wellbeing of New Zealanders.

OANZ provides leadership for our members to collaboratively work for organic policies that are good for the health of New Zealand's people, communities, environment and economy. Our advocacy is focused on creating a world where people can easily access food and fibre devoid of harmful chemicals, grown in healthy soils that help regenerate the earth by increasing biodiversity, sequestering carbon, and combating climate change.

Aotearoa New Zealand's organic sector was valued at NZ\$723 million in 2020 and is currently on track to surpass NZ\$850 million.

## **Introduction to Organic Farming**

Organic farming has been increasingly recognised for its support to biodiversity. Unlike conventional farming methods that often rely heavily on synthetic pesticides and fertilisers, organic farming employs a set of practices that are more harmonious with natural ecosystems. Ongoing research shows that organic farming has around [30% increased biodiversity](#) when compared to conventional farming practices.

### **Soil Health**

One of the most significant contributions of organic farming to biodiversity is the enhancement of soil health. Organic practices such as composting, cover cropping, and reduced tillage contribute to increased organic matter in the soil. This, in turn, supports a diverse range of soil organisms, from bacteria and fungi to earthworms and insects, which creates a more resilient and balanced ecosystem. Soil health is recognised as the fundamental building block to all flora and fauna and as such is to be cared for and nurtured.

### **Pollinator Support**

Organic farms often serve as sanctuaries for pollinators like bees, butterflies, and birds. The absence of synthetic pesticides and the presence of diverse plant species create an environment where pollinators can thrive. This is crucial for the pollination of both wild plants and agricultural crops, enhancing biodiversity at multiple levels.

### **Reduced Chemical Runoff**

The absence of synthetic fertilisers and pesticides in organic farming means reduced chemical runoff into nearby water bodies. This helps to maintain aquatic biodiversity by preventing harmful algal blooms and the consequent depletion of oxygen, which can be fatal for aquatic life.

### **Crop Diversity**

Organic farming often involves the cultivation of heirloom and traditional crop varieties, which are generally more resilient and adaptable to local conditions. This practice not only preserves the genetic diversity of crops but also supports a wider range of associated fauna, such as specific pollinators and natural predators of pests.

### **Integrated Pest Management**

Organic farming employs integrated pest management strategies that are less disruptive to ecosystems. By using natural predators, trap crops, and other non-chemical methods, organic farming minimises the impact on non-target species, thereby preserving biodiversity.

### **Landscape Complexity**

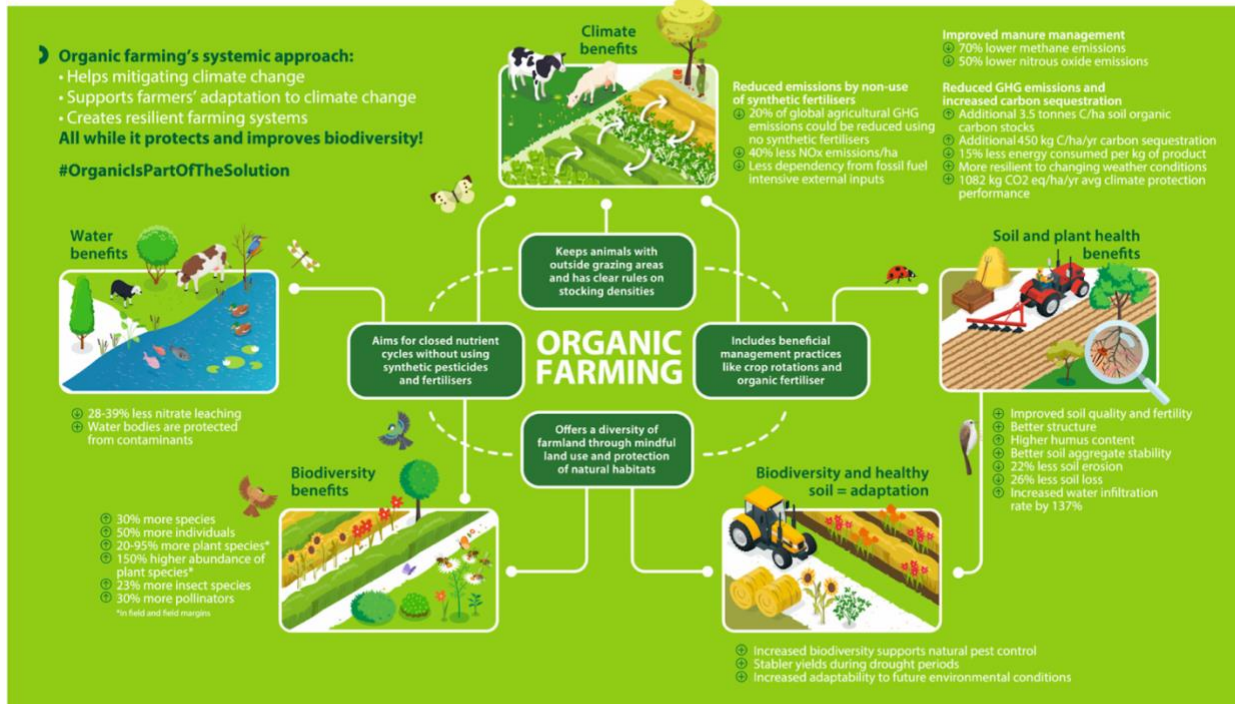
Organic farms often incorporate features like hedgerows, riparian buffers and cover crops, which provide habitats for a variety of wildlife. This landscape complexity is beneficial for birds, mammals, and other organisms, offering them refuge and resources and thereby enhancing biodiversity.

These benefits not only contribute to a more balanced and resilient ecosystem but also offer long-term advantages for sustainable agriculture. As the world grapples with the twin challenges of biodiversity loss and food security, organic farming stands out as a viable and sustainable solution.

By enhancing biodiversity, especially on farm, we can create more resilient food systems that are better equipped to handle the various challenges posed by environmental changes, economic pressures, and growing global food demand. A diverse range of species provides a buffer against pests and diseases, reducing the risk of crop failure. Additionally, genetic diversity within crops can offer resilience against changing environmental conditions. For example, certain traditional varieties of crops may be more drought-resistant or pest-resistant, providing an insurance policy against environmental uncertainties.

Organic farming serves as a bridge between biodiversity conservation and food resilience, offering a holistic approach to sustainable agriculture. By promoting organic farming practices that enhance biodiversity, we build more resilient food systems capable of withstanding the challenges of the 21st century.

**ORGANIC AGRICULTURE AND ITS  
BENEFITS FOR CLIMATE AND BIODIVERSITY**



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References for above figures can be found in IFOAM Organics Europe (2022), Organic agriculture and its benefits for climate and biodiversity, <https://bit.ly/3G0QKwz> ; Nel, Langdale and Bruce-Paenur (2020), Organic Farming and Biodiversity, IFOAM Organics Europe, <https://bit.ly/3p4PqYz>.

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## Consultation Questions

**1. Do you support the need for a biodiversity credit system (BCS) for New Zealand? Please give your reasons.**

### Answer

The potential establishment of a Biodiversity Credit System in New Zealand could have far-reaching implications for conservation efforts and farming.

### Enhancing Conservation Efforts

A BCS would provide a structured framework for incentivizing conservation efforts. It would encourage landowners and stakeholders to adopt practices that positively impact biodiversity.

### Economic Incentives

A BCS would create a marketplace for biodiversity credits, providing economic incentives for conservation and organic & regenerative agriculture. This aligns well with the principles of organic farming, which also aim for economic sustainability alongside

environmental conservation. It could also offer the opportunity for New Zealand policy to support the cost of transition to organic regenerative farming through a valuable new financial instrument, while simultaneously reducing the cost of meeting international climate change agreements - [estimated at over \\$24 billion by 2030](#).

### **Increased Sustainable Farming**

By providing economic incentives for biodiversity conservation, a BCS would also promote sustainable, regenerative farming practices. Organic farming, which already focuses on sustainability, would be further encouraged, thereby contributing to a more sustainable agricultural sector.

### **Increased Food Security**

A BCS could contribute to increased food security by encouraging sustainable land regenerative management practices that enhance soil health and productivity. Organic and regenerative farming practices positively impact soil health, which is crucial for long-term food security.

### **Measurable Impact**

A well-designed BCS would include metrics and indicators to measure the impact of conservation efforts, thereby ensuring accountability and effectiveness.

### **Stakeholder Engagement**

A BCS would allow for broader stakeholder engagement, including whenua Māori, by providing a structured system for participation.

### **Alignment with Global Goals**

New Zealand's unique biodiversity is of global significance. A BCS would align with international conservation goals and contribute to global biodiversity targets.

Based on the available evidence and the potential for organic farming to contribute to biodiversity, OANZ has strong support for the implementation of a BCS in New Zealand. Organic farming practices can play a significant role in enhancing biodiversity and should be integrated into the BCS.

However OANZ believes that a move to a BCS, needs to be part of a comprehensive biodiversity policy suite as there are known limitations to BCS's such as that occurring in NSW where [MPs have previously called for an overhaul of the scheme](#). A diverse policy toolkit can adapt to changing environmental conditions, threats, and scientific understandings. It can address unforeseen challenges that might not be effectively managed by a BCS alone.

**2. Below are two options for using biodiversity credits. Which do you agree with?**

**(a) Credits should only be used to recognise positive actions to support biodiversity.**

**(b) Credits should be used to recognise positive action to support biodiversity, and actions that avoid decreases in biodiversity.**

**Please answer (a) or (b) and give your reasons.**

**Answer**

(b). This option not only rewards positive contributions to biodiversity but also actions that prevent a decrease in biodiversity. The Q&A document from MfE suggests that biodiversity credits could be underpinned by a series of integrity principles, such as 'permanence,' which aligns well with this option. This approach is more holistic and as such aligns with the principles of organic farming, which not only aims to enhance biodiversity but also to maintain it.

**3. Which scope do you prefer for a biodiversity credit system?**

**(a) Focus on terrestrial (land) environments.**

**(b) Extend from (a) to freshwater and estuaries (eg, wetland, estuarine restoration).**

**(c) Extend from (a) and (b) to coastal marine environments (eg, seagrass restoration).**

**Please answer (a) or (b) or (c) and give your reasons.**

**Answer**

**Selected Scope:** (c) Extend from (a) and (b) to Coastal Marine Environments (e.g., Seagrass Restoration)

**Reasons for Selection:** Comprehensive Conservation: Extending the scope to include all types of environments—terrestrial, freshwater, estuaries, and coastal marine—ensures a more holistic approach to biodiversity conservation. This aligns with the idea of creating a comprehensive and integrated system, as discussed in the rationale for the refocused Principle 4.

**Ecosystem Interconnectivity:** Ecosystems are interconnected, and changes in one can affect others. For example, freshwater systems often feed into estuaries and coastal marine environments. A comprehensive scope would account for these interconnections, leading to more effective conservation efforts.

**Economic Resilience through Ecosystem Services:** As highlighted in the rationale for Q13 refocused Principle 4 (*Encouraging and Rewarding Nature-Positive Activities as*

*CORE to Business as Usual*), ecosystem services like water regulation and soil fertility are crucial for economic resilience. Extending the scope to include diverse environments would enhance a broader range of ecosystem services. See also Answers in Q4.

**Diversifying Export Markets:** A focus on comprehensive biodiversity conservation can make New Zealand more attractive to markets that prioritise sustainability, as mentioned in the rationale for Q13 refocused Principle 4. This could include markets interested in sustainably sourced seafood, for example. See also Answers in Q4

**Global Leadership and Policy Synergy:** A comprehensive approach would align well with New Zealand's existing commitments to sustainability and global targets, positioning the country as a leader in biodiversity conservation.

**Public Engagement:** A broader scope would likely engage a wider range of stakeholders, from farmers to fisher people, increasing public involvement and shared responsibility for conservation.

### **Conclusion**

Opting for a comprehensive scope that includes terrestrial, freshwater, estuarine, and coastal marine environments would provide a more holistic and effective approach to biodiversity conservation. It aligns well with economic, policy, and public engagement objectives, making it the most suitable option for a New Zealand biodiversity credit system.

### **4. Which scope do you prefer for land-based biodiversity credits?**

**(a) Cover all land types, including both public and private land including whenua Māori.**

**(b) Be limited to certain categories of land, for example, private land (including whenua Māori).**

**Please answer (a) or (b) and give your reasons.**

### **Answer**

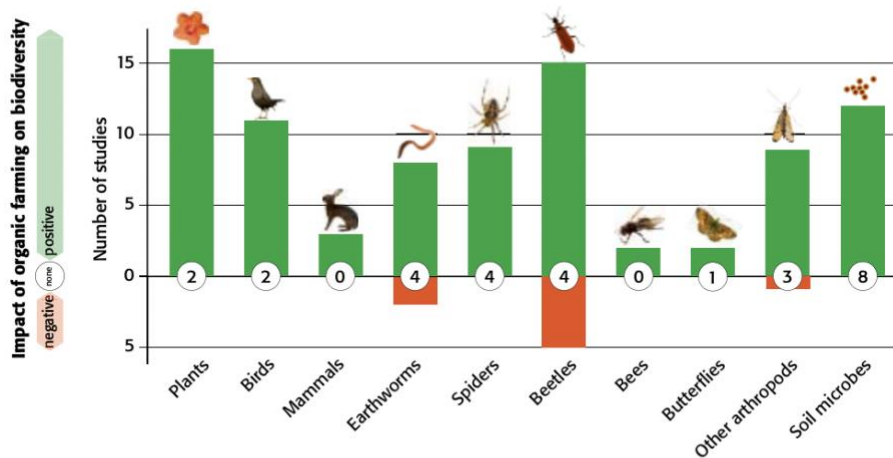
(a) OANZ agrees that there needs to be emphasis on “areas of particular importance” for biodiversity and ecosystem functioning and services such as wetlands. But OANZ very strongly advocates for all other land, especially agricultural land be included in any model. Key reasons are:

1. Well managed farmed land provides increased biodiversity.
2. For continued food production and food resilience from biodiversity ecoservices
3. To support and enhance our international trade green credentials and target the increasingly large conscious consumer market.
4. As agricultural land is often adjacent to “special areas” and biodiversity is not constrained by human understanding of land use rights.

## 1.1 Increased Biodiversity

1.1.i There is now substantial research evidence demonstrating the positive impacts of organic farming on biodiversity in Europe. Research results generally support the European Commission’s statement: “land farmed organically has about 30% more biodiversity than land farmed conventionally.” This result has been “robust over the last 30 years of published studies and shows no sign of diminishing”

- A meta-analysis of studies on the effects of organic agriculture on biodiversity found that organic farming systems generally harbour larger floral and faunal biodiversity than conventional systems. [The effects of organic agriculture on biodiversity and abundance: a meta-analysis.](#)
- A separate [meta-analysis of 95 scientific papers by the Research Institute of Organic Agriculture in 2011](#) found that organically farmed areas have on average 30% more species and 50% more individuals than conventionally farmed areas. Depending on altitude, organic farms have between 46 & 72% more semi natural habitats. The paper highlights key biodiversity drivers as: Forgoing herbicides and chemically synthesised pesticides, organic fertilisers, fewer cattle per square meter, more diversified crop rotation with a higher clover grass percentage, conservation tillage, higher % of semi-natural and or ecological areas and a more diversified farm structure.



**Figure 1:** Number of studies that show organic farming having a positive (green bar), negative (red bar) or no effect (number in white circle) on biodiversity of various animal and plant groups in comparison to non-organic farm management. Summary of 95 scientific publications.



- A 2020 review of 98 studies on the extent to which organic farming promotes species richness and abundance in temperate climates found that organic farming clearly increased species richness and abundance of selected taxa of flora and aboveground fauna. *The average (median) species numbers of flora on arable land were 95% higher under organic management as well as 61% higher for seedbank and 21% higher for field margin vegetation. For field birds, the species richness was 35%, and the abundance was 24% higher in organic farming; for insects, the corresponding values are 22% and 36% and for spiders 15% and 55%* [Spinger Link: To what extent does organic farming promote species richness and abundance in temperate climates? A review.](#)

## 1.2 Continued food production and food resilience:

Maintaining biodiversity is not just an environmental imperative but also a pragmatic strategy for ensuring sustainable and resilient food. [According to the World Economic Forum](#) about \$44 trillion of global economic value generation, (half of global GDP in 2019), is moderately or highly dependent on natural assets and their ecosystem services such as pollination. Aotearoa is similarly dependent on its natural resources for export generated GDP. Important eco services provided by biodiversity for food production include:

### 1.2.i. Soil Fertility and Health

- Nutrient Cycling: A diverse range of soil organisms helps in the breakdown of organic matter, converting it into forms that plants can use.
- Soil Structure: Organisms like earthworms improve soil structure, making it more conducive for plant growth.
- Increasing Mycorrhizal Fungi: Play a crucial role in the maintenance of biodiversity and ecosystem health,
  - Carbon Permanence and Sequestration: Mycorrhizal fungi contribute significantly to carbon permanence in the soil. Trees, which are essential components of any ecosystem, act as conduits for the transfer of atmospheric CO<sub>2</sub> into the soil through photosynthesis. However, it is mycorrhizal fungi, specifically through the glycoproteins they secrete, that play a pivotal role in ensuring the sequestration of this carbon in the soil. The carbon sequestered in the soil remains there for extended periods, effectively mitigating atmospheric CO<sub>2</sub> levels and contributing to climate change mitigation efforts.
  - Symbiotic Relationships for Plant Survival: Nearly all plants on Earth require a symbiotic association with mycorrhizal fungi to survive and thrive. Mycorrhizal associations enhance a plant's ability to absorb essential nutrients, such as phosphorus and nitrogen, from the soil. This increased nutrient uptake enables plants to grow more robustly, resist disease, and withstand environmental stresses. As a result, mycorrhizal

fungi are integral to the overall health and resilience of terrestrial ecosystems.

- Ecological Biodiversity: Biodiversity is not just about the number of species in an ecosystem but also their interactions and relationships. Mycorrhizal fungi connect a vast network of plants and trees in a forest or ecosystem, creating a web of life that supports countless species. These fungi contribute to ecological diversity by facilitating nutrient exchange among plants, which leads to healthier and more diverse plant communities.
- [Verra Standard VM0042 V2.0](#): The Verra standard's acknowledgment of mycorrhizal fungi in its carbon credit scheme highlights the growing recognition of the importance of these fungi in climate change mitigation and biodiversity conservation. This acknowledgment paves the way for the incentivization of biodiversity credit systems, where efforts to protect and restore mycorrhizal associations could be rewarded, driving greater conservation and restoration initiatives.

### **1.2.ii. Pollination**

- Species Diversity: A variety of pollinators like bees, butterflies, and birds contribute to the fertilisation of many types of crops.
- Resilience: A diverse set of pollinators can make a system more resilient against the loss of a single species.

### **1.2.iii. Pest and Disease Control**

- Natural Predators: Biodiversity includes predators that can act as natural forms of pest control, reducing the need for chemical pesticides.
- Disease Resistance: Greater genetic diversity among crops can make them more resistant to pests and diseases.

### **1.2.iv. Water Regulation and Quality**

- Filtration: Healthy ecosystems with diverse plant life can act as natural filters for water, removing harmful pollutants before they reach waterways.
- Water Retention: Certain plant species can improve the water-holding capacity of ecosystems, which is crucial for irrigation and reducing the impact of droughts.

### **1.2.v. Climate Regulation**

- Carbon Sequestration: Diverse ecosystems like forests and wetlands are more effective at capturing carbon dioxide, thus mitigating climate change impacts that could be detrimental to food production.

### **1.2.vi. Crop Variability and Resilience**

- Genetic Resources: Biodiversity can be a source of extensive genetic material which can be crucial for breeding programs aimed at improving crop yields, nutritional value, and resilience to changing environmental conditions.

### **1.2.vii. Seed Dispersal**

- Animal Assistants: Some animals help in the dispersal of seeds, aiding in the propagation of plants including those that might be useful for agriculture either directly or indirectly.

### **1.2.viii. Microclimate Regulation**

- Shade and Shelter: Some plants, like trees in [agroforestry systems](#), can provide shade and shelter that benefit both understory crops and stock animals by regulating temperature and reducing water loss through evaporation.

### **1.2.ix. Te Ao Māori**

- Māori and local communities often have an intimate knowledge of local biodiversity, which can be harnessed for more sustainable and effective food production systems.

### **1.2.x. Raw Materials and Genetic Resources**

- Resource Pool: Biodiversity serves as a resource pool for a variety of biological materials like enzymes, genes, and other substances that can be crucial for agricultural innovation.
- These services are significantly increased through regenerative and in particular organic agriculture systems.

## **1.3 To support and enhance our international trade green credentials and target the increasingly large international market of conscious consumers.**

It's an understatement to say there is continued and growing international concern around the increasing fragility of the planet including climate and the sustainability of agriculture. As trade generally and agriculture in particular, is the key economic driver for New Zealand, it is important for the country to address those concerns to remain relevant and indeed maintain its ability to negotiate beyond the strength of our trading size.

### 1.3.i New Zealand:

- NZ has traditionally lead negotiations for the [Agreement on Climate Change, Trade, and Sustainability \(ACCTS\) initiative](#), which aims to eliminate tariffs on environmental goods and establish new environmental standards that focus on climate change and could also cover biodiversity. Convention on Biological Diversity (CBD): New Zealand is a party to this global agreement, which promotes the development of global targets, national strategies, and action plans for the conservation and sustainable use of biodiversity. New Zealand is required to have [a national biodiversity strategy and action plan](#) to deliver its obligations under CBD, expressing its commitment to stem the loss of biodiversity worldwide.
- NZ is in the process of installing a state supported, internationally recognised Organic Standard. This will align us the vast majority first world markets and producers of organic products. The [global organic market](#) is currently worth NZ\$300b and forecast to grow to NZ\$900b by 2030.

NZ will need to keep up with other trading countries in the process of integrating biodiversity considerations into their trade arrangements and policies.

### 1.3.ii European Union

The EU has been at the forefront of integrating environmental sustainability, including biodiversity conservation, into its trade policies. The EU often includes Trade and Sustainable Development (TSD) chapters in its Free Trade Agreements (FTAs) that cover aspects of environmental governance most recently in the EU-New Zealand FTA. [Ref Blot, E. \(2023\). Leveraging free trade agreements for sustainability: Reviewing the implementation of the EU's new approach to sustainable trade. Institute for European Environmental Policy.](#)

The EU's Farm to Fork Strategy and the Biodiversity Strategy for 2030 also aim to make food systems more sustainable and are expected to have implications for trade relations with other countries. For more discussion on this please see [OANZ's 2023 EU Green Deal Research Paper](#).

### 1.3.iii United States

The U.S. has included environmental chapters in various trade agreements, although these have been less comprehensive compared to the EU. There is growing interest in the U.S. to align trade policies with environmental objectives, including biodiversity, although this is subject to the political climate and legislative decisions. A recent example, [United States-Mexico-Canada Agreement \(USMCA\)](#), which entered into force on July 1, 2020, replaced the North American Free Trade Agreement (NAFTA).

The USMCA includes a chapter on the environment, which brings all environmental provisions into the core of the agreement and makes them enforceable. The chapter includes the most comprehensive set of enforceable environmental obligations of any trade agreement, including provisions related to biodiversity.

### 1.3.iv Canada

Canada's more recent trade agreements include chapters on the environment, reflecting a growing recognition of the need to align trade and environmental policy objectives, including biodiversity conservation. Examples include:

#### [Canada-European Union Comprehensive Economic and Trade Agreement \(CETA\):](#)

This agreement includes a substantive chapter on the environment, which incorporates commitments to help ensure that trade and environmental policies are mutually supportive. The chapter recognizes the importance of international environmental governance and agreements, including multilateral environmental agreements related to biodiversity. The Parties commit to consult and cooperate as appropriate with respect to environmental issues of mutual interest related to these agreements See also for the [EU trade perspective](#) on the deal.

[Participation in international environmental agreements and instruments:](#) Canada is a party to several multilateral environmental agreements related to biodiversity, including the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Ramsar Convention on Wetlands. Canada is also a party to the Canada-US-Mexico Agreement (CUSMA), which includes a chapter on the environment that recognizes the importance of international environmental governance and agreements.

Also Canada hosted the United Nations Biodiversity Conference (COP15) in Montreal in December 2022. The conference resulted in the adoption of the Kunming-Montreal Global Biodiversity Framework (GBF), [which aims to address biodiversity loss, restore ecosystems](#), and protect indigenous rights. The GBF includes concrete measures to halt and reverse nature loss, including putting 30% of the planet and 30% of degraded ecosystems under protection by 2030. The agreement also requires transnational companies and financial institutions to monitor, assess, and transparently disclose risks and impacts on biodiversity through their operations, portfolios, supply, and value chains.

### 1.3.v. MERCOSUR Countries (Brazil, Argentina, Uruguay, Paraguay)

Many of these country's products directly compete with NZ products being of similar latitude and seasonality. However, they have been under scrutiny for the environmental impact of their export-oriented agricultural sectors with the EU, including loss of biodiversity.

[Dynamic Amazonia: The EU–Mercosur Trade Agreement and Deforestation](#)  
[EU-Mercosur trade deal hits new snag over environmental demands](#)  
[EU-Mercosur: A nightmare for nature](#)

1.3.vi As a proxy for the conscious consumer market, [In 2021, the organic market reached almost 125 billion euros – an increase of nearly 4 billion euros or approximately 3 percent](#). With 48.6 billion euros, the United States, also NZ's 3rd largest trading partner, continued to be the world's leading market, followed by Germany (15.9 billion euros) and France (12.7 billion euros). Swiss consumers spent the most on organic food (425 euros per capita on average), and Denmark continued to have the highest organic market share, with 13 percent of its total food market. This is supported by other research suggesting consumers are increasingly interested in biodiversity and are paying attention to the environmental impact of the products they purchase. Companies and countries that prioritise biodiversity and sustainability in their operations may be better positioned to meet the demands of conscious consumers.

- A [2022 IBM survey of 16,000 global consumers](#) found that more than half of respondents (51%) believe that environmental sustainability is more important than convenience, quality, or price when making purchasing decisions
- [A UN survey of 6,000 consumers conducted in 2020](#) found that people have a growing awareness of biodiversity and want companies to protect it. The vast majority of consumers surveyed felt that companies have a moral obligation to protect biodiversity.
- At a company level an analysis of new data from the S&P Global Corporate Sustainability Assessment found that [only about one-third of Europe's biggest companies have set biodiversity or deforestation targets](#), while adoption rates are even lower among companies globally. However, the analysis also showed that more companies are setting biodiversity targets compared to the prior year.
- Market risk is likely to increase as consumer awareness and understanding of biodiversity rises globally. This is according to a [2019 report by the Union for Ethical BioTrade \(UEBT\) and the Organisation for Economic Co-operation and Development \(OECD\)](#)

## 5. Which approach do you prefer for a biodiversity credit system?

- (a) Based primarily on outcome.
- (b) Based primarily on activities.
- (c) Based primarily on projects.

Please answer approach (a) or (b) or (c) and give your reasons.

### Answer

**Selected Approach:** (b/c) Based Primarily on Inputs and Process (Projects or Activities)

### **Reasons for Selection:**

From MfE's own paper it is evident that generic solutions often fail to address the complexities of ecosystems, for example the difficulty in measuring different environment's inherent abilities to hold biodiversity such as a native flax area compared to an established podocarp forest. Each ecosystem and region might have unique challenges and biodiversity elements. An approach based on activities or projects ensures specificity, catering to the unique needs of an area. Specificity can be supported by:

**Feedback and Adjustments:** The MfE webinar highlights the importance of continuous feedback and adjustments. By focusing on activities or projects, there is the potential for periodic assessments and tweaks, leading to improvements over time.

**Involvement of Local Communities and Stakeholders:** Projects and activities allow for more intensive participation of local communities. This not only brings in local expertise but also ensures the sustainability of initiatives, as local communities have a vested interest in the success of the projects.

**Quantifiable Outcomes:** Activities or projects provide tangible and quantifiable outcomes. This is crucial for the functioning of a credit system where stakeholders need to measure the impact of their investments.

**Alignment with Organic Farming Principles:** Emphasising activities or projects that support organic and other regenerative farming initiatives. Organic research consistently shows the importance of localised solutions, taking into account soil health, local pests, and indigenous plants. By emphasising projects, the biodiversity credit system can better dovetail with organic and regenerative farming practices which enhance both biodiversity and sustainable agriculture.

**Flexibility:** Projects provide flexibility. They can be designed to fit various sizes, budgets, and timelines, allowing for wider participation, from individual farmers to large corporations.

**Innovation and Research:** A project-based approach encourages innovation. Stakeholders can experiment with new methods and practices, leading to the evolution of better solutions over time.

**Fosters Collaboration:** Projects often bring together diverse groups, fostering collaboration between ecologists, farmers, government officials, and NGOs.

**Although there are benefits to an outcome-based approach, we see certain risks:**

**High Monitoring and Verification Costs:** To ensure the authenticity of claimed outcomes, robust monitoring and verification systems are essential. These can be expensive and technically challenging to implement.

**Measurement Difficulties:** Determining the exact outcomes in terms of biodiversity can be complex. Measuring tangible results, such as the increase in a specific species population or the regeneration of certain habitats, requires sophisticated methods and can be resource intensive.

**Delayed Rewards:** Conservation efforts might take time to show tangible outcomes. This can delay the issuance of credits, which could disincentivize stakeholders who need immediate economic returns.

**Risk of Overemphasis on Quantifiable Outcomes:** Focusing only on measurable outcomes might overlook important qualitative aspects of biodiversity, such as genetic diversity or the cultural significance of certain species or habitats. Outcomes may also be put at risk from external factors such as flooding and fire.

**Potential for Gaming the System:** There might be a temptation to focus only on projects with easily achievable outcomes or to manipulate results to obtain credits. This can lead to a narrow view of conservation, neglecting areas that are vital but less straightforward to address.

**Equity Concerns:** Some regions or ecosystems might inherently show quicker or more tangible outcomes compared to others. There's a risk that areas with slower-yielding results, even if they're ecologically vital, might be neglected.

**Variable Baselines:** Determining the baseline from which conservation outcomes are measured can be contentious. Changes in baseline data or disagreements over the starting point can affect the perceived success of a project.

**Potential Neglect of Preventive Measures:** By focusing on outcomes, there's a risk of emphasising reactive measures (like restoring degraded habitats) over preventive ones (like safeguarding currently pristine habitats).



**Economic Uncertainty:** The value of credits might fluctuate more in an outcome-based system, especially if outcomes are reassessed or if the criteria for success are adjusted over time. This can create economic uncertainties for stakeholders.

**6. Should there also be a requirement for the project or activity to apply for a specified period to generate credits?**

**Please answer Yes/No and give your reasons.**

**Answer**

Yes. Given the need for sustainability, accountability, and effective data collection, requiring a project or activity to apply for a specified period to generate credits is a prudent approach.

**Sustainability:** A specified period ensures that the project or activity is not just a short-term initiative but contributes to long-term biodiversity conservation.

**Accountability:** Having a defined time frame allows for better monitoring and evaluation of the project's or activity's effectiveness in achieving its goals.

**Investor Confidence:** A specified period can provide assurance to investors or stakeholders that their investment will have a lasting impact, thereby potentially attracting more funding.

**Data Collection:** A set period allows for the collection of meaningful data that can be used to assess the project's impact on biodiversity, which is crucial for an outcome-based system.

**Alignment with Organic and Regenerative Farming:** Organic and regenerative farming practices often require time to show significant benefits for biodiversity. A specified period would align well with the time-sensitive nature of organic farming outcomes.

**Policy Consistency:** A defined period would make it easier to align the credit system with other environmental policies and regulations, ensuring a cohesive approach to biodiversity conservation.

**Time Frame:** The time frame period should be dependent on the scope and scale of projects. This recognises that biodiversity and ecological stability can take decades to establish depending on elements such as ecotone, ecotype, and geology. Aligning with proven verification principles of organic certification, implementation of impact time

frames and physical auditing to prove verified benefits and outcomes would also strengthen the value and credibility of credits.

**9. Do you think a biodiversity credit system will attract investment to support indigenous biodiversity in New Zealand? Please give your reasons.**

**Answer**

Yes. Financial incentives are powerful motivators and direct comparison could be drawn between the proposed biodiversity credit system and existing and forecasted uptake of NZ ETS. A financial instrument rewarding biodiversity could attract direct investment from landowners wishing to diversify revenue streams on otherwise marginal land.

**10. What do you consider the most important outcomes a New Zealand biodiversity credit system should aim for?**

**Answer**

For a New Zealand biodiversity credit system to be effective, it should aim for long-term sustainability, broad stakeholder engagement, measurable impact, economic viability, cultural inclusivity, food security, and sustainable farming. These outcomes align well with the principles of organic farming and can significantly contribute to biodiversity conservation.

**Long-term Sustainability**

The system should aim for long-term sustainability by ensuring that credits are not just a short-term incentive but contribute to increasing biodiversity through lasting changes in land management practices.

**Stakeholder Engagement**

Inclusion of all types of land and stakeholders, including whenua Māori, is crucial. The system should be designed to encourage participation from both public and private sectors.

### **Measurable Impact**

The system should have clear metrics for measuring the impact on biodiversity. This could include indicators like species richness, habitat restoration, and soil health. Organic management plans already used to assess compliance with organic standards and soil testing provide metrics to prove impact as part of organic certification.

### **Economic Viability**

The system should be economically viable to ensure that it is sustainable in the long run. This includes setting up a transparent marketplace for the trading of credits.

### **Cultural Considerations**

Given the importance of whenua Māori, the system should respect and incorporate traditional knowledge and practices in biodiversity management.

### **Increased Food Security**

A well-designed biodiversity credit system can contribute to increased food security by encouraging sustainable land management practices that enhance soil health and productivity.

### **Increased Sustainable Farming**

By providing economic incentives for biodiversity conservation, the system would also promote sustainable farming practices, thereby contributing to a more sustainable agricultural sector. Organic farming, which already focuses on sustainability, would be further encouraged, thereby contributing to a more sustainable agricultural sector. Making biodiversity credits systematically available for certified organic farming would further increase organic farming and therefore biodiversity.

## **11. What are the main activities or outcomes that a biodiversity credit system for New Zealand should support?**

### **Answer**

**Reforestation and Afforestation:** Planting trees to restore habitats and sequester carbon.

**Wetland Restoration:** Rejuvenating wetlands to support diverse ecosystems and improve water quality.

**Invasive Species Control:** Programs aimed at controlling or eradicating invasive species that threaten native biodiversity.

**Increased Sustainable Agriculture:** Farming practices such as organic and regenerative farming not only contribute to long-term agricultural sustainability, but also importantly enhance biodiversity. Along with reduction of synthetic pesticides, fertilisers and antibiotics, [there are a number of well-established farming practices that increase biodiversity such as:](#)

- Mixed farming systems integrating crops, trees and livestock;
- More diverse and complex rotations and cropping systems;
- Leguminous crops for biological nitrogen fixation, supporting pollinators if managed appropriately;
- Heterogenous genetic materials (variety mixtures, populations, landraces) using genetic diversity to support pest and disease control;
- Sown refuges and other landscape elements for natural predators (passive biological pest control);
- Smaller field sizes, contributing to a more complex landscape mosaic;
- Trees and hedges with complex understoreys for shelter, erosion control and fertility management;
- Alternation of sowing times of crops for weed control, benefiting birdlife;
- Organic matter, leys and green manures for fertility building, providing energy-rich carbon sources to help maintain soil ecosystems;
- Reduced tillage and soil cultivation depths to protect soils;
- Diverse species mixtures including legumes, herbs and novel forages for grassland;
- Land-based livestock production systems with grazing and reduced stocking rates supporting biodiversity in grassland.

While these practices are not unique to organic farmers, the combination of many biodiversity-enhancing practices in a systems-based approach allows for synergies to be exploited with the potential for greater impacts and should be supported.

**Organic Certification:** In a biodiversity credit system, the primary goal is to incentivise practices that contribute to the preservation and enhancement of biodiversity. Certified organic farms inherently align with this objective due to their sustainable and eco-friendly farming methods. It makes sense for certified organic farms to earn credits in a biodiversity credit system simply for their day-to-day operations, which are inherently designed to promote biodiversity and environmental health in the following ways.

**Intrinsic Biodiversity Benefits:** Organic farms, by their very nature, contribute to biodiversity. They often employ crop rotations, intercropping, and the use of cover crops, which create a more diverse habitat for plants and animals. This intrinsic benefit to biodiversity is ongoing and not project-specific, making a strong case for continuous credits.

**Reduced Chemical Dependency:** Organic farms do not use synthetic pesticides, herbicides, or fertilizers, which are known to harm non-target plants, insects, and animals. The absence of these chemicals creates a more hospitable environment for a variety of species, thereby enhancing biodiversity.

**Soil Health as a Biodiversity Indicator:** Healthy soil is teeming with life, from bacteria and fungi to insects and small mammals. Organic practices like composting and reduced tillage contribute to soil health, which in turn supports a wide range of life forms. Soil biodiversity is a key indicator of overall biodiversity.

**Long-term Commitment:** Achieving certified organic status is not an overnight process; it requires a long-term commitment to sustainable and biodiversity-friendly practices. This long-term commitment ensures a lasting positive impact on biodiversity, justifying the awarding of credits over time.

**Economic Incentives for Sustainable Practices:** Awarding biodiversity credits to organic farms can serve as an economic incentive for more farms to adopt organic practices. This creates a virtuous cycle where the economic benefits of biodiversity credits fund more sustainable farming, leading to even greater biodiversity gains.

**Holistic Approach to Farming:** Organic farming takes a holistic approach to agriculture, considering the health of the soil, water, plants, animals, and even humans. This comprehensive approach is in line with the goals of a biodiversity credit system, which aims to preserve ecosystems in their entirety.

**Community Engagement:** Programs that involve local communities in conservation efforts, thereby ensuring sustainability and local relevance.

## Outcomes

**Increased Biodiversity:** The primary goal should be an increase in the number of native species and a decrease in the number of threatened or endangered species.

**Improved Ecosystem Health:** Indicators such as water quality, soil health, and the presence of keystone species can serve as measures of ecosystem health.

**Carbon Sequestration:** Given the global importance of climate change, the system should also aim to increase carbon sequestration through activities like reforestation.

**Increased food resilience from more sustainable farming practices:** Food resilience is of increasing importance to Aotearoa New Zealand due to a range of factors including climate change, global supply chain vulnerabilities, economic stability (especially in an agriculturally based economy), and biosecurity risks. Increasing on farm biodiversity increases food resilience in the following ways:

- **Soil Health:** Biodiversity contributes to soil health by encouraging a range of soil organisms that aid in nutrient cycling. Healthy soil is crucial for robust crop yields. Importantly, healthy soils also sequester carbon and provide flood and drought resistance.
- **Pest and Disease Resistance:** Greater biodiversity often leads to increased resistance to pests and diseases. A diverse ecosystem is less susceptible to being wiped out by a single pest or disease, thereby ensuring a more stable food supply.
- **Pollination:** Biodiversity ensures a variety of pollinators, which is essential for the fertilisation of many food crops. A decline in pollinator species can severely impact food production.
- **Climate Resilience:** Diverse ecosystems are generally more resilient to changes in climate. Different species have different tolerances to temperature, moisture, and other environmental factors, providing a sort of "insurance" against climate variability.
- **Genetic Diversity:** A wide genetic pool allows for more robust crops that can be bred for specific resistances or tolerances, making the food supply more resilient in the face of challenges like climate change or new diseases.
- **Nutrient Cycling:** Different plants and animals play unique roles in nutrient cycling. A more biodiverse system can more efficiently recycle essential nutrients, leading to more fertile soils and better crop yields.
- **Water Quality:** Biodiverse systems often have better water retention and filtration, leading to cleaner water. This is crucial for both human consumption and agriculture.
- **Ecosystem Services:** Biodiversity contributes to essential ecosystem services like water purification, waste decomposition, and air quality, all of which have indirect but significant impacts on food production.
- **Supply Chain Resilience:** Biodiversity can also mean a diversity of crop types and food sources, making the supply chain more resilient to shocks like droughts, floods, or economic instability.
- **Cultural and Dietary Diversity:** Biodiversity allows for a wider range of food products, which is not only culturally important but also crucial for creating balanced diets.
- **Economic Resilience:** Diverse agricultural systems can provide multiple income streams for farmers, making them less vulnerable to market fluctuations in a single crop or product.
- **Innovation and Adaptation:** A biodiverse system provides more opportunities for learning and innovation, as the interaction between different species can offer new solutions for increasing productivity or sustainability.
- **Public Awareness:** Increased public awareness and understanding of the importance of biodiversity, leading to more community involvement in conservation efforts.

## Conclusion

A Biodiversity Credit System in New Zealand should focus on a balanced mix of activities and outcomes that not only enhance biodiversity but also contribute to broader environmental and societal goals. Organic farming, in particular, offers a multi-faceted approach to conservation, benefiting both agriculture and biodiversity, as outlined in the *Introduction to Organic Farming* section.

### 12. Of the following principles, which do you consider should be the top four to underpin a New Zealand biodiversity credit system?

- Principle 1 – Permanent or long-term (eg, 25-year) impact
- Principle 2 – Transparent and verifiable claims
- Principle 3 – Robust, with measures to prevent abuse of the system
- Principle 4 – Reward nature-positive additional activities
- Principle 5 – Complement domestic and international action
- Principle 6 – No double-counting, and clear rules about the claims that investors can make
- Principle 7 – Maximise positive impact on biodiversity

## Answer

### Selected Principles:

**Principle 7 – Maximise Positive Impact on Biodiversity:** The primary goal of a biodiversity credit system should be to have a meaningful and lasting impact on biodiversity. This principle aligns with the core objective of enhancing native species and ecosystems.

**Principle 2 – Transparent and Verifiable Claims:** Transparency ensures accountability and builds trust among stakeholders. Verifiable claims are essential for measuring the effectiveness of the system and for making necessary adjustments.

**Principle 3 – Robust, with Measures to Prevent Abuse of the System:** A robust system that is resistant to abuse is essential for the long-term success and credibility of the biodiversity credit system. This includes monitoring and credit penalties for non-compliance. However the system will need to be flexible enough to account for loss of

biodiversity outside of human influence, e.g. due to extreme events such as forest fires, floods and earthquakes.

**Principle 1 – Permanent or Long-term (e.g., 25-year) Impact:** Ensuring that the impact of activities is long-term or permanent aligns with the sustainability goals of the system. It also provides assurance to investors and stakeholders that their contributions will have a lasting effect.

### **Conclusion**

These four principles were selected based on their ability to ensure that the biodiversity credit system is effective, credible, and aligned with long-term sustainability goals. They also complement the principles of organic farming, which focus on long-term ecological balance and transparent, verifiable outcomes. But please also see answer 13 below for additional principles..

### **13. Have we missed any other important principles? Please list and provide your reasons.**

#### **Answer**

**Refocused Principle 4:** Encouraging and Rewarding Nature-Positive Activities as CORE to Business as Usual

**Rationale for Inclusion:** Incorporating this principle into a New Zealand biodiversity credit system would offer a more integrated and sustainable approach to conservation. It aligns with existing key economic, branding, and policy objectives, making it a valuable addition to the principles underpinning the system. Alignment examples include:

**Enhancing NZ Product Quality and Branding:** Elevating New Zealand's brand as a producer of high-quality, sustainable food products is paramount. By making biodiversity-friendly activities core to business, producers can improve product quality and environmental factors, thereby appealing to an increasingly large consumer base focused on sustainability. For more detail see Q 4

**Economic Resilience through Ecosystem Services:** The long-term viability of New Zealand's agriculture and food production sectors hinges on ecosystem services like pollination, soil fertility, and water regulation. A biodiversity credit system that encourages nature-positive activities can enhance these services, thus fortifying the nation's economic resilience. For more detail see Q 4.



**Policy Synergy and Global Leadership:** Aligning a biodiversity credit system with New Zealand's existing sustainability commitments and global targets like the Sustainable Development Goals can position the country as a global leader. This not only attracts international partnerships and investments but also bolsters the nation's food production and export sectors. For more detail see Q 4.

**Diversifying Export Markets:** Reducing dependency on a few key markets by diversifying export channels is crucial for economic stability. A focus on biodiversity can make New Zealand more attractive to markets that prioritise sustainable products. For more detail see Q 4

**Long-term Cost Savings and Operational Efficiency:** Sustainable practices often result in long-term cost savings, such as reduced reliance on chemical fertilisers. A biodiversity credit system can further incentivise these practices by assigning monetary value to biodiversity gains.

**Shift in Business Paradigm:** Integrating sustainability into the very fabric of business operations represents a fundamental shift in the traditional business paradigm, making nature-positive activities a core focus rather than an add-on.

**Stakeholder Engagement:** Including stakeholders in the decision-making process fosters a sense of shared responsibility for biodiversity conservation, although this is more of a long-term benefit and may not have immediate economic impacts.

**13.2 Additional principles that can be borrowed from organic farming.** As organic farming has long been concerned with biodiversity, there are additional principles that could be borrowed from Organic farming practices that emphasise community involvement, adaptability and a holistic approach to environmental stewardship.

**Stakeholder Involvement and Community Engagement:** Involving local communities, tribal groups, and other stakeholders in the decision-making process ensures that the system is locally relevant and sustainable. This principle aligns with the idea of community-based conservation, which is often more effective in the long run.

**Adaptive Management:** The system should be flexible enough to adapt to new scientific findings, technological advancements, and changing environmental conditions. This ensures that the system remains effective over time.

**Environmental Justice:** The system should aim to distribute benefits and burdens equitably among different communities, especially those that are traditionally underrepresented or disproportionately affected by environmental degradation.

**Integration with Other Environmental Goals:** The system should be designed to complement other environmental objectives, such as climate change mitigation and sustainable development, to create a holistic approach to environmental conservation.

**Working in Harmony with Nature:** In recent history humans have increasingly manipulated nature for an outcome. We are now increasingly aware of the unintended consequences of some of these actions; climate change, biodiversity loss through to uncontrolled rabbit populations in Otago. Working with nature, the integrity and diversity of ecosystems can be maintained or even enhanced,

#### 14. What assurance would you need to participate in a market, either as a landholder looking after biodiversity or as a potential purchaser of a biodiversity credit?

##### Answer

##### *As a Landholder Looking After Biodiversity*

- **Transparent and Verifiable Claims:** As emphasised in Principle 2, there must be a robust system in place to verify the outcomes or activities that generate credits. This ensures that the efforts put into biodiversity conservation are accurately represented and rewarded.
- **Long-term Commitment:** In line with Principle 1, there should be assurance of long-term or permanent impact. This aligns with the idea that sustainable practices, such as those outlined in the Introduction to Organic Farming, often require time to show significant benefits for biodiversity.
- **Financial Incentives:** A clear and transparent pricing mechanism for the credits, as well as potential long-term cost savings as highlighted in the rationale for the **refocused Principle 4 (Q13)**, would provide the economic assurance needed to invest in biodiversity-friendly practices.
- **Legal Protections:** Measures to prevent abuse of the system, as stated in Principle 3 (Q13), would provide assurance against potential exploitation or devaluation of the credits.
- **Community and Stakeholder Support:** Assurance that the local community and other stakeholders are engaged and supportive of the biodiversity efforts, which aligns with the additional principle of stakeholder involvement.

### ***As a Potential Purchaser of a Biodiversity Credit***

- **Transparent and Verifiable Claims:** Transparency in how credits are generated and verified, as per Principle 2 (Q12), would be crucial to ensure that the investment is leading to real, measurable improvements in biodiversity.
- **No Double-Counting:** As emphasised in Principle 6 (Q12), clear rules about the claims that investors can make would provide assurance that credits are unique and not being counted multiple times.
- **Positive Impact on Brand and Market Access:** As highlighted in the rationale for a refocused Principle 4 (Q13), the ability to market products as sustainable can be a significant economic advantage, making the purchase of biodiversity credits a sound business investment.
- **Alignment with Policy and Global Leadership:** Knowing that the credit system aligns with national and international sustainability goals, as per Principle 5 and the rationale for a refocused Principle 4 (Q13), would provide assurance that the investment is socially and environmentally responsible.
- **Economic Resilience:** Assurance that the credit system is designed to enhance ecosystem services that contribute to economic resilience, as outlined in the rationale for a refocused Principle 4 (Q13), would make the investment more attractive.

### **Conclusion**

Both landholders and potential purchasers would need a combination of economic, legal, and social assurances to confidently participate in a biodiversity credit market. These assurances should align with the principles and rationales discussed above, ensuring a transparent, robust, and economically viable system.

### **15. What do you see as the benefits and risks for a biodiversity credit market not being regulated at all?**

#### **Answer**

While an unregulated biodiversity credit market offers flexibility and the potential for innovation, the risks associated with lack of oversight and accountability cannot be

ignored. Therefore, some level of regulation is necessary to ensure the market's integrity and effectiveness in achieving its biodiversity goals. This is especially highlighted by current international scandals with carbon credit integrity.

## Benefits

It is worth noting these benefits can also be applicable to a carefully considered regulated system as well.

- **Flexibility:** An unregulated market allows for greater flexibility, enabling quick adaptation to market demands and environmental needs.
- **Innovation:** Lack of regulation could spur innovation in biodiversity projects, as there would be fewer bureaucratic hurdles.
- **Cost-Effectiveness:** Reduced government oversight could lower the costs associated with managing the credit system, making it more appealing to potential investors.
- **Market-Driven Prices:** Prices for biodiversity credits would be determined by supply and demand, potentially leading to more efficient allocation of resources.

## Risks

- **Lack of Accountability:** Without regulation, there's a risk of projects failing to deliver on their promises, as highlighted in the public webinar Q&A.
- **Potential for Exploitation:** An unregulated market might lead to the exploitation of natural resources, contrary to the goals of biodiversity conservation.
- **Inequality:** Wealthier entities might dominate the market, marginalising smaller, community-based projects.
- **Quality Concerns:** Without standardised measurement and verification processes, the quality and impact of projects could vary widely.
- **More opportunities to game the system:** These include allowing for polluters to destroy an environment and replace it with a less sustainable environment for e.g. 1. replacing a wetland with a monoculture crop farm, or 2. replacing a specific wetland with inherent and unique complexity with a generic wetland.

## Recommendations

- Implement a grading system for projects, as suggested in the public webinar, to ensure quality.
- Establish a centralised pool of funds managed by experts to allocate resources effectively.

**16. A biodiversity credit system has six necessary components (see figure 5). These are: project provision, quantification of activities or outcomes, monitoring measurement and reporting, verification of claims, operation of the market and registry, investing in credits.**

**To have the most impact in attracting people to the market, which component(s) should the Government be involved in? Please give your reasons.**

### Answer

In the context of a biodiversity credit system, OANZ believes government involvement can be crucial in establishing credibility, ensuring accountability, and attracting both investors and participants. This is based on organic sector experience with the Organics Product Bill and subsequent implementation, especially regarding overseas equivalencies which are in the vast majority markets, government based. Some components where government involvement could have the most impact include:

#### **1. Quantification of Activities or Outcomes**

Reasons:

- **Standardisation:** Government can set standardised metrics and methodologies for quantifying biodiversity outcomes, ensuring that all projects are evaluated on a consistent basis.
- **Credibility:** Government-backed quantification methods would lend credibility to the system, making it more attractive to investors.

#### **2. Monitoring, Measurement, and Reporting**

Reasons:

- **Accountability:** Regular monitoring and reporting overseen by a government body would ensure that projects are delivering on their promises.
- **Transparency:** Government involvement in this stage could make data publicly available, which would build trust among investors and participants.

### 3. Verification of Claims

Reasons:

- Integrity: Third-party verification could be mandated and overseen by the government to ensure that projects are genuinely contributing to biodiversity.
- Risk Mitigation: Verification minimises the risk of fraudulent claims, which could otherwise deter investment.

### 4. Operation of the Market and Registry

Reasons:

- Regulation: Government can regulate the market to prevent monopolistic practices and ensure fair trade.
- Security: A government-operated or -regulated registry would provide a secure, reliable platform for trading and tracking credits.

### 5. Investing in Credits

Reasons:

- Market Stimulation: Government investment can serve as a catalyst for market activity, encouraging other investors to participate.
- Public-Private Partnerships: Government investment could be used to leverage additional private investment, amplifying the impact of each credit purchased.
- Optional: Project Provision
  - While not as critical for government involvement, having some government-led, endorsed, or funded projects could serve as a model for best practices and further legitimise the market.

In summary, government involvement in quantification, monitoring, verification, and market operation would likely have the most impact in attracting people to a biodiversity credit market and giving it international recognition. These components are critical for ensuring the system's integrity, transparency, and effectiveness, thereby making it more appealing to potential investors and participants

## **17. In which areas of a biodiversity credit system would government involvement be most likely to stifle a market?**

### **Answer**

Government involvement, while beneficial in many aspects, could potentially stifle a biodiversity credit market in certain areas:

#### **1. Project Provision**

Reasons:

- **Bureaucratic Delays:** Government-led projects might be subject to lengthy approval processes, slowing down implementation.
- **Reduced Innovation:** Government control over project provision could limit the scope for innovative, grassroots initiatives.

#### **2. Operation of the Market and Registry**

Reasons:

- **Over-Regulation:** Excessive government control could make the market less agile, affecting its ability to adapt to changing conditions.
- **High Costs:** Government-operated registries might impose fees or taxes that could deter participation.

#### **3. Investing in Credits**

Reasons:

- **Market Distortion:** If the government becomes a major buyer of credits, it could artificially inflate prices or crowd out private investors.
- **Political Risks:** Government investment strategies might be influenced by political considerations rather than market efficiency or biodiversity outcomes. The National Party's pledges to use the ETS to fund general tax is a current example of this.

#### 4. Quantification of Activities or Outcomes

Reasons:

- **Barrier to Entry:** High standards for quantification might require expensive technology or expertise, making it difficult for smaller or community-based projects to participate.

#### Verification of Claims

While verification is generally beneficial for market integrity, excessive stringency or complexity in verification requirements could deter smaller projects from participating.

In summary, while government involvement is crucial for establishing a credible and accountable biodiversity credit market, caution should be exercised to avoid stifling innovation, increasing costs, or creating barriers to entry. A balanced approach that encourages both government oversight and market-driven initiatives would be most effective in fostering a robust and inclusive biodiversity credit market.

**18. Should the Government play a role in focusing market investment towards particular activities and outcomes and if so why? For example, highlighting geographic areas, ecosystems, species most at threat and in need of protection, significant natural areas, certain categories of land.**

#### Answer

Yes. Given the market failures associated with environmental conservation, especially as evidenced by climate change, and the public good nature of many environmental assets, there is a very strong case for government intervention in directing market investment. By focusing on specific geographic areas, ecosystems, species, and categories of land, the government can ensure that investments are channelled where they are most needed, thereby achieving more effective and sustainable outcomes.

#### The Need for Government Intervention

**Market Failures:** Markets most often fail to account for externalities, such as environmental degradation. Without government intervention, there's a risk that investments will flow into activities that are profitable in the short term but detrimental in the long run.



**Public Good:** Environmental conservation often falls under the category of public good, most often these are under or not invested in by for-profit organisations, necessitating government intervention.

**Information Asymmetry:** The government often has access to comprehensive data and research that individual investors may not have. This information can be crucial for making informed decisions about what activities and areas need investment.

### Areas of Focus

- **Geographic Areas and Ecosystems:** The government can direct investment towards geographic areas that are most vulnerable to environmental degradation. For example, wetlands, coastal areas, or regions with endangered species.
- **Species Most at Threat:** Investment can be channelled to protect species that are on the brink of extinction or are critically endangered, as their loss could have cascading effects on ecosystems.
- **Significant Natural Areas:** Certain natural areas may have cultural, historical, or ecological significance that warrants special attention and investment. However the scheme should not leave producers with all of the costs and no ability to create income off SNA land, as this may encourage some farmers to not lose revenue and stay economically viable by participating in environmentally damaging practices on the other side of the fence.
- **Categories of Land:** The government can also focus on directing investment towards specific categories of land, such as public lands, whenua Māori, or lands that are particularly suitable for organic and or regenerative farming.
- **Biodiversity Friendly Farming:** There is a strong symbiotic relationship between sustainable farming, particularly organic and regenerative, and biodiversity increase.

**19. On a scale of 1, not relevant, to 5, being critical, should a New Zealand biodiversity credit system seek to align with international systems and frameworks? Please give your reasons.**

**Answer**

**Scale: 5**

Reasons:

**Competitive Advantage:** Organic along with regenerative farming and biodiversity are increasingly becoming selling points in international markets. Alignment with international standards can give New Zealand a competitive advantage.

**Global Standards:** As the EU Green Deal is likely to set de facto global standards, alignment with international systems ensures that New Zealand is not left behind.

**Sustainability Goals:** International frameworks often have well-researched sustainability goals. Aligning with these can help New Zealand achieve meaningful and effective biodiversity conservation.

**Indigenous Inclusion:** Given the EU's focus on the inclusion of Indigenous knowledge and rights in sustainability, alignment would also support the incorporation of Māori perspectives in New Zealand's biodiversity credit system.

## **20. Should the Government work with private sector providers to pilot biodiversity credit system(s) in different regions, to test the concept?**

### **Answer**

Yes. BioGro and AsureQuality, the two largest organic certification bodies in New Zealand, are able to leverage their established networks, credibility, and expertise in organic certification to implement and test an on-farm biodiversity credit system. Importantly their existing certification frameworks already evaluate and audit various dimensions of organic agriculture which includes biodiversity.

As national organisations they would be able to introduce pilot programs targeting specific types of farms (e.g., sheep, dairy, vineyards, orchards) in common production locations around the country. Through these pilots, they can collect data on the costs and benefits of implementing such a system and make necessary adjustments before wider implementation.

These two national organisations offer the following benefits:

### **20.1. Biodiversity Metrics are Currently Measured in Existing Frameworks**

Both organisations could use, and where necessary adapt, existing metrics that specifically measure biodiversity outcomes in food production. These include measures for soil health, plant diversity, and water quality, among others. As these metrics are already part of their existing certification processes, they already go a long way to assessing the biodiversity impact of various producers towards a biodiversity credit system.

## **20.2. Financial Incentives**

Within the pilot programs, they can work with government and other funders to facilitate and monitor financial incentives to farmers who meet or exceed certain biodiversity benchmarks.

## **20.3. Partnering with Academic and Research Institutions**

To ensure that the credit system is robust and evidence-based, both organisations could partner with academic and research institutions. These collaborations would provide a rigorous assessment of the program's impact on biodiversity and help fine-tune the metrics and methodologies employed.

## **20.4. Traceability and Reporting**

Both BioGro and AsureQuality have systems in place for tracking and verifying the organic status of food products. These systems can be adapted to include tracking of biodiversity credits, allowing for full transparency and traceability from farm to consumer. Such information can be used in marketing materials to inform local and international consumers, attracting those who are willing to pay a premium for biodiversity-friendly product. BioGro has already developed similar certifications for GE Free and AsureQuality provides certifications across various aspects of farming. Both organisations are able to use existing CRM systems to provide third party reporting.

## **20.5. Feedback and Iteration**

After the pilot phase, as well as reviewing their own processes, both organisations are in a position to conduct surveys and interviews with participants to gather feedback. This information would be invaluable for refining the credit system, identifying bottlenecks or challenges, and scaling the program.

## **20.6. Policy Recommendations**

Upon successful completion of the pilot programs and subsequent evaluation, BioGro and AsureQuality could work with policymakers to integrate the lessons learned into a national biodiversity credit system. Their expertise and experience would make them crucial stakeholders in the creation of a system that benefits both producers and the environment.

**20.7. AsureQuality's Environmental Assurance team** is focused on developing and delivering sustainability-focused programmes to meet the needs of the environment and customers. Globally, there is a strong and growing focus on the enhancement of

biodiversity and the role of ecosystem services within on-farm assurance programmes. In addition to Organic certification, AsureQuality provides assurance services for the following programmes which contain biodiversity enhancement or protection requirements.

On-Farm Sustainable Finance Programmes aligned with the Sustainable Agri-Finance Initiative Guidance:

- Westpac Sustainable Farm Loans
- BNZ Sustainability Linked-Loans
- Synlait Lead with Pride
- NZ Cashmere Sustainability Assurance

**21. What is your preference for how a biodiversity credit system should work alongside the New Zealand Emissions Trading Scheme or voluntary carbon markets?**

**(a) Little/no interaction: biodiversity credit system focuses purely on biodiversity, and carbon storage benefits are a bonus.**

**(b) Some interaction: biodiversity credits should be recognised alongside carbon benefits on the same land, via both systems, where appropriate.**

**(c) High interaction: rigid biodiversity ‘standards’ are set for nature-generated carbon credits and built into carbon markets, so that investors can have confidence in ‘biodiversity positive’ carbon credits.**

### **Answer**

(B) Opting for some interaction between a biodiversity credit system and the New Zealand Emissions Trading Scheme or voluntary carbon markets would offer a balanced and flexible approach. It would allow for synergistic benefits, attract a broader range of investors, align well with existing policy commitments, and make it more attractive to farmers, making it a suitable option for New Zealand

**Synergistic Benefits:** Recognizing biodiversity credits alongside carbon benefits allows for a more holistic approach to environmental conservation. This aligns with the rationale for the refocused Principle 4, which emphasises the importance of comprehensive conservation and economic resilience through ecosystem services.

**Investor Attraction:** Having some level of interaction between the two systems can make investment more attractive by offering dual benefits—carbon sequestration and biodiversity enhancement. This could attract a broader range of investors interested in multiple environmental outcomes.

**Flexibility and Adaptability:** A moderate level of interaction allows for flexibility in land use and conservation activities. Landowners could choose to focus on either carbon sequestration or biodiversity enhancement, or both, depending on what is most appropriate for their land.

**Policy Synergy:** Some interaction between the two systems would align well with New Zealand's existing commitments to both biodiversity conservation and carbon reduction, creating a more cohesive policy framework.

**Transparency and Verification:** Recognizing biodiversity credits alongside carbon credits would necessitate robust systems for monitoring, verification, and reporting, enhancing the transparency and credibility of both systems.

**Consumer Engagement:** A system that recognizes both biodiversity and carbon benefits could offer more comprehensive information to consumers, who are increasingly interested in the environmental impact of products. This could be a strong selling point for New Zealand products in international markets.

*The EU is in the early stages of developing a Sustainability Labelling Scheme that will apply to all products sold in the EU, irrespective of whether these are imported or domestically produced. The Scheme will evaluate products according to their performance against a number of sustainability metrics in the fields of climate change mitigation, water quality, air quality, soil quality, biodiversity conservation and the circular economy.*

### [EU Green Deal: Impact on New Zealand's Land-based Primary Producers](#)

Some interaction between the two schemes could also help farmers directly:

#### **21.1. Aligning Objectives and Metrics**

- **Unified Measurement:** Develop a set of metrics that address both carbon emissions and biodiversity conservation. This would make it easier for farmers to understand how their actions contribute to both objectives. Metrics could include carbon sequestration capacity, soil health, water quality, and habitat restoration.

#### **21.2. Financial Incentives**

- **Credit Stacking:** Allow farmers to earn both carbon credits and biodiversity credits for activities that provide multiple benefits. For example, restoring native vegetation can sequester carbon while enhancing biodiversity. By stacking credits, farmers have a greater financial incentive to engage in such activities.
- **Target High-Export Value Crops:** Given New Zealand's focus on export, special incentives could be created for sustainable practices in high-export-value sectors like organic viticulture, medical marijuana, organic dairy, and regenerative organic farmed meat.

### **21.3. Premium Market Access and Consumer Engagement**

- **Sustainability Labelling:** Introduce a simple sustainability label that reflects both carbon and biodiversity credits. This would not only simplify compliance for farmers but also make it easier for consumers—both domestic and international—to make sustainable choices.
- **Access to Premium Markets:** A dual credit system could make New Zealand products more attractive to international markets that demand sustainable practices such as the US and the EU

### **21.4. Risk Mitigation**

- **Insurance Premiums:** Farmers who accumulate a certain number of biodiversity and carbon credits could be offered lower insurance premiums, as their practices would arguably make their operations more resilient to environmental risks like climate change.

### **21.5. Policy Integration and Support**

- **Holistic Policy Framework:** Develop a policy framework that integrates ETS and biodiversity credits. This would provide clarity for farmers, reduce administrative burdens, and ensure that efforts to reduce carbon emissions are synergistic with efforts to enhance biodiversity.
- **Government Subsidies and Grants:** Offer government support for transition to sustainable practices that qualify for both carbon and biodiversity credits. Given that changing farming practices, along with gaining organic certification, usually involves upfront costs, financial support could be crucial for rapid adoption.

### **21.6. Education and Capacity Building**

- **Extension Services:** Use agricultural extension services to educate farmers about the benefits of the integrated system. This should include specific guidance on how to modify farming practices to earn credits in both systems.

### **21.7. Transparency and Traceability**

- **Blockchain Technology:** Implement blockchain or other robust traceability technologies to transparently track the journey of food products from farm to market. This would enhance the credibility of the credit system and add value to the export products.

## 21.8. Collaboration and Stakeholder Engagement

- Industry Partnerships: Engage industry stakeholders to ensure that the integrated system is practical, achievable, and aligns with market demands. This is especially important in New Zealand, where the agriculture industry is a significant part of the economy.

By carefully integrating a biodiversity credit system with an ETS, New Zealand could not only meet its environmental goals but also strengthen its agricultural sector, thereby ensuring that the country remains competitive in the global market for sustainably produced food.

## 23. Should a biodiversity credit system support land-use reform? (Yes/No) (For example, supporting the return of erosion-prone land to permanent native forest, or nature-based solutions for resilient land use.)

### Answer

Yes. OANZ advocates for a biodiversity credit system that backs initiatives aimed at erosion reduction, such as the establishment of native forests on hilly terrain and the creation of wetlands alongside agricultural paddocks. While planning frameworks are instrumental in steering land-use reform, biodiversity credits can provide essential funding to facilitate a smoother transition.