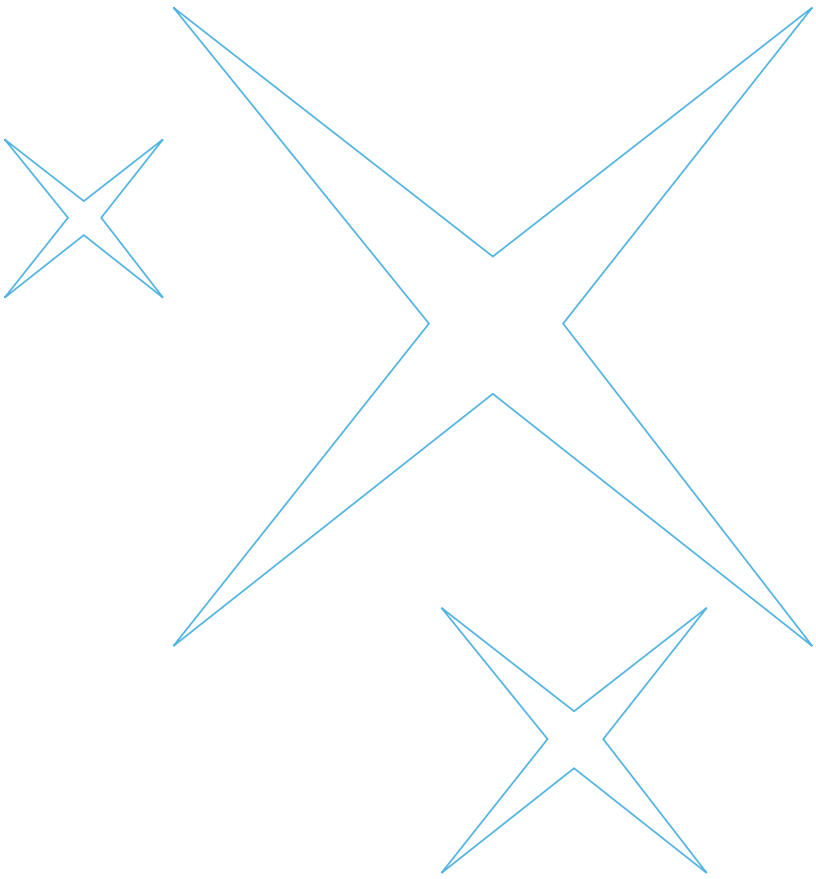
September 2025

Aotearoa New Zealand Sustainable Finance Taxonomy (NZ Taxonomy)

Climate change mitigation Substantial Contribution criteria. Agriculture, Forestry and Other Land Use.

Draft for public consultation – September 2025



Acknowledgements

We sincerely thank everyone who has given time and consideration to the development of the first draft of the NZ Taxonomy.

Two working groups have primarily developed this draft of the NZ Taxonomy:

1. Technical Advisory Group (TAG) – this sector-specific group has provided technical inputs to develop the Substantial Contribution criteria for the agricultural and forestry sectors, as well as the activity-specific do no significant harm (DNSH) for these sectors.
2. Technical Experts Group (TEG) – this group is overseeing the development of the entire NZ Taxonomy (all sectors) and have focused on usability, interoperability and ensuring the NZ Taxonomy delivers on its intended purpose.

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29. **Michelle Sands,** General Manager – Strategy & Policy, Horticulture New Zealand
30. **Edwin Massey,** General Manager – Sustainability, New Zealand Winegrowers

Additionally, throughout the process there has been input from and engagement with a wide range of stakeholders, including government officials, research organisations, industry bodies, real economy participants, iwi and Māori organisations, and environmental NGOs.

We also acknowledge and thank these organisations for their input to the draft criteria or for participating in group sessions and one-on-one meetings, providing general feedback or topic-specific insights and technical inputs.

To support this work, CSF engaged the **Climate Bonds Initiative** (CBI) as the technical delivery partner for the NZ Taxonomy development. The Climate Bonds Initiative is an international organisation working to mobilise global capital for climate action. CBI's mission is to help drive down the cost of capital for large-scale climate and infrastructure projects and to support governments seeking increased access to capital markets to meet climate and GHG emission reduction goals. CBI have contributed to the development of almost every sustainable finance taxonomy globally, including the EU, Singapore, Brazil and Australian taxonomies. We thank them for their expertise and guidance.

We also acknowledge Pip Band of **Band Consulting** for providing specialist technical expertise in agriculture and forestry, as well as critical input into the methodological design of the NZ Taxonomy across sectors.

The Centre for Sustainable Finance: Toitū Tahua (CSF) provides coordination and secretariat functions for the development of the NZ Taxonomy. CSF works across the financial system to align financial markets settings and initiatives with long term resilience and prosperity. It is an independently governed, charitable trust.

Ngā mihi nui.

Introduction

The Aotearoa New Zealand Sustainable Finance Taxonomy (NZ Taxonomy) is a framework to support Aotearoa's long-term prosperity and resilience. It provides decision-useful information for financial market participants who want to direct capital into environmentally sustainable activities.

The NZ Taxonomy is a voluntary framework. It defines economic activities which contribute to environmental objectives and defines the criteria those activities must meet to be considered taxonomy-aligned. By providing clear, credible and domestically relevant criteria to identify and classify environmentally sustainable activities, it enables financial market participants to more confidently identify environmentally sustainable investment opportunities, reducing risk and friction.

Taxonomies have the potential to be used as the foundation for the development of sustainability focused financial products, to help identify assets for inclusion in bonds or investment funds, to aid risk assessment or capital allocation decisions, and to support sustainability reporting. Possible use-cases continue to be developed and piloted internationally.

The NZ Taxonomy is at the stage of developing a credible, usable and internationally interoperable framework and criteria for a range of stakeholders. Work on the NZ Taxonomy in 2025 is focused on developing classifications and criteria for agriculture and forestry sector activities that contribute to the goals of climate change mitigation, adaptation and resilience.

Supporting climate transition, adaptation and resilience

The purpose of the NZ Taxonomy is to support financial market participants who wish to mobilise and direct capital flows towards:

- Building a low-emissions, Paris-aligned future;
- Restoring nature; and
- Upholding the rights and interests of Indigenous Peoples of the land.

The NZ Taxonomy has a strong focus on climate **transition activities**. Inclusion of a transition category is intended to facilitate the decarbonisation of industries which are hard-to-abate but are significant for social and economic wellbeing such as steel, cement, aviation, agriculture, etc.

Almost all taxonomies globally include transition concepts in some way, and several taxonomies utilise specific transition categories to distinguish these from green activities, including ASEAN, Australia, and Singapore.

The draft NZ Taxonomy for the agricultural and forestry sectors includes transition activities such as switching to more efficient or electric machinery, purchasing renewable energy generation and storage equipment, planting - including riparian and shelterbelt planting, improving data and monitoring efficiency, adopting new technologies and implementing new management practices. The transition classification has the intent of increasing the visibility and potential finance for credible actions which reduce emissions.

The NZ Taxonomy draft now also includes criteria designed to support **adaptation and resilience on-farm and in-forest.** As New Zealand businesses increasingly experience the impacts of climate change, the NZ Taxonomy can support businesses choosing to undertake activities which increase their adaptive capacity and build resilience.

The NZ Taxonomy is one tool that can be used to support Aotearoa New Zealand's transition to a lower emission, resilient economy. The NZ Taxonomy is not meant to determine or prescribe the future economic mix or transition pathways, but to provide support for stepping-stones on the path to a resilient future.

Why does NZ need its own taxonomy?

Taxonomies are in development in 58 global jurisdictions, and are fast becoming the common language between investors, markets and businesses when it comes to sustainability.

As a small and optional market, it is important that New Zealand meets global customer and market expectations.

To captialise on these opportunities, it is important that the NZ Taxonomy is interoperable with established taxonomies, particularly those of key trading partners.

The NZ Taxonomy's design has benefited from an extensive review of benchmark taxonomies, including the EU, Australian and Singapore, and it is being developed with the support of global taxonomy experts.

Developing a NZ Taxonomy that is methodologically consistent with global efforts - but which includes criteria that are usable and relevant to our domestic context - ensures definitions and performance thresholds are suitable for New Zealand businesses.

NZ Taxonomy alignment

For an activity to be considered taxonomy-aligned, there are three sets of criteria to consider.

- **Substantial Contribution (SC) criteria** – The activity demonstrates it makes a substantial contribution to the environmental objective (i.e. climate change mitigation or adaptation and resilience).
- **Do No Significant Harm (DNSH) criteria** – The activity making this substantial contribution must not cause significant negative impacts on other environmental objectives.
- **Minimum Social Safeguards (MSS)** – Entities seeking NZ Taxonomy alignment should also meet minimum standards for social responsibility, including labour rights, governance and indigenous rights.

For the initial phase of NZ Taxonomy alignment, it is proposed that entities are not required to complete assessments against the DNSH and MSS framework. In future phases (date to be determined), to be considered NZ Taxonomy-aligned, activities must also meet the DNSH and MSS requirements. This obligation will apply to all reporting entities, except for small businesses – defined for this purpose as enterprises with fewer than 20 employees. Entities wanting to use the NZ Taxonomy can, of course, start including all three sets of criteria as early as they wish. Transparency about the criteria being used for assessment of alignment is recommended.

The NZ Taxonomy is a voluntary framework

It provides decision-useful information by setting clear criteria for what effective climate mitigation, adaptation and resilience activities look like.

It is at the discretion of any business owner/operator if they wish to undertake any of these activities. Likewise, it is at the discretion of any financial institution or investor if they wish to use this information in capital allocation decisions.

Governance and development

The NZ Taxonomy is being developed through a robust process established in alignment with leading international efforts in designing local taxonomies. This process includes the involvement of a diverse range of expertise, strong governance, regulatory oversight, transparency, opportunity for public input and safeguards against undue political or industry interference. The process has been as follows:

Project set-up

- Initial scoping and market validation, and a report on design considerations for the NZ Taxonomy.
- Minister of Climate Change directs work to begin on the NZ Taxonomy's climate change mitigation and adaptation & resilience criteria, starting in the agriculture and forestry sectors.
- CSF convened, through an open-EOI process, a Technical Experts Group (TEG) and sector-specific Technical Advisory Group (TAG) of experts to co-design the NZ Taxonomy criteria.
- CSF engaged the Climate Bonds Initiative (CBI) as the technical partners for the development of the NZ Taxonomy. CBI has led the development of sustainable finance taxonomies globally, including in the EU, ASEAN, Brazil and Australia.
- The development work is overseen by the Ministry for the Environment, with quality assurance of the process being provided by the Council of Financial Regulators.

Criteria development

- The TEG and the Agriculture/Forestry TAG, comprising 46 members in total, worked to develop draft criteria for activities that make a substantial contribution to climate change mitigation, adaptation and resilience between December 2024 and August 2025.
- Additional technical input was sought from 35 organisations throughout this process. 22 provided substantive contributions.
- Briefings and opportunities for early input were also extended to an additional 74 organisations, including industry bodies and key players in the agriculture and forestry sectors, as well as eNGOs, financial institutions, and Māori organisations.
- The first draft of the NZ Taxonomy climate change mitigation criteria was publicly consulted on from 16 June – 13 July, 2025.
- 48 consultation responses were received by CSF, comprising 29 organisational and 19 individual submissions.
- Feedback was analysed and key issues were considered by the TEG and the Agriculture/Forestry TAG, who made revisions for this second consultation period.

About this consultation

This consultation is to seek wider stakeholder feedback on the draft adaptation and resilience criteria, as well as some key changes made to the climate change mitigation criteria.

Submissions may be made through the online consultation form, or by emailing a document to taxonomy@sustainablefinance.nz. Submissions which answer the consultation questions will be prioritised.

Consultation is open from 22 September – 17 October, 2025.

Please contact taxonomy@sustainablefinance.nz for any questions or assistance.

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Mitigation substantial contribution criteria

What are Substantial Contribution criteria for climate change mitigation?

The Substantial Contribution (SC) criteria define the thresholds and requirements that an economic activity or measure must meet to be considered as making a substantial contribution to an environmental objective — in this case, climate change mitigation. These criteria have been established by robust technical and scientific evidence and are designed to ensure that activities go beyond business-as-usual and meaningfully advance emissions reduction.

The criteria may take the form of performance thresholds (e.g., emissions reduction percentages), or, where appropriate and justified by evidence, the use of eligible practices as proxies in areas where data availability limits the establishment of quantified metrics.

Why are these criteria important?

The SC criteria are a critical component in determining whether an economic activity is aligned with the NZ Taxonomy. They are the only part of the framework specifically designed to drive positive outcomes for one of the Taxonomy's environmental objectives.

How to use this document?

For an activity to be considered taxonomy-aligned, there are three sets of criteria to consider.

- **Substantial Contribution (SC) criteria** – The activity demonstrates it makes a substantial contribution to the environmental objective (i.e. climate change mitigation).
- **Do No Significant Harm (DNSH) criteria** – The activity making this substantial contribution must not cause significant negative impacts on other environmental objectives.
- **Minimum Social Safeguards (MSS)** – Entities seeking NZ Taxonomy alignment should also meet minimum standards for social responsibility, including labour rights, governance and indigenous rights.

For the initial phase of NZ Taxonomy alignment, entities are not required to complete assessments against the DNSH and MSS framework. The intent of this transitional approach is to allow entities sufficient time to adapt their reporting systems and processes to the NZ Taxonomy framework.

In future phases, to be considered NZ Taxonomy-aligned, activities must also meet the DNSH and MSS requirements. This obligation will apply to all reporting entities, except for small businesses – defined for this purpose as enterprises with fewer than 20 employees.

SC criteria for climate change mitigation contain details about:

1. **Process requirements** – These detail the processes and performance metrics that must be met for this activity to be NZ Taxonomy-aligned.
2. **Eligible practices** – These detail the applicable practices that a proponent may seek NZ Taxonomy-aligned finance for. These practices will make substantial contribution to the stated Environmental Objective. Supporting practices, which enable the eligible practices, may also be included.
3. **Monitoring** – These detail monitoring requirements for performance.
4. In some instances, **additional criteria or exclusions/restrictions** may also be detailed, including DNSH restrictions.

This document is intended to support technical review and targeted feedback from stakeholders and sector experts.

Green versus transition climate change mitigation activities at a glance

Activities under the climate change mitigation Substantial Contribution criteria are classified as green or transition based on the methodological approach established here. In short,

- Activities that are already low/net-zero emissions are considered green in the context of the climate change mitigation taxonomy (reminder the taxonomy classifies activities in service of a particular goal, not as a holistic sustainability ranking).
- Measures that support meaningful emissions reductions for activities that are not already low emissions are considered transition measures.

Both green and transition activities are NZ Taxonomy-aligned.

Type	Activities	Green Activity	Transition Measures
Agriculture	Livestock grazing and animal production (including ruminant and monogastric)	Yes – See A.0	Yes
	Perennial and non-perennial crops (including horticulture)	Yes – See A.0	Yes
	Support measures for Agriculture		Yes
Forestry	Afforestation and reforestation	Yes	Yes
	Rehabilitation	Yes	Yes
	Forest management	Yes	Yes
	Conservation forestry	Yes	Yes
	Support measures for Forestry		Yes
Other land management, restoration and conservation	Conservation of natural ecosystems	Yes	Yes
	Protection, restoration and creation of other ecosystems	Yes	Yes
	Support measures for natural ecosystems		Yes

Agriculture Substantial Contribution criteria for climate change mitigation

Note to proponents

Within agriculture, proponents can use either:

- A0 whole farm activity and incorporate measures from A1 to A3 (no limit on measures to be incorporated to the plan); OR
- One or multiple transition measures and/or agriculture support measures from A1 to A3

A0. Whole-of-farm activity

A whole-of-farm activity represents significant climate change mitigation potential across the entire farm, helping to reduce emissions and increase and/or maintain carbon stocks.

Both the Green and Transition categories for the whole-farm activity are considered NZ Taxonomy-aligned.

- The Green category primarily recognises farms that are already highly efficient and that have low absolute emissions, with limited scope for further improvement.
- The Transition category is designed to recognise efficient production practices that do not meet the stringent Green threshold but are considered best-in-class within their industry or are encouraging substantial emissions reductions.

Under the NZ Taxonomy, farms with very low emissions that meet a set threshold can be classified as Green. This threshold is deliberately set at a stringent level to align with the NZ Taxonomy's methodological design features report, which sets the approach to activities being classified as Green or Transition for taxonomy alignment.

In practice, it is expected only a small number of farms – mainly in viticulture and horticulture – will meet the Green whole-farm requirement. Other farms may still qualify as taxonomy-aligned under the Transition whole-of-farm category if they meet the relevant criteria.

Additionally, transition measures are available for any farms that can not or do not wish to use the whole-of-farm activity for taxonomy-alignment.

Significant work was undertaken to establish sector-specific thresholds or pathways, but these are not currently consistently available due to concerns about sectoral, regional and system variations, as well as data quality/integrity. The intention is to revisit the use of thresholds or pathways in future updates.

Green Whole-of-Farm Activity:

The farm activity will be green under the NZ Taxonomy if the emissions are at or below 1 tonne of carbon dioxide equivalent per hectare per year.

Transition Whole of Farm Activity:

The farm activity qualifies as transition under the NZ Taxonomy if it meets either of the following:

A. Industry Benchmarking via Emissions Intensity

Emission intensity must be in the upper quartile (lowest 25%) of a representative, recent dataset for that industry (e.g., dairy, sheep meat, beef, horticulture) reflecting farm-level emissions using a credible industry or supply chain carbon accounting tool (see details below).

OR:

B. Continuous Improvement in Emissions

Quantitatively demonstrating at least a 2%* annual reduction in greenhouse gas emissions, measured on a five-year rolling average, over a minimum period of five years. (see details below).

** The 2% annual efficiency target has been set based on observed sector benchmarks, with independent research – including the Westpac New Zealand Economics Bulletin (May 2024) reports that agricultural productivity growth in New Zealand is averaging around 1% per year, referencing long-term sector data and historic trends. This benchmark is supported by figures from Stats NZ and comparative international productivity reports.*

The two pathway approach to transition alignment has been set to recognise both the achievements of already highly efficient producers and the pressing need for accelerated decarbonisation among other farms. This approach aims to set an ambitious benchmark that reflects the diversity of performance within the sector, encouraging continued progress for all participants.

As greater clarity is gained regarding the distribution of productivity and efficiency across the farming sector, these targets will be revisited and adjusted to ensure they remain both fair and effective in driving sector-wide improvement.

Process and requirements for whole of farm activity - apply for all classification options, both green and transition

A. The land on which the whole-farm activity is being applied must not have been subject to the conversion of a forest or natural ecosystem since 31 December 2020 (see land conversion definitions).

B. Farming (inclusive of cropping and grazing) must not be undertaken on land with high carbon stock, specifically land that currently has any one the following statuses (or had such a status in the base year of 2008):

   a. Wetland: Land that includes permanently or intermittently wet areas, shallow water, and land-water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.

   b. Land of continuously natural forest areas spanning more than one hectare with trees higher than 5 metres and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ, to ensure resilience and biodiversity outcomes.

   c. Drained peatland: Unless measures are undertaken to re-wet this land alongside the cultivation and harvesting of raw material.

C. A clearly defined baseline for activity-level emissions and carbon sinks must be established, or, if unavailable, a detailed plan for baseline establishment must be provided. The baseline must identify key emissions sources and sinks across the entire whole-farm activity, following an assessment based on either MPI's Farm Emissions Methodology, or the GHG Protocol Agricultural Guidance using the NZ National Inventory emissions factors, or calculators that align to the GHG Protocol and use the NZ National Inventory emissions factors.

   a. The proponent must retain all records and reports from the baseline year, including data and outputs from recognised systems such as FEM or other approved calculators aligned with the GHG Protocol and NZ National Inventory factors. Any changes to the chosen methodology over the course of the project must be fully documented. Records must be kept in sufficient detail to demonstrate consistency in emissions and sink estimates over time, and to enable re assessment of results if the methodology is updated or revised.

D. Develop, implement, and maintain a Farm Environment Plan (FEP) or recognised industry assurance report that is tailored to the needs of the livestock or farming activity that details:

   a. The farm's strategy to reduce emissions.

   b. The farm's strategy to increase or maintain (in the case of saturation) sequestration.

   c. The farm's biophysical environment and production system, including information on land use change.

   d. The farm's approach to nutrient management, outlined in the FEP, including soil type and its needs, pasture requirements, historical fertiliser applications and rotations and seasonal conditions and forecasts.

   e. The farm's emissions baseline, i.e., its average annual performance in terms of GHG emissions and carbon sequestration (using an appropriate and approved system as outlined in C for farm level accounting).

   f. The management practices that ensure the compliance with the minimum requirement criteria related to conversion of native forest and high-carbon stock land.

E. Demonstrate credible compliance with requirements A to D. Proponents can demonstrate compliance by:

   a. Obtaining third-party assurance or verification opinion of compliance with the requirements; and/or

   b. Reporting against targets through the Science Based Targets Initiative's Forest, Land and Agriculture (SBTi FLAG) guidance and tool, or other equivalent credible target setting methodology (targets must be verified at the farm level and cover emissions aligned with the taxonomy's sector boundary); and/or

   c. Providing documentary evidence that substantiates compliance with requirements A to D

Additional process requirements for Transition alignment pathway - Option A

- Emission intensity must be in the upper quartile (lowest 25%) of a representative, recent dataset for that industry (e.g., dairy, sheep meat, beef, horticulture) reflecting farm-level emissions using a credible industry or supply chain carbon accounting tool
- To demonstrate Transition alignment for mixed farming systems emissions intensity must be calculated for the two largest agricultural commodities on the farm by revenue. There are two exceptions to this requirement:
  - If 80% or more of farm revenue comes from a single commodity, alignment only needs to be demonstrated for that commodity.
  - If credible industry statistics are unavailable for one commodity and that commodity is less than 50% of the total farm revenue, then alignment only needs to be demonstrated for the commodity with available data.

Additional process requirements for Transition-alignment pathway - Option B

A whole-farm activity may demonstrate transition alignment under Option B by:

- Quantitatively demonstrating at least a 2% annual reduction in greenhouse gas emissions, measured on a five-year rolling average, over a minimum period of five years.
- Emissions reduction may be shown in:
  - Absolute terms* (total $kgCO_2e$ per year); or
  - Emissions intensity ($kgCO_2e$/kg of product per year).
- To demonstrate Transition alignment Option B for mixed farming systems using the emissions intensity measure:
  - The two largest agricultural commodities on the farm by revenue must be calculated.
  - If 80% or more of farm revenue comes from a single commodity, alignment only needs to be demonstrated for that commodity.

* If reporting in absolute terms, all changes in land size (e.g., sale, acquisition, lease transfers) during the assessment period must be transparently recorded and documented.

- Each reporting year, the managed land area (hectares) must be disclosed alongside emissions totals and intensity metrics.
- Reductions in emissions attributed primarily to land area reduction (such as land sales) must be clearly distinguished from those achieved through management improvement or operational efficiency on the land retained.
- If land is sold or acquired during a reporting year, the baseline emissions and minimum annual 2% reduction target must be recalculated for the updated land area.

Eligible practices

Eligible practices can include both existing and new practices on the farm.

In addition to the mandatory requirements, proponents may incorporate any other taxonomy-aligned green and/or transition measures or other enabling activities into the FEP* to further support emissions abatement and maintain and/or increase carbon stocks.

** Any relevant process requirements outlined in the Taxonomy measures (e.g., management plans, baselining, and monitoring requirements, etc.) can be incorporated into the FEP to streamline overall management.*

Monitoring

A. The farm must keep a yearly record of its emissions, including:
   a. Information on the deployment of management practices.
   b. Information on GHG emissions and removals, that is:
      i. Based on best available data; and/or
      ii. Demonstrates its activities contribute substantially to climate change mitigation by deploying all of the essential management practices, except those that are clearly not applicable to the farm.

Additional monitoring requirements for Transition-alignment - Option B:

Reporting to include:

- Absolute emissions ($kgCO_2e$) for each year.
- Emissions intensity for major commodities ($kgCO_2e$/kg of product per year).
- Annual managed land area (ha) and details of any land area changes (including date, area, and how baseline emissions and trends were recalculated).
- Narrative explanation or annex documenting land size events to ensure transparent and auditable disclosure.

A1. Livestock grazing and animal production

*Note the below outlines the **transition measures** available to apply to these activities. For whole-of-farm green or transition alignment for livestock/animal production or mixed farms please refer to A.0.*

A1.1 Nutrient management

Efficient nitrogen use in livestock systems to minimise nitrous oxide emissions, achieved through substituting fossil-fuel derived fertilisers with low-emissions fertilisers, and/or the application of Enhanced Efficiency Fertilisers (EEFs), and/or by optimising fertilisation techniques.

Process and requirements

The measure must comprise all the following:

A. Develop, implement and maintain a Farm Environment Plan (FEP) that details the approach to nutrient management tailored to the needs of the livestock activity. The plan should align with the guidance and monitoring approach outlined in relevant Industry Assurance Plans (see Industry Assurance Schemes). For industries without guidance for an Industry Assurance Plan, the FEP should, at a minimum, include soil type and its needs, pasture or fodder crop requirements, historical fertiliser applications and rotations, seasonal conditions and forecasts, and incorporate one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the FEP, with certification through an Industry Assurance Plan or verification by a qualified expert (e.g., Certified Nutrient Management Advisor or agronomist) with evidence of one of the following:

   a. Within three years, at least 80% of all fertilisers used must be low-emissions fertilisers; OR

   b. Measurable reduction of N2O emissions relative to baseline set at project commencement of at least 1.5% per year (using a five-year rolling average). To be measured using the MPI's Farm Emissions Methodology or GHG Protocol Agricultural Guidance using the NZ National Inventory emissions factors.

      i. The proponent must retain all records and reports from the baseline year, including data and outputs from recognised systems such as FEM or other approved calculators aligned with the GHG Protocol and NZ National Inventory factors. Any changes to the chosen methodology over the course of the project must be fully documented. Records must be kept in sufficient detail to demonstrate consistency in emissions and sink estimates over time, and to enable re assessment of results if the methodology is updated or revised.

C. Fertiliser application must comply with the following:

   a. When EEFs exempt from ACVM registration are used, they must comply with the Agricultural Compounds and Veterinary Medicines (ACVM) Exempt and Prohibited Substances Regulations 2011 and/or subsequent updates and amendments, as well as Notices regarding exempt fertilisers, plant biostimulants, and soil conditioners.

   b. Use of EEFs which have claims that mean they are registered under the ACVM Act 1997 must comply with the conditions of registration. Shelf-life is considered as part of the ACVM registration process.

Eligible practices

Eligible practices that support sustainable nutrient management, which may include both existing and new practices on farm, along with their associated costs, include:

A. Purchasing EEFs that meet the specified criteria mentioned above. Common types of EEFs include fertilisers coated with nitrification inhibitors, urease inhibitors, polymer-coated, sulphur-coated or slow-release fertilisers and controlled-release fertilisers.

B. Using manure or slurry to substitute for or to reduce use of mineral N fertiliser. For on-farm manure application demonstration of a plan for optimised timing, placement and inhibitors in order to reduce N emissions.

C. Use of nitrification inhibitors to slow down the conversion of urea to ammonia.

D. Using nitrogen-fixing microorganisms (either naturally occurring or introduced, including in legumes) that demonstrably reduce reliance on synthetic fertilisers and are additional to normal farm practices.

Supporting practices

E. Engaging and/or conducting agronomic services and soil testing to determine the appropriate application of fertilisers based on soil and pasture/livestock needs.

F. Implementing Variable Rate Technology (VRT) and techniques, for fertilisation, irrigation, and other relevant applications, enabling precise application of inputs to different areas of the field based on their specific needs. This includes costs related to purchasing, installing, upgrading, or maintaining relevant equipment and infrastructure, as well as acquiring data solutions.

G. Installing or optimising irrigation systems and micro-sprinklers to improve controlled fertiliser application and prevent waterlogging.

A1.2 Livestock management

Implement or maintain sustainable ruminant livestock management practices to reduce methane production.

Process and requirements

The measure must comprise all the following:

A. Develop, implement, and maintain a Farm Environment Plan (FEP) tailored to the needs of the livestock activity. The plan must include livestock and pasture requirements, as relevant, and incorporate one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the FEP with verification by a qualified expert (e.g., livestock consultant, livestock nutritionist, agronomist, etc.) with evidence of the following:

   a. Measurable reduction of absolute CH4 emissions relative to a baseline of at least 2% per year from project commencement (using a five-year rolling average). To be measured following GHG Protocol Agricultural Guidance using the NZ National Inventory emissions factors or the MPI's Farm Emissions Methodology.

      i. The proponent must retain all records and reports from the baseline year, including data and outputs from recognised systems such as FEM or other approved calculators aligned with the GHG Protocol and NZ National Inventory factors. Any changes to the chosen methodology over the course of the project must be fully documented. Records must be kept in sufficient detail to demonstrate consistency in emissions and sink estimates over time, and to enable re assessment of results if the methodology is updated or revised.

C. Livestock operations must meet feed predominantly through grazing or forage crops as outlined in the New Zealand Grass-Fed Administrative Standard.

D. Listed interventions in the FEP must align to approved interventions and listed efficacy rates in MPI's Farm Emissions Method.

Eligible practices

Eligible practices, which may include both existing and new practices on farm, along with their associated costs, include:

A. Use of livestock selectively bred for lower methane genetic traits.

B. Improving fertility rates.

C. Increase of animal performance combined with reduced stocking rates to increase efficiency.

D. Incorporating silvopastoral or agroforestry practices within the livestock production system (refer to taxonomy-aligned decarbonisation measure A1.4 Silvopastoral and/or A2.4 Agroforestry for criteria).

E. Using feed supplements or additives that reduce methane emissions (refer to taxonomy-aligned decarbonisation measure A1.5 Methane reduction in livestock for criteria).

F. Proper management of manure and other waste products (refer to taxonomy-aligned decarbonisation measure A1.6 Manure management for criteria).

Supporting practices

G. Installing equipment and infrastructure, such as physical or virtual fences, to manage livestock movement and promote better land use through optimised grazing patterns and stocking rates. This includes the costs of purchasing, installing, upgrading, or maintaining relevant equipment and infrastructure and any ongoing subscription expenses.

H. Implementing data monitoring and record-keeping systems to track and analyse performance metrics such as liveweight gain, calving rates, and weaning rates, with the aim of ultimately reducing emissions per unit of livestock production and supporting climate change mitigation efforts.

I. Implementation and ongoing running of animal monitoring and traceability tools and equipment, including collars, harnesses and ear tags, for the purpose of monitoring animal movements, health and reproduction data.

J. Engaging professional services and procuring treatments that are non-harmful and endorsed by a livestock health specialist to enhance herd health management and contribute to climate change mitigation efforts.

K. Engaging consulting and advisory services to improve livestock management practices that support emissions reduction.

A1.3 Application of biochar to agriculture lands

The TEG/TAG acknowledge that these measures are not common practice in New Zealand, however their inclusion is important to ensure the usability and interoperability.

Application of biochar to agricultural soils to sequester carbon to increase soil carbon, enhance soil health, and increase farm productivity.

Process and requirements

The measure must comprise all the following:

A. Develop, implement, and maintain a Farm Environment Plan (FEP) that details the approach to soil management tailored to the needs of the livestock activity. The FEP must include soil type and its needs, pasture requirements, biochar suitability and application rate, and incorporate one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the soil approach outlined in the FEP, with verification by a qualified expert (e.g., agronomist, agricultural consultant, etc.) being a recommended approach.

C. To meet the requirements of this measure, the applied biochar must comply with one of the following eligibility criteria.

   a. The biochar must only be produced using agricultural and/or forestry residues and waste as feedstock, such as leftover plant materials, animal manure, biosolids (that meet relevant state/territory and federal requirements), fallen wood, branches, bark, sawdust, and similar organic materials; OR

   b. For biochar derived from dedicated crops and purpose-grown biomass feedstocks, the purchased biochar and/or its feedstocks are certified by a relevant third-party certification body'. 'Relevant certifications include:

      i. World Biochar Certificate (WBC).

ii. International Sustainability & Carbon Certification (ISCC) system.

iii. Roundtable on Sustainable Biomaterials (RSB).

iv. Forest Stewardship Council (FSC).

v. Programme for the Endorsement of Forest Certification (PEFC).

Exclusions and restrictions

A. The biochar must not be generated from sewage, sludge, industrial waste, or landfill waste.

Eligible practices

Eligible practices that support biochar application, which may include both existing and new practices on farm, along with their associated costs, include:

A. Purchasing biochar that meets the specified eligibility criteria outlined above.

B. Acquiring equipment for on-farm biochar production, such as a pyrolysis unit, including the costs of purchasing, installing, upgrading, or maintaining relevant equipment and infrastructure*

Supporting practices

C. Engaging and/or conducting agronomic services and soil testing to determine the appropriate biochar type, application rate, and estimate the potential increase in soil carbon following application.

D. Utilising equipment to support biochar application, such as spreaders, composters, mixers, sprayers, biochar applicators, storage, and irrigation equipment.

** Biochar production equipment must fall within the top 25% of energy efficiency rates for equipment available in-country.*

A1.4 Silvopastoral

Establishment or maintenance of silvopastoral systems that promote the intentional integration of woody perennials with animal production.

Process and requirements

The measure must comprise all the following:

A. Develop, implement, and maintain a Farm Environment Plan (FEP) tailored to the needs of the livestock activity. The FEP must consider the interactions between the livestock activity, woody perennials, and the broader landscape, including factors such as soil condition, climate, water availability and pest management. It must also incorporate one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the FEP, with verification by a qualified expert (e.g., agronomist, agricultural consultant, etc.) being a recommended approach.

C. The measure must comply with the following criteria:

   a. Intentional integration of woody perennials alongside animal production to deliver both economic and ecological benefits, including carbon sequestration.

   b. Utilise the same land for various agricultural purposes.

   c. Planted trees for this measure must have the potential to grow to a minimum height of 5 metres and achieve a canopy cover of at least 10 percent* of the planted area.

D. A risk assessment of erosion susceptibility and potential affected values is undertaken using the MPI NES-PF erosion susceptibility classification and fish spawning indicator tool to determine potential erosion risk.

E. Forest Management Plans to assess and mitigate long-term climate risks, including species diversity, pest and disease resilience, and fire risk under future climate scenarios.

F. Identification for exclusion of afforestation in high and very high erosion risk areas with species with the intention for clear felling, or that pose a significant risk of collapse because they are shallow-rooting.

G. A risk assessment and actions to avoid negative impacts on water ecosystems, water quality and quantity and mitigate and remedy those that occur, including:

   a. Riparian zones of a minimum of 10 metres each side of the water body are identified and documented on all water bodies that have permanent water when forested.

   b. Afforestation with exotic forestry species is prohibited within a minimum 10m riparian management zone (RMZ) from identified water bodies.

   c. In addition to the 10 metres riparian zone, slope, soil stability and future harvest disturbance should be assessed when considering if 10m is a sufficient riparian zone to protect water quality.

Eligible practices

Eligible silvopastoral practices that support the measure, which may include both existing and new practices on farm, along with their associated costs, include:

A. Integrating, maintaining, restoring, and/or expanding woody perennials within agricultural landscapes. These planted areas can take various forms, such as windbreaks, riparian buffers, block or strip plantings for shelterbelts, among others.

B. Selecting and planting appropriate seedling stock of woody perennial species.

C. Incorporating the use of agronomic services for planning, baselining and monitoring.

D. Installing establishment infrastructure to set up and support the successful establishment of agroforestry practices during the early stages of development, including protection and irrigation systems for the planted area.

E. Installing other types of infrastructure to protect and enhance established planted areas, such as fencing materials.

F. Establishing and maintaining weed and pest (browser and predator) control, where needed.

G. Establishing monitoring systems to track early survival and growth of plantings, allowing for timely remedial action if necessary.

H. Procuring ground-work services or equipment hire for site preparation or fencing installation.

I. Engaging or conducting labour services for planting, maintenance, and ongoing protection of agroforestry practices, including pest management.

J. Implementing and engaging auditing and certification services, such as the Forest Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC), for a Sustainable Forest Management System (SFMS).

A1.5 Methane reduction in livestock

Methane reduction technology, supplements or feed additives are administered to ruminant animals to directly reduce methane production.

Process and requirements

The measure must comprise all the following:

A. Develop, implement, and maintain a Farm Environment Plan (FEP) that details the approach to feed management tailored to the needs of the livestock activity. The FEP should outline the feed supplements or additives to be utilised, including their dosage consistent with the emission reductions claims, compatibility with nutritional balance, mixing and rationing methods, along with one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the FEP, with certification through Industry Assurance Plan or verification by a qualified expert (e.g., livestock nutritionist, etc.).

C. Feed supplements and additives must have been recognised by the Ministry for Primary Industries as delivering enteric methane emissions for use in the MPI's Farm Emissions Methodology, and where necessary approved under the Agricultural Compounds and Veterinary Medicines (ACVM) Act.

Eligible practices

Eligible practices that support the use of feed supplements and additives to reduce methane emissions, which may include both existing and new practices on farm, along with their associated costs, include:

A. Purchasing feed supplements or additives that meet the specified eligibility criteria outlined above.

Supporting practices

B. Utilising advisory services for the selection, dosing, mixing, rationing, and compliance aspects of the use of methane inhibitors, including consulting with a livestock nutritionist when necessary.

C. Acquiring equipment for the storage, mixing, and rationing of feed supplements and additives.

D. Conducting monitoring and evaluation activities related to the use of feed supplements and additives, including assessments of emissions reduction, herd health, weight gain, and overall productivity.

A1.6 Manure management

Minimise methane and nitrous oxide emissions by implementing or maintaining sustainable manure management practices in livestock operations.

Process and requirements

The measure must comprise all the following:

A. Develop, implement, and maintain a Farm Environment Plan (FEP) tailored to the needs of the livestock activity. The FEP must incorporate one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the FEP, with verification by a qualified expert (e.g., livestock consultant, agricultural consultant, etc.) being a recommended approach.

Eligible practices

Eligible practices that support sustainable manure management, which may include both existing and new practices on farm, along with their associated costs*, include:

A. Emissions capture and conversion:

   a. Biogas production: Produce and subsequently flare biogas from organic effluent using anaerobic digestion in either a covered pond or anaerobic digester tank.

   b. Methane capture: Capture and destroy the methane component of biogas from the organic effluent through flaring or generating electricity.

B. Emissions avoidance:

   a. Pond treatment: Use of methane reducing treatments or additives to reduce emissions from effluent ponds or from subsequent effluent spreading.

   b. Volatile solids removal: Remove material containing volatile solids to reduce methane emissions (diversion of the material).

   c. Aerobic treatment: Treat the diverted material aerobically, resulting in significantly lower total methane and nitrous oxide emissions compared to anaerobic pond treatment (a post diversion treatment).

C. Biogas production for biomethane:
    a. Biogas production: Produce biogas from organic effluent using anaerobic digestion in either a covered pond or anaerobic digester tank.
    b. Biogas upgrading: Send the produced biogas to a biogas upgrading system to produce biomethane.
D. Biomethane production off-farm**:
    a. Delivery of manure to off-farm biogas facility.
    b. Biogas reception: Receive biogas for processing.
    c. Biogas upgrading system: Utilise a biogas upgrading system to produce biomethane.
E. Biochar production**:
    a. Biochar pyrolysis: Producing on-farm biochar via pyrolysis.

** Associated costs include expenses for purchasing, installing, upgrading, or maintaining relevant equipment and infrastructure, including capital expenditures (CapEx), removal, treatment and other operational costs.*

*** When the NZ Taxonomy for the Energy sector is developed D and E will be moved from Agriculture to Energy.*

A1.7 Renewable energy production and storage for on-site use

Renewable energy use, production, and storage solutions for on-site applications.

Process and requirements

The measure must comprise the following, as applicable:

A. Solar and wind energy-related infrastructure installed in New Zealand must comply with relevant New Zealand Standards and/or are purchased from a Sustainable Energy Association of New Zealand (SEANZ) Authorised Provider.
B. Rechargeable storage systems must be compatible with renewable energy sources.
C. Farm Environment Plan (FEP) or Energy Plan to outline the baseline energy usage with verification by a qualified expert with evidence of either of the following:
    a. Projected increase energy efficiency for at least 25% within two years; OR
    b. To shift to 100% renewable energy within three years.

Eligible practices

Eligible practices that support the integration of renewable energy for on-site applications, which may include both existing and new practices on the farm/asset, along with their associated costs, include:

A. Installing renewable energy generation systems, including solar PV technologies (e.g., ground-mounted or rooftop), wind and hydro energy technologies. This includes the costs of purchasing, installing, upgrading, or maintaining relevant equipment and infrastructure.
B. Installing rechargeable storage batteries compatible with renewable sources, installed behind the meter.
C. Purchasing, manufacturing, and/or using biofuels to power on-farm machinery and vehicles.

A1.8 Electric and energy efficient vehicles and equipment

Purchase or leasing of electric, energy-efficient, or renewable energy-compatible vehicles and equipment for on-site use.

Eligible practices

Eligible practices, which may include both existing and new practices on the farm/asset, along with their associated costs, include:

A. Replacing existing fossil fuel fleet and/or equipment with one or more of the following:
    a. Electric vehicles.
    b. Where electric farm vehicles are not able to be purchased through standard commercial channels within New Zealand eligible* energy efficient tractors, headers and harvesters, including hybrid farm equipment.

B. Hiring and/or contracting the use of the above fleet and/or equipment for on-site use is eligible.

C. Modifying or retrofitting existing equipment and vehicles for biofuel use.

***Note**

Eligible energy efficient tractors, headers and harvesters must meet one of the below options. Note: This criteria will be updated when the transport taxonomy is developed and at this point a sunset date for non-EV transport inclusion will be considered.

A. Purchase, lease or contracting use of new tractors, headers and other self-propelled machinery, which may include reconfiguration of existing equipment, that meets one of the following:
    a. at least 20% less energy consumed per unit of output compared to the current vehicle or equipment on the farm; OR
    b. an overall energy saving of at least 20% compared to the current vehicle or equipment on the farm; OR
    c. publicly available information confirming its class leading energy efficiency characteristics.

B. Purchase, lease or contracting use of new hydrogen fuel cell tractors, headers and other self-propelled machinery, which may include reconfiguration of existing equipment.

C. Purchase, lease or contracting use of drones to reduce the use of helicopters, motorbikes and horses.

D. Purchase, lease or contracting use of a new agricultural trailed vehicle, that meets one of the following:
    a. at least 10% less energy consumed per unit of area (i.e., L/ha); OR
    b. is designed for no or zero-tillage planting and seeding.

A1.9 Establishment and monitoring to support carbon offset generation

Establishment, management and reporting expenditures required to generate carbon offsets to participate in the Emissions Trading Scheme (ETS) and other voluntary offset schemes.

Eligible practices

Eligible practices that support activities to allow participation in carbon offset schemes that support activities to allow participation in carbon credit schemes that are approved as meeting established international best practice in the form of Integrity Council for the Voluntary Carbon Market (ICVCM) along with their associated costs, include:

A. Site development: Expenses associated with preparing the site for creating carbon credits.

B. Initial investment: Upfront financial commitments required for the successful establishment and implementation of the project.

C. Planning and assessment: Costs related to project planning, environmental assessments and feasibility studies.

D. Measurement, reporting and verification expenses incurred for compliance audits, ongoing certification, and meeting reporting requirements.

A2. Perennial and non-perennial crops (including horticulture)

*Note the below outlines the **transition measures** available to apply to these activities. For whole-of-farm green or transition alignment for perennial and non-perennial crops or mixed farms please refer to A.0.*

A2.1 Crop nutrient management

Efficient nitrogen use in cropping and horticulture systems to minimise nitrous oxide emissions, achieved through substituting fossil-fuel derived fertilisers with low-emission fertilisers, and/or the application of Enhanced Efficiency Fertilisers (EEFs), and/or by optimising fertilisation techniques.

Process and requirements

The measure must comprise all the following:

A. Develop, implement and maintain a Farm Environment Plan (FEP) tailored to the needs of the activity. The plan should align with the guidance and monitoring approach outlined in relevant Industry Assurance Plans (see industry Assurance Schemes). For industries without guidance for an Industry Assurance Plan, the FEP should, at a minimum, include soil type and its needs, crop requirements, historical fertiliser applications and rotations, seasonal conditions and forecasts, and incorporate one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the FEP with certification through Industry Assurance Plan or verification by a qualified expert or (e.g., Certified Nutrient Management Advisor or agronomist) with evidence of one the following:

   a. Within three years of commencement, at least 80% of all fertilisers used must be low-emissions fertilsers; OR

   b. Projected significant increase or maintenance of minimum 75% NUE (kg of yield/kg of N applied) within five years in line with optimum values of N application rates (should include temporal datasets on N inputs and yields); OR

   c. Measurable reduction of N2O emissions relative to its baseline of at least 1.5% per year (using a five-year rolling average). To be measured following GHG Protocol Agricultural Guidance using the NZ National Inventory emissions factors.

      i. The proponent must retain all records and reports from the baseline year, including data and outputs from recognised systems such as FEM or other approved calculators aligned with the GHG Protocol and NZ National Inventory factors. Any changes to the chosen methodology over the course of the project must be fully documented. Records must be kept in sufficient detail to demonstrate consistency in emissions and sink estimates over time, and to enable re assessment of results if the methodology is updated or revised.

C. Fertiliser application must comply with the following:

   a. When EEFs that are exempt from the requirement for ACVM registration are used, they must comply with the Agricultural Compounds and Veterinary Medicines (ACVM) Exempt and Prohibited Substances Regulations 2011 and Notices regarding exempt fertilisers, plant biostimulants, and soil conditioners.

   b. Use of EEFs which have claims that mean they are registered under the ACVM Act 1997 must comply with the conditions of registration. Shelf-life is considered as part of the ACVM registration process.

Eligible practices

Eligible practices that support sustainable nutrient management, which may include both existing and new practices on farm, along with their associated costs, include:

A. Purchasing EEFs that meet the specified criteria mentioned above. Common types of EEFs include fertilisers coated with nitrification inhibitors, urease inhibitors, polymer-coated fertilisers, sulphur-coated fertilisers, slow-release fertilisers, and controlled-release fertilisers.

B. Using manure or slurry (aligned with regulations) to substitute for or to reduce use of mineral N fertiliser. For on-farm manure application demonstration of a plan for optimised timing, placement and inhibitors in order to reduce N emissions without sacrificing yield.

C. Using nitrogen-fixing microorganisms (either naturally occurring or introduced, including in legumes) that are demonstrated to reduce reliance on synthetic fertilisers and are additional to normal farm practices.

Supporting practices

D. Engaging and/or conducting agronomic services and soil testing to determine the appropriate application of fertilisers based on soil needs.

E. Implementing Variable Rate Technology (VRT) and techniques, for fertilisation, irrigation, and other relevant applications, enabling precise application of inputs to different areas of the field based on their specific needs. This includes costs related to purchasing, installing, upgrading, or maintaining relevant equipment and infrastructure, as well as acquiring data solutions.

F. Installing or optimising irrigation systems and/or micro-sprinklers to improve controlled fertiliser application and prevent waterlogging.

A2.2 Application of biochar to agriculture lands

The TEG/TAG acknowledge that these measures are not common practice in New Zealand, however their inclusion is important to ensure the interoperability of the NZ Taxonomy.

Application of biochar to agricultural soils to sequester carbon to increase soil carbon, enhance soil health, and increase farm productivity.

Process and requirements

The measure must comprise all the following:

A. Develop, implement, and maintain Farm Environment Plan (FEP) that details the approach to soil management plan tailored to the needs of the cropping activity. The FEP must include soil type and its needs, crop requirements, biochar suitability and application rate, and incorporate one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the FEP, with verification by a qualified expert (e.g., agronomist, agricultural consultant, etc.) being a recommended approach.

C. To meet the requirements of this measure, the applied biochar must comply with one of the following eligibility criteria.

   a. The biochar must only be produced using agricultural and/or forestry residues and waste as feedstock, such as leftover plant materials, animal manure, biosolids (that meet relevant state/territory and federal requirements), fallen wood, branches, bark, sawdust, and similar organic materials; OR

   b. For biochar derived from dedicated crops and purpose-grown biomass feedstocks, the purchased biochar and/or its feedstocks are certified by a relevant third-party certification body. Relevant certifications include:

      i. World Biochar Certificate (WBC).

      ii. International Sustainability & Carbon Certification (ISCC) system.

      iii. Roundtable on Sustainable Biomaterials (RSB).

iv. Forest Stewardship Council (FSC).

v. Programme for the Endorsement of Forest Certification (PEFC).

Exclusions and restrictions

A. The biochar must not be generated from sewage, sludge, industrial waste, or landfill waste.

Eligible practices

Eligible practices that support biochar application, which may include both existing and new practices on farm, along with their associated costs, include:

A. Purchasing biochar that meets the specified eligibility criteria outlined above.

B. Acquiring equipment for on-farm biochar production, such as a pyrolysis unit, including the costs of purchasing, installing, upgrading, or maintaining relevant equipment and infrastructure.*

Supporting practices

C. Engaging and/or conducting agronomic services and soil testing to determine the appropriate biochar type, application rate, and estimate the potential increase in soil carbon following application.

D. Utilising equipment to support biochar application, such as spreaders, composters, mixers, sprayers, biochar applicators, storage, and irrigation equipment.

** Biochar production equipment must fall within the top 25% of energy efficiency rates for equipment available in-country.*

A2.3 Improved rice management

The TEG/TAG acknowledge that these measures are not common practice in New Zealand, however their inclusion is important to ensure the interoperability of the NZ Taxonomy.

Lower the emissions intensity of rice production through effective water management and residue straw management by implementing practices aimed at reducing days of flooding by at least 10 percent annually.

Process and requirements

The measure must comprise all the following:

A. Develop, implement, and maintain a Farm Environment Plan (FEP) that outlines the approach to rice production management tailored to the needs of the rice production activity. The FEP must aim to reduce days of flooding by at least 10 percent annually by incorporating one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the rice FEP, with verification by a qualified expert (e.g., agronomist, agricultural consultant, etc.) being a recommended approach.

Eligible practices

Eligible practices that support the measure, which may include both existing and new practices on farm, along with their associated costs, include:

A. Shallow flooding: Utilising shallow water levels to optimise growth.

B. Direct-seeded rice: Planting rice directly in the field for improved establishment.

C. Short-duration, high-yielding varieties: Selecting rice varieties that mature quickly while maximising yield.

D. Midseason drying events: Allowing the field to dry midway through the growing season to enhance soil health and reduce water use.

E. Alternate wet and dry techniques: Alternating between wet and dry conditions to conserve water and improve rice quality.

F. Off-season straw management: Properly managing straw during the off-season to benefit soil health.

Supporting practices

G. Engaging and/or conducting agronomic services and soil testing to establish baseline conditions, perform ongoing monitoring, determine soil and crop needs, and develop a FEP that details the approach to rice production management.

H. Installing irrigation and drainage systems, including associated earthworks and pipe installation.

I. Incorporating precision agriculture technology, such as soil moisture sensors, weather stations and data analysis systems to improve crop management and resource efficiency.

A2.4 Agroforestry

Implement or maintain agroforestry by incorporating woody perennials, such as trees, shrubs or other vegetation, into crop production systems or on the broader land parcel.

Process and requirements

The measure must comprise all the following:

A. Develop, implement, and maintain a Farm Environment Plan (FEP) tailored to the needs of the cropping activity. The FEP must consider the interactions between the cropping activity, woody perennials, and the broader landscape, including factors such as soil condition, climate, and water availability. It must also incorporate one or more of the eligible practices listed below.

B. Demonstrate that the measure has been implemented in accordance with the FEP, with verification by a qualified expert (e.g., agronomist, agricultural consultant, etc.) being a recommended approach.

C. The measure must comply with the following criteria:

   a. Intentional integration of woody perennials alongside crop production to deliver both economic and ecological benefits, including carbon sequestration.

   b. Utilise the same land for various agricultural purposes.

   c. Planted trees for this measure must have the potential to grow to a minimum height of 2 metres and achieve a canopy cover of at least 10 percent of the planted area.

D. A risk assessment of erosion susceptibility and potential affected values is undertaken using the MPI NES-PF erosion susceptibility classification and fish spawning indicator tool to determine potential erosion risk.

E. Forest Management Plans to assess and mitigate long-term climate risks, including species diversity, pest and disease resilience, and fire risk under future climate scenarios.

F. Identification for exclusion of afforestation in high and very high erosion risk areas with species with the intention for clear felling, or that pose a significant risk of collapse because they are shallow-rooting.

G. A risk assessment and actions to avoid negative impacts on water ecosystems, water quality and quantity and mitigate and remedy those that occur, including:

   a. Riparian zones of a minimum of 10 metres each side of the water body are identified and documented on all water bodies that have permanent water when forested.

      i. Afforestation with exotic forestry species is prohibited within a minimum 10m riparian management zone (RMZ) from identified water bodies.

      ii. In addition to the 10 metres riparian zone, slope, soil stability and future harvest disturbance should be assessed when considering if 10m is a sufficient riparian zone to protect water quality.

Eligible practices

Eligible agroforestry practices that support the measure, which may include both existing and new practices on farm, along with their associated costs, include:

A. Integrating, maintaining, restoring, and/or expanding woody perennials within agricultural landscapes. These planted areas can take various forms, such as windbreaks, riparian buffers, block or strip plantings for shelterbelts, among others.

B. Selecting and planting appropriate seedling stock of woody perennial species.

Supporting practices

C. Agronomic services for planning, baselining and monitoring.

D. Installing establishment infrastructure to set up and support the successful establishment of agroforestry practices during the early stages of development, including protection and irrigation systems for the planted area.

E. Installing other types of infrastructure to protect and enhance established planted areas, such as fencing materials.

F. Establishing and maintaining weed and pest (browser and predator) control, where needed.

G. Establishing monitoring systems to track early survival and growth of plantings, allowing for timely remedial action if necessary.

H. Procuring ground-work services or equipment hire for site preparation or fencing installation.

I. Engaging or conducting labour services for planting, maintenance, and ongoing protection of agroforestry practices.

J. Implementing and engaging auditing and certification services, such as the Forest Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC), for a Sustainable Forest Management System (SFMS).

A2.5 Renewable energy production and storage for on-site use

See A1.7 for detail.

A2.6 Electric and energy efficient vehicles and equipment

See A1.8 for detail.

A2.7 Low emissions cold storage

The purchase and installation of cold storage equipment that meet the minimum energy performance and labelling requirements for commercial refrigeration equipment in the Energy Efficiency (Energy Using Products) Regulations.

A2.8 Establishment and monitoring to support carbon offset generation

See A1.9 for detail.

A3. Support measures for agriculture

A3.1 Agriculture support measures

Eligible practices

Eligible practices, which may include both existing and new practices on farm, along with their associated costs, include:

A. Research and Development (R&D) of mitigation options: Conducting research and development of mitigation strategies and practices that align with activities and measures outlined in the Taxonomy, including the development of alternative methane inhibitors and lower-carbon protein sources.

B. On-farm testing of technologies at TRL levels 5, 6 or 7 to test the mitigation impact, practicality and commercial implications of near-ready technologies.

C. Training and capacity building: Engaging training and capacity-building services to support the adoption and implementation of emissions mitigation practices and the increase and/or maintenance of carbon stocks.

D. Measurement and monitoring technologies: Implementing technologies to measure and monitor mitigation initiatives and objectives, including GHG emissions, spatial positioning and guidance systems, harvest or yield monitors, and data connectivity solutions.

E. Mitigation of emissions through the prevention of post-harvest and post-production waste: Implementing technologies and practices designed to prevent, minimise, and reduce losses after harvest and production, including improved sorting, handling, storage and packaging to prevent damage, spoilage, or contamination of crop and livestock products.

A3.2 Precision agriculture support measures

The use of advanced technologies and data to optimise the management of agricultural activities, with the primary focus on reducing emissions while improving resource utilisation, enhancing efficiency, and promoting sustainability.

Eligible practices

Eligible precision agriculture practices that support sustainable land management practices, which may include both existing and new practices on farm, along with their associated costs, include:

A. Implementing data collection technologies to gather real-time data such as soil conditions, weather, crop health, and livestock performance.

B. Implementing Variable Rate (Application) Technology (VRT) to adjust the application of inputs like water, fertilisers, and pesticides, based on insights gathered from data analysis. This includes systems for precision irrigation, seeding, fertiliser and pesticide application, and harvesting.

C. Integrating automated systems to enhance precision and efficiency, such as automated monitoring and data analytics systems, mapping technologies, VRT, drones, tractors, and other farm machinery.

D. Implementing varied precision agriculture techniques, including weed and disease detection, targeted herbicide and pesticide application systems, drone-based monitoring, AI-driven technologies, controlled traffic farming, and precision biological pest control.

E. Purchasing, installing, upgrading, or maintaining relevant equipment, such as sensors, remote sensing devices, yield monitors, controllers, consoles, drones, unmanned aerial vehicles (UAV), meteorological forecasting, and more.

F. Setting up networking and connectivity services to support data transmission and integration.

G. Utilising data analysis and decision support systems to guide informed farm management decisions.

H. Using specialised tools, including GIS and GPS-based software for precision farming applications.

I. Covering ongoing costs, including software subscriptions and updates.

J. Providing staff training to ensure the effective use of precision technologies.

Forestry Substantial Contribution criteria for climate change mitigation

F1. Afforestation and reforestation

F1.1 Forest establishment (green activity)

Establish new forest growth, or natural regeneration, or re-establishment for new forest growth, for at least 25 years, on land that was either previously forested or was grazed, cropped, or fallow for the previous 5 years.

Process and requirements

For the activity to be classified as green, it must meet all of the following requirements:

A. The activity will be inconsistent with the taxonomy if the underlying activities result in the conversion of a forest or natural ecosystem (see land conversion definitions).

B. Have a clearly defined baseline for carbon sinks, or, if unavailable, a detailed plan for baseline establishment. The baseline must identify key carbon sinks across the entire activity, following an assessment based on the GHG Protocol or ETS estimation tables to estimate their value.

C. Develop, implement and maintain a comprehensive forest management plan tailored to the needs of the activity, considering relevant local risks, metrics, projected timelines, and the interactions between the planned forest and the broader landscape, including factors such as soil condition, biodiversity, climate, and water availability. The plan must outline and document the number of trees to be planted per hectare to achieve the desired forest cover and include one or more of the eligible practices listed below.

D. A risk assessment of erosion susceptibility and potential affected values is undertaken using the MPI NES-PF erosion susceptibility classification and fish spawning indicator tool to determine potential erosion risk.

E. Forest Management Plans to assess and mitigate long-term climate risks, including species diversity, pest and disease resilience, and fire risk under future climate scenarios.

F. Identification for exclusion of afforestation in high and very high erosion risk areas with species with the intention for clear felling, or that pose a significant risk of collapse because they are shallow-rooting.

G. A risk assessment and actions to avoid negative impacts on water ecosystems, water quality and quantity and mitigate and remedy those that occur, including:

   a. Riparian zones of a minimum of 10 metres each side of the water body are identified and documented on all water bodies that have permanent water when forested.

      i. Afforestation with exotic forestry species is prohibited within a minimum 10m riparian management zone (RMZ) from identified water bodies.

      ii. In addition to the 10 metres riparian zone, slope, soil stability and future harvest disturbance should be assessed when considering if 10m is a sufficient riparian zone to protect water quality.

H. Quantitatively demonstrate an increase in carbon stocks (estimated) across the entire activity compared to the established baseline of at least 1 tonnes C per hectare per year, until they reach steady state (see Monitoring). The comparison should be made using a 5-year rolling average. Where the financing period is shorter than 5 years and historical data is not available, carbon estimations can be used. Where historical data exists and/or where the financing period is longer than 5 years, actual data should be used.

   a. Note: The activity will remain eligible if carbon stocks are temporarily reduced due to unforeseeable and unavoidable catastrophes, for example, drought, wildfires or other natural disasters.

I. Demonstrate credible compliance with requirements A to G. Proponents can demonstrate compliance by:

   a. Providing evidence that the forest and/or all forest products harvested from the activity are certified under the Forest Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC); and/or

   b. Obtaining third-party assurance or verification opinion of compliance with the requirements; and/or

   c. Providing documentary evidence that substantiates compliance with requirements A to G.

Eligible practices

Eligible establishment and management practices that support classifying the activity as green, which may include both existing and new practices on the asset, along with their associated costs, include:

A. Securing and acquiring land for the establishment of the forest.

B. Implementing and conducting forestry establishment, planting, and managing activities to create the forest, including sowing seed, exclusion of stock (in establishment phase), and pest, pathogen and weed management.

Supporting practices

C. Procuring the necessary equipment and resources for the ongoing maintenance and management of the forest.

D. Installing, upgrading, and maintaining warning systems or satellite monitoring for fire, illegal incursions, epidemics, invasive species, floods, and drought conditions.

E. Setting up and maintaining protection measures, including employing rangers, pest control, installing monitoring equipment, and conducting GIS analysis, satellite data collection, and data analysis.

F. Implementing and engaging auditing and certification services, such as FSC and PEFC, for a Sustainable Forest Management System (SFMS).

Monitoring

A. The calculation of changes in carbon stocks within the project area should consider:

   a. Tree growth.

   b. Natural decay.

   c. Disturbance events, including changes due to drought, wildfires, decay, pest pathogen, weeds or other natural disasters.

   d. Changes due to harvest.

B. Infield measurements via one or more of the following:

   a. Field Measurement Approach (FMA) using the ETS guidance tables.

   b. Biomass estimation using canopy cover from remote sensing technology.

C. Carbon dioxide equivalent net abatement must be calculated by subtracting activity emissions from activity removals.

D. Maintain ongoing monitoring of the decarbonisation measures outlined in the forest management plan.

** See land conversion definitions.*

F1.2 Renewable energy production and storage for on-site use

See A1.7 for detail.

F1.3 Electric and energy efficient vehicles and equipment

See A1.8 for detail.

F1.4 Establishment and monitoring to support carbon offset generation

Establishment, management and reporting expenditures required to generate carbon offsets to participate in the Emissions Trading Scheme (ETS) and other voluntary offset schemes.

Eligible practices

Eligible practices that support activities to allow participation in carbon credit schemes that are approved as meeting established international best practice in the form of Integrity Council for the Voluntary Carbon Market (ICVCM) include:

A. Site development: Expenses associated with preparing the site for creating carbon credits.

B. Initial investment: Upfront financial commitments required for the successful establishment and implementation of the project.

C. Planning and assessment: Costs related to project planning, environmental assessments and feasibility studies.

D. Measurement, reporting and verification expenses incurred for compliance audits, ongoing certification, and meeting reporting requirements.

F2. Rehabilitation

F2.1 Restoration and rehabilitation of native forests (green activity)

Restoration and rehabilitation of degraded native forests, whether through natural or human-induced processes, with restoration aiming to return ecosystems to their original state, and rehabilitation focused on improving the ecosystem's health and functions.

Commercial clear fell timber harvesting is not permitted. However, conservation, and ecosystem management activities such as thinning, removing invasive species, and activities for habitat restoration (including the sale of any byproducts from these activities) are permitted.

Process and requirements

For the activity to be classified as green, it must meet all of the following requirements:

A. The activity will be inconsistent with the taxonomy if the underlying activities result in the conversion of a forest or natural ecosystem, including partial conversion via selective logging or grazing.

B. Have a clearly defined baseline for carbon sinks, or, if unavailable, a detailed plan for baseline establishment. The baseline must identify key carbon sinks across the entire activity, following an assessment based on the GHG Protocol or ETS estimation tables to estimate their value.

C. Develop, implement and maintain a comprehensive forest management plan tailored to the needs of the activity that considers relevant local risks, metrics and projected timelines. The plan must include one or more of the eligible practices listed below.

D. A risk assessment of erosion susceptibility and potential affected values is undertaken using the MPI NES-PF erosion susceptibility classification and fish spawning indicator tool to determine potential erosion risk.

E. Forest Management Plans to assess and mitigate long-term climate risks, including species diversity, pest and disease resilience, and fire risk under future climate scenarios.

F. Identification for exclusion of afforestation in high and very high erosion risk areas with species with the intention for clear felling, or that pose a significant risk of collapse because they are shallow-rooting.

G. A risk assessment and actions to avoid negative impacts on water ecosystems, water quality and quantity and mitigate and remedy those that occur, including:

   a. Riparian zones of a minimum of 10 metres each side of the water body are identified and documented on all water bodies that have permanent water when forested.

      i. Afforestation with exotic forestry species is prohibited within a minimum 10m riparian management zone (RMZ) from identified water bodies.

      ii. In addition to the 10 metres riparian zone, slope, soil stability and future harvest disturbance should be assessed when considering if 10m is a sufficient riparian zone to protect water quality.

H. Quantitatively demonstrate an increase in carbon stocks of at least 0.4 tonne C per hectare per year (estimated) across the entire activity compared to the established baseline, until they reach steady state (i.e., the point at which the gains from photosynthesis balance from losses of respiration).The comparison should be made using a 5-year rolling average. Where the financing period is shorter than 5 years and historical data is not available, carbon estimations can be used. Where historical data exists and/or where the financing period is longer than 5 years, actual data should be used.

   a. Note: The activity will remain eligible if carbon stocks are temporarily reduced due to unforeseeable and unavoidable catastrophes, for example, drought, wildfires or other natural disasters.

I. Demonstrate credible compliance with requirements A to G. Proponents can demonstrate compliance by:

   a. Providing evidence that the forest is certified under the Forest Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC); and/or

   b. Obtaining third-party assurance or verification opinion of compliance with the requirements; and/or

   c. Providing documentary evidence that substantiates compliance with requirements A to G.

Eligible practices

Eligible management practices that support classifying the activity as green, which may include both existing and new practices on the asset, along with their associated costs, include:

A. Securing and acquiring land to protect, restore, and rehabilitate natural forests that provide a range of ecosystem services.

B. Securing and acquiring land to expand, restore, and rehabilitate existing areas and/or establish new habitats for diverse ecosystem services.

C. Implementing and conducting restoration and rehabilitation management activities, including those focused on restoring and rehabilitating habitats and species, improving biological connectivity, planting and eliminating pests, weeds and diseases.

Supporting practices

D. Procuring the necessary equipment and resources for the on-going maintenance and management of restoration and rehabilitation projects, including fencing for pest management.

E. Installing, upgrading, and maintaining warning systems or satellite monitoring for fire, illegal incursions, epidemics, invasive species, floods, and drought conditions.

F. Setting up and maintaining protection measures, including employing rangers, installing monitoring equipment, and conducting GIS analysis, satellite data collection, and data analysis.

Monitoring

A. The calculation of changes in carbon stocks within the project area should consider:
    a. Tree growth.
    b. Natural decay.
    c. Disturbance events, including changes due to drought, wildfires or other natural disasters.
    d. Changes due to conservation and ecosystem management activities.
B. Ongoing carbon stocks increase potential can be measured and reported using the Field Measurement Approach (FMA).
C. Maintain ongoing monitoring of the decarbonisation measures outlined in the management plan.

F2.2 Renewable energy production and storage for on-site use

See A1.7 for detail.

F2.3 Electric and energy efficient vehicles and equipment

See A1.8 for detail.

F2.4 Establishment and monitoring to support carbon offset generation

See F1.4 for detail.

F3. Forest management

F3.1 Existing forest management (green activity)

Existing forests, either indigenous or exotic, are managed to maintain or increase above ground carbon stocks.

Process and requirements

For the activity to be classified as green, it must meet all of the following requirements:

A. The land on which the activity is being applied must not have been subject to the conversion of a forest or natural ecosystem, since 31 December 2020 (see land conversion definitions).
B. Have a clearly defined baseline for carbon sinks, or, if unavailable, a detailed plan for baseline establishment. The baseline must identify key carbon sinks across the entire activity, following an assessment based on the GHG Protocol or ETS estimation tables to estimate their value.
C. Develop, implement and maintain a comprehensive forest management plan tailored to the needs of the activity that considers relevant local risks, metrics and projected timelines. The plan must include one or more of the eligible practices from D to K listed below.
D. Quantitatively demonstrate an increase in carbon stocks (estimated) across the entire activity compared to the established baseline of at least 1 tonne C per hectare per year, until they reach steady state (see Monitoring). The comparison should be made using a 5-year rolling average. Where the financing period is shorter than 5 years and historical data is not available, carbon estimations can be used. Where historical data exists and/or where the financing period is longer than 5 years, actual data should be used.
    a. Note: The activity will remain eligible if carbon stocks are temporarily reduced due to unforeseeable and unavoidable catastrophes, for example, drought, wildfires or other natural disasters.

E. Demonstrate credible compliance with requirements A to D. Proponents can demonstrate compliance by:

   a. Providing evidence that the forest and/or all forest products harvested from the activity are certified under the Forest Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC); and/or

   b. Obtaining third-party assurance or verification opinion of compliance with the requirements; and/or

   c. Providing documentary evidence that substantiates compliance with requirements A to D.

Eligible practices

Eligible management practices that support classifying the activity as green, which may include both existing and new practices on the asset, along with their associated costs, include:

A. Securing and acquiring land for forest management purposes.

B. Procuring the necessary equipment and resources for the ongoing maintenance and management of the forest.

C. Implementing and conducting forestry planting, harvesting, and management activities.

D. Modifying landscape structure to impede fire spread (e.g., establish networks of fire breaks; manage for a mix of stand ages and stocking densities; thin stands; create mosaics of controlled burns; select fire-tolerant species).

E. Promoting fire-smart landscapes (e.g., by planting fire-resistant tree species as firebreaks).

F. Encouraging the introduction and maintenance of mixed-species stands to increase resistance to pest invasion and resilience.

G. In forest stands, introducing and retaining genotypes and varieties that are resistant and resilient to pest attack.

H. Adjusting rotation lengths and cutting cycles to minimise the risk of storm-induced damage (e.g., landslides or runoff due to reduced vegetation cover).

I. Modifying harvesting regimes to improve species and stand stability.

J. Maintaining or increasing species and structural diversity in ecosystems to promote resistance to storm damage and resilience following damage.

K. Selecting wind-resistant species and promoting the development of multilayered canopies.

Supporting practices

L. Installing, upgrading, and maintaining warning systems or satellite monitoring for fire, illegal incursions, epidemics, invasive species, floods, and drought conditions

M. Setting up and maintaining protection measures, including employing rangers, installing monitoring equipment, weed and pest (browser and predator) control, and conducting GIS analysis, satellite data collection, and data analysis.

N. Implementing and engaging auditing and certification services, such as FSC and PEFC, for a Sustainable Forest Management System (SFMS).

Monitoring

A. The calculation of changes in carbon stocks within the project area should consider:

   a. Tree growth.

   b. Natural decay.

   c. Disturbance events, including changes due to drought, wildfires or other natural disasters.

   d. Changes due to harvest.

B. Infield measurements via one or more of the following:
    a. Field inventory: measuring sufficient plots within each strata.
    b. Permanent sample plot assessment: establishing permanently marked plots with fixed locations.
C. Carbon dioxide equivalent net abatement must be calculated by subtracting activity emissions from activity removals.
D. Maintain ongoing monitoring of the decarbonisation measures outlined in the forest management plan.

F3.2 Renewable energy production and storage for on-site use

See A1.7 for detail.

F3.3 Electric and energy efficient vehicles and equipment

See A1.8 for detail.

F3.4 Establishment and monitoring to support carbon offset generation

See F1.4 for detail.

F4. Conservation forestry

F4.1 Conservation forestry establishment and management (green activity)

Activities in non-commercial forests aimed at preserving one or more habitats or species. Conservation forestry assumes no change in existing land classification and takes place on land that meets the definition of Natural Forest (see natural forest definition).

Commercial harvesting is not permitted. However, conservation, and ecosystem management activities such as removing invasive species, thinning to allow natives to grow, selective harvesting for cultural purposes and activities for habitat restoration (including the sale of any byproducts from these activities) is permitted.

Process and requirements

For the activity to be classified as green, it must meet all of the following requirements:

A. The land on which the activity is being applied must not have been subject to the conversion of a forest or natural ecosystem, since 31 December 2020 (see land conversion definitions).
B. Have a clearly defined baseline for carbon sinks, or, if unavailable, a detailed plan for baseline establishment. The baseline must identify key carbon sinks across the entire activity, following an assessment based on the GHG Protocol or ETS estimation tables to estimate their value.
C. Develop, implement and maintain a comprehensive forest management plan tailored to the needs of the activity that considers relevant local risks, metrics and projected timelines. The plan must include one or more of the eligible practices listed below.
D. Forest Management Plans to assess and mitigate long-term climate risks, including species diversity, pest and disease resilience, and fire risk under future climate scenarios.
E. Identification for exclusion of afforestation in high and very high erosion risk areas with species with the intention for clear felling, or that pose a significant risk of collapse because they are shallow-rooting.

F. A risk assessment and actions to avoid negative impacts on water ecosystems, water quality and quantity and mitigate and remedy those that occur, including:

   a. Riparian zones of a minimum of 10 metres each side of the water body are identified and documented on all water bodies that have permanent water when forested.

      i. Afforestation with exotic forestry species is prohibited within a minimum 10m riparian management zone (RMZ) from identified water bodies.

      ii. In addition to the 10 metres riparian zone, slope, soil stability and future harvest disturbance should be assessed when considering if 10m is a sufficient riparian zone to protect water quality.

G. Quantitatively demonstrate an increase in carbon stocks (estimated) across the entire activity compared to the established baseline of at least 0.5 tonne C per hectare per year, until they reach steady state* (see Monitoring). The comparison should be made using a 5-year rolling average. Where the financing period is shorter than 5 years and historical data is not available, carbon estimations can be used. Where historical data exists and/or where the financing period is longer than 5 years, actual data should be used.

   a. Note: The activity will remain eligible if carbon stocks are temporarily reduced due to unforeseeable and unavoidable catastrophes, for example, drought, wildfires or other natural disasters.

H. Demonstrate credible compliance with requirements A to G. Proponents can demonstrate compliance by:

   a. Providing evidence that the forest is certified under the Forest Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC); and/or

   b. Obtaining third-party assurance or verification opinion of compliance with the requirements; and/or

   c. Providing documentary evidence that substantiates compliance with requirements A to D.

Eligible practices

Eligible management practices that support classifying the activity as green, which may include both existing and new practices on the asset, along with their associated costs, include:

A. Securing and acquiring land for conservation forestry purposes.

B. Procuring the necessary equipment and resources for the on-going maintenance and management of restoration and rehabilitation projects, including fencing for pest management.

C. Implementing and conducting forestry conservation and management activities, including those focused on restoring and rehabilitating habitats and species, improving biological connectivity, and controlling pests and diseases.

Supporting practices

D. Installing, upgrading, and maintaining warning systems or satellite monitoring for fire, illegal incursions, epidemics, invasive species, floods, and drought conditions.

E. Setting up and maintaining protection measures, including employing rangers, installing monitoring equipment, and conducting GIS analysis, satellite data collection, and data analysis.

F. Implementing and engaging auditing and certification services, such as FSC and PEFC, for a Sustainable Forest Management System (SFMS).

Monitoring

A. The calculation of changes in carbon stocks within the project area should consider:

   a. Tree growth.

   b. Natural decay.

   c. Disturbance events, including changes due to drought, wildfires or other natural disasters.

   d. Changes due to harvest.

B. Infield measurements via one or more of the following:
    a. Field Measurement Approach (FMA) using the ETS guidance tables.
    b. Biomass estimation using canopy cover from remote sensing technology.
C. Carbon dioxide equivalent net abatement must be calculated by subtracting activity emissions from activity removals.
D. Maintain ongoing monitoring of the decarbonisation measures outlined in the forest management plan.

** Steady state is the point at which the gains from photosynthesis balance from losses of respiration.*

F4.2 Renewable energy production and storage for on-site use

See A1.7 for detail.

F4.3 Electric and energy efficient vehicles and equipment

See A1.8 for detail.

F4.4 Establishment and monitoring to support carbon offset generation

See F1.4 for detail.

F5. Support measures for forestry

Eligible practices

Eligible practices, which may include both existing and new practices on the asset, along with their associated costs, include:

A. Research and Development (R&D) of mitigation options: Conducting research and development of mitigation strategies and practices that align with activities and measures outlined in the Taxonomy.

B. Training and capacity building: Engaging training and capacity-building services to support the adoption and implementation of emissions mitigation practices and the increase and/or maintenance of carbon stocks.

C. Measurement and monitoring technologies: Implementing technologies to measure and monitor mitigation initiatives and objectives, including GHG emissions, spatial positioning and guidance systems, harvest or yield monitors, and data connectivity solutions.

Other land use Substantial Contribution criteria for climate change mitigation

O1. Ecosystem restoration, rehabilitation or creation

O1.1 Restoration, rehabilitation or creation of natural ecosystems (green activity)

Restoration and rehabilitation of degraded land or creation of natural ecosystems, including, but not limited to:

A. Mangroves and wetlands.

B. Peatlands.

C. And other naturally uncommon or vulnerable ecosystems identified by the NZ Department of Conservation.

With restoration aiming to return ecosystems to natural ecosystems status (see natural ecosystem definitions), and rehabilitation focused on improving the ecosystem's health and functions.

Process and requirements

For the activity to be classified as green, it must meet all of the following requirements:

A. The activity will be inconsistent with the taxonomy if the underlying activities result in the conversion of a forest or natural ecosystem (see land conversion definitions).

B. Have a clearly defined baseline for carbon sinks, or, if unavailable, a detailed plan for baseline establishment. The baseline must identify key carbon sinks across the entire activity, following an assessment based on the GHG Protocol to estimate their value.

C. Develop, implement and maintain a comprehensive management plan tailored to the needs of the activity that considers relevant local risks, metrics and projected timelines. The plan must include one or more of the eligible practices listed below.

D. Quantitatively demonstrate an increase in carbon stocks (estimated) across the entire activity compared to the established baseline of at least 0.4 tonne C per hectare per year, until they reach steady state* (see Monitoring). The comparison should be made using a 5-year rolling average. Where the financing period is shorter than 5 years and historical data is not available, carbon estimations can be used. Where historical data exists and/or where the financing period is longer than 5 years, actual data should be used.

    a. Note: The activity will remain eligible if carbon stocks are temporarily reduced due to unforeseeable and unavoidable catastrophes, for example, drought, wildfires or other natural disasters.

E. Demonstrate credible compliance with requirements A to D. Proponents can demonstrate compliance by:
   a. Obtaining third-party assurance or verification opinion of compliance with the requirements; and/or
   b. Providing documentary evidence that substantiates compliance with requirements A to D.

Eligible practices

Eligible management practices that support classifying the activity as green, which may include both existing and new practices on the asset, along with their associated costs, include:

A. Securing and acquiring land to protect, restore, and rehabilitate ecosystem areas that provide a range of ecosystem services.

B. Securing and acquiring land to expand, restore, and rehabilitate existing areas and/or establish new habitats for diverse ecosystem services.

C. Procuring the necessary equipment and resources for the on-going maintenance and management of restoration and rehabilitation projects, including fencing for pest management.

D. Implementing and conducting restoration and rehabilitation management activities, including those focused on restoring and rehabilitating habitats and species, improving biological connectivity, and eliminating pests and diseases.

E. Establishment of wetlands in ecologically suitable locations, including required earthworks, planting and management activities.

Supporting practices

F. Installing, upgrading, and maintaining warning systems or satellite monitoring for fire, illegal incursions, epidemics, invasive species, floods, and drought conditions.

G. Setting up and maintaining protection measures, including employing rangers, installing monitoring equipment, and conducting GIS analysis, satellite data collection, and data analysis.

Monitoring

A. Ongoing carbon stocks increased potential can be measured and reported using estimations aligned with the GHG protocol.

B. Maintain ongoing monitoring of the decarbonisation measures outlined in the management plan.

** Steady state is the point at which the gains from photosynthesis balance from losses of respiration.*

O1.2 Renewable energy production and storage for on-site use

See A1.7 for detail.

O1.3 Electric and energy efficient vehicles and equipment

See A1.8 for detail.

O1.4 Establishment and monitoring to support carbon offset generation

See F1.4 for detail.

O2. Ecosystem conservation

O2.1 Conservation of natural ecosystems (green activity)

Enhance or maintain carbon sinks through the conservation of natural ecosystems, including:

A. Mangroves and wetlands.

B. Peatlands.

C. Shrublands.

Process and requirements

For the activity to be classified as green, it must meet all of the following requirements:

A. The land on which the activity is being applied must not have been subject to the conversion of a forest or natural ecosystem, since 31 December 2020 (see land conversion definitions).

B. Have a clearly defined baseline for carbon sinks, or, if unavailable, a detailed plan for baseline establishment. The baseline must identify key carbon sinks across the entire activity, following an assessment based on the GHG Protocol to estimate their value.

C. Develop, implement and maintain a comprehensive management plan tailored to the needs of the activity that considers relevant local risks, metrics and projected timelines. The plan must include one or more of the eligible practices listed below.

D. Quantitatively demonstrate an increase in carbon stocks (estimated) across the entire activity compared to the established baseline of at least 0.4 tonne C per hectare per year, until they reach steady state (i.e., the point at which the gains from photosynthesis balance from losses of respiration). The comparison should be made using a 5-year rolling average. Where the financing period is shorter than 5 years and historical data is not available, carbon estimations can be used. Where historical data exists and/or where the financing period is longer than 5 years, actual data should be used.

   a. Note: The activity will remain eligible if carbon stocks are temporarily reduced due to unforeseeable and unavoidable catastrophes, for example, drought, wildfires or other natural disasters.

E. Demonstrate credible compliance with requirements A to D. Proponents can demonstrate compliance by:

   a. Obtaining third-party assurance or verification opinion of compliance with the requirements; and/or

   b. Providing documentary evidence that substantiates compliance with requirements A to D.

Eligible practices

Eligible management practices that support classifying the activity as green, which may include both existing and new practices on the asset, along with their associated costs, include:

A. Securing and acquiring land to protect and conserve ecosystem areas that provide a range of ecosystem services.

B. Securing and acquiring land to expand and restore existing areas and/or establish new habitats for diverse ecosystem services.

C. Procuring the necessary equipment and resources for the on-going maintenance and management of conservation projects.

D. Implementing and conducting conservation management activities, including those focused on preserving habitats and species, improving biological connectivity, and eliminating pests and diseases.

Supporting practices

E. Installing, upgrading, and maintaining warning systems or satellite monitoring for fire, illegal incursions, epidemics, invasive species, floods, and drought conditions.

F. Setting up and maintaining protection measures, including employing rangers, installing monitoring equipment, and conducting GIS analysis, satellite data collection, and data analysis.

Monitoring

A. Ongoing carbon stocks increase potential can be measured and reported using estimations aligned with the GHG protocol.

B. Maintain ongoing monitoring of the decarbonisation measures outlined in the management plan.

** Steady state is the point at which the gains from photosynthesis balance from losses of respiration.*

O2.2 Renewable energy production and storage for on-site use

See A1.7 for detail.

O2.3 Electric and energy efficient vehicles and equipment

See A1.8 for detail.

O2.4 Establishment and monitoring to support carbon offset generation

See F1.4 for detail.

O3. Support measures for other land management, restoration and conservation

See F5 for detail.

Land conversion definitions

The following definitions provide guidance for the exclusion of activities based on non-compliance with conversion, including deforestation and other ecosystems as referenced throughout the document.

Forest definition

Land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use.

Explanatory notes

- Forest is determined both by the presence of trees and the absence of other predominant land uses. The trees should be able to reach a minimum height of 5 metres in situ.
- Includes areas with young trees that have not yet reached, but which are expected to reach a canopy cover of 10 percent and tree height of 5 metres. It also includes areas that are temporarily unstocked due to clear-cutting as part of a forest management practice or natural disasters, and which are expected to be regenerated within 5 years. Local conditions may, in exceptional cases, justify that a longer time frame is used.
- Includes forest roads, firebreaks and other small open areas; forest in national parks, nature reserves and other protected areas such as those of specific environmental, scientific, historical, cultural or spiritual interest.
- Includes windbreaks, shelterbelts and corridors of trees with an area of more than 0.5 hectares and width of more than 20 metres.

- Includes abandoned shifting cultivation land with a regeneration of trees that have, or are expected to reach, a canopy cover of 10 percent and tree height of 5 metres.
- Includes areas with mangroves in tidal zones (not required to meet 5-metre height requirement), regardless of whether this area is classified as land area or not.
- Includes areas outside the legally designated forest land which meet the definition of 'forest'.
- Excludes tree stands in agricultural production systems, such as fruit tree plantations, olive orchards and agroforestry systems when crops are grown under tree cover. Note: Some agroforestry systems such as the 'Taungya' system where crops are grown only during the first years of the forest rotation should be classified as forest.
- In exceptional circumstances where appropriate native species are unlikely to meet the 5m height requirement due to local conditions (such as soil type, wind, rainfall, elevation, slope, or exposure) may exclude height requirements if those species are capable of meeting the height requirement in other locations.

Source: Adapted from FAO definitions.

Natural forest definition

Natural forests are forests that possess many or most of the characteristics of a forest native to the given site, including species composition, structure, and ecological function. Natural forests align with the forest classification of land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use.

Natural forests include:

- Primary forests that have not been subject to major human impacts in recent history.
- Regenerated (second-growth) forests that were subject to major impacts in the past (for instance by agriculture, livestock raising, tree plantations, or intensive logging), but where the main causes of impact have ceased or greatly diminished and the ecosystem has attained much of the species composition, structure, and ecological function of prior or other contemporary natural ecosystems.
- Managed natural forests where much of the ecosystem's composition, structure, and ecological function exist in the presence of activities such as:
- Harvesting of timber or other forest products, including management to promote high-value species.
- Low intensity, small-scale cultivation within the forest, such as less-intensive forms of swidden agriculture in a forest mosaic.
- Forests that have been partially degraded by anthropogenic or natural causes (e.g., harvesting, fire, climate change, invasive species, or others) but where the land has not been converted to another use and where degradation does not result in the sustained reduction of tree cover below the thresholds that define a forest or sustained loss of other main elements of ecosystem composition, structure, and ecological function.

Source: Accountability Framework definitions.

Deforestation definition

The conversion of forest to other land use independently of whether human-induced or not.

NZ Taxonomy cut-off date for deforestation and conversion is 31 December 2020. Cut-off date is the date after which deforestation or conversion renders a given area or production unit non-compliant with the NZ Taxonomy. The cut-off date has been chosen to align with major global deforestation/ conversion agreements.

Explanatory notes

- Includes permanent reduction of the tree canopy cover below the minimum 10 percent threshold.
- It includes areas of forest converted to agriculture, pasture, water reservoirs, mining and urban areas.
- The term specifically excludes areas where the trees have been removed as a result of harvesting or logging, and where the forest is expected to regenerate naturally or with the aid of silvcultural measures.
- The term also includes areas where, for example, the impact of disturbance, over-utilisation or changing environmental conditions affects the forest to an extent that it cannot sustain a canopy cover above the 10 percent threshold.

Source: Adapted from FAO definitions.

Natural ecosystem definition

Natural ecosystems are composed of native species and occur largely as a result of natural processes, with minimal human alteration. This includes primary forests, native grasslands, wetlands, and other areas that retain their natural structure, composition, and ecological processes.

Source: Accountability Framework definitions.

Conversion definition

Loss of a natural ecosystem (or man-made wetland) as a result of its replacement with agriculture or another land use, or due to a profound and sustained change in a natural ecosystem's species composition, structure, or function.

NZ Taxonomy cut-off date for deforestation and conversion is 31 December 2020. Cut-off date is the date after which deforestation or conversion renders a given area or production unit non-compliant with the NZ Taxonomy. The cut-off date has been chosen to align with major global deforestation/ conversion agreements.

Explanatory notes

- Deforestation is a form of conversion (conversion of natural forests).
- A change of land use that results in a loss of natural ecosystems (mature or regenerating) is a form of conversion.
- Conversion includes severe and sustained degradation or the introduction of management practices that result in a profound and sustained change in the ecosystem's species composition, structure, or function.
- Change to natural ecosystems that meets this definition is considered to be conversion regardless of whether or not it is legal.

Source: Adapted from Accountability Framework definitions.

Appendices for climate change mitigation Substantial Contribution criteria

Examples of agricultural industry assurance schemes

Dairy

- Fonterra Farm Environment Plans
- Synlait's Lead with Pride

Red meat & wool (Sheep, beef and deer farmers)

- New Zealand Farm Assurance Programme (NZFAP) and NZFAP Plus, managed by managed by New Zealand Farm Assurance Incorporated (NZFAI)

Horticulture

- New Zealand Good Agricultural Practice (NZGAP)
- The GLOBAL G.A.P. Integrated Farm Assurance (IFA)

Viticulture

- Sustainable Winegrowing New Zealand (SWNZ)

Glossary for climate change mitigation Substantial Contribution criteria

Absolute emissions

Absolute emissions are understood to be the total quantity of greenhouse gases emitted over a specified period, typically expressed in gigatonnes or metric tons of CO2-equivalent. This includes all emissions from anthropogenic sources without any adjustment for output, population, or economic activity.

Source: IPCC Sixth Assessment Report

Afforestation

Establishment of forest through planting and/or deliberate seeding on land that, until then, was under a different land use, implies a transformation of land use from non-forest to forest.

Source: Food and Agriculture Organization of the United Nations. (2020). Terms and definitions. In Global Forest Resources Assessment 2020. FAO.

Agricultural commodities

Commodity groupings, include the below. For the purpose of calculating meaningful and relevant emission intensities, commodity groups should be broken down into sub-categories, i.e., beef, lamb and dairy:

- Dairy
- Red meat and wool
- Horticulture
- Arable (grains and seeds)
- Pork
- Poultry

Farm Environment Plan (FEP)

A tool to help identify the environmental risks on farms and make plans to manage and mitigate those risks. Plans are unique to each farm and consider the type of farming, operational practices and local environment.

Freshwater Farm Plan

Freshwater Farm Plan (FWFP) process in New Zealand is a regulated system designed to help farmers and growers identify, manage, and reduce the impact of farming activities on local waterways.

Farms require a certified FWFP if they have:

- 20 hectares or more of arable or pastoral use,
- 5 hectares or more of horticultural use,
- 20 hectares or more of combined land use.

The requirement applies even if land blocks are not adjoining, as long as they're in the same catchment

Note: FWFP were on-hold at the time of the taxonomy publication, updates and details of FWFP available here.

Industry assurance report

For mitigation must be tailored to the needs of the livestock or farming activity that details the farm's strategy to:

A. Reduce emissions.

B. Increase or maintain (in the case of saturation) sequestration.

Intensity measure

An intensity measure refers to the amount of greenhouse gas (GHG) emissions released per unit of activity, output, or economic value. This allows emissions to be normalised and compared across varying scales of production or economic growth.

Net emissions

Net emissions represent total emissions minus total removals (e.g., via land use, technological carbon capture, or other sinks).

Reforestation

Re-establishment of forest through planting and/or deliberate seeding on land classified as forest.

Source: Food and Agriculture Organization of the United Nations. (2020). Terms and definitions. In Global Forest Resources Assessment 2020. FAO.

Small business

A business with less than 20 employees.