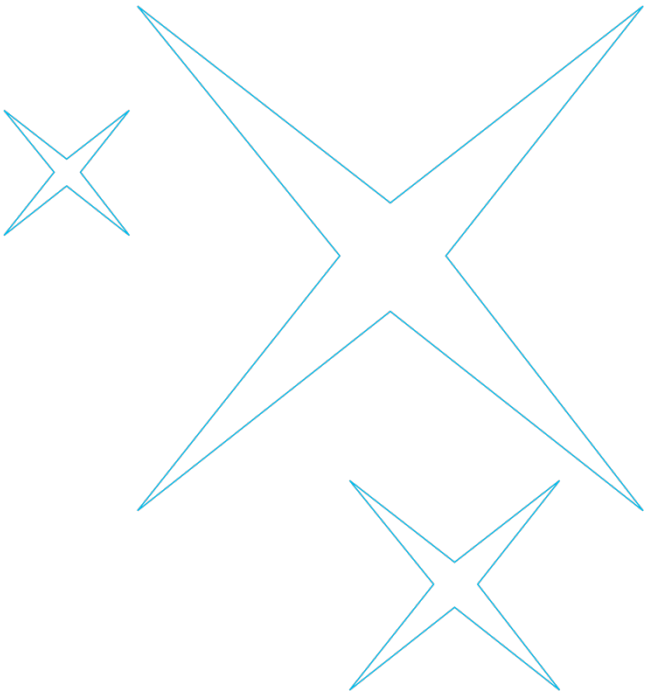
June 2025

Agriculture & Forestry

Substantial contribution criteria for climate change mitigation

Draft for first public consultation



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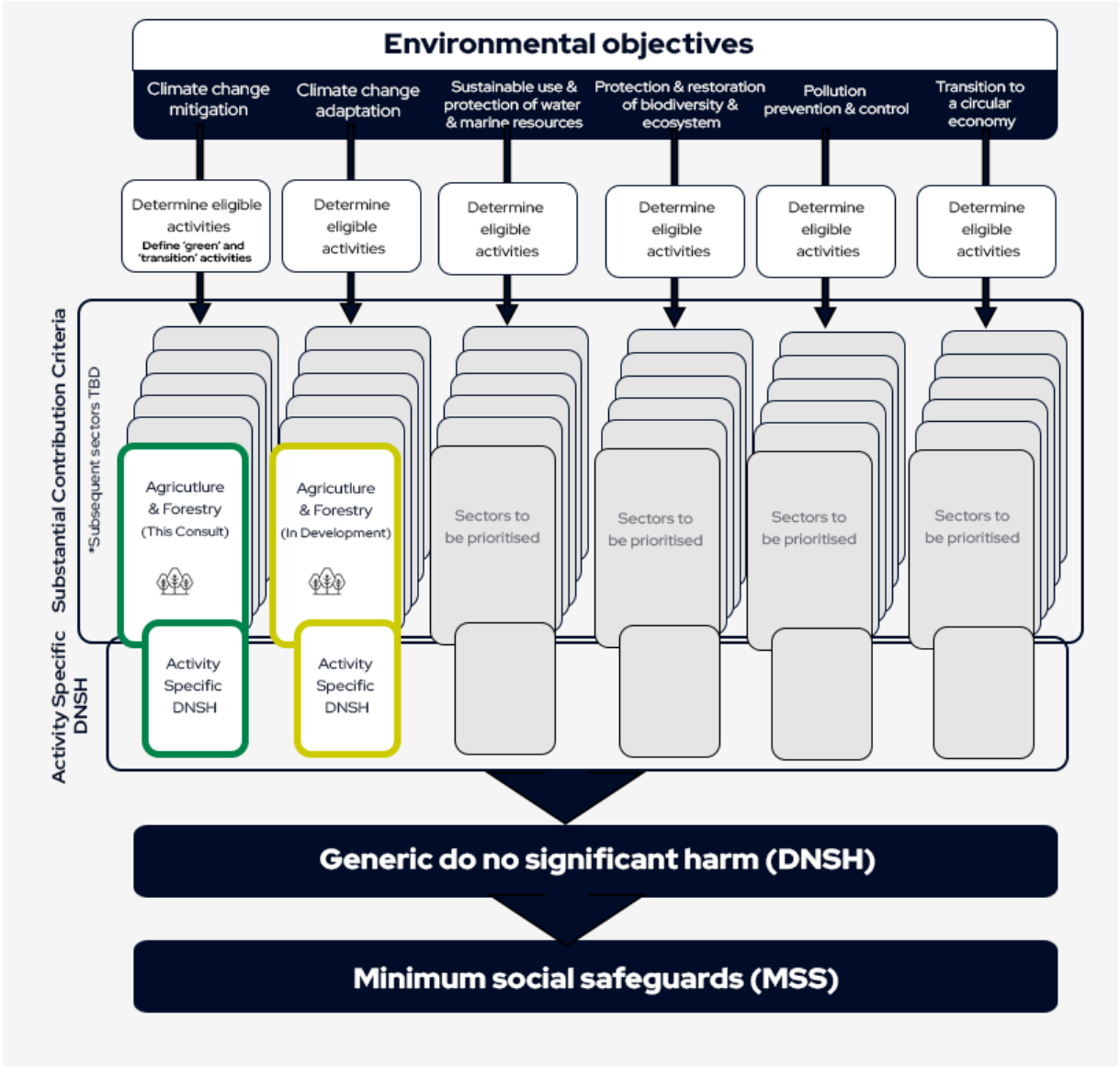
Structure of the NZ Taxonomy



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Substantial contribution criteria for climate change mitigation – Draft for public consult

Aotearoa New Zealand Sustainable Finance Taxonomy (NZ Taxonomy) – Agriculture and Forestry

Purpose of this document

This section presents the draft substantial contribution (SC) criteria for climate change mitigation as they apply to agriculture, forestry and other land use activities under the Aotearoa New Zealand Sustainable Finance Taxonomy (NZ Taxonomy). It is intended for review as part of a broader consultation package.

What are SC criteria?

The 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 are grounded in robust technical and scientific evidence and are designed to ensure that activities go beyond business-as-usual and meaningfully advance emissions reduction towards alignment with the Paris agreement.

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?

NZ Taxonomy alignment is assessed through a four-step process:

- Activity eligibility and categorisation: The activity must fall within an overall category deemed eligible for inclusion under the green or transition classifications of the Taxonomy.

- SC: The activity must demonstrate a substantial contribution to at least one environmental objective – in this case, climate change mitigation.
- Do no significant harm (DNSH): The activity must not significantly harm any of the other environmental objectives, as assessed against the generic and activity-specific DNSH criteria.
- Minimum social safeguards (MSS): The entity undertaking the activity must comply with the requirements set out under each of the MSS pillars.

All four conditions must be satisfied for an activity to be deemed NZ Taxonomy-aligned.

All SC criteria 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 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

This document is intended to support technical review and targeted feedback from stakeholders and sector experts. It should be read in conjunction with the following accompanying consultation materials, which provide essential context and explain the methodology underpinning the broader Taxonomy framework:

- Introduction– which outline the overarching purpose and structure of the NZ Taxonomy, as well as key decisions which have shaped the direction and design here.
- Methodology for classification of activity categories as green or transition here.
- DNSH framework – sets out environmental safeguards at the activity level here.
- MSS framework – defines minimum social and governance standards at the entity level here.

Green versus transition activity categories at a glance

Activities for which SC criteria have been developed are determined eligible and classified as green or transition based on the methodological approach established here. **Green activities are noted in the criteria below, all other activities are considered transition.** Both green and transition activities are NZ Taxonomy aligned.

Types	Activities	Green?	Transition?
Agriculture	Whole-of-farm activity	Yes	Proposed
	Livestock grazing and animal production (including ruminant and monogastric)		Yes
	Perennial and non-perennial crops (including horticulture)		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 transition 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. Any relevant process requirements outlined in the decarbonisation measures (e.g., management plans) can be incorporated into a single Farm Environment Plan (FEP).

A0. Whole farm activity (green activity)

Under the whole farm transition activity, farms with a low emissions system that meet a threshold can be categorised as Green under the NZ Taxonomy.

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

Proposed transition whole of farm activity: The TEG/TAG have proposed the development of a transition whole of farm activity, for proponents making substantial progress in emissions reduction. In order to develop this activity further input is being sought via the consultation on the approach, targets, measurement and appropriate guidance for this activity. Please refer to the consultation questionnaire to provide input on these.

Process and 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. Grazing or farming 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 activity, following an assessment based on either the GHG Protocol Agricultural Guidance, MPI's Farm Emissions Methodology or calculators that align to the GHG Protocol.

D. Develop, implement, and maintain a Farm Environment Plan (FEP) or recognised industry assurance report 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.

E. The FEP or recognised industry assurance report must:

   a. Describe the farm's biophysical environment and production system including information on land use change.

   b. Detail the nutrient management plan, including soil type and its needs, pasture requirements, historical fertiliser applications and rotations and seasonal conditions and forecasts.

   c. Measure 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 for farm level accounting).

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

Eligible practices

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

B. Any combination of practices outlined in the activities or measures from the agriculture, forestry and other land use taxonomy are permitted.

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.

A1. Livestock grazing and animal production

A1.1 Nutrient management

Efficient nitrogen use in livestock systems to minimise nitrous oxide emissions is achieved through substituting fossil-fuel derived fertiliser with low-emission fertilisers, 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 nutrient management plan 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 nutrient management plan 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 nutrient management plan, 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-emission fertilisers.

   b. Measurable reduction of N2O emissions relative to its baseline of at least 1.5% per year (measured following GHG Protocol Agricultural Guidance).

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 without sacrificing yield.

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 Farm Environment Plan (FEP) with verification by a qualified expert (e.g., livestock consultant, livestock nutritionist, agronomist, etc.) with evidence of the following:

    a. Measurable reduction of CH4 emissions relative to a baseline of at least 2% per year (measured following GHG Protocol Agricultural Guidance).

C. Livestock operations must meet feed predominantly through grazing or forage crops.

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 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 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 practise in New Zealand, however their inclusion is important to ensure the usability of the NZ Taxonomy for local investors investing overseas.

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 soil management plan tailored to the needs of the livestock activity. The plan 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 management plan, 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.

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:

   a. World Biochar Certificate (WBC).

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

   c. Roundtable on Sustainable Biomaterials (RSB).

d. Forest Stewardship Council (FSC).

e. 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 plan 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 2 metres and achieve a canopy cover of at least 10 percent* of the planted area.

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. Procuring ground-work services or equipment hire for site preparation or fencing installation.
G. Engaging or conducting labour services for planting, maintenance, and ongoing protection of agroforestry practices, including pest management.
H. 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 feed management plan tailored to the needs of the livestock activity. The plan should outline the feed supplements or additives to be utilised,

including their dosage, 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 feed management plan, with certification through Industry Assurance Plan or verification by a qualified expert or (e.g., livestock nutritionist, etc.) with:
    a. Evidence of at least 10% methane reduction in animals that receive the treatment.
    b. Administered to at least 20% of the herd initially, with 80% of the herd receiving the intervention within five years.

C. Feed supplements and additives must meet one of the following eligibility criteria:
    a. Feed supplements and additives that are not excluded by the Agricultural Compounds and Veterinary Medicines (ACVM) and meet applicable requirements, hold a valid registration, and deliver a methane reduction efficacy of at least 10% demonstrated in peer-reviewed publications and relevant and applicable to the farm system.
    b. Feed supplements and additives that are exempt from requiring approval and registration with the ACVM and have a documented minimum effective inclusion level (MEIL). Including:
        i. Feed material already recognised in New Zealand as not requiring ACVM approval and documented as capable of achieving MEIL at low doses (e.g.<0.5% daily diet).
        ii. Other MEIL documented supplements and additives in any embodiment that their application is documented as non-harmful to animals and humans and achieve methane reduction efficacy of at least 10% as outlined in peer-reviewed publications and have been endorsed by a livestock nutritionist.

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 plan 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 farm vehicles and equipment

Purchase or leasing of electric, energy-efficient, and 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. Eligible energy efficient tractors, headers and harvesters*.

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 are:

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 voluntary offset schemes.

Eligible practices

Eligible practices that support activities to allow participation in carbon offset schemes that align with the GHG protocol land sector and removals guidance, 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)

A2.1 Crop nutrient management

Efficient nitrogen use in cropping and horticulture systems to minimise nitrous oxide emissions is achieved through substituting fossil-fuel fertiliser with low-emission fertilisers, 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 nutrient management plan 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 nutrient management plan 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 nutrient management plan, with certification through Industry Assurance Plan or verification by a qualified expert or (e.g. Certified Nutrient Management Advisor or agronomist) with evidence of the following:

   a. Within three years, at least 80% of all fertilisers used must be low-emissions fertilsers.
   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 (measured following GHG Protocol Agricultural Guidance).

Fertiliser application must comply with the following:

C. 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.

D. 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

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 soil management plan tailored to the needs of the cropping activity. The plan 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 soil management plan, 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.

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:
    a. World Biochar Certificate (WBC).
    b. International Sustainability & Carbon Certification (ISCC) system.
    c. Roundtable on Sustainable Biomaterials (RSB).
    d. Forest Stewardship Council (FSC).
    e. 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 practise in New Zealand, however their inclusion is important to ensure the usability of the NZ Taxonomy for local investors investing overseas.

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 rice production management plan tailored to the needs of the rice production activity. The plan 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 production management plan, 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 rice production management plan.

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 plan 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.

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

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

H. 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

See A1.7 for detail.

A2.6 Purchases of electric and energy efficient farm 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 Management practices for generation of carbon credits

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 has been grazed, cropped, or fallow for the past 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. 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 permanent 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 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 permanent 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

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.

E. 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.

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

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

* See land conversion definitions.

F1.2 Renewable energy production and storage

See A1.7 for detail.

F1.3 Electric and energy efficient forestry 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 ETS and voluntary offset schemes.

Eligible practices

Eligible practices that support activities to allow participation in carbon offset schemes that align with the GHG protocol, 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.

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.

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. 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.

E. Demonstrate credible compliance with requirements A to D. 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 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

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.

E. Ongoing carbon stocks increase potential can be measured and reported using the Field Measurement Approach (FMA).

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

F2.2 Transition exotic plantation forest to indigenous ecosystems

Transition existing plantation forests to indigenous species forests while enabling conservation, and biodiversity values.

The forest must maintain a continuous canopy cover. Selective harvesting is permitted and a canopy cover of 30% must be maintained (see land conversion definitions).

Process and 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. The forest must:

   a. Maintain a constant canopy, promoting structural diversity and spatial variability.

b. Only harvest using selective or small coupe harvesting.

c. Facilitate the opportunity for the forest to regrow naturally over time.

d. Feature a variety of tree species that are appropriate for the region.

e. 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 either the GHG Protocol 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. Quantitatively demonstrate an increase in carbon stocks of at least 0.4 tonne C per hectare per year (estimated) 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.

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, along with their associated costs, include:

A. Securing and acquiring land to implement transition forestry in order to provide a range of ecosystem services.

B. Purchase of native and locally appropriate tree species.

C. Costs associated with management to facilitate natural regeneration, including establishing seed islands.

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

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

Supporting practices

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

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

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

Monitoring

The Forest Management Plan should outline:

A. Tree growth.

B. Canopy cover – demonstrating maintenance.

C. Tree species diversity.

D. Natural decay.

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

F. Ongoing carbon stocks increase potential can be measured and reported using the Field Measurement Approach (FMA).

F2.3 Renewable energy production and storage

See A1.7 for detail.

F2.4 Electric and energy efficient forestry vehicles and equipment

See A1.8 for detail.

F2.5 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 natural or plantation, 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. Modify 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. Promote fire-smart landscapes (e.g. by planting fire-resistant tree species as firebreaks).

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

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

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

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

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

K. Select wind-resistant species and promote 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, 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

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.

E. 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.

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

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

F3.2 Onsite wood processing

Felling and processing of trees within the forest area where they are grown in order to prepare materials for transport and leave offcuts and lower-quality materials in the forest for humus.

Process and requirements

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:

A. Develop, implement and maintain a comprehensive forest management plan that considers relevant local risks, metrics and projected timelines.

B. The plan must include projected emissions reductions from on-site harvesting.

Practices

A. Equipment costs: Purchase or lease of specialised machinery for onsite processing, such as feller bunchers or harvesters.

B. Labor costs: Skilled in operating the equipment and performing various tasks related to onsite processing.

Supporting practices

C. Professional services for planning, baselining and monitoring.

F3.3 Renewable energy production and storage

See A1.7 for detail.

F3.4 Electric and energy efficient forestry vehicles and equipment

See A1.8 for detail.

F3.5 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 definitions).

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 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. 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.

E. Demonstrate credible compliance with requirements A to D. 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

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.

E. 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.

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

G. 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

See A1.7 for detail.

F4.3 Electric and energy efficient forestry vehicles and equipment

See A1.8 for detail.

F4.4 Management practices for generation of carbon credits

See A1.9 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.

   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 Transition exotic plantation forest to indigenous ecosystems

See F2.2 for detail.

O1.3 Renewable energy production and storage

See A1.7 for detail.

O1.4 Electric and energy efficient forestry vehicles and equipment

See A1.8 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 Transition exotic plantation forest to indigenous ecosystems

See F2.2 for detail.

O2.3 Renewable energy production and storage

See A1.7 for detail.

O2.4 Electric and energy efficient forestry vehicles and equipment

See A1.8 for detail.

O2.5 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 1 hectare with trees higher than 2 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 2 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 2 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 1 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 2 metres.
- Includes areas with mangroves in tidal zones (not required to meet 2-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 local conditions (soil type, rainfall, elevation, slope) may exclude height requirements for native tree species.

Source: Adapted from FAO definitions.

Natural forest definition

Natural forests possess many or most of the characteristics of a forest native to the given site, including species composition, structure, and ecological function. 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.

Explanatory notes

- Includes permanent reduction of the tree canopy cover below the minimum 30 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 silvicultural 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 30 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.

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

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

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.

The consultation is open from June 16 – July 13.

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