Regen Registry Program Guide

Ron Steinherz

Version 1.0
December 18, 2020

Table of Contents

Disclaimer

This document has been prepared for informational and procedural purposes only. Its contents are not intended to constitute legal advice. Regen Network Development, Inc (RND) maintains the right to amend or depart from any procedure or practice referred to in this guideline as deemed necessary.

Definitions

Credit Designer	an individual or organization that is developing a new Credit Class or updating an existing one.
Methodology Developer	an individual or organization that is developing a new Methodology or updating an existing one.
Monitor	an individual or organization that is contracted to measure the benefits / indicators defined in a given Credit Class based on the stipulations in the Approved Methodology.
Verifier	an individual or organization that is contracted to execute the verification requirements stipulated in a given Credit Class.
Broker	an individual or organization that is offering brokerage services to credit owners.
Project Proponent	the project developer or land steward that is applying to register a project on the registry.
Buyer	an individual or organization that is purchasing credits from the registry.
Validator	independent operators of the nodes that secure Regen Ledger.
Project Developer	the individual or organization that is in charge of managing the project and is the main point of contact with Regen Registry. The Project Developer can be the land steward or a third party.
Land Steward	the individual or organization that is performing the work on the ground. This can be a farmer, rancher, conservationist, forester, fisherman, etc.
Land Owner	the individual or organization that holds title to the land where the project is occurring in. This can be the Land Steward or a third party that rents the land to the Land Steward.
Project Registration Date	the official date when a project commences.
Approved Methodology	the corresponding approved methodology(s) for a given Credit Class.
Credit Class	similar to a standard in other registries, it defines the structure, procedures and requirements related to a certain credit type.
Project Plan	the template that each project proponent fills out in order to register a project on the registry.

Co-Benefit	the Intergovernmental Panel on Climate Change (IPCC) defines co-benefits of climate change mitigation as the positive benefits related to the reduction of greenhouse gases. We define it more broadly as# a benefit that is achieved along with the main indicator tracked and promoted in a given credit - which need not be a reduction of GHG. For example, a biodiversity credit might mainly promote the protection of a certain species and at the same time offer co-benefits, such as protection of water resources.
Baseline	an estimate of the measurement of a certain benefit / indicator tracked in a given credit had the project not been implemented. A baseline can be static, dynamic, project specific or based on performance standard (or a combination of those)https://ghgprotocol.org/sites/default/files/standards/ghg_project_accounting.pdf.
Verification	a systematic, independent, and documented assessment by a qualified and impartial third party of the benefits' assertions for a specific reporting period.
Supplement	an appendix to the Credit Class or Approved Methodology that contains stipulations related to a specific geographic locale or a specific case.
Crediting Term	is the finite length of time for which a Project Plan is effective, and during which a project can generate credits.
Project Activity	the applied management or conservation practice that a project proponent is undertaking in order to improve the benefits tracked in a given Credit Class.
Project Initial Monitoring Date	the date when the baseline measurement was performed
Project Page	the dedicated web page for a given project on the registry. It provides an overview of the project, the activities taken place, timeline, images, maps, documentation, and more.
Permanence Reversal Buffer	a dedicated buffer account that is allocated a percentage of credits from each issuance in order to mitigate permanence related reversal risk, i.e. GHG removal reversal that has occurred over the permanence period of the project.
Approved Activities	the set of land management or conservation activities that are eligible activities for a given Credit Class.

Established Registries other reputable registries in the carbon market that Regen Registry recognizes and accepts for certain purposes, such as onboarding verifiers. These registries are:

undefined. Verrahttps://verra.org/ - VCS Program , CCB Program, Jurisdictional & Nested REDD+ , SD Vista

undefined. Gold Standardhttps://registry.goldstandard.org/

undefined. American Carbon Registryhttps://americancarbonregistry.org/

undefined. Climate Action Reservehttp://www.climateactionreserve.org/

undefined. CDMhttps://cdm.unfccc.int/index.html

undefined. Australian Emission Reduction Fund - Carbon Farming Initiativehttp://cleanenergyregulator.gov.au/ERF/project-and-contracts-registers/project-register

Acronyms

GHG	Greenhouse Gases
IPCC	Intergovernmental Panel on Climate Change (IPCC) is an intergovernmental body of the United Nations that is dedicated to providing the world with objective, scientific information relevant to understanding the scientific basis of the risk of human-induced climate change.
AFOLU	Agriculture, Forestry and Other Land Use; a category of carbon credit projects that related to agriculture, forestry, and other land uses (e.g. conservation).
RND	Regen Network Development, Inc , the entity developing and operating Regen Registry. Also referred to in this document as Regen Network.
SDG	the United Nations' Sustainable Development Goals.
GIS	Geographic information system is a conceptualized framework that provides the ability to capture and analyze spatial and geographic data.

1. Introduction

Every day, business is done while neglecting some of our most important partners: Farmers and the Earth. The result are destructive global consequences like climate change, desertification, and resource depletion that affect nearly every aspect of human life. The United Nations FAO estimates 33% of the Earth's soils are already degraded and over 90% could become degraded by 2050[1].

The price tag to 'fix' these problems is estimated to be in the trillions, paralyzing global efforts to quickly address climate change. There may be nothing of more critical importance today than the regeneration of the world's ecosystems.

Farmers, the stewards of our global landscapes, offer one of the most powerful pathways for reversing climate change and unlocking a massive untapped market in the world: the services and products generated by Earth's ecosystems. Regen Registry coupled with Regen Ledger, an ecological blockchain-based ledger, create a new platform for farmers to monetize their ecological data while receiving rewards for sustainable practices. By improving the understanding of the state of our land, oceans, and watersheds and enabling rewards for verified positive changes, Regen Network catalyzes the regeneration of our ecosystems.

Regen Network was launched in Q2, 2018 and is headquartered in Great Barrington, Massachusetts.

1. FAO and ITPS, 2015; IPBES, 2018

2. Overview

The Program Guide details the general requirements and specifications for the quantification, monitoring, reporting and verification (MRV), project registration, and issuance of credits on Regen Registry. The common characteristic of all Regen Registry credits is that they are all nature-based solutions, and each can provide one or more ecosystem services, including GHG emissions reductions and removals, biodiversity/habitat protection, improvement in water quality, and more[2].

The Program Guide establishes the programmatic structure of Regen Registry, including credit classes and methodologies, the project registration process, project eligibility, and the issuance of tradable environmental assets to projects. This guide is intended to be used by Project Proponents, buyers, Monitors, Verifiers, and all other stakeholders.

Regen Registry aims to maximize flexibility and usability for Project Proponents while maintaining the environmental integrity and scientific rigor necessary to ensure that projects developed against its credit classes and methodologies are of the highest quality.

Project Proponents developing a project for registration on Regen Registry shall follow this Program Guide and must apply a Regen Registry approved credit class and methodology.

Project Proponents and other interested stakeholders should refer to the Regen Registry website for the latest version of the Program Guide, methodologies, document templates, and other guidance. Regen Registry will inform Project Proponents with active projects directly to avoid any potential disruptions.

2. Note, the taxonomy of carbon markets and climate mitigation varies from ecosystem services

3. Basics

3.1. Description

Regen Registry is an open source ecosystem services registry in which Project Proponents can register projects, apply for credits, and transfer and sell credits to buyers. Buyers can resell or retire credits (in the case of carbon credits). Each credit vintage issued has a unique ID, is project-based, is geospatially tagged and independently verified[3].

Regen Registry aims to provide an open source, vertically integrated solution that provides:

3.1.1. **Digital MRV** - software infrastructure that provides monitoring tools - through in-house remote sensing and interoperability with 3rd party tools - that streamline the cost and issuance of credits.

3.1.2. **Marketing Platform** - showcases the unique story of each project, highlighting the land stewards, the impact on the land and environment; provides buyers and policy makers with impact analytics on a portfolio (regional, national, and global) of key ecological indicators.

3.1.3. **Marketplace and exchange (trading platform)** - sellers offer their credits for sale; buyers purchase from one or multiple projects and build a portfolio; the system provides a clearing and settlement infrastructure including payments and billing.

3.1.4. **Regen Ledger** - a custom-built ecological ledger using blockchain technology where credits are issued and transferred, and monitoring and verification claims are recorded as immutable records.

Each layer offered within the Regen Registry is standalone and Project Proponents can choose which ones to use. For example, a Project Proponent can choose to perform the monitoring in-house, based on the methodology guidelines, rather than use a Monitor that leverages our software stack. That said, integrated use of all layers will enable significant advantages in ease-of-use, effectiveness, and cost efficiency.

3.2. Objectives

Regen Registry's objectives are to:

- Encourage nature-based solutions. For example, solutions based on regenerative agriculture, conservation, and best management practices, as a strategy to mitigate (by removing/reducing GHG emissions) and/or adapt to climate change.
- Provide guidance for, and promote, scientifically rigorous methodologies and credit classes to foster high quality ecological assets.
- Create an open-source infrastructure that allows cost-effective and rigorous MRV implementation, issues and tracks credits while avoiding double counting, and provides payments, billing, and marketing functionality.
- Support best practices in project-level GHG accounting and ecosystem services.
- Commercialize innovative types of credits bundled with valuable co-benefits and ecosystem services.

3. If an independent verification is required by the respective Credit Class

- Provide an environment to develop new types of ecological assets that will inform voluntary and regulated markets.
- Incorporate cutting-edge technologies, such as IoT sensors, satellite remote sensing, and digital signatures, in the use of project monitoring and verification.
- Enhance public confidence in market-based action for GHG removal and ecosystems' regeneration.
- Support interoperability between climate markets emerging from the UNFCCC's Paris Agreement and global NDC commitments.

3.3. Scope

3.3.1. Geography

3.3.1.1. Regen Registry accepts projects from locations worldwide, provided they conform to an approved credit class and its respective methodology.

3.3.2. Project Types

Regen Registry encourages and accepts a broad variety of nature-based projects that promote climate mitigation, adaptation, and regeneration of ecosystems, such as:

- **Agricultural projects** - examples include the adoption of cropland practices that sequester carbon, such as reduced tillage or planting cover crops, or pastureland / rangeland practices, such as rotational grazing.
- **Water management projects** - examples include the installation of swales that reduce nutrient runoff.
- **Forestry projects** - examples include afforestation, reforestation, and agroforestry projects.

3.3.3. Users

The following depicts the main users of Regen Registry:

- **Credit Designer** - an individual or organization that is developing a new Credit Class or updating an existing Credit Class.
- **Methodology Developer** - an individual or organization that is developing a new Methodology or updating an existing Methodology.
- **Monitor** - an individual or organization that is contracted to measure the benefits / indicators defined in a given Credit Class, based on the requirements of an Approved Methodology.
- **Verifier** - an individual or organization that is contracted to execute the verification requirements of a given Credit Class.
- **Broker** - an individual or organization that offers brokerage services to credit owners.
- **Project Proponent** - the project developer or land steward that applies to register a project on the registry.
- **Project Developer** - the individual or organization that manages a registered project and is the main point of contact with Regen Registry. The Project Developer can be the land steward or a third-party.

Land Steward - the individual or organization that performs the work on-the-ground. This can be a farmer, rancher, conservationist, forester, fisherman, etc.

- **Land Owner** - the individual or organization that holds title to the land where the project is occurring. This can be the Land Steward or a third-party that rents the land to the Land Steward.
- **Buyer** - an individual or organization that is purchasing credits from the Regen Registry.

3.3.4. Adoption and Revisions

Regen Registry aims to update the Program Guide on a yearly basis in order to accommodate changes in science and technology which inform new/upgraded methodologies, and changes in climate markets including GHG accounting best practices, legislative and/or regulatory requirements.

On a project level and in certain circumstances, Regen Registry may require all projects, including those monitored and verified under a previous version of the Program Guide, to implement a policy or process revision (e.g., updated administrative reporting procedures) detailed in a subsequent version of the Program Guide.

New/subsequent versions of the Program Guide will be posted for public comment for 30 days prior to adoption. Regen Registry will prepare responses to submitted comments and post the comments and responses along with the new version of the Program Guide.

3.3.5. Data Submission and Record-Keeping

Where appropriate, Regen Registry will provide templates for Project Proponents to collect and submit data for project registration, monitoring, and verification. These templates will be updated as needed. In the future, templates will migrate to online/digital interfaces, including digital signatures that simplify data collection and processing, enable interoperability with 3rd party tools, and provide a digital audit trail.

3.3.6. Conflict of Interest

Regen Registry requires that third-party Monitors and Verifiers sign a Conflict of Interest agreement.

3.4. Guiding Principles

3.4.1. Accuracy

The Project Proponent shall reduce, as far as is practical, uncertainties related to the quantification of GHG removals and/or any other applicable ecological indicator, such as species habitat, tree coverage, etc.

Methodologies submitted for Regen Registry approval shall include methods for estimating the uncertainty for each indicator. If the width of the 90% confidence interval exceeds 20%, an appropriate confidence deduction shall be applied.

The use of models, such as biogeochemical models, must include an estimate of structural uncertainty related to the inadequacy of the model, model bias, and model discrepancy. Monitors shall quantify these using the best available science, Monte Carlo analyses, uncertainty estimates from peer reviewed literature, and/or consulting model experts who have either developed or worked directly with the model in an academic setting.

3.4.2. Comparability

Methodologies approved on Regen Registry shall rely on comparable peer-reviewed studies as best as possible.

Further, Regen Registry is building infrastructure for automated monitoring processes that will enable, once monitoring has been performed for a given project, to have an independent party run that same monitoring process again, at will, in order to compare the results. We believe this will provide a new level of transparency and assurance to monitoring processes.

3.4.3. Continuously and Frequently Upgraded

Regen Registry encourages updates of the Program Guide, Credit Classes, and Methodologies in order to incorporate the latest scientific knowledge, technologies, and tools, such as IoT and remote sensing.

3.4.4. Transparency

Regen Registry is built to provide stakeholders, including Project Proponents, Buyers, scientists, and market experts, with a high level of transparency. We achieve this by:

- Credit Classes and Methodologies are publicly available and receive public comment. We also encourage engaging a broad set of subject matter experts during the design process.
- All pertinent project data is publicly available, including the Project Plan, monitoring reports, credit issuance certification, and verification reports.
- Regen Ledger will provide an immutable record and digital audit trail of monitoring and verification outcomes, and credit issuance and sales.

See also the GHG Accounting and Policies section.

3.4.5. Collaboration

Regen Registry believes deeply in collaboration. We are convening a broad set of independent parties to participate in:

- **Methodology development and Credit Class design** - scientists, economists and subject matter experts are invited to create new, cutting-edge ecological assets, to provide feedback, and to govern the library of methodologies and credit classes.
- **Monitoring and verification** - remote sensing companies, experts, IoT providers, surveying tools, etc. are invited to provide their monitoring services to streamline the costs of MRV while maintaining scientific rigor.
- **Regen Registry platform and Regen Ledger development** - software developers who are eager to mitigate climate change are welcome to contribute to these open source projects.

To that end, RND is also an active member OpenTEAM[4], or Open Technology Ecosystem for Agricultural Management, a farmer-driven, interoperable platform to provide farmers around the world with the best possible knowledge to improve soil health. We are currently collaborating with OpenTEAM members in creating digital, open source, and standardized data collection from the field and from MRV providers.

4. https://openteam.community/

3.4.6. Practicality

Regen Registry aims to balance the time and cost required by Project Proponents to collect data for monitoring, verification and reporting and the need for assurances from Credit Buyers. To that end, Regen Registry encourages a tiered approach to methodology development that will provide different levels of assurances to cater to different needs of Credit Buyers.

3.4.7. Security

RND will conduct security audits of its software, including Regen Ledger and Regen Registry, to ensure the data integrity and fidelity of credit ownership and the underlying MRV data.

3.4.8. Open Source and Open Data

Following the collaboration principle above, RND is a strong proponent of open-source software and open data. We firmly believe that in order to achieve the best results, provide transparency, ensure fair governance, and invite collaboration from multiple stakeholders, we need to develop open source software and share our research data openly. Our software code repositories are available on GitHub[5]

3.4.9. User-Centric Design

Relative to their potential, Agriculture, Forestry and Other Land Use (AFOLU) carbon credits have seen limited adoption in regulatory and voluntary markets. Historically, the supply of these credits has been limited because credit design has not incorporated enough feedback from land stewards, resulting in credit requirements that were complicated, expensive and/or time consuming. Regen Registry follows a user centric design of credit classes and methodologies with input not only from buyers but also land stewards and project developers.

5. https://github.com/regen-network/

4. Governance

Regen Registry is built on the principles of openness, collaboration, accountability, user centric design, transparency, responsiveness, and participation. This is applied to Credit Class and Methodology design, provision of monitoring and verification services, integration with other registries, and with 3rd-party service providers.

Regen Registry relies on a software implementation that includes two layers:

4.1. Regen Registry platform - a centralized software layer that provides user accounts, project pages, administrative functions and
4.2. Regen Ledger[6] - a decentralized software layer that is used to issue, transfer, and retire credits and tracks all pertinent monitoring, reporting and verification (MRV) information as immutable records.

Regen Registry is operated by Regen Network Development, Inc (RND), a private for-profit company. Regen Ledger is a public decentralized ledger that is not owned by a single entity (including RND) and is a Digital Commons[7] that is operated by a network of independent stakeholders called Validators that are incentivized to maintain the integrity of the underlying ecological data and credits tracked on the ledger. Regen Network believes this is the best way to maintain long term data integrity, auditability, transparency, and viability, and enables a just allocation of resources and sustained regeneration of ecological ecosystems (see blog post[8] for more details).

Regen Registry is committed to fully comply with all relevant U.S. Commodity Futures Trading Commission (CFTC) and the U.S. Securities and Exchange Commission (SEC) standards and regulations.

In the event that RND dissolves, the Regen Registry's contractual agreements bind both project developers and buyers to uphold any outstanding contractual commitments as if the two slides are direct parties to the contracts.

6. Integration of Regen Registry and Regen Ledger is targeted for Q2 2021
7. https://en.wikipedia.org/wiki/Digital_commons_(economics)
8. https://medium.com/regen-network/community-stake-governance-model-b949bcb1eca3

5. Project eligiblity

5.1. Ecosystem Type

Each Credit Class and Methodology shall stipulate the Ecosystem Type based on RND taxonomy[9]. In the event there is no matching definition in the taxonomy, the Credit Designer or Methodology Developer will propose an addition to the taxonomy.

5.2. Ecosystem Service Classification

Each Credit Class and Methodology shall stipulate the Ecosystem Service based on RND taxonomy[10]. In the event there is no matching definition in the taxonomy, the Credit Designer or Methodology Developer will propose an addition to the taxonomy.

5.3. Land Ownership Type

Each Credit Class shall stipulate the land ownership type accepted, for example:

- Private
- Public
- Tribal

Or combination of the above.

5.4. Adoption Date

The Adoption Date is the date on which the Project Proponent began to apply the Project Activity intended to increase a certain ecological outcome (e.g. carbon stock) relative to the baseline measurement.

Each Credit Class shall define the earliest Adoption Date accepted for that credit, but no earlier than 10 years prior to Project Registration Date.

The Project Proponent must provide evidence to that effect.

5.5. Crediting Term

Crediting Term is the finite length of time for which a Project Plan is valid, and during which a project can generate credits.

Each Credit Class shall define the corresponding Crediting Term(s) available for that credit.

5.6. GHG Removal/Emission Reduction Requirements

Credit Classes that include GHG removals shall include these related requirements:

5.6.1. Real

A real offset is the result of a Project Activity that yields quantifiable and verifiable GHG removals as stipulated in the Approved Methodology.

9. RND Taxonomy Document
10. RND Taxonomy Document

5.6.2. Measurable

Each credit represents one ton CO_2e (1t CO_2e) that has been removed (or avoided) from the atmosphere.

5.6.3. No Double Counting

Regen Registry does not allow double issuing and selling of credits for the same project area and/or temporal boundary. See also 'Registration on other registries' section.

5.7. Land Tenure

5.7.1. Land tenure is a legal term representing rights and interests in project lands.

5.7.2. Project Proponent shall own, have control over, or document effective control over the GHG sources/sinks from which the removals originate.

5.7.3. Project Proponent shall provide documentation and/or attestation of land tenure.

5.7.4. In the case of leased land, the landowner shall agree to all contractual obligations taken by the Project Proponent, and the project Proponent shall provide documentation and/or attestation of title agreement to credits.

5.7.5. Regen Registry may require a legal review by an expert in local law.

5.8. Regulatory Compliance

5.8.1. Projects must maintain material regulatory compliance, that is, adherent to all laws, regulations, and other legally binding mandates directly related to Project Activities.

5.8.2. Project Proponent is required to provide a regulatory compliance attestation for each verification. This attestation must disclose all violations or other instances of non-compliance with laws, regulations, or other legally binding mandates directly related to Project Activities.

5.8.3. Regen Registry retains discretion to decide on a case-by-case basis whether a violation requires cancelling the project or putting it on hold until the issue is addressed.

5.9. Project Area

5.9.1. The Project Area may only include land meeting the following requirements:

5.9.2. The Project Area may include portions of land which are not eligible land, only if they are excluded from any GHG or co-benefit estimation. Those areas will be clearly demarcated in the Project Plan.

5.10. Registration on other Registries

5.10.1. Project Proponent is required to state if they plan to apply in the future, or have applied for and been listed, registered, and/or been issued GHG emission reduction or removal credits, biodiversity credits or any other ecological credit through any other GHG emissions program, biodiversity program or any other certification program.

5.10.2. Project Proponent will include detailed information on any credit issuance (volume, vintage, status), and information on any rejections of the project application on other registries.

5.10.3. Regen Registry will review the information provided by Project Proponent and approve or reject concurrent registration with another registry(s). Regen Registry will permit

concurrent project registration only if the following conditions are met:

Note, these conditions hold, not only during project registration but throughout the lifetime of the project. That is, Project Proponent with an existing project on Regen Registry shall follow the same procedure above if planning to register on another registry concurrently.

See Avoiding Double Counting section for more details.

6. Project Rules and Regulations

6.1. Approved Methodology

Each Credit Class shall define the Approved Methodology(s) which the credit relies upon.

6.2. Project Plan

The Project Plan describes the Project Activity, addresses eligibility requirements, establishes project boundaries, and more. The Project Proponent shall fill out the Project Plan template[11] and submit for review by Regen Registry.

6.3. Project Lifecycle

This is a general outline of the project stages:

6.3.1. Account Creation - Project Proponent provides contact information and creates an account on Regen Registry.

6.3.2. Project Creation - Project Proponent creates a project, applies for a credit, completes the Project Plan, and signs the corresponding legal agreements.

6.3.3. Preliminary Review - Regen Registry reviews the submission for completeness and compatibility with the Credit Class and Approved Methodology, and requests additional information as needed.

6.3.4. Project Registration - If everything is in order, the project is approved, the contract is signed between the Project Proponent and Regen Registry.

6.3.5. Baseline Measurement - Project Proponent engages with Monitor and provides the project information as defined in the Approved Methodology. The Monitor follows the guidelines in the Approved Methodology and generates a baseline measurement of the ecological indicators and benefit assessment assigned to the Credit Class. The Baseline Monitoring Report is submitted to Regen Registry. If the report is approved, it is made publicly available on Regen Registry.

6.3.6. Verification - Per the verification schedule defined in the Credit Class, the Project Proponent engages with an independent, approved Verifier to verify the inputs provided by the Project Proponent and the baseline and monitoring reports submitted by the Monitor follow the specification of the Approved Methodology. Fees for verification are determined by the Project Proponent and Verifier. The Verifier submits to Regen Registry a verified Project Plan, verified monitoring report(s), and verification report with verification rating (see Verification section for further details).

6.3.7. Verification Acceptance - Based on the verification report rating, Regen Registry issues credits to the Project Proponent. The verification report is made publicly available on Regen Registry.

6.3.8. Subsequent Monitoring and Verification rounds - Following the guidelines in the Approved Methodology and Credit Class, subsequent monitoring and verification rounds are performed, and the above steps repeat for each credit vintage issuance.

6.3.9. Issuance - Regen Registry issues to the Project Proponent's account credits for the relevant reporting period, in the amount listed in the monitoring report.

11. Regen Registry Project Plan

6.3.10. Transfer or Retire - At the Project Proponent's discretion, they can sell or retire the credits.
6.3.11. Final Project Verification - At the end of the Crediting Term, the Project Proponent will engage in a final project verification. The report will be made public on Regen Registry.
6.3.12. Project Renewal (optional) - After the final project verification, the Project Proponent can elect to renew the project. The duration for renewal is defined by each Credit Class.

GHG removal projects' specific adaptations:

6.3.1. Credit issuance - With each issuance, a percentage of credits, as defined in the Credit Class, is deposited into the Buffer Pool.
6.3.2. Buffer pool reconciliation - Based on the end-of-project carbon stock estimation, Regen Registry will retire or transfer credits from the Buffer Pool. See the Buffer Pool section.
6.3.3. Permanence Monitoring and Verification - At the end of the permanence period, the Project Proponent will conduct a permanence monitoring and verification round (desk review) in order to verify retention of GHG removed during the project.

6.4. Project Ownership

Project Proponent shall stipulate the ownership of credits issued to the project. Regen Registry supports fractional ownership of the credits allocated to a project in a given issuance event, therefore credits can be split between Land Stewards, Land Owners, Project Developers, and Buyers.

6.5. Project Registration Date

6.5.1. The Project Registration Date is the date the Project has been approved by Regen Registry. The Crediting Term officially begins on this date.
6.5.2. If an Adoption Date precedes the Project Registration Date, the Crediting Term will commence at the Project Initial Monitoring Date as defined by the Approved Methodology.

6.6. Project Renewal

6.6.1. At the end of the project, the Project Proponent can elect to renew the project. The Project Proponent may do so by:
6.6.2. The final project monitoring and verification round of carbon stock and/or other ecological indicator estimates will be automatically used as the renewal up-to-date baseline.
6.6.3. Project Proponents may renew a project multiple times. Regen Registry does not limit the number of periods of renewal that are allowed for a given project renewals.

6.7. Project Monitoring Reports

6.7.1. Project Monitoring Reports shall be completed for each monitoring period following the template for Project Monitoring Report. The Monitor shall submit the report to Regen Registry including any corrections/revisions identified by the verifier (if applicable).
6.7.2. The Monitoring Report shall describe the current status of project operation, and include the data monitored, the monitoring plan, the calculated emission reductions and

ecological indicators for the reporting period stated in the Credit Class and following the guidelines in the Approved Methodology.

6.8. Project Termination

6.8.1. End of Crediting Term

6.8.1.1. At the end of the Crediting Term, the Project Proponent will engage in a final project verification. The report will be made public on Regen Registry.

6.8.1.2. The Project Proponent has the choice to renew the project (renewal duration stipulated in Credit class).

6.8.1.3. In the case of a GHG removal credit, based on the end of project carbon stock estimation, Regen Registry will retire or issue credits from the Buffer Pool. See the Buffer Pool section for more details.

6.8.2. Premature Project Termination

6.8.2.1. Prior to credit sales transactions (i.e. sold, transferred, or retired), a Project Proponent can decide to end the project prematurely with no penalties.

6.8.2.2. Regen Registry fees will still apply, along with any outstanding obligations between Project Proponent and 3rd parties, such as Verifiers and/or Monitors.

6.8.3. In the case of a GHG removal credit

6.8.3.1. Before credit sales transactions, project credits in the Project Proponent's account will be cancelled including the respective Buffer Pool and Permanence Reversal Buffer allocations.

6.8.3.2. After credit sales transactions, the Project Proponent:

6.9. Project On Hold

6.9.1. A project may be put on hold if:

6.9.2. A project in on hold status will not be issued credits until the identified issues are resolved.

6.9.3. The Project Proponent will be allowed 60 days to remedy the fault found or the project will be deemed non-compliant. Regen Registry may require an additional monitoring and verification round after the fault has been remedied.

6.10. Non-Compliant Projects

6.10.1. Projects that are non-compliant include the following cases:

6.10.2. These cases will be seen as a breach of contract, subject to dispute resolution as stipulated in the legal contracts. If the dispute is not resolved, the project will be cancelled from the registry and all issued credits remaining in Project Proponent's account along with the project credits allocated to Buffer Pool and Permanence Reversal Buffer (if applicable) will be cancelled.

6.10.3. Non-compliant projects will be delisted from Regen Registry and, depending on the case, at RND discretion, the Project Proponent might be restricted from listing any future projects on Regen Registry.

6.11. Retiring Credits

In the case of a GHG removal credit:

6.11.1. Traditionally in carbon markets, credit retirement involves allowances from regulated emission trading schemes[12] as a method for offsetting carbon emissions. Regen Registry is not a regulated emission trading scheme, but instead provides buyers a way to voluntarily offset their carbon footprint.

6.11.2. Credits can only be retired once. Once a credit has been retired, it cannot be transferred or sold anymore.

6.11.3. Regen Registry provides the ability for buyers to trade their credits, i.e. sell them to other buyers on a secondary market. In the future, a secondary marketplace functionality will be added.

6.11.4. Credit buyers will have access to the Project Proponent's information, the project location, monitoring reports, and other pertinent data which is made publicly available on Regen Registry. Buyers must indicate the owner of the beneficial interest in the GHG mitigation claim for each credit they retire.

6.12. Tradability

6.12.1. Credit buyers will have the option to sell their credits so long as they have not yet been retired. Credits are treated as commodities, not as securities. RND is committed to comply with all relevant regulatory frameworks, both in the US and internationally. In the future, additional functionality to support secondary market trading will be added.

6.13. Aggregate Projects

6.13.1. Project Proponents may be able to create efficiencies around reporting and verification by strategically combining a group of project areas participating in an Aggregate Project. To that end, project areas should be grouped so their defining characteristics are as homogeneous as possible. Verifiers may select randomly which project areas will receive on-site visits, or apply a risk analysis to identify project areas with the strongest influence over an Aggregate Project's outcomes. Verifiers can use their own discretion to determine the data sampling approach, yet all sites require at least a desk-based review.

6.13.2. Sites must have similar soil types and be located within the same pre-defined geographic region, following the ecosystem types as outlined in the Taxonomy Document.

6.14. Personal / Commercially Sensitive Information

6.14.1. Project Proponents may request to designate portions of the Project Plan or project documentation as Personal / Commercially Sensitive Information. This information must be available for review by Regen Registry and the approved Verifier (with non-disclosure agreements, as necessary), but will not be posted publicly as part of the project documentation on Regen Registry. This information will be restricted to these Project Plan items:

12. https://en.wikipedia.org/wiki/Emissions_trading#Trading_systems

6.14.2. To promote transparency, Regen Registry shall presume by default all project information to be available for public scrutiny, unless requested otherwise by the Project Proponent.

6.15. Previous Rejection by other Registries

6.15.1. Regen Registry may consider a project rejected by other registries, due to procedural or eligibility requirements, if the project complies with the Credit Class and Approved Methodology. The Project Proponent for such a project shall include a statement in the Project Plan that lists all other programs to which the Project Proponent has applied for registration and was rejected, the reason(s) for the rejection, and pertinent documentation.

6.16. Managing Property Under Covenance Obligation

6.16.1. Project Proponents that choose to put their land under permanence convenance are required to inform prospective buyers of any permanence obligations associated with the land when selling their property.

7. GHG Removal and Emission Reduction Requirements

The following requirements apply to GHG removal and emission reduction credits issued on Regen Registry.

7.1. GHGH Accounting and Policies

Guiding principles for GHG Accounting

7.1.1. In defining this Program Guide, RND has attempted to follow the best practices as applied to carbon credit markets and Agriculture, Forestry and Other Land Use (AFOLU) carbon credits.

7.1.2. The core GHG accounting principles laid out in ISO 14064 Part 2:2019[13] have informed this guide and are summarized below:

Relevance	Select the GHG sources, sinks and reservoirs (SSRs), data and methodologies appropriate to the needs of the intended user.
Completeness	Include all relevant GHG emissions and removals. Include all relevant information to support criteria and procedures.
Consistency	Enable meaningful comparisons in GHG-related information.
Accuracy	Reduce bias and uncertainties as far as is practical.
Transparency	Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence.
Conservativeness	Use conservative assumptions, values, and procedures to ensure that GHG emission reductions or removal enhancements are not overestimated.

7.2. Adherence to GHG Accounting Principles

7.2.1. Boundary Selection

7.2.1.1. GHG project boundaries include a project's physical boundary and implementation area (i.e. where the Project Activity takes place), the GHG sources, sinks, reservoirs (SSRs) considered, and the project duration.

7.2.1.2. The Approved Methodology establishes the criteria for the selection of relevant GHG SSRs, and procedures for quantifying GHG emissions.

7.2.1.3. The Project Proponent shall provide maps, Geographic Information System (GIS) shapefiles, and other relevant information to delineate the project physical boundary.

7.2.2. Relevance and Completeness

7.2.2.1. Project Proponent shall consider all relevant information that may affect the accounting and quantification of GHG emissions or reductions including all relevant SSRs.

13. https://www.iso.org/obp/ui/#iso:std:iso:14064:-2:ed-2:v1:en

7.2.2.2. The Program Guide and Credit Class include mechanisms to account for estimation uncertainty and carbon retention risk. See the Buffer Pool and Permanence sections for more details.

7.2.3. Consistency

7.2.3.1. The assumptions, methods, and data used in the Approved Methodology to quantify GHG reductions and removals rely on peer reviewed data that enables meaningful comparisons to other methods and data.

7.2.4. Accuracy

7.2.4.1. The Project Proponent shall reduce, as far as is practical, uncertainties related to the quantification of GHG emission reductions or removal enhancements.

7.2.4.2. This Program Guide and Credit Class require that the sampling error associated with the mean of the estimated emission reduction/removal not exceed ±20% of the mean at the 90% confidence interval to report the mean of the estimated emission reduction/removal. If the Project Proponent cannot meet this target, then an uncertainty deduction is required as specified by the Approved Methodology.

7.2.5. Transparency

7.2.5.1. The Approved Methodology, Credit Class and Program Guide disclose sufficient and appropriate GHG-related information to allow all intended users to make decisions with reasonable confidence.

7.2.5.2. Regen Registry is built to provide public access to all key pertinent information related to GHG estimations such as project monitoring and verification reports.

7.2.6. Conservativeness

7.2.6.1. The Approved Methodology shall define assumptions and specify quantification methods and monitoring requirements to ensure that GHG emission reductions and removals are not overestimated.

7.2.7. Emission Reduction & Removal Factors

7.2.7.1. When estimating GHG emission reductions or removals, methodologies shall specify GHG emissions or removal factors that are:

7.2.8. Independently Verified

7.2.8.1. The baseline report, monitoring reports, and Project Plan are validated by a Regen Registry approved verifier (unless otherwise stipulated in the Credit Class).

7.2.9. Managing Data Quality

7.2.9.1. The Monitor shall follow the guidelines in the Approved Methodology and establish quality assurance and quality control (QA/QC) procedures to manage data and information, including the assessment of uncertainty in the baseline and ongoing monitoring.

7.3. Additionality

The concept of additionality is often raised as a vital consideration for quantifying project-based GHG reductions. Additionality is a criteria that requires GHG reductions to only be recognized for project activities that would not have "happened anyway."

While there is general agreement that additionality is important, its meaning and application remain difficult to define, frequently framed with imprecise language, and in many cases subject to interpretation.[14]

Greenhouse Gas Protocol Initiative, a multi-stakeholder partnership of businesses, NGOs, governments, and academics convened by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI), does not require demonstration of additionality, but instead recommends incorporating it as an implicit part of the procedures used to estimate baseline emissions[15]. Depending on the methodology, as appropriate for each context, this may be either a performance-based approach or a project-based approach, using either a static or a dynamic baseline, and takes into account different considerations and barriers to adoption.

7.3.1. Each Credit Class shall stipulate the relevant additionality requirements to that credit.

7.4. Permanence

In GHG accounting, permanence refers to the risk that a carbon reservoir may be subject to gradual long-term or sudden disruptive release that will reverse the benefit that occurred as a result of project implementation. GHG emissions reductions from terrestrial sources and sinks may not be permanent if a project has exposure to risk factors such as intentional or unintentional events that result in emissions into the atmosphere of sequestered CO2e for which offset credits were issued. Terrestrial projects have the potential for GHG removals to be reversed upon exposure to risk factors, including both unintentional reversals (e.g. fire, flood, and insect infestation) and intentional reversals (e.g., landowners choosing to discontinue land management and/or participate in an activity that reverses the sequestration).[16]

Land use-based and forestry projects may require the Project Proponent to register covenants on their land and/or restrict land use for 40 to 100 years post credit issuance[17]. This approach is not financially viable for most Project Proponents as the covenant often results in a reduction in the market value of the land that is greater than the potential additional revenues from credit sales.

Further, there is no length of time, short of perpetual, that is equated with the assurance of permanence, nor is there a sound scientific basis or accepted international standard around any number of years that equates to an emission reduction/removal being permanent.

7.4.1. Regen Registry requires that Permanence Periods are specified in each Credit Class. The Project Proponent has the following requirements as it relates to permanence assurances:

7.4.2. Allocate an additional 5% of each credit issuance (in addition to the Buffer Pool) to a dedicated Permanence Reversal Buffer.

14. https://ghginstitute.org/wp-content/uploads/2015/04/AdditionalityPaper_Part-1ver3FINAL.pdf
15. https://ghgprotocol.org/sites/default/files/standards/ghg_project_accounting.pdf
16. https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard-3/acr-standard-v6-0-may-2019-public-comment-version.pdf
17. https://nori.com/resources/how-nori-works

7.4.3. Register a covenant on the land from the Project Registration until the end of the 25-year permanence period.
7.4.4. If the project is renewed, the Project Proponent will choose again a permanence assurance for the renewed project.
7.4.5. If the Project Proponent chooses the Permanence Reversal Buffer, at the end of the permanence period (25 years from the end of the Crediting Term), the Project Proponent will conduct a permanence monitoring and verification (desk verification suffices) round in order to verify carbon retention. See Permanence Reversal Buffer section for more details.
7.4.6. Each Credit Class can create alternative permanence requirements as appropriate.

7.5. Buffer Pools

Carbon sequestration projects have the potential for GHG removals to be reversed unintentionally or overestimated. The Buffer Pool serves as a tool to mitigate the general and project-specific risk factors, including the overall uncertainty risk in GHG estimations (on top of the portion accounted for already by the Approved Methodology).

7.5.1. Buffer Pool Account

Regen Registry will establish a dedicated account, over which it has sole operational and management control, that serves to hold the Buffer Pool contributions from each project. Project Proponents may not sell, transfer, retire, or dispose of credits that are held within the Buffer Pool Account.

7.5.2. Buffer Pool Contributions

7.5.2.1. Regen Registry will apply a default contribution of 20% of each credit issuance (as quantified by the latest monitoring report) to the Buffer Pool in order to account for the risks mentioned above.
7.5.2.2. The credits will be automatically deposited into the dedicated administrative Buffer Pool Account.

7.5.3. End of Crediting Term Processing

7.5.3.1. Upon the completion of the project and the final monitoring and verification, the Buffer Pool will be reconciled according to the end of project carbon stock level:
7.5.3.2. If the final project carbon stock level was above the level reported in prior monitoring and verification round:
7.5.3.3. If the final project carbon stock level was below the level reported in prior verification:

7.5.4. Premature Project Ending Process

7.5.4.1. In the event that the project has ended prematurely, Regen Registry will follow a conservative approach and automatically retire all the credits in the Buffer Pool associated with the project.
7.5.4.2. In a final verification report, where the end of project carbon stock level is available, similarly to 'End of Crediting Term Processing', if the Buffer Pool was insufficient to cover the gap in carbon stocks level then the Project Proponent will be required to purchase credits to compensate for the carbon loss.

7.5.4.3. If no final verification report is available, to be conservative, Regen Registry will assume a default loss of 10% in carbon stock level from prior levels and retire credits accordingly. If the Buffer Pool was insufficient to cover that loss, the Project Proponent will be required to purchase credits to compensate for the carbon loss.

7.5.5. Overestimation of Credits Issued during the Crediting Term

7.5.5.1. In the event that during the Crediting Term a verification report rating was Rejection on the grounds that the carbon stock level was overestimated, then:

7.5.5.2. The gap will be withdrawn from the Buffer Pool and immediately retired.

7.5.5.3. If the Buffer Pool balance does not cover the gap, the Project Proponent will have the following options to compensate for the carbon stock loss:

7.5.6. Purchase of Credits to Compensate for Carbon Loss

- In any event, per above, that the Project Proponent is required to purchase credits to compensate for carbon loss, these credits shall be from other like projects with similar regional characteristics and co-benefits, either from Regen Registry or from Established Registries.

7.6. Permanence Reversal Buffers

Project Proponents can choose to use a Permanence Reversal Buffer to mitigate permanence-related reversal risk, i.e. GHG removal reversal that has occurred over the permanence period.

7.6.1. Permanence Reversal Buffer Account

7.6.1.1. Regen Registry will establish a dedicated account, over which it has sole operational and management control, that serves to hold the Permanence Reversal Buffer contributions from each project. Project Proponent may not transfer, retire, or dispose of credits that are held within the Permanence Reversal Buffer.

7.6.2. Permanence Reversal Buffer Contribution

7.6.2.1. In the event that Project Proponents choose to use the Permanence Reversal Buffer, Regen Registry will apply a default contribution of 5% of each credit issuance (as quantified by the latest monitoring report) in order to account for the risk of reversal during the permanence period.

7.6.2.2. In the event the Project Proponents choose not to use the Permanence Reversal Buffer and use other alternatives such as long term covenants, the 5% will not be deducted from each credit issuance.

7.6.3. End of Permanence Period

7.6.3.1. Upon the completion of the permanence period an additional monitoring and verification round will occur and the Permanence Reversal Buffer will be reconciled with the carbon stock level at the last recorded monitoring event during the Crediting Term:

7.6.3.2. If the final level was below the last recorded level:

7.6.4. Premature Project Ending Process

7.6.4.1. In the event that the project has ended prematurely, the Project Proponents are still contractually obligated to maintain the permanence requirements for each credit vintage sold.

7.6.4.2. Regen Registry will follow the same approach at the end of permanence period for carbon stock reconciliation (see section 8.7.3)

7.6.4.3. If no monitoring and verification report was conducted at the end of the permanence period, in order to be conservative, Regen Registry will assume a default loss of 10% in carbon stock level from last recorded level. If the Permanence Reversal Buffer was insufficient to cover that loss, the Project Proponent will be required to purchase credits to compensate for that loss.

7.6.5. Purchase of Credits to Compensate Carbon Loss

7.6.5.1. In any event, per above, that the Project Proponent is required to purchase credits to compensate for carbon loss, these credits shall be from other like projects with similar regional characteristics and co-benefits, either from Regen Registry or from Established Registries.

7.7. Leakage

Leakage is an increase in GHG emissions or decrease in sequestration outside the project boundaries that occurs because of the project's actions.

7.7.1. Each Credit Class shall define the appropriate procedures to address leakage.

7.7.2. Over time, if certain land management activities have consistently been found to create substantial leakage across multiple projects, Regen Registry may remove those activities from the approved list of practices.

7.8. Avoiding Double Counting

Double counting refers to situations where a single GHG emission reduction or removal is used more than once to demonstrate achievement of mitigation targets and/or pledges typically made by corporations/entities and countries. Double counting can occur either as double issuance, double sale, or double claiming.

Double claiming is of concern in international carbon trading and in determining Nationally Determined Contributions (NDC) under the Paris Agreement[18], when an emission reduction is counted once by the country of origin when reporting its emissions inventory, and again by the receiving country (or other entity) when justifying emissions above its pledged climate effort. In the absence of rules, a country of origin could reduce emissions to meet its pledged effort and transfer those to a recipient; the recipient could then claim those same reductions to meet its pledged effort. In that case, only one reduction has actually occurred, but it is being claimed twice. Analyses indicate that such double-claiming could eliminate the entire climate benefit of all the NDCs.[19]

18. https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
19. https://www.edf.org/sites/default/files/documents/double-counting-handbook.pdf

Regen Registry has program rules and operational processes to mitigate these double counting risks. To avoid double claiming, all credits will be tracked on Regen Ledger, a custom-built ecological ledger leveraging blockchain technology (specifically the Cosmos SDK[20]), which provides public immutable records for transactions. The data on Regen Ledger is available for external scrutiny and validation and provides a digital audit trail for transactions, at any given point in time. Examples include who was issued credits and their location, who currently owns credits, when each credit was retired, and who claimed the GHG benefit and their location.

Risk	Description	Mitigation
Double Issuance	1) A situation in which more than one carbon credit is issued for the same emissions or emission reductions. 2) The registration of the same project under two different carbon crediting programs or twice under the same program	On Regen Registry, for a given location, only one project applying for any Credit Class with a GHG component, is registered and active. Project Proponent will be required to commit to not claiming credits for the same land and emission reduction/removal concurrently on any other registry. Verifier will confirm this in the verification report prior to credit issuance.
Double Sale	An instance in which a single GHG reduction or removal is sold to more than one entity at a given time.	Credit ownership will be tracked on Regen Ledger, leveraging blockchain technology which prevents the possibility of double selling.
Double Claiming	An instance in which an issued credit is used by the same Buyer toward more than one target (e.g., under systems that are not linked, do not coordinate, or may have inconsistent rules for reporting and/or retirement).	Legal contracts will restrict Buyers from making multiple claims on any given credit. Each retirement will record the exact time, location, beneficiary details and retirement amounts.

When any country or state approves the trading of carbon credits (along with the carbon claims associated with them), Regen Registry will adhere to guidelines as established by the United Nations Framework Convention on Climate Change (UNFCCC)[21] and Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)[22] to prevent double counting towards NDC and CORSIA obligations respectively, and to ensure the environmental integrity of emissions reductions.

20. https://cosmos.network/
21. https://unfccc.int/
22. https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx

8. Verification

This section provides a general overview of the requirements for ex post verification of GHG and Co-Benefits assertions by an independent third-party verifier approved by Regen Registry.

As defined in this section, verification will be conducted by an independent verifier chosen by the Project Proponent and approved by Regen Registry.

Regen Registry seeks a balance between adequate assurances, the overhead, and costs associated with verification. Therefore, each Credit Class can stipulate the requirements that are best suited to the ecosystem, best management practice and/or locale(s) it pertains to. Regen Registry retains the right to adapt the requirements and provide verification templates/interfaces as needed.

8.1. Definitions

8.1.1. Validation is the systematic, independent, and documented process for the evaluation of the reasonableness of the assumptions, limitations, and methods that support a statement about future (ex-ante) GHG and Co-Benefits outcomes.

8.1.2. Verification is the systematic, independent, and documented assessment by a qualified ,impartial third-party of the GHG and Co-Benefits assertion for a specific reporting period.

8.1.3. Regen Registry does not require an ex-ante GHG estimate in the Project Plan and therefore validation is not necessary. Instead, the verifier validates the project eligibility according to the rules defined in the Program Guide, Credit Class and the Approved Methodology. Regen Registry has simplified the eligibility requirements and considers verification an applicable standard. However, each Credit Class can customize the requirements as needed and add validation.

8.2. Verifier Requirements

8.2.1. The Project Proponent can choose a verifier from either of the following options:

8.2.2. Verifiers that are accredited under ISO 14065 (per article 10.2.1.1) and/or approved by Established Registries are automatically approved to be verifiers on Regen Registry. Other verifiers must submit an application for consideration. A list of approved verifiers will be made available on the Regen Registry website.

8.2.3. In order to increase the assurance level in projects, Project Proponents shall engage at least two lead verifiers over the lifetime of their project, where the final project verification is done by a different verifier than the one used in prior verification events.

8.2.4. Verifiers must sign a statement confirming their lack of conflict of interest with the Project Proponent. Regen Registry and the Project Proponent must be satisfied that any potential for conflict of interest can be mitigated. To limit the potential for conflict of interest, these restrictions are put in place:

8.2.5. The verifier will disclose all relationships, such as familial or fiduciary, within the past three years between the Verifier on the one hand, and the project and Project Proponent on the other.

8.3. Payment for Verification

8.3.1. Project Proponent is responsible for engaging and paying for verifications.

8.4. Evidence Gathering

8.4.1. Verifiers shall take necessary and appropriate steps to assure the project inputs are authentic, using a random sampling approach whenever appropriate. Verifiers will adhere to the Regen Registry data privacy policy to ensure Project Proponent maintains privacy of their data.

8.4.2. Verifiers are required to provide assurance as to the reasonableness and accuracy of the data the Project Proponent has provided to Regen Registry and the Monitor, but they are not asked to attest to the validity or accuracy of the outputs of the Monitor.

8.4.3. The Approved Methodology contains specific guidance on the scope of evidence gathering necessary to provide reasonable assurance with respect to the data the Project Proponent provides the Monitor.

8.4.4. The verification includes but is not limited to the following categories:

Verification Type	**Applicable Evidence Category**
Project Registration	Project ownership and rights
	Compliance
	Monitoring and Co-Benefit data
Credit Issuance	Monitoring and Co-Benefit data
	Compliance
Final Project Verification	Monitoring and Co-Benefit data
	Compliance

8.5. Verification Report

8.5.1. Verifiers shall generate a report summarizing their findings, including a verification rating from one of the following options:

8.6. Verification Acceptance

Regen Registry will review each verification report and proceed based on its rating:

8.6.1. Acceptance

8.6.1.1. Regen Registry will issue credits (if applicable) to the Project Proponents per the monitoring outcome and Program Guide / Credit Class stipulations.

8.6.2. Acceptance with Contingencies

8.6.2.1. The Project Proponent shall make the necessary corrections and clarifications per the contingencies identified in the report. If needed, the Verifier will resubmit their report after reviewing the information provided by the Project Proponent.

8.6.2.2. Regen Registry will issue credits (if applicable) following the Acceptance procedure above.

8.6.2.3. If the resubmitted verification report still retains the Acceptance with Contingencies, Regen Registry will highlight this in the corresponding MRV section.

8.6.3. Rejection

8.6.3.1. The project is put on hold until the issues identified are addressed (see Project on Hold section).

8.6.3.2. The carbon stock level will revert to the last level that was recorded and verified with the verification report with Acceptance or Acceptance with Contingencies rating. If the project has already been issued credits, then the Buffer Pool will be used to reconcile any gaps (see Buffer Pool section).

8.7. Verification Schedule

8.7.1. The verification schedule will be optimized to limit the amount of verifications needed and maximize the assurance level in credit issuance:

8.8. Unscheduled Verification

8.8.1. The following circumstances will warrant a potential additional verification:

8.9. Verification Oversight

8.9.1. Regen Registry reserves the right to conduct oversight activities of verification performance participating verifiers. Oversight activities are conducted to ensure an adequate level of quality control and are intended to supplement accreditation body oversight and audit processes.

9. Monitoring

Regen Registry requires monitoring to be conducted by an independent Monitor chosen by the Project Proponent and approved by Regen Registry.

The Monitor shall follow the requirements in the Approved Methodology to quantify the benefits and indicators defined in the respective Credit Class.

9.1. Definitions

9.1.1. Monitoring means measurement of an ecological indicator(s), following the guidelines of a given methodology. Measurements can use various approaches, for instance remote sensing using satellite imagery or estimation using biogeochemical methods.

9.1.2. Baseline - a measurement of a certain ecological indicator tracked in a given credit had the project not been implemented. A baseline can be static, dynamic, project specific or based on performance standard (or a combination of those)[23].

9.1.3. Monitoring round - a scheduled time following the methodology guidelines in which a Monitor performs the measurement or estimation of an ecological indicator(s).

9.2. Monitor Requirements

9.2.1. The Project Proponent can choose a Monitor from either of the following options:

9.2.2. Monitors must submit an application for consideration. A list of approved Monitors will be made available on the Regen Registry website.

9.2.3. Monitors must sign a statement confirming their lack of conflict of interest with the Project Proponent. Regen Registry and the Project Proponent must be satisfied that any potential for conflict of interest can be mitigated. To limit the potential for conflict of interest, these restrictions are put in place:

9.3. Payment for Monitoring

9.3.1. Project Proponent is responsible for engaging and paying for monitoring.

9.4. Monitoring Procedure

9.4.1. The Monitor shall gather all the monitoring data (if applicable) provided by the Project Proponent using the respective Regen Registry templates. If there is missing information, the Monitor will communicate the gaps to the Project Proponent who in turn will resubmit the monitoring data.

9.4.2. The Monitor shall gather all other sources of data specified in the Approved Methodology necessary for the quantification process, for example satellite imagery or metrics from scientific literature.

9.4.3. The Monitor shall use the appropriate tools and follow the procedures in the Approved Methodology to quantify each ecological indicator.

9.4.4. The Monitor shall submit a monitoring report summarizing the quantification results and including the number of credits the Project Proponent is eligible for based on the

23. https://ghgprotocol.org/sites/default/files/standards/ghg_project_accounting.pdf

definitions in the Approved Methodology and the Credit Class. The Monitor shall apply any estimation uncertainty deductions (if applicable per the Approved Methodology) to the number of credits reported.

9.5. Monitor Procedure Deviations

9.5.1. Regen Registry will permit project-specific deviations from the Approved Methodology where they do not negatively affect the conservativeness of an Approved Methodology's approach to the quantification of GHG emissions reductions and removal enhancements.

9.5.2. Monitors shall submit any proposed project-specific deviation to Regen Registry using the Deviation from Methodology Template[24]. Monitors must provide evidence that the proposed deviation, such as a substitute calculation method for missing data, meets the conservative standards of the methodology.

9.5.3. Regen Registry will review each such request, and if approved, deviations can be applied to a specific project, but are not published as modifications to the methodology.

9.6. Monitoring Acceptance

9.6.1. Regen Registry will review each monitoring report to verify it conforms to the templates and the procedures specified in the Approved Methodology. If corrections are needed, the Monitor shall resubmit the monitoring report with the corrections.

9.6.2. Credit Issuance - If the monitoring report indicates the Project Proponent is eligible for credits and no verification is needed (see the Verification section requirements), Regen Registry will issue credits to Project Proponent after the appropriate deductions as specified in the Program Guide and Credit Class.

9.6.3. Regen Registry will make all monitoring reports publicly available.

9.7. Monitoring Schedule

9.7.1. The monitoring schedule will be dictated by the requirements in the Approved Methodology and will include:

9.8. Monitoring Oversight

9.8.1. Regen Registry reserves the right to conduct oversight activities of monitoring performance of participating verifiers. Oversight activities are conducted to ensure an adequate level of quality control and are intended to supplement accreditation body oversight and audit processes.

24. Deviation from Methodology Template

10. Credit Classes

Regen Registry aims to democratize and invigorate the design of ecosystem service credits. To that end we are separating out the typical set of definitions that are part and parcel of most registry standards and allow Credit Designers to modify and upgrade these as needed and appropriate. These include:

- Credit definition
- Project eligibility requirements
- GHG accounting related requirements including permanence, leakage and additionality.
- Verification requirements
- Reporting and compliance requirements

The Registry Program Guide and the Credit Class templates provide the guidelines for creating new credits, thus enabling innovation while maintaining a high standard of rigor.

While a subset of Credit Classes might be developed by RND, the intention is to build a vibrant community of Credit Designers that will take the lead going forward.

Regen Registry aims to create a broad set of Credit Classes that cover different ecosystems, geographical regions and localities, and are tailored for different stakeholders (e.g. smallholder farmers, corporate farms, indigineous communities, conservation organizations, etc).

One of our key assumptions is that creating a one-size-fits-all solution is suboptimal and does not tap into collective potential. Ecological systems are inherently complex. Regenerative farming, grazing ,and conservation are complex, nuanced, and locale specific. Similarly, the needs and risk profile of credit buyers vary substantially depending on the size of the company, its sector, climate goals, etc. As such, we believe a successful solution needs to leverage commonalities and best practices, while simultaneously allowing for flexibility in design.

10.1. New Credit Classes

The following process is applied to all new Credit Classes, whether developed internally by RND or by external Credit Designers.

In such cases, Regen Registry coordinates a process of:

10.1.1. Internal review
10.1.2. Beta (optional)
10.1.3. Technical review committee
10.1.4. Public stakeholder consultation (optional)

Regen Registry administers the following process, at fees per the current schedule.

10.1.1. Concept note - the Credit Designer submits to Regen Registry a review for a Credit Class concept note, included but not limited to the following:
10.1.2. Credit Class draft - the Credit Designer submits the proposed new or modified Credit Class to Regen Registry based on the appropriate template. Regen Registry reviews the

draft, asks for clarifications, and points out corrections that are needed.

10.1.3. Beta (optional) - once the necessary clarifications and corrections are made, the Credit Designer can choose to move it to beta status. At this point, a Project Proponent can apply for a project using the beta Credit Class. Regen Registry encourages Credit Designers to collect feedback from Project Proponents as they go through the beta process, in order to ensure viability of the Credit Class. Feedback from the Project Proponent on the proposed Credit Class will be documented by Regen Registry and incorporated into the subsequent stages in the approval process.

10.1.4. Technical review committee - the revised Credit Class is provided to a technical review committee that Regen Registry assembles consisting of independent and impartial subject matter experts. Regen Registry actively identifies and qualifies candidate committee members, and publicly solicits applications from interested parties. Once the review is complete, the committee lead compiles the comments and recommendations from the committee, and prepares a summary report. Regen Registry delivers to the Credit Designers the summary report, to which they must respond by incorporating revisions and/or documenting justifications for the proposed approach. Timing and cost of the technical review committee depends on the complexity, scope, and quality of the Credit Class and the availability of technical reviewers.

10.1.5. Public consultation process (optional) - Regen Registry coordinates a public consultation process. The Credit Class is posted publicly on the Regen Registry website for a minimum of 30 days inviting public comments. During this period, the Credit Designer may also choose to conduct a webinar to present the draft Credit Class and solicit additional comments. At the conclusion of the public comment period, the comments are compiled into a report and sent to the Credit Designer, who then has 30 days to respond to comments in writing and incorporate relevant feedback to a revised version, which is then posted on the Regen Registry website.

10.1.6. Credit Class approval - once all required corrections have been made, Regen Registry approves the new Credit Class and publishes it on its website.

10.1.7. Process documentation - Regen Registry documents the entire Credit Class approval process including beta feedback, public comments and responses, technical committee comments and responses, and the corresponding versions of the Credit Class at each stage.

10.2. Modificationbs to Approved Credit Classes

Regen Registry may permit modifications to an existing approved Credit Class where they maintain the guidelines stipulated in the Regen Registry Program Guide. Credit Class modifications may be submitted for review by Regen Registry, at fees per the current fee schedule. Regen Registry will review the extent of the modification and determine what steps in the approval process above need to be implemented.

10.3. Governance

Regen Registry will initially govern the process of adding new Credit Classes per above process. In the future our aim is to move towards an independent, decentralized governance of these methodologies by a broad set of stakeholders, including subject matter experts, land stewards, project developers, monitors, and verifiers.

11. Methodologies

Regen Registry aims to establish a robust set of scientifically rigorous methodologies, leveraging cutting edge technologies, and the latest science. While a subset of these methodologies might be developed by RND, the intention is to build a vibrant community of Methodology Developers that will take the lead going forward.

11.1. New Methodologies

The following process is applied to all new methodologies, whether developed internally by RND or by external Methodology Developers.

In such cases, Regen Registry coordinates a process of:

11.1.1. Concept note and draft
11.1.2. Beta (optional)
11.1.3. Public stakeholder consultation
11.1.4. Scientific peer review process.

Regen Registry administers this process, at fees per the current schedule.

11.1.1. Concept note - the Methodology Developer submits to Regen Registry for review a methodology concept note, including but not limited to the following:
11.1.2. Sample project using (or planning to use) the proposed methodology including an economic analysis demonstrating that the proposed activity is viable under current market conditions.

Regen Registry will review the concept note and determine whether to move forward with it.

11.1.1. Methodology draft - the Methodology Developer submits the proposed new or modified methodology to Regen Registry following the appropriate template. Regen Registry screens the methodology, asks for clarifications and points out corrections that are needed.
11.1.2. Beta (optional) - once the necessary clarifications and corrections are made, the Methodology Developer can choose to move it to beta status. At this point, a Project Proponent can apply for a project using the beta methodology. Regen Registry encourages Methodology Developers to collect feedback from Project Proponents as they go through the beta in order to ensure viability of the methodology. Feedback from the Project Proponent on the proposed methodology will be documented by Regen Registry and incorporated into the public consultation process.
11.1.3. Public consultation process - Regen Registry coordinates a public consultation process. The methodology is posted publicly on the Regen Registry website for a minimum of 30 days inviting public comments. During this period, the Methodology Developer may also choose to conduct a webinar to present the draft methodology and solicit additional comments. At the conclusion of the public comment period, the comments are compiled into a report and sent to the Methodology Developer, who then has 30 days to respond to

comments in writing and incorporate relevant feedback to a revised version, which is then posted on the Regen Registry website.

11.1.4. Scientific peer review process - the revised methodology is provided to a team of independent subject matter experts for a scientific peer review process. Regen Registry may consult a technical committee in the selection of impartial reviewers with the applicable subject matter expertise. Regen Registry actively identifies and qualifies candidate reviewers, and publicly solicits applications from interested parties. Once the review is complete, the lead reviewer compiles comments and recommendations from the peer review team, and prepares a summary report. Regen Registry delivers to the Methodology Developer the peer reviewed report, to which she must respond by incorporating revisions and/or documenting justifications for the proposed approach. Generally, several rounds of peer review are necessary. Timing and cost of peer review depends on the complexity, scope, and quality of the methodology and the availability of peer reviewers.

11.1.5. Methodology approval - once all required corrections have been made, Regen Registry approves the new methodology and publishes it on its website.

11.1.6. Process documentation - Regen Registry documents the entire methodology approval process including beta feedback, public comments and responses, peer review comments and responses, and the corresponding versions of the methodology at each stage.

11.2. Modifications to Approved Methodologies

Regen Registry may permit modifications to an existing approved methodology where they do not negatively affect the conservativeness of the methodology's approach to determining additionality and quantification of GHG removals and co-benefits. Methodology modifications may be submitted for review by Regen Registry, at fees per the current fee schedule. Regen Registry will review the extent of the modification and determine whether the internal review, public consultation, and peer review process must be implemented. Modifications to eligibility, applicability, Project Activities, and/or baseline assumptions are likely to trigger the full process while minor modifications to correct quantification errors or provide clarification on monitoring requirements will not require the full process.

11.3. Regen Registry and Established Registries published methodologies

Current versions of methodologies for nature-based / AFOLU projects that are approved by the Established Registries are generally approved for use; however, Project Proponents implementing projects under these methodologies must first go through the Regen Registry approval process as described below.

11.4. Governance

Regen Registry will initially govern the process of adding new methodologies per above process. Our aim is in the future to move towards an independent, decentralized governance of these methodologies by a broad set of stakeholders including subject matter experts, land stewards, project developers, monitors, and verifiers.

12. Co-Benefits

12.1. Introduction

Co-benefits of climate change mitigation, as defined in the 4th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), are the positive benefits related to the reduction of GHG. Examples of such climate mitigation policies include improved energy efficiency of plants, renewable energy uptake and fuel switching, which might enable a range of co-benefits, such as air-pollution impacts, technological innovation, energy-supply security through increased energy diversity, reduced fuel cost, and employment possibilities.

In the context of AFOLU projects, a variety of co-benefits are possible including environmental, social, economic, indigineous rights, and many more.

Interlinked with co-benefits is the shared blueprint the UN adopted in 2015 for peace and prosperity for people and the planet. At its heart are the 17 Sustainable Development Goals (SDGs)[25], which are an urgent call for action by all countries in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth - all while tackling climate change and working to preserve our oceans and forests.

12.2. Credit Class requirements

Regen Registry is encouraging Credit Developers to include co-benefits in all Credit Classes. This applies to both GHG removal credits and other types of credits (e.g. biodiversity). In that sense we hold the “co-benefit” term loosely in the sense that all benefits are important, whether they are tied directly to climate change mitigation and GHG removal or not.

Therefore, each Credit Class shall identify the applicable co-benefits and how to measure and verify them. To that end, Regen Registry will introduce in the future a framework and/or taxonomy to help Credit Developers identify co-benefits and SDGs related to certain types of projects, and stipulate how to measure and verify them. These co-benefits and SDGs will be shown on Regen Registry to highlight the broader impact of each project.

25. https://sdgs.un.org/goals

13. Purchasing and selling credits

13.1. Account creation

Project Proponents (or sellers) and Buyers will create an account on Regen Registry to which credits will be issued or transferred respectively. The registration process might require an appropriate KYC (Know Your Customer) verification depending on the nature of the asset issued and corresponding regulations.

13.2. Selling credits

Credit holders - whether Project Proponents whom have been issued credits or Buyers who had purchased tradable credits - have a few options to sell their credits:

- Direct / offline sale - a seller can negotiate directly with a prospective buyer and offer them the credits.
- Regen Registry brokerage services - a seller can choose to use Regen Registry's brokerage services that will outreach to prospective buyers and sell the credits at the price agreed upon with the Project Proponent.
- Marketplace - a seller can offer the credits for sale on Regen Registry online marketplace and select their price. The project credits can be sold separately or as part of a portfolio of projects.
- Resell - this is a variant of the direct sale approach in which a seller sells their credits to a third party, or a reseller, that in turn will identify and sell the credits to a buyer(s).
- Exchange - in the future, a seller will be able to offer their credits on an exchange facilitated by Regen Ledger[26]
- 3rd party integrations - in the future, Regen Registry will establish integrations with 3rd parties that offer GHG credits (offsets) for instance to their respective client base.
- Auctions - in the future, Regen Registry may run a period auction as is custom in some registries.

Note, these options will be updated on a regular basis and might change from time to time. Further, as noted, not all of these options are currently available.

13.3. Fee Structure

The fee structure for the issuance and sale of credits depend on the Credit Class, Methodology requirements and sales approach used. Regen Registry will make the fee structure transparent on the website.

26. Exact timeline is TBD; Q3, 2021 is the current target

14. Complaints and Appeals

14.1. Complaints Procedure

When a Project Proponent or other stakeholder objects to a decision made by Regen Registry representatives or the application of the Regen Registry program requirements, the following confidential complaint procedure shall be followed:

- Project Proponent or other stakeholder sends a written complaint via email to support-registry@regen.network

undefined. The complaint must detail the following:

Regen Registry staff shall investigate the complaint. The staff member assigned to handle the complaint shall not have been involved with the issue that is the subject of the formal complaint. Regen Registry will provide a written response, via email, to the complainant detailing the decision on the matter.

14.2. Appeals Procedure

In the event that a complaint remains unresolved after the conclusion of the complaints procedure, the Project Proponent or stakeholder may appeal any such decision or outcome reached. The following confidential appeals procedure shall be followed:

- Project Proponent or other stakeholder sends a written appeal via email to support-registry@regen.network. The appeal must detail the following:
  - Description of the complaint with specific reference to the Program Guide, Credit Class or Methodology requirements as applicable;
  - Supporting documentation provided for consideration in the appeal process, including previous communication on the complaint and all relevant details of the previously implemented complaint procedure
  - Appellant name, contact details, and organization.
- Regen Registry shall convene a committee to review and discuss the matter. The committee will include a member of the RND board of directors, a member of RND executive team, and an Regen Registry staff member unrelated to the complaint, all of whom will have equal votes. The committee may also include a technical and/or subject matter expert or experts as necessary, who will not be able to vote. The committee members selected will depend on the subject matter and nature of the appeal.
- The decision reached by the committee shall be communicated, via written response, to the Project Proponent or stakeholder. Any decision reached by the committee shall be final.

15. Linkages to other Registry Systems

Regen Registry welcomes the opportunity to collaborate with other reputable GHG (and other ecosystem service) programs, both voluntary and regulated. The collaboration can manifest in different ways, including but not limited to:

- Digital MRV - providing low cost monitoring to project developers.
- Marketplace and exchange - providing liquidity to sellers and buyers along with built-in payments and billing infrastructure.
- Marketing - showcasing the unique story of each project, highlighting the land stewards behind it and the impact on the land and our environment; providing buyers and policy makers with impact analytics on a portfolio, regional, national and global level on key ecological indicators.
- Regen Ledger - providing a transparent and digital auditable tracking of credit issuance and transfer, and monitoring and verification reports.

All of these integration points do not require any change to existing infrastructure or procedures within these GHG programs. To learn more please email admin-registry@regen.network .

In the event, a Project Proponent wishes to transfer a project from another GHG (or other ecosystem service) program, the project must adhere to all the requirements in the Program Guide, and respective Credit Class and Methodology. To avoid double issuance of GHG credits (whether removals or emission reduction) see also the requirements in the 'Avoiding double counting' section.

16. References

The Program Guide is based on the foundation laid by the reference standards and documentation below. These assisted RND to articulate our own requirements and specifications for the MRV requirements, especially as it relates to GHG guidelines that apply to AFOLU project-based credits.

In particular the Program Guide has been informed by these organizations:

- American Carbon Registry[27]
- The Australian Government's Emission Reduction Fund[28]
- Gold Standard[29]
- Verra (VCS)[30]
- GHG Protocol[31]
- Nori[32]

We salute and appreciate the effort of all these organizations!

This is a subset of the reference documentation used in writing this guide:

American Carbon Registry

- ACR Standard v6.0
  - https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard/acr-standard-v6_final_july-01-2019.pdf
- ACR Risk Tool v1.0
  - https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/acr-risk-tool-v1-0.pdf

The Australian Government's Emission Reduction Fund

- Carbon Credits (Carbon Farming Initiative - Measurement of Soil Carbon Sequestration in Agricultural Systems) Methodology Determination 2018
  - https://www.legislation.gov.au/Details/F2018L00089
- The Supplement To the Carbon Credits (Carbon Farming Initiative - Measurement of Soil Carbon Sequestration in Agricultural Systems) Methodology Determination 2018
  - https://www.environment.gov.au/system/files/consultations/072b4825-ec0f-49d9-991e-42dfa1fbeae3/files/supplement-soil-carbon-agricultural-systems.pdf

Verra

27. https://americancarbonregistry.org/
28. http://www.cleanenergyregulator.gov.au/ERF/
29. https://www.goldstandard.org/
30. https://verra.org/
31. https://ghgprotocol.org/
32. https://nori.com/

- VCS Program Guide v4.0
  - https://verra.org/wp-content/uploads/2019/09/VCS_Program_Guide_v4.0.pdf

GHG Protocol

- GHG Project Protocol
  - https://ghgprotocol.org/sites/default/files/standards/ghg_project_accounting.pdf
- Land Use, Land-Use Change, and Forestry (LULUCF) Guidance for GHG Project Accounting
  - https://ghgprotocol.org/sites/default/files/standards_supporting/LULUCF%20Guidance_1.pdf

Nori

- How it Works
  - https://nori.com/resources/how-nori-works