CLIMATE ACTION RESERVE

Panama Forest Protocol V1.0: Public Comment Period

December 5, 2023

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Timeline

Steps	Details	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Formation of the Working Group	kick-off meeting												
	Submit the SOI: February 10, 2023												
Workgroup	Meeting 1: Eligibility - Activities		2										
	Meeting 2: Land Tenure		15										
	Meeting 3: Activities			5									
	Meeting4 : Environmental Safeguards			19									
	Meeting 5: Social Safeguards & Additionality				4								
	Meeting 6: Permanence				18								
	Meeting 7: Quantification + MRV					8							
	Meeting 8: In-person Meeting					30							
	Meeting 9: In-person Meeting									24			
Draft Protocol Development													
Work Group Review													
Public Comment Period	**Public Comment Period**										**22**	**22**	
	Review of comments and update of the protocol												
Reserve Board of Directors Meeting	January 2024												24

THE CLIMATE ACTION RESERVE

Premier Offsets Registry and Program

Works to ensure integrity, transparency, and financial value in the global carbon market

Establishes regulatory-quality standards for carbon offset projects in transparent, public process

Reviews project documents and oversees the listing, verification, and registration of projects

Issues credits and tracks the transaction of credits in a public registry

Creates tools, guidance resources, and trainings for stakeholders

CLIMATE ACTION RESERVE

- Adipic Acid
- Forest
- Forest (ARB)
- Grassland
- Landfill
- Livestock
- Livestock (ARB)
- Mine Methane
- Mine Methane (ARB)
- Nitric Acid Production
- Nitrogen Management
- Organic Waste Composting
- Organic Waste Digestion
- Ozone Depleting Substances
- Ozone Depleting Substances (ARB)
- Soil Enrichment

978 Listed, New, Registered & Completed Projects as of August 28, 2023

The Climate Action Reserve

>600 Projects

192M+ Credits issued

Latin America

Mexico: Forest, Livestock Landfill, Halocarbons

Dominican Republic: Livestock

Panama: Forest*

Guatemala: Forest*

Ensuring Offset Quality

CLIMATE ACTION RESERVE

Real

- GHG accounting is conservative, comprehensive, and scientifically credible

Additional

- GHG reductions would not have occurred in the absence of the carbon market

Permanent

- GHG reductions or removals persist for at least 100 years, accounting for any reversals

Verifiable

- Methods are replicable
- Third-party verification occurs prior to credit issuance

No Double Counting

- No other parties may reasonably claim ownership of GHG reductions

Standardized GHG Accounting

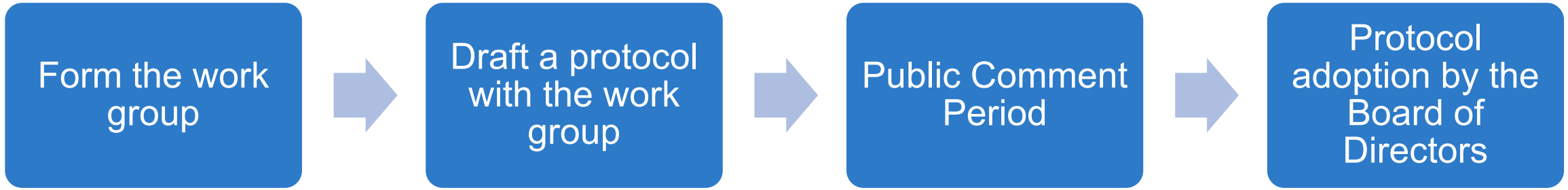
Two elements:

- Determination of project eligibility and additionality using standardized criteria rather than project-specific assessments.
- Quantification of GHG reductions/removals through a baseline established under certain assumptions, emission factors and monitoring methods.

Objetives:

- Minimize personal judgment in project assessment
- Reduce transaction costs for the project developer, minimize uncertainties for investors, and increase the transparency of the project when it is approved and verified

Rigorous, Inclusive and Transparent Process for Protocol Development



Inclusive Process: A balanced multi-stakeholder working group is formed with industry and jurisdiction experts, government agencies, environmental organizations, and other stakeholders.

- Stakeholders that are not part of the working group can still participate in the process as “observers”.

Transparent Process: All work group meetings and webinars for the public comment period are recorded and posted on the website along with the drafts

Eligibility

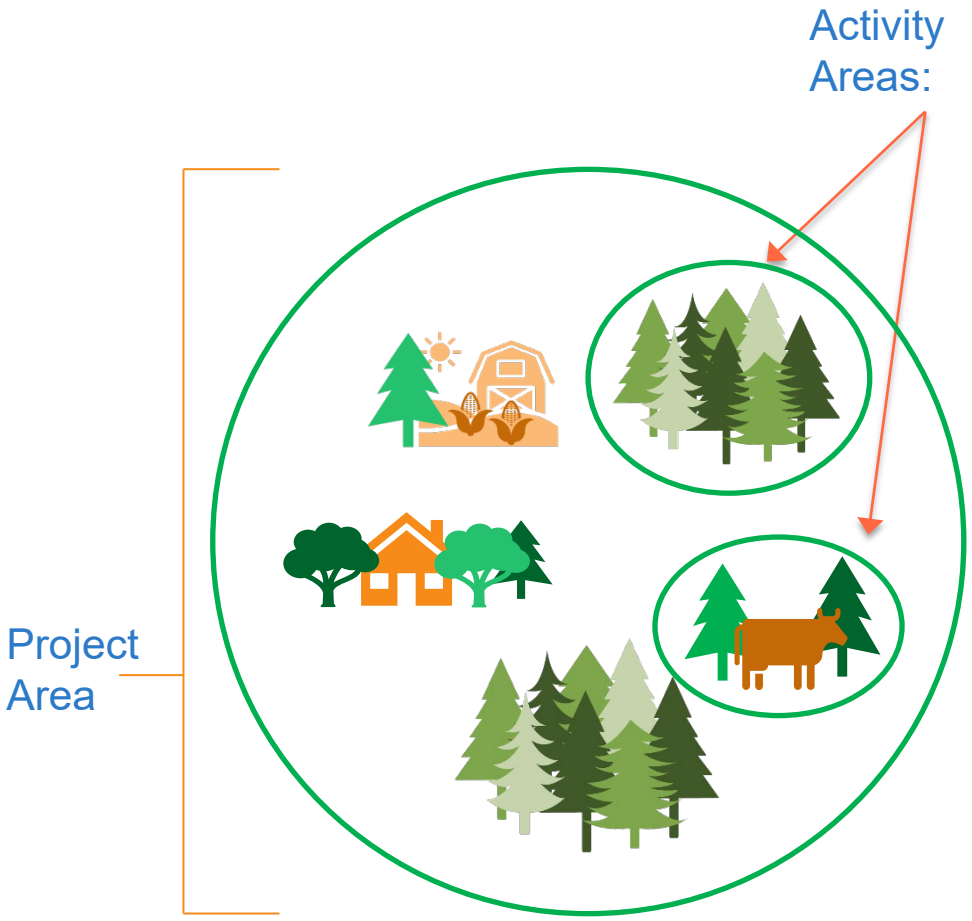
KEY CHANGES ON THE PROTOCOL DRAFT

Summary of Changes

- **Forest Owner and land tenure documentation**: aligned with the Forest Legislation in Panama (i.e. natural vs. artificial forests); include comarcas and collective lands
- **Definition of eligible activities:** Reforestation and IFM
- **Environmental Safeguards:** deep ripping
- **Social Safeguards:** included for private and public lands, changes to account for governance structure of comarcas/collective lands, inclusion of a safeguard for labor and safety
- **Crediting Period:** 30 years

Project Area and Activity Area

- **Project Area:** Includes the entire area within a property
- **Activity Area:** Specific areas where the defined activities that lead to a quantifiable increase in carbon stocks are carried out
- **Purpose:**
  - Allows for the inclusion of multiple activities within one Project
  - Can reduce administrative and project development costs for activities
  - Activities that are traditionally not economically viable can be incentivized
  - Allows for different levels of monitoring:
    - Project area: monitoring of leakage
    - Activity area: quantification of carbon stocks/removals



Section 3.2 Forest Owner

- A Forest Owner can be any natural or juridical person that has undisputed legal ownership of or jurisdiction over the land through land title or rights granted to them from a governmental agency.
- Per Law 1 of February 3,1994, Forest Legislation of the Republic of Panama, Article 10:
  - the State is owner of all Natural Forests and the lands on which these forests exist
  - Artificial Forests are defined as any plant, woody, tree formation, established or created by man
  - Forest Plantations are defined as forest mass that is product of reforestation

➢ Natural Forests to be property of the State and to require specific approval from MiAMBIENTE as the governing body to clarify the forest carbon rights on these lands

➢ Artificial Forests, Forest Plantations, or planted forests, may be eligible under the allowed landownership categories

➢ Note that all projects must further comply with the environmental safeguards for native species

Land tenure summary

Eligible owners:

- Private Lands: with titles registered with the Public Registry
- Public Lands: legal document inscribed in the Public Registry of Property and/or the Decree or Ordinance that states that the land is destined for a specific use and/or management by a municipality or state
- Collectively owned lands
  - **Indigenous territories or comarcas**: properties recognized by the National Constitution, Article 127, including the seven Indigenous Communities divided into 12 Structures. Comarcas must obtain their property boundary map registered with ANATI in coordination with MiAMBIENTE prior to project listing.
  - **Collective lands**: indigenous communities recognized by Law 411 (2008) that do not pertain to the comarcas. Collective lands with land titles registered with ANATI and the Public Registry of Panama are eligible. Collective lands must coordinate with MiAMBIENTE prior to project listing to be eligible.

Section 3.6 Land Tenure Documentation

Comarcas

1. Property boundary delineation registered with ANATI in coordination with MiAMBIENTE.
2. Law of the Republic of Panama that establishes the *comarca* published in the Official Gazzette.
3. Official identification of the members of the General Congress, Cacique, and/or King.
4. Signed letter from MiAMBIENTE recognizing the Forest Project.

Collective Lands

1. Property title and boundary delineation registered with ANATI or the Public Registry of Property.
2. Law of the Republic of Panama that establishes the collective lands published in the Official Gazzette.
3. Official identification of the members of the General Congress.
4. Signed letter from MiAMBIENTE recognizing the Forest Project.

Section 3.6 Land Tenure Documentation

Private Property

1. Official identification of the owner, which could include an official identification card, passport, or certificate of naturalization.
2. Property or parcel titles inscribed under the Public Registry.

Public Lands

1. Legal document inscribed in the Public Registry of Panama that states that the land is destined for a specific use and/or management by the provincial, district, or municipal government.
2. Official identification of the individual authorized to represent the public agency.

Potential Activities

- "Activities" are discrete management actions that increase carbon sequestration in forests and forest products above the baseline.
- Potential activities include:
  - Agroforestry and Silvopastoral Systems
  - Improved Forest Management
  - Reforestation
  - Restoration
  - Urban Forests

Definition of Activities: Agroforestry and Silvopastoral Systems

Activity Area	Description
Agroforestry and Silvopastoral Systems	• Agroforestry is the intentional integration of trees into non-tree crop and animal farming systems. • The main human activity is agriculture and/or livestock • Land cover is defined as agriculture or grassland • Trees are planted or natural regeneration is promoted • Trees may exist amongst, or adjacent to the cultivated crops and grazing areas, and may be harvested as allowed by law.

Definition of Activities

Activity Area	Description	Criteria
Reforestation	Direct planting of native tree seedlings or site preparation activities that result in forest regeneration of native species, resulting in enhanced carbon sequestration.	• Can occur on landscapes that have been out of forest cover for the past 10 years • OR have recently been impacted by a natural disturbance that has reduced the canopy cover to less than 50%. • Can occur within protected areas. • Reforestation Activity Areas must have a reforestation permit approved by MiAMBIENTE.

Definition of Activities

Activity Area	Description	Criteria
Restoration	• Restoration is a set of actions applied to increase carbon stocks and canopy cover on degraded natural forests. • Actions may be direct and include tree planting, authorized thinning for disease and infestation, or other silviculture action to increase forest cover. • Actions may also be indirect and focused on reducing ongoing actions that led to degraded forest conditions, thereby enabling natural forest succession to enhance carbon stocks.	• Restoration is an eligible activity in any natural forest, including protected areas, that does not have an authorized Forest Management Program for commercial timber harvest and/or where commercial harvesting is prohibited due to a law, regulation, or norm. • Actions implemented may not contradict any regulation or management plan governing the Activity Area. • Restoration Activity Areas must have a restoration plan approved by MiAMBIENTE.

Definition of Activities

Activity Area	Description	
Small Urban Forests	• The direct planting and management for increased forest cover within urban areas.	• Can only occur on lands zoned a developed or urbanized area or suburban zone by the Ministry of Housing and Territorial Planning, or under urban forest zoning by the municipality • Include urban areas less than 10 contiguous hectares with a minimum 10% canopy cover and can include the planting of street trees.
Large Urban Forests		• Can only occur on lands zoned as a developed or urbanized area or suburban zone by the Ministry of Housing and Territorial Planning, or under urban forest zoning by the municipality • Occur on urban landscapes that are at least 10 contiguous hectares with a minimum of 10% canopy cover.

Definition of Activities

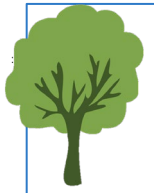
Activity Area	Description	Criteria
Improved Forest Management	A set of management actions that enhance sequestration and resiliency of sequestered carbon in forest landscapes under harvest management plans. Activities that lead to carbon enhancements in managed forests, may include, but are not limited to, the following actions: ▪ Increase the harvest rotation age towards optimum rotation age. ▪ Harvest selection while thinning to retain the best genotypes and phenotypes to improve the rate of sequestration. ▪ Control stocking to manage competition, and the related effects on forest growth and resiliency. ▪ Increase stocking in understocked areas within the managed forest. ▪ Reduction of litter and surface fuels in fire-prone ecosystems to enhance resiliency.	The primary land cover is planted forests (i.e. “forest plantations” or “artificial forest” per the Forest Legislation in Panama), and the forest has a forest management plan (FMP) authorized by MIAMBIENTE for the purposes of commercial timber harvest allowing harvest of all planted trees. The Activity Area is limited to the area with a MIAMBIENTE approved FMP for commercial timber harvest and must include the entire area under the FMP, or a subset with an equivalent age distribution as the entire area under the FMP. The Activity Area cannot include areas that prohibit or limit commercial harvest.

Environmental and Social Safeguards

PROTOCOL DEVELOPMENT CONSIDERATIONS

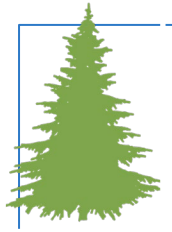
Environmental Safeguards

In order to ensure that all projects have environmental benefits beyond carbon and support the ecosystem services provided by natural forests, projects must:

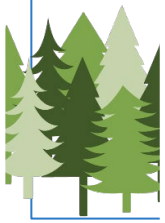


ES1 Maintain or increase carbon stocks

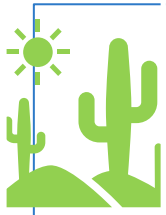
ES2 & ES3 Use a variety of native species



ES5 Implement sustainable harvesting practices



ES4 Maintenance or increase of tree canopy cover throughout the Project Area



ES6 Maintain natural soil cover

Environmental Safeguards

Environmental Safeguard	Applicable Activities	Guidance
ES1 Maintenance of forest carbon stocks	All	Activity Areas must maintain or increase standing live and dead carbon stocks over the project life, as determined by a running 10-year average of carbon stocks within the Activity Areas. Exceptions may be granted for cases of natural disturbances or silviculture activities aimed at reducing an imminent risk of disease or pest infestation.
ES6 Maintenance of natural land cover	Reforestation	Forest Projects should take into consideration the effects of project activities on ecological processes; where project activities result in the conversion of natural land cover, the Forest Owner must provide justification to be approved by the Reserve.

Environmental Safeguards

Environmental Safeguard	Applicable Activities	Guidance

ES2 Native Species	IFM, Restoration, Reforestation	• Demonstrate progress towards achieving 95% native species within the AAs, as measured by average trees/ha.
		• Exceptions for climate change strategies indicated/approved by MiAMBIENTE, subject to approval by the Reserve.
		  • For IFM and Restoration: must be met within 50 years.
		  • For Reforestation: must be met immediately following the establishment of a new forest stand.

	Large Urban Forestry	• May not reduce the percent of native species throughout the project life.
	Agroforestry and Silvopastoral	• For Agroforestry and Silvopastoral AAs in excess of 30% tree canopy cover, the tree composition must comply with 80% native species as measured by trees/ha and determined on any 5 ha within the AA. • Agroforestry AA's must meet this requirement at the AA's start date.

Environmental Safeguards

Environmental Safeguard	Applicable Activities	Guidance

ES3 Composition of Native Species	IFM, Restoration, Reforestation	• Must demonstrate progress towards meeting the composition of native species.
		  • For IFM and Restoration: must be met within 50 years.
		  • For Reforestation: must be met immediately following the establishment of a new forest stand.
		
		There are exceptions for ecological reasons approved by MiAMBIENTE, subject to approval by the Reserve. Monoculture stands are not allowed in Reforestation Activity Areas.
		
		All IFM, Restoration, and Reforestation Activity Areas must state their long-term management strategy to include a diversity of native species.

	Large Urban Forestry	• If a single species comprises more than the proportion indicated, the proportion of the dominant species may not be intentionally increased throughout the project life.
	Agroforestry and Silvopastoral	• For Agroforestry and Silvopastoral AAs in excess of 30% tree canopy cover, as determined on any 5 ha within the AA, the composition of native species shall meet the requirements within 25 years of the start date.

Composition of Native Species

Project Activity Areas*	Native Species Composition Requirements (Trees per Hectare)
Up to 10 hectares	For IFM and Restoration, up to 100% can be in one species. For Reforestation, monoculture stands are not permitted even in Activity Areas less than 10 hectares.
>10 to ≤50 hectares	Up to 90% can be in one species.
>50 to ≤100 hectares	No more than 80% can be in one species. The balance must be made up of at least two other species.
>100 to ≤1,000 hectares	No more than 70% can be in one species. The balance must be made up of at least two other species.
Greater than 1,000 hectares	No more than 60% can be in one species. The balance must be made up of at least three other species.

*The area is determined by the sum of hectares in each Activity Area.

Environmental Safeguards

Environmental Safeguard	Applicable Activities	Guidance
ES4 Maintenance or increase of tree canopy cover throughout the Project Area	IFM, Restoration, Reforestation, Agroforestry, Silvopastoral	• Tree canopy cover throughout the PA must not decrease as a result of human activities over the project life relative to the start date. • If a decline in tree canopy cover in excess of 5% is detected, as measured through remote sensing, the project must rectify the loss through reforestation in the subsequent 6 RPs. • There are exceptions for natural disturbances o activities planned by governmental agencies.

Environmental Safeguards

Environmental Safeguard	Applicable Activities	Guidance
ES5 Sustainable harvesting practices	IFM	• Where harvest occurs within the AAs in a contiguous area larger than 5 ha, a tree, or group of trees, representative of the age cohort that was harvested, can be no further than 100 m from other trees, either within the harvest area or outside of the harvest area in order to provide refugia for plants and animals. • Should these retained trees fall due to wind events, the fallen trees may be harvested. Retained trees may not be felled intentionally until the regenerated stand reaches 10-years of age. • Exceptions, related to safety, ecological, or other rationale, to this requirement may be granted if the request is made to the Reserve in writing prior to the exception occurring.

Environmental Safeguards

Environmental Safeguard	Applicable Activities	Guidance
ES7 Soil disturbance during site preparation for tree planting	All	Site preparation using deep ripping is prohibited from affecting more than 1% of an Activity Area in any year as determined by the area encompassed by the channels produced by a single ripper. Such channels are defined by the width of the ripper tine used, plus 0.5 meter on each side. In cases where deep ripping does exceed 1% of an Activity Area in a given year, the Forest Project must submit a quantification methodology to be approved by the Reserve to account for soil carbon loss. Crediting for any increases in forest carbon stocks will be suspended until a methodology has been approved by the Reserve to account for the soil carbon loss.

Social Safeguards

In order to ensure all provides provide social benefits, all projects must:

Free, prior and informed consent	• Have one or a series of congress where project issues are discussed before the vote • Have a vote to approve the project • In Panama, FPIC is required by Law No. 37 of 2016
Notification, Participation and Documentation	• Describe how assemblies are announced • Have spaces for participation • Publicly document Congress Resolutions
Project governance	• Identify a project coordinator to represent the community with the verifiers and the Reserve

The social safeguards seek to ensure that Forest Owners are centered in the design and implementation of the Forest Projects and, as the owner of the forest carbon, are significant beneficiaries of the Forest Project.

Social Safeguards: FPIC

Free, Prior, and Informed Consent

Social Safeguards for *Comarcas* and Collective Lands

Prior to project registration, Forest Owners must hold a General Congress to discuss the themes addressed in this section. Provisions must be made to ensure non-Spanish speaking participants can understand the material and communicate during the General Congress. General Congresses must be announced in a manner to ensure that the information reaches all members of the indigenous or collective lands, including vulnerable groups like women, and young people. The General Congress Resolution and proof of the General Congress (through photographs or signatures) must be included in the Project Report.

The General Congresses must adhere to proper notification, participation, and documentation requirements in the section on notification, participation, and documentation below.

Social safeguards for Public and Private lands

Prior to project registration, the Forest Owner(s) and Project Developer must hold a meeting or series of meetings to discuss the themes addressed in this section. The meeting minutes and proof of the meeting (through photographs or signatures) must be included in the Project Report.

These meetings must adhere to proper notification, participation, and documentation requirements in the section on notification, participation, and documentation below. Project registration occurs upon completing the initial verification and issuance of credits.

*Confidential information may be redacted; for further considerations or guidance, consult with the Reserve.

Social Safeguards: FPIC

Social Safeguard	Description
SS1 Forest Carbon Project Concepts	The rationale behind the participation in a forest carbon project must be discussed prior to the initial approval of the Forest Project. Presentations must address the following topics: • **Climate change associated** with GHGs • Role **of forests in mitigating** climate change • **Opportunities (economic and environmental)** for participation in carbon project • **Methods to enhance forest carbon stocks** • **Requirements associated** with the project, including additionality and permanence • Importance of maintenance of **native biodiversity** • **General project costs** and how project design may affect project profitability

Social Safeguards: FPIC

Social Safeguard	Description
SS2 Anticipated Costs	**Anticipated costs must be discussed and documented prior to project registration, including:** • Site preparation • Provision of and planting of forest seedlings • Inventory and monitoring • Project governance • Project verification • Changes in land use and access to resources • Administrative costs for the Forest Project • Division of costs between the project developer, Forest Owner, and other parties involved • Division of labor required by parties involved
SS3 Anticipated Benefits	**Anticipated economic benefits must be discussed and documented prior to project registration, including:** • Local environmental benefits, i.e. biodiversity, water quality, soil conservation, and recreation • Economic benefits associated with carbon, along with sources for estimated carbon prices • Distribution of benefits to the community, including anticipated timing of distributions, and division of benefit payments to other actors, including project developers, aggregators, and other parties involved • Credit pricing information and where it was sourced

Social Safeguards: FPIC

Social Safeguard	Description
SS4 Credit Sales, Use of Funds, and Benefit Sharing	All credit sales and use of funds generated by **the project must be discussed and documented in a meeting/General Congress prior to each reporting** period, including: • Distribution of benefits between all actors involved, including the Forest Owner, project developer, aggregator, and any other partners that provided financial or technical support (see SS7 and SS8 for further requirements regarding the contract terms) • How decisions will be made regarding the use of funds generated by the project • The dynamics that determine market prices of voluntary carbon credits and sources used • Credit pricing information and where it was sourced • If the project has previously sold credits, the extent of any negotiations and all considered offers and credit pricing • If the project has previously sold credits, purchase agreements and related contracts must be presented on and made available to community members • If the project has previously sold credits, how the funds from those credits were used

Social Safeguards: FPIC

Social Safeguard	Description
SS5 Project Safety	Field safety must be discussed in a meeting/General Assembly to ensure that safety considerations are considered for the project. The following must be included: • A presentation regarding health and safety in regard to appropriate gear, climate considerations, proper alimentation, protective equipment, or any site-specific considerations and hazards. • All participants in the project inventory or field activities must attend periodic training, at least one per year, and sign an agreement confirming that they understand the safety considerations. The agreement with project participants should be presented with project documentation. Projects that are Forest Stewardship Council (FSC) certified automatically comply with this safeguard.
SS6 Project Approval	After the topics to comply with SS1-SS4 have been presented in a meeting/General Congress, the project must be approved prior to project registration through: • Established formal and/or traditional authorities • A signed letter/General Congress Resolution with consensus (>50%) of all present comarca members/collective landowners/private or public landowners in favor

Social Safeguards: FPIC

Social Safeguard	Description

SS7 Project Developer Approval
 	
&
 	
SS8 Aggregate Approval
	When working with a separate project developer or joining an aggregate, the decision must be approved through:
	• Established formal and/or traditional authorities
	• A signed letter/General Congress Resolution with consensus (>50%) of all present comarca members/collective landowners/private or public landowners in favor
	• A contract that determines the scope of project developer/aggregator services, the terms of payments, and the division of costs and benefits must be made available.
	  • Contracts must clearly establish the rights to CRTs and future credit payments, terms for contract renewal, renegotiation, or termination, including measures to reassess the terms of contract on an ongoing basis or in the event of noncompliance with the terms of the contract.
	  • The contract will be maintained as a confidential document on the Reserve registry.
	  • To allow Forest Owners flexibility and autonomy in project design and financing, this Protocol does not set a limit on the benefit sharing percentages. However, the Reserve maintains the right to reject any Forest Project that does not comply with the requirements of FPIC per SS1-SS8 and/or the intent of the social safeguards to ensure Forest Projects provide positive social outcomes and that the Forest Owners are significant beneficiaries of Forest Projects.
	  • For aggregates, the contract cannot define terms for a landowner beyond 6 years without requiring a new vote.

Social Safeguards: Notification, Participation & Documentation

Notification, Participation, and Documentation

Social Safeguards for *Comarcas* and Collective Lands

A General Congress (at least once a year) is held to discuss critical elements associated with project activities. The General Congress must prove that vulnerable groups are included.

The General Congress must include the following items on the agenda to comply with the requirements of the social safeguards:

- Forestry activities (management actions, environmental issues, grievances, other concerns and opportunities)
- Programmatic events (monitoring, reporting, and verification)
- Credits issued
- Benefit sharing arrangements
- Finances

In addition to a General Congress, *comarca* or collective landowner participation in the development and verification processes is critical to ensure the longevity of the Forest Project.

Social safeguards for Public and Private lands

A public meeting prior to project registration and prior to each complete verification is held to discuss critical elements associated with project activities that may affect neighboring communities and landowners. Provisions must be made to ensure non-Spanish speaking participants can understand the material and communicate during public meetings. Each public meeting must include the following items on the agenda:

- Forestry activities (management actions, environmental issues, grievances, other concerns and opportunities)
- Programmatic events (monitoring, reporting, and verification activities)

A meeting (at least once a year) is held between the Forest Owner and Project Developer to discuss critical elements associated with project activities. Each meeting must include the following items on the agenda:

- Credits issued
- Benefit sharing arrangements
- Finanzas

Social Safeguards: Notification, Participation & Documentation

Social Safeguard	Description
SS9 Notification	• Describe how notices of public meetings/General Congresses take place in order to include as many people as possible (including neighboring communities and landowners)
SS10 Participation	• Public meetings/General Congresses must provide a sign-in sheet so that attendance can be monitored • Opportunities for all comarca members/collective landowners/all attendees to share opinions, both in writing and orally • Describe how members of the comarca/collective landowners are incorporated in the design, development, and ongoing MRV of the Forest Project
SS11 Documentation	• Meeting notes/General Congress Resolution must document the discussions associated with each required item on the agenda • Describe how meeting notes (for public meetings)/Resolution will be publicly available as part of the project record

Social Safeguards: Project Governance

Project Governance

Social Safeguards for *Comarcas* and Collective Lands

Forest carbon projects require an organizational structure that will endure for long periods of time. A Project Coordinator must be selected by the *comarca* or collective landowners to represent the Forest Owner with the project developer, verifiers, and Reserve staff. The Project Coordinator is responsible for:

- Ensuring all project-related documentation is in order and up to date
- Ensuring General Congresses include the required elements above and providing the corresponding Resolution
- Organizing logistics with verifiers and Reserve staff

The process for identifying the Project Coordinator is at the discretion of the *comarca* or collective landowners but must comply with SS12-SS15.

Social safeguards for Public and Private lands

A Project Coordinator must be selected to represent the Forest Owner (if not the Forest Owner) with the project developer, verifiers, and Reserve staff. The Project Coordinator is responsible for:

- Ensuring all project-related documentation is in order and up to date
- Ensuring meetings include the required elements above and providing the corresponding meeting minutes
- Organizing logistics with verifiers and Reserve staff

The process for identifying the Project Coordinator is at the discretion of the Forest Owner but must comply with SS12-SS15.

The Forest Owner may select themself to be the Project Coordinator.

Social Safeguards: Project Governance

Social Safeguard	Description
SS12 Identification of a Project Coordinator	• A description of the nomination process and the selection/election process must be documented • PC must be approved with a >50% vote • For comarcas/collective lands, must be a member
SS13 Role and Participation of the PC	• The PC should be included as the Account Manager for the Forest Owner account on the registry • The PC should be included in all communications regarding the project • The PC should be included in all project MRV processes
SS14 Term of a PC & SS15 Replacing a PC	• The length of the term of PC must be defined • Must identify whether the position of PC can be renewed and, if so, for how many terms • To address potential disputes associated with the PC and/or Forest Project, a dispute resolution process and process to replace the PC from the position must be documented

Additionality

PROTOCOL DEVELOPMENT CONSIDERATIONS

Additionality

A forest project is considered additional if it would not have been implemented without carbon market incentives.

- Forest Project must comply with the following :

Legal requirement test:

- Carbon generated beyond legal regulations.
- Attestation of Voluntary Implementation.

Performance standard test:

- It is based on evidence that there is a risk of forest cover loss and carbon inventories
- Carbon that is above baseline is considered additional
- Different methodologies for each type of activity

Performance standard test: Reforestation Activity Areas

- Reforestation activities, by definition, must take place in :
  - Lands that are not in forest cover on the Activity Area on the start date
  - Lands that have not been in forest cover within the past 10-years
  - Or have recently experienced a natural disturbance that reduced live tree stocking below 50% live canopy cover.

- Activities that comply with this definition of Reforestation automatically satisfy **the performance standard test**

Small Urban Forestry, Agroforestry, and Silvopastoral Activity Areas

- Due to the inherent risk of deforestation and degradation, they automatically satisfy the Performance Standard Test.
- Activities are considered additional to the extent they produce GHG removals in excess of the Activity Area baseline

Performance standard test: Large Urban Forestry Activity Areas

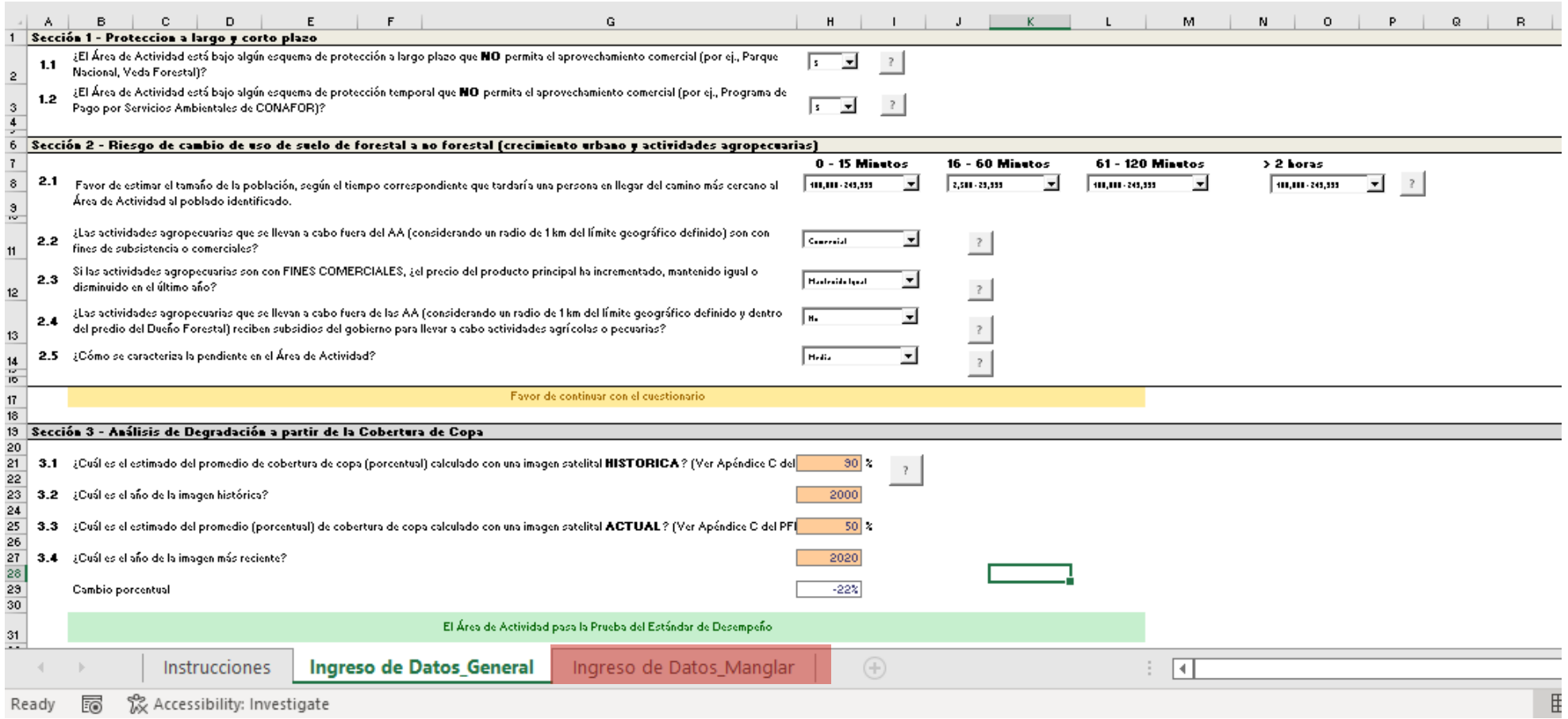
- Is based on analysis of historical canopy cover throughout the Activity Area
  - **A trend** for the Activity Area is developed by calculating a historical estimate of canopy cover and a recent estimate of canopy cover
  - The trend analysis should use at least two historical estimates that are at least 10 years apart, and with the earliest year no earlier than 1990
  - The protocol has a standardized methodology for estimating canopy cover from remotely sensed data
  - If historical images are not available, more recent images may be used, subject to Reserve approval.

If the historical trend of canopy cover is decreasing, it passes the performance standard test.

Performance Standard Test: Restoration Activity Areas

- Is based on evidence that risks to forest inventories: The assessment of risk is based on an analysis of drivers of deforestation and degradation that may impact the land
- **Forest cover risk tool:**
  - Sub-section 1: Examines legal restrictions that may reduce the risk of deforestation
  - Sub-section 2: Establishes the risk of deforestation due to the presence of agricultural activities, biophysical characteristics, urban development, and economic pressures
    - If an Activity Area demonstrates that there is sufficient risk of deforestation, it may pass without completing the third section.
  - Sub-section 3: Assesses the presence of degradation
    - It must demonstrate the loss of canopy cover through the use of remote sensing data.
    - The protocol has a standardized methodology for estimating canopy cover from remote sensing data.
    - If the historical trend of canopy cover is decreasing by at least 10% over a 10-year period, it passes the performance standard test.

Restoration PST Tool



1	**Sección 1 - Proteccion a largo y corto plazo**																							
2	1.1	¿El Área de Actividad está bajo algún esquema de protección a largo plazo que **NO** permita el aprovechamiento comercial (por ej., Parque Nacional, Veda Forestal)?																						
3	1.2	¿El Área de Actividad está bajo algún esquema de protección temporal que **NO** permita el aprovechamiento comercial (por ej., Programa de Pago por Servicios Ambientales de CONAFOR)?																						
4																								
6	**Sección 2 - Riesgo de cambio de uso de suelo de forestal a no forestal (crecimiento urbano y actividades agropecuarias)**																							
7																								
8	2.1	Favor de estimar el tamaño de la población, según el tiempo correspondiente que tardaría una persona en llegar del camino más cercano al Área de Actividad al poblado identificado.																						
3																								
11	2.2	¿Las actividades agropecuarias que se llevan a cabo fuera del AA (considerando un radio de 1 km del límite geográfico definido) son con fines de subsistencia o comerciales?																						
12	2.3	Si las actividades agropecuarias son con FINES COMERCIALES, ¿el precio del producto principal ha incrementado, mantenido igual o disminuido en el último año?																						
13	2.4	¿Las actividades agropecuarias que se llevan a cabo fuera de las AA (considerando un radio de 1 km del límite geográfico definido y dentro del predio del Dueño Forestal) reciben subsidios del gobierno para llevar a cabo actividades agrícolas o pecuarias?																						
14	2.5	¿Cómo se caracteriza la pendiente en el Área de Actividad?																						
16																								
17		Favor de continuar con el cuestionario																						
18																								
19	**Sección 3 - Análisis de Degradación a partir de la Cobertura de Copa**																							
20																								
21	3.1	¿Cuál es el estimado del promedio de cobertura de copa (porcentual) calculado con una imagen satelital **HISTORICA**? (Ver Apéndice C del																						
22																								
23	3.2	¿Cuál es el año de la imagen histórica?																						
24																								
25	3.3	¿Cuál es el estimado del promedio (porcentual) de cobertura de copa calculado con una imagen satelital **ACTUAL**? (Ver Apéndice C del PF																						
26																								
27	3.4	¿Cuál es el año de la imagen más reciente?																						
28																								
29		Cambio porcentual																						
30																								
31		El Área de Actividad pasa la Prueba del Estándar de Desempeño																						

0 - 15 Minutos | 16 - 60 Minutos | 61 - 120 Minutos | > 2 horas

30 %

2000

50 %

2020

-22%

Instrucciones | Ingreso de Datos_General | Ingreso de Datos_Manglar

Ready | Accessibility: Investigate

Improved Forest Management Activity Areas

- The goal of Improved Forest Management is to **increase onsite carbon stocks through strengthening long-term forest health and productivity**.

- IFM must have Forest Management Plans (FMP) authorized by MiAMBIENTE for the purpose of commercial harvesting.
  - On “Forest Plantations” or “Artificial Forests” per the Forest Legislation of Panama, or planted forests, FMPs may permit harvesting of all planted trees.
  - In the absence of the Forest Project, all trees and periodic growth on Forest Plantations or Artificial Forests under a FMP would be at risk of harvest.
  - The Activity Area must include the entire area under the FMP or a subset with an equivalent age distribution.
  - Cannot include protected areas or any areas that limit or prohibit harvesting.

- Achieving the long-term goal of IFM necessitates ongoing investments into silviculture activities
  - IFM Activity Areas must state the silviculture activities and long-term management strategies intended to increase forest carbon stocks and improve forest health and productivity, subject to Reserve approval.
  - Periodic growth that would not have been at risk of harvest would not be considered additional.

**Note that all projects must comply with the environmental safeguards re native species composition

Crediting Period

- **Crediting Period:** the baseline for any Forest Project registered under the PFP is valid for a crediting period of 30 years.
  - Forest Projects will be eligible to receive CRTs for a period of 30 years following the project's start date
  - Credits that were generated during the crediting period must continue to be monitored to meet contractual obligations or permanence commitments potentially beyond the crediting period (i.e. up to 100 years)

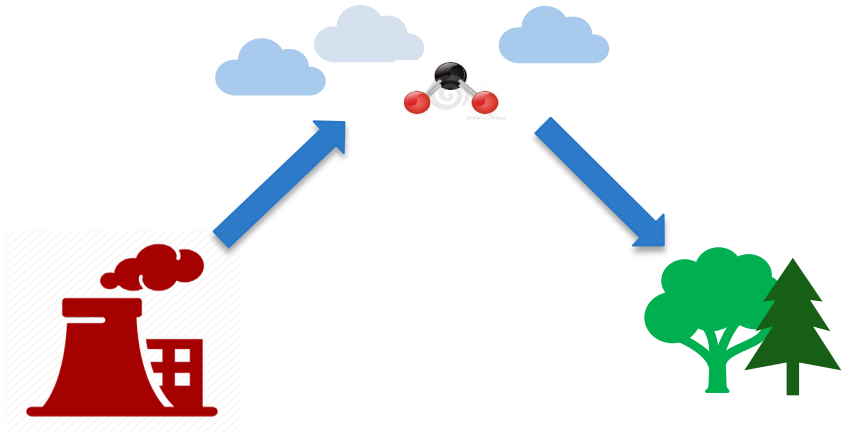
Permanence

PROTOCOL DEVELOPMENT CONSIDERATIONS

Permanence

Forest Projects must meet the permanence standards:

- The climate benefit of the project must be "permanent," which is defined by a 100-year period for Forest Projects.
- A CRT credit is issued for each ton of CO2e that is removed from the atmosphere for a 100-year period.



Ensuring the Permanence of Accredited GHG Removals

The Reserve requires Forest Projects to ensure that the carbon associated with credited GHG removals remains **stored for at least 100 years.** The protocol establishes multiple procedures to ensure that credited GHG removals meet permanence obligations:

1. A legal contract, known as a **Project Implementation Agreement**, signed by the Forest Owner and the Reserve, that establishes the obligations of each party in the event of a reversal.
2. In the case of Comarcas and collective lands, a **Resolution with a formal commitment approved by the Comarca** to maintain credited carbon stocks for a period of 100 years aligned with their Comarca or collective land processes and legal standards.
3. An insurance mechanism, known as the **Buffer Pool**, based on the project's risk profile.
4. An **incentive approach that redistributes the dividends from the buffer pool** to projects that demonstrate continued compliance and maintenance of sequestered carbon stocks over time.

Section 3: Project Implementation Agreement (PIA)

The Project Implementation Agreement (PIA) is the contractual agreement between the Forest Owner and the Reserve:

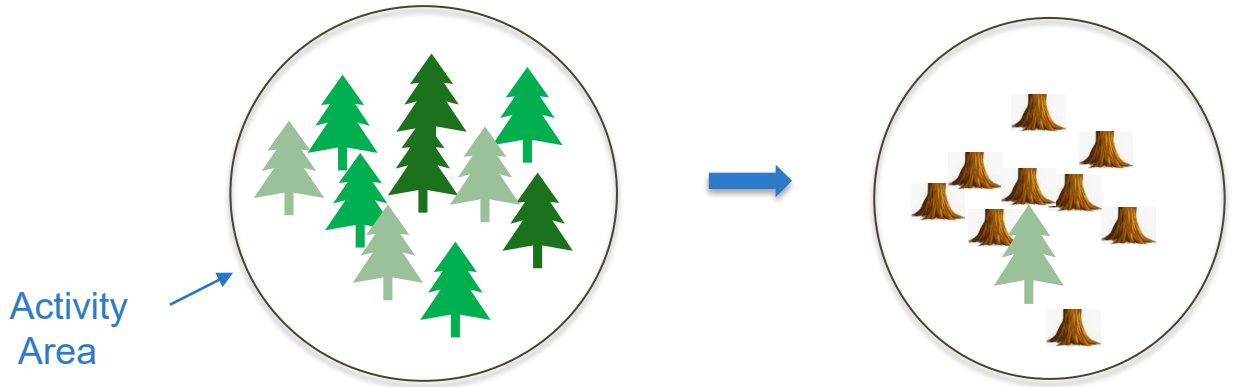
- The PIA establishes the Forest Owner's obligations to comply with the protocol's requirements.
  - Must be notarized and registered with the Public Registry and/or ANATI.

- The Forest Owner can define the commitment period between 30 and 100 years.
  - The PIA can be renewed annually
  - The number of credits is stipulated according to the commitment period length.
  - The document must be notarized

Avoidable Reversal

An Avoidable Reversal is any reversal that is due to the Forest Owner's gross negligence or willful intent, for example harvesting, urban developments, or harm to the Activity Area, that reduces carbon stocks more than the total tons secured and emitted as credits.

- Not covered by the Buffer Pool
- The Forest Owner is responsible for removing a number of CRTs equal to the number of tons affected by the avoidable reversal.



Unavoidable Reversal

An Unavoidable Reversal is one that is not caused by the negligence or premeditation of a Forest Owner, for example, natural events such as fires and pests.

To compensate:

- A Forest Project contributes an amount of CRTs to a Buffer Pool each year that credits are issued.
- The Reserve manages the Buffer Pool and will retire an amount of CRTs equal to the number of tons affected by an unavoidable reversal.

Buffer Pool

- Contributions to the Buffer pool are determined through a **project-specific risk assessment**.
- Forest Projects also receive an
  - **Economic incentive** to protect against reversals, based on an expected flow of future credits. As projects demonstrate continued compliance, a percentage of their contribution to the Buffer Pool may be redistributed to the Forest Owner over time based on the ton-year value of project-specific credits in the Buffer Pool.
- The Reserve adaptively manages the Buffer Pool, including its dividends, based on an ongoing assessment of programmatic risk and the health of the Buffer Pool.

Project Contribution to the Buffer Pool

Risk Category	Contribution		
	Private Lands	Public Ownership	Indigenous or Collective Lands
Financial Failure	6% o 8%	4% o 6%	4% o 6%
Illegal Forest Biomass Removal *	2% o 4%	2% o 4%	2% o 4%
Conversion	4% o 8%	4% o 6%	4% o 6%
Over Harvesting**	0% o 4%	0% o 4%	0% o 4%
Social	2%	2%	4% o 6%
Political***	4%	8%	4%
Wildfire, Disease, or Insect Outbreak****	4% o 6%	4% o 6%	4% o 6%
Other Catastrophic Events	6%	6%	6%

$$\textbf{\textit{Rerversal Risk Rating}} = 100\% - [(1 - FinancialFailure\%) \times (1 - IllegalForestBiomassRemoval\%) \times (1 - Conversion\%) \times (1 - OverHarvesting\%) \times (1 - Social\ Risk\%) \times (1 - Political\ Risk\%) \times (1 - Wildfire\ /\ Disease/\ InsectOutbreak\%) \times (1 - OtherCatastrophicEvents\%)]$$

Quantification

PROTOCOL DEVELOPMENT CONSIDERATIONS

GHG Assessment Boundary

A Forest Project must include the following Sources, Sinks, and Reservoirs:

Primary Effects:

1. Standing live carbon
3. Standing dead carbon

Secondary Effects:

10. Mobile combustion emissions from site preparation activities
13. Emissions from clearing of shrubs and herbaceous understory carbon
14. Biological emissions from clearing of forestland outside the Activity Area for agriculture and/or grazing
15. Biological GHG emissions/removals from changes in timber harvesting on forestland outside of the Activity Area

Steps for GHG Quantification

Quantifying the AA live and dead standing carbon

Determining the **AA baseline** of carbon stocks

Calculating the AA Primary Effect

Quantifying the AA Secondary Effects

Calculation of total GHG removals.

Calculation of the CRTs to be issued

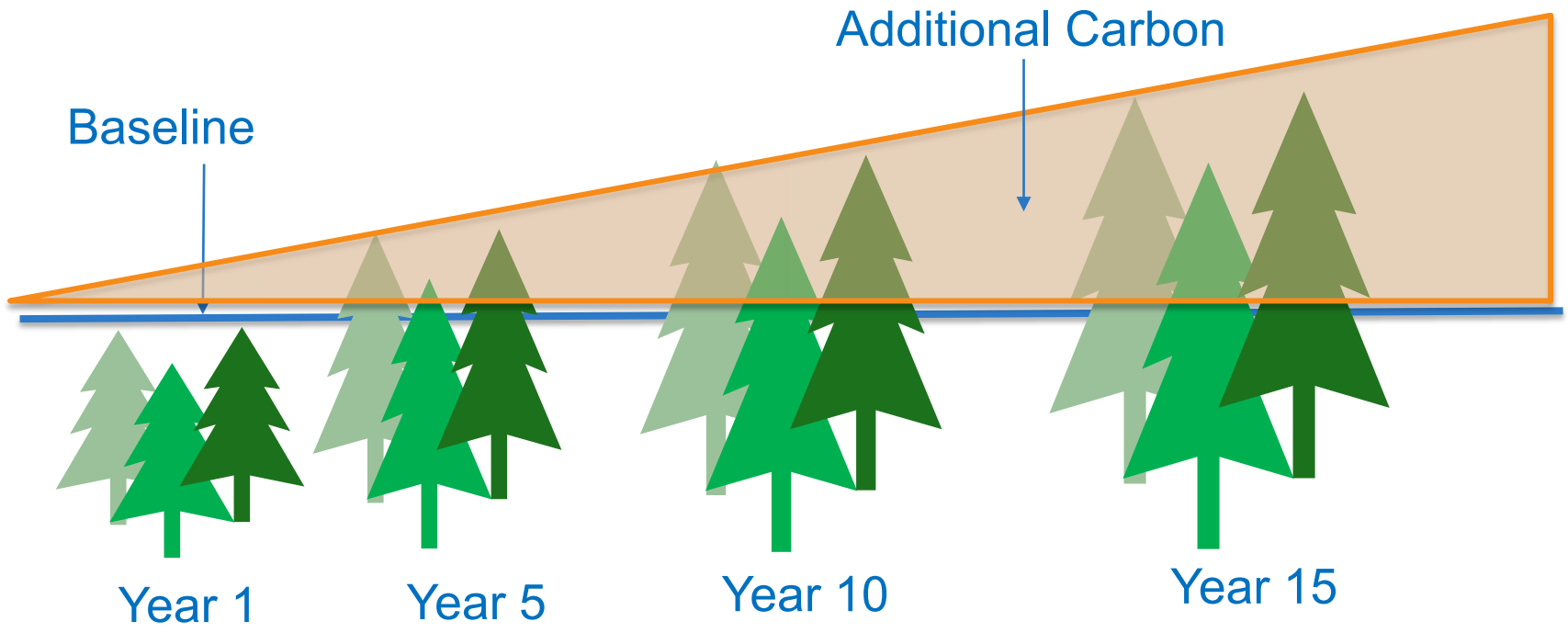
Quantification of the Forest Carbon Stocks

- Forest carbon stocks are calculated within the Activity Area
- The Protocolo includes two inventory methodologies based on the activity type:
  - IFM, Restoration, Reforestation, and Large Urban Forests must use the field sampling inventory methodology
  - Agroforestry and Small Urban Forests may optionally use the remote sensing/canopy cover inventory methodology

Baseline

After approving the additionality requirements, the baseline is established:

– The baseline is established as Initial Carbon Stocks (ICS)



Calculating Primary Effects

- For each Activity Area: the actual change in GHG removals associated with the expected effects must be quantified
  - For activities requiring field sampling inventory:
    - CALCBOSK automatically grows the inventory data to represent the inventory as of the end date of the reporting period
  - For activities using the canopy coverage methodology :
    - An image representing the end date of the reporting period is used.
  - The Carbon Monitoring Worksheet facilitates calculation of Primary Effects

Quantification the Secondary Effects

Carbon stock enhancement activities by the Forest Project may result in increased forest carbon emissions outside the Forest Project.

Depends on the activity:

1. Reforestation Activities: secondary effects for site preparation activities
    - Mobile combustion emissions associated with site preparation.
    - Biomass removal resulting from site preparation

2. Reforestation, Restoration, Agroforestry, and Silvopastoral Systems Activities: Secondary effects due to the displacement of agricultural activities

3. Improved Forest Management Activities: Secondary effects due to the decrease in the displacement of harvesting activities

MRV

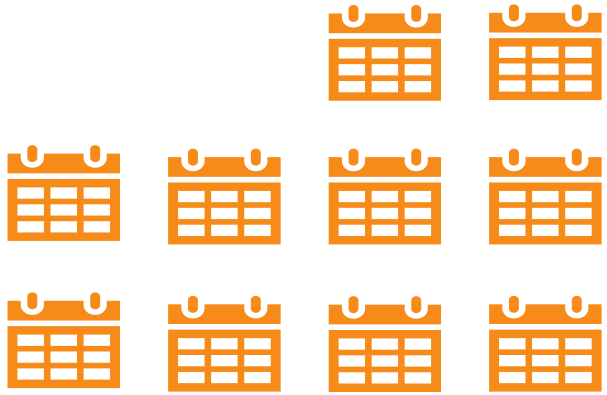
PROTOCOL DEVELOPMENT CONSIDERATIONS

Reporting Period

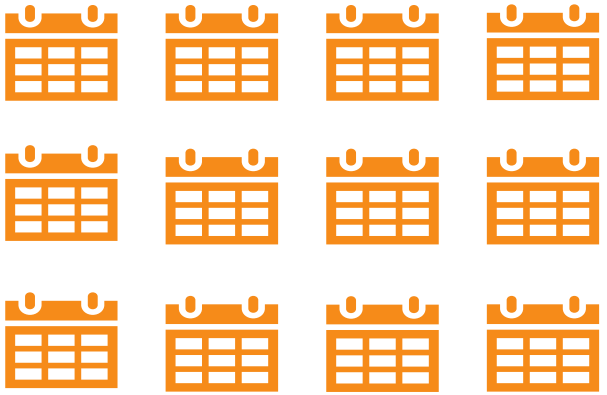
A Reporting Period is a period of time in which the Forest Owner quantifies and reports GHG removals:

- They have a duration of 12 months
- Exception: the first Reporting Period, which may be up to 12 months from the Project Start Date.

Reporting Period 1 :



Reporting Period 2-X :



Project Documentation

- Project Submission Form: Is required to determine whether the project meets the eligibility criteria.
  - Must be submitted within the 12 months after the start date.
- Project Report : the main document describing the project
  - Defines the Project Area and Activity Areas, how eligibility requirements are met, additionality, permanence, and shows the quantification of the baseline and project carbon stocks.
  - To be submitted within 12 months after the end of the first or second Reporting Period.
- Annual Monitoring Report: the basis for reporting project updates on an annual basis
  - To be submitted within 12 months after the end of each Reporting Period.

Verification

Verification refers to the inspection and review of all sampling and calculation activities as well as of reported information and eligibility criteria:

Initial Verification	Full Verification	Desktop Verification
• It is a Full Verification • 12 months from the end of the Reporting Period in which the Project Report was submitted.	• Required every 6 Reporting Periods. • or if new Activity Areas are added to the project	• Optional annual verification of monitoring reports • Required to receive credits prior to on-site verifications • 12 months from the end of the Reporting Period

SUMMARY AND NEXT STEPS

Timeline of protocol development

Next steps

- ***For Interested Stakeholders:***
  - Submit public comments by COB **December 22, 2023** to: cmelendez@climateactionreserve.org

- ***For Reserve:***
  - Respond to public comments and update draft protocol to present to the board January 24th
  - All public comments and responses will be published along with the final draft ahead of the board meeting

QUESTIONS OR COMMENTS?

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