



CLIMATE  
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## **Mexico Forest Protocol Version 1.5 ERRATA AND CLARIFICATIONS**

The Climate Action Reserve (Reserve) published its Mexico Forest Protocol Version 1.5 (MFP V1.5) in September 2017. While the Reserve intends for the MFP 1.5 to be a complete, transparent document, it recognizes that correction of errors and clarifications will be necessary as the protocol is implemented and issues are identified. This document is an official record of all errata and clarifications applicable to the MFP 1.5.<sup>1</sup>

Per the Reserve's Program Manual, both errata and clarifications are considered effective on the date they are first posted on the Reserve website. The effective date of each erratum or clarification is clearly designated below. All listed and registered forest projects must incorporate and adhere to these errata and clarifications when they undergo verification. The Reserve will incorporate both errata and clarifications into future versions of the protocol.

All project developers and verification bodies must refer to this document to ensure that the most current guidance is adhered to in project design and verification. Verification bodies shall refer to this document immediately prior to uploading any Verification Statement to assure all issues are properly addressed and incorporated into verification activities.

If you have any questions about the updates or clarifications in this document, please contact Policy at: [policy@climateactionreserve.org](mailto:policy@climateactionreserve.org) or (213) 891-1444 x3.

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<sup>1</sup> See Section 4.3.4 of the Climate Action Reserve Program Manual for an explanation of the Reserve's policies on protocol errata and clarifications. "Errata" are issued to correct typographical errors. "Clarifications" are issued to ensure consistent interpretation and application of the protocol. For document management and program implementation purposes, both errata and clarifications to the MFP are contained in this single document.

*Please ensure that you are using the latest version of this document*

## Errata and Clarifications (arranged by protocol section)

### Table of Contents

<b>Section 2</b> .....	<b>4</b>
1. Project Area (CLARIFICATION – August 26, 2019) .....	4
2. Project Area (CLARIFICATION – August 26, 2019) .....	4
3. Activity Area (CLARIFICATION – May 14, 2018) .....	5
4. Activity Area (CLARIFICATION – August 26, 2019) .....	5
<b>Section 3</b> .....	<b>5</b>
5. Forest Owner (CLARIFICATION – May 14, 2018) .....	5
6. Forest Owner (CLARIFICATION – May 14, 2018) .....	5
7. Forest Owner (CLARIFICATION – August 26, 2019) .....	6
8. Forest Owner (CLARIFICATION – January 28, 2019).....	6
9. Conflicts (CLARIFICATION – May 14, 2018) .....	7
10. Attestation of Regulatory Compliance (CLARIFICATION – May 14, 2018).....	7
11. Environmental Safeguard (CLARIFICATION – May 14, 2018) .....	8
12. Environmental Safeguard (CLARIFICATION – May 14, 2018) .....	8
13. Project Start Date (ERRATUM – March 15, 2019) .....	9
14. Project Implementation Agreement (CLARIFICATION – May 14, 2018).....	10
<b>Section 5</b> .....	<b>10</b>
15. GHG Assessment Boundary (ERRATUM – May 14, 2018) .....	10
<b>Section 8</b> .....	<b>10</b>
16. Secondary Effects (CLARIFICATION – May 14, 2018) .....	10
<b>Section 9</b> .....	<b>13</b>
17. Tonne-Year Accounting (CLARIFICATION – August 26, 2019).....	13
<b>Section 10</b> .....	<b>14</b>
18. Native Species Report (CLARIFICATION – May 14, 2018).....	14
<b>Glossary of Terms</b> .....	<b>14</b>
19. Definition of Forestland (CLARIFICATION – May 14, 2018).....	14
<b>Quantification Guidance</b> .....	<b>14</b>
20. Project Area Sampling: Baseline Development (ERRATUM – August 26, 2019).....	14
21. Project Area Sampling: Baseline Development (CLARIFICATION – May 14, 2018).....	15
22. Guidance for the Selection of the Vegetation/Land-Use Key (CLARIFICATION – May 14, 2018) .....	16

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23. Definition of Natural Land Cover (CLARIFICATION – May 14, 2018).....	19
24. Ongoing Project Area Monitoring (CLARIFICATION – May 14, 2018).....	20
25. Inventory Sampling (CLARIFICATION – May 14, 2018).....	20
26. Inventory Sampling (ERRATUM – May 14, 2018) .....	21
27. Defect (ERRATUM – May 14, 2018) .....	21
28. Forest Cover Monitoring (CLARIFICATION – May 14, 2018).....	22
<b>Verification Guidance .....</b>	<b>23</b>
29. Conflicts (CLARIFICATION – May 14, 2018) .....	23
30. Project Area (CLARIFICATION – May 14, 2018) .....	23
31. Baseline Carbon Stocks (ERRATUM – May 14, 2018).....	23
32. Project Implementation Agreement (CLARIFICATION – May 14, 2018).....	24

## Section 2

### 1. Project Area (CLARIFICATION – August 26, 2019)

#### Section: 2.2

**Context:** Project Areas include all areas within an ownership, held either communally or privately, in which project activities within Activity Areas (defined below) may occur as part of the project, currently or in the future. Communally owned lands (known in Mexico as *comunidades* and *ejidos*) must include the entire community ownership as the Project Area. An exception applies when individual *ejidal* parcels participate as private owners.

**Clarification:** Project Areas include all areas within an ownership, held either communally or privately, in which project activities within Activity Areas (defined below) may occur as part of the project, currently or in the future. Communally owned lands (referred to in Mexico as *comunidades* and *ejidos*) must include the entire community ownership as the Project Area at project initiation, including *ejidal* parcels that do not have *dominio pleno*<sup>2</sup>. If *ejidal* parcels later obtain *dominio pleno*, the Forest Owner (*ejido*) may remove the parcels with *dominio pleno* from the Project Area. The new Project Area would need to be verified through a site visit verification. Individual *ejidal* parcels with *dominio pleno* may alternatively participate as private owners.

### 2. Project Area (CLARIFICATION – August 26, 2019)

#### Section: 2.2

**Context:** The following rules apply to the definition of a Project Area:

1. The Project Area may be contiguous or separated into tracts.
2. For communally owned lands, the Project Area must consist of the entire area owned by the community or *ejido*. An exception applies when individual *ejidal* parcels participate as private owners (see below).
3. For privately owned lands, the Project Area must consist of the entire area owned. For lands that expand beyond one municipality<sup>3</sup>, projects need to include all land owned within all included municipalities.

**Clarification:** The following rules apply to the definition of a Project Area:

1. The Project Area may be contiguous or separated into tracts.
2. For communally owned lands, the Project Area must consist of the entire area owned by the community or *ejido* at project initiation. An exception applies when *ejidal* parcels obtain *dominio pleno*. The *ejido* may then opt to remove these lands from the Project Area; individual *ejidal* parcels with *dominio pleno* may alternatively participate as private owners (see below).
3. For privately owned lands, the Project Area must consist of the entire area included under a land title, and may include adjacent properties with land titles that share a common ownership. For land titles that expand beyond one municipality<sup>4</sup>, projects need to include all land owned within all included municipalities.

<sup>2</sup> *Dominio pleno* is a legal mechanism that allows members of the *ejido* to acquire ownership over their land parcels, which will no longer be subject to the *ejido* regime but to the private property regime, governed by common law.

<sup>3</sup> Municipalities are subdivisions of states in Mexico.

<sup>4</sup> Municipalities are subdivisions of states in Mexico.

### 3. Activity Area (CLARIFICATION – May 14, 2018)

**Section:** 2.2

**Context:** Activity Areas are explicit areas within the Project Area where activities occur that lead to quantified increased sequestration compared to baseline levels.

**Clarification:** Activity Areas are explicit consecutive areas within the Project Area where activities occur that lead to quantified increased sequestration compared to baseline levels.

### 4. Activity Area (CLARIFICATION – August 26, 2019)

**Section:** 2.2

**Context:** Within the Project Area, individually owned parcels within *ejido* boundaries are allowed to be included as Activity Areas if the title-holder chooses to participate.

**Clarification:** Within the Project Area, *ejido* parcels without *dominio pleno* may be included within the Activity Areas, subject to an agreement with the *ejido*. The *ejido* would be held responsible for meeting all protocol requirements for all lands included in the Project and Activity Areas.

*Ejido* parcels with *dominio pleno* may not be included within the Activity Areas of an *ejidal* project. They may, however, participate as a private project.

## Section 3

### 5. Forest Owner (CLARIFICATION – May 14, 2018)

**Section:** 3.3 (Spanish version only)

**Context:** Las agencias de gobierno no pueden ser consideradas Dueños Forestales.

**Clarification:** Las agencias federales de gobierno no pueden ser consideradas Dueños Forestales.

### 6. Forest Owner (CLARIFICATION – May 14, 2018)

**Section:** 3.3

**Context:** Land owned by federal, state or local governments is not eligible for participation.

**Clarification:**

#### 3.3.3 Public Land

Non-federal government agencies that voluntarily implement activities to increase carbon stocks on non-federal lands, such as municipal or state, public lands may be a Forest Owner.

Land owned by the federal government is not eligible for participation.

Further guidance for projects on public lands will be provided in a protocol update.

## 7. Forest Owner (CLARIFICATION – August 26, 2019)

### Section: 3.3.1

#### Context:

Communal Land (*Ejid*os and Communities)

Eligibility includes communally-owned land and *ejidal* parcels that voluntarily want to join the project with corresponding parcel certificates. Individual *ejidal* parcels may alternatively participate as private owners (see below).

*Ejid*os – Inscribed in the National Agrarian Registry (*Registro Agrario Nacional*, RAN).<sup>5</sup>

Communities (agrarian and indigenous) – Inscribed in the National Agrarian Registry (RAN).

#### Clarification:

Communal Land (*Ejid*os and Communities)

Eligibility includes communally-owned land. *Ejidal* parcels may participate along with the communally-owned land by voluntarily transferring their carbon rights to the *ejido* through a legally binding contract or conservation easement. Individual *ejidal* parcels may alternatively participate as private owners (see below).

*Ejid*os – Inscribed in the National Agrarian Registry (*Registro Agrario Nacional*, RAN).<sup>6</sup>

Communities (agrarian and indigenous) – Inscribed in the National Agrarian Registry (RAN).

**Updated Clarification:** The Reserve will provide further guidance on what a legally binding contract must entail. Until such time, the Reserve will not approve projects that consist of *Ejidal* parcels participating through the transfer of carbon rights to the *ejido*

**Updated Clarification:** Eligibility includes communally-owned land. *Ejidal* parcels without *dominio pleno* may participate along with the communally-owned land through an agreement with the *ejido*.

*Ejidal* parcels with *dominio pleno* may alternatively participate as private owners (see below).

*Ejid*os – Inscribed in the National Agrarian Registry (*Registro Agrario Nacional*, RAN).<sup>7</sup>

Communities (agrarian and indigenous) – Inscribed in the National Agrarian Registry (RAN).

## 8. Forest Owner (CLARIFICATION – January 28, 2019)

### Section: 3.3.2

**Context:** Private Property – Inscribed on the Public Registry of Property (*Registro Público de la Propiedad*). These include individual *ejidal* parcels that participate as private owners and not as part of the entire *ejido*.

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<sup>5</sup> Decentralized body of the Ministry of the Agrarian Reform responsible for communal land (*ejido*) tenure regulation through the provision of legal certainty.

<sup>6</sup> Decentralized body of the Ministry of the Agrarian Reform responsible for communal land (*ejido*) tenure regulation through the provision of legal certainty.

<sup>7</sup> Decentralized body of the Ministry of the Agrarian Reform responsible for communal land (*ejido*) tenure regulation through the provision of legal certainty.

**Clarification:** Private Property – Inscribed on the Public Registry of Property (*Registro Público de la Propiedad*). Individual *ejidal* parcel owners with full domain (*dominio pleno*) or with ownership certification may participate as private land owners where their land certificates are either registered in the National Agrarian Registry or inscribed in the Public Registry of Property.

Multiple private landowners may participate jointly under one project by voluntarily transferring their carbon rights to a designated entity, which will serve as the Forest Owner for the life of carbon project, through a legally binding contract or conservation easement for a period of time no less than 100 years following the last issuance of credits.

**Updated Clarification:** Entities serving as a Forest Owner through the transfer of carbon rights, along with the legally binding contract, must be approved by the Reserve before being eligible. The Reserve will provide further guidance on what entities may serve as a Forest Owner, what further requirements such entities would have, and what the legally binding contract must entail. Until such time, the Reserve will not approve any third-party entities to serve as a Forest Owner through the transfer of carbon rights.

## 9. Conflicts (CLARIFICATION – May 14, 2018)

**Section:** 3.8

**Context:** For all *ejidos* and communities, the Forest Owner must submit a document emitted by the Agrarian Attorney (*Procuraduría Agraria*) that states that there are no agrarian conflicts within the Activity Areas. Private landowners must also prove that there are no boundary conflicts within the Activity Areas.

**Clarification:** For all *ejidos* and communities, the Forest Owner must submit a document emitted by the Agrarian Attorney (*Procuraduría Agraria*) that states that there are no agrarian conflicts within the Activity Areas. Private landowners must also attest that there are no boundary conflicts within the Activity Areas by submitting a signed document declaring that there are no lawsuits or claims on the property.

## 10. Attestation of Regulatory Compliance (CLARIFICATION – May 14, 2018)

**Section:** 3.9

**Context:** Each time the Forest Project is verified, the Forest Owner must sign the Reserve's Attestation of Regulatory Compliance form indicating that the project is in material compliance with all applicable laws<sup>8</sup> relevant to the project activity.

**Clarification:** Each time the Forest Project is verified, the Forest Owner or Project Developer (if a Designation of Authority has been executed) must sign the Reserve's Attestation of Regulatory Compliance form indicating that the project is in material compliance with all applicable laws<sup>9</sup> relevant to the project activity.

<sup>8</sup> Including the General Law of Environmental Equilibrium and Protection, Law for Sustainable Rural Development, General Law for Sustainable Forest Development, Agrarian Law, and The Political Constitution of the Mexican United States, among others.

<sup>9</sup> Including the General Law of Environmental Equilibrium and Protection, Law for Sustainable Rural Development, General Law for Sustainable Forest Development, Agrarian Law, and The Political Constitution of the Mexican United States, among others.

## 11. Environmental Safeguard (CLARIFICATION – May 14, 2018)

**Section:** 3.11

**Context:** The third Environmental Safeguard in the Spanish version of the MFP currently states: “Las Áreas de Proyecto deberán de demostrar progreso continuo (verificado) para obtener la composición de especies nativas según la Tabla 3.1. Esto deberá de cumplirse dentro de los primeros 50 años de vida del proyecto.”

The English version states: “Activity Areas must demonstrate verified continuous progress towards meeting the composition of native species according to the Table 3.1. This must be met within 50 years.”

**Clarification:** The Spanish version should state the following to match the English version: “Las Áreas de Actividad deberán de demostrar progreso continuo (verificado) para obtener la composición de especies nativas según la Tabla 3.1. Esto deberá de cumplirse dentro de los primeros 50 años de vida del proyecto.”

## 12. Environmental Safeguard (CLARIFICATION – May 14, 2018)

**Section:** 3.11

**Context:** Activity Areas must demonstrate verified continuous progress towards meeting the composition of native species according to the Table 3.1. This must be met within 50 years.

Project Activity Areas <sup>1</sup>	Native Species Composition Requirements (Trees per Hectare)
Up to 10 hectares	Up to 100% can be in one species.
>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.

<sup>1</sup> The area is determined by the sum of hectares in all Activity Areas.

For project activities where the activity involves the establishment of new forest stands (reforestation, afforestation, urban forestry, and agroforestry), the criteria in Table 3.1 must be met immediately following the establishment of the new forest stand. For Activity Areas where the activity is based on improved forest management, the criteria in Table 3.1 must be met through continuous progress towards the criteria over the Project Life. Exceptions to the composition of native species are accepted through a letter signed by the appropriate regional SEMARNAT office that ecological rationale justifies an alternative composition of native species.

**Clarification:** Activity Areas that implement improved forest management, reforestation or afforestation activities must demonstrate verified continuous progress towards meeting the



composition of native species according to the Table 3.1. Activity Areas that implement agroforestry, silvo-pastoral or urban forest activities are exempt from these requirements. The native species composition requirements must be met by each Activity Area independently.

Project Activity Area <sup>1</sup>	Native Species Composition Requirements (Trees per Hectare)
Up to 10 hectares	Up to 100% can be in one species.
>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.

<sup>1</sup> The area is determined by the sum of hectares in each Activity Area.

For project activities where the activity involves the establishment of new forest stands (reforestation or afforestation), the criteria in Table 3.1 must be met immediately following the establishment of the new forest stand. For Activity Areas where the activity is based on improved forest management, the criteria in Table 3.1 must be met through continuous progress towards the criteria over the Project Life. The criteria must be met within 50 years. Exceptions to the composition of native species are accepted through a letter signed by the appropriate regional SEMARNAT office that ecological rationale justifies an alternative composition of native species.

### 13. Project Start Date (ERRATUM – March 15, 2019)

**Section:** 3.12

**Context:** The Start Date of a Forest Project is a date in which project activities commenced (see Section 2.3), no more than six months prior to the submittal date and must comply with the Reporting Period requirements stated below. The Forest Owner must be able to demonstrate project activities initiated on this date through a verifiable action or event such as a general assembly in which the Forest Project was listed on the meeting notes and agenda.

**Correction:** The Start Date of a Forest Project is a date in which project activities commenced (see Section 2.3), no more than twelve months prior to the submittal date and must comply with the Reporting Period requirements stated below. The Forest Owner must be able to demonstrate project activities initiated on this date through a verifiable action or event such as a general assembly in which the Forest Project was listed on the meeting notes and agenda.

## 14. Project Implementation Agreement (CLARIFICATION – May 14, 2018)

**Section:** 3.15

**Context:** For projects that secure carbon through a contract (see Section 9), the PIA must be signed by the governance body of the *ejido*/community or the land owner of private properties and registered with the National Agrarian Registry (*Registro Agrario Nacional* o RAN)

**Clarification:** For projects that secure carbon through a contract (see Section 9), the PIA must be signed by the governance body of the *ejido*/community, the land owner of private properties, or the appropriate authority for non-federal landowners, and registered with the National Agrarian Registry (*Registro Agrario Nacional* or RAN) or Public Registry in accordance with the laws and requirements of the state and/or municipality. If registration is not allowed by the applicable laws of the state and/or municipality, the agreement should be executed before a notary public.

## Section 5

### 15. GHG Assessment Boundary (ERRATUM – May 14, 2018)

**Section:** 5

**Context:** Table 5.1, under SSR6, states that deep ripping, as a site preparation practice, is not allowed in cases where the disturbed areas exceed 1% of the Activity Areas on an annual basis.

**Correction:** In cases where the area disturbed by deep ripping exceeds 1% of the Activity Area on an annual basis, soil carbon must be quantified for the area affected.

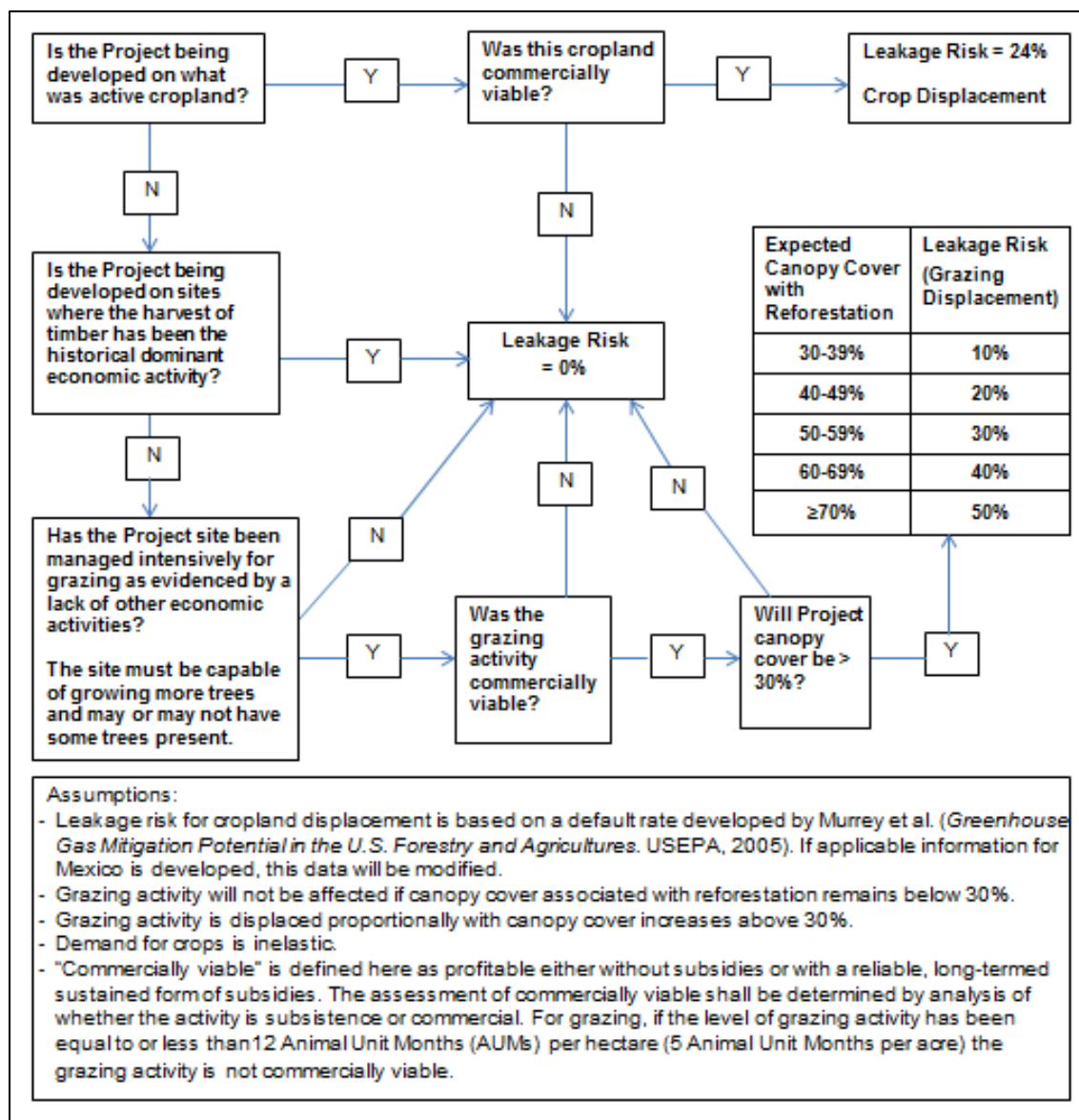
Further guidance for the quantification of soil carbon will be provided in a protocol update.

## Section 8

### 16. Secondary Effects (CLARIFICATION – May 14, 2018)

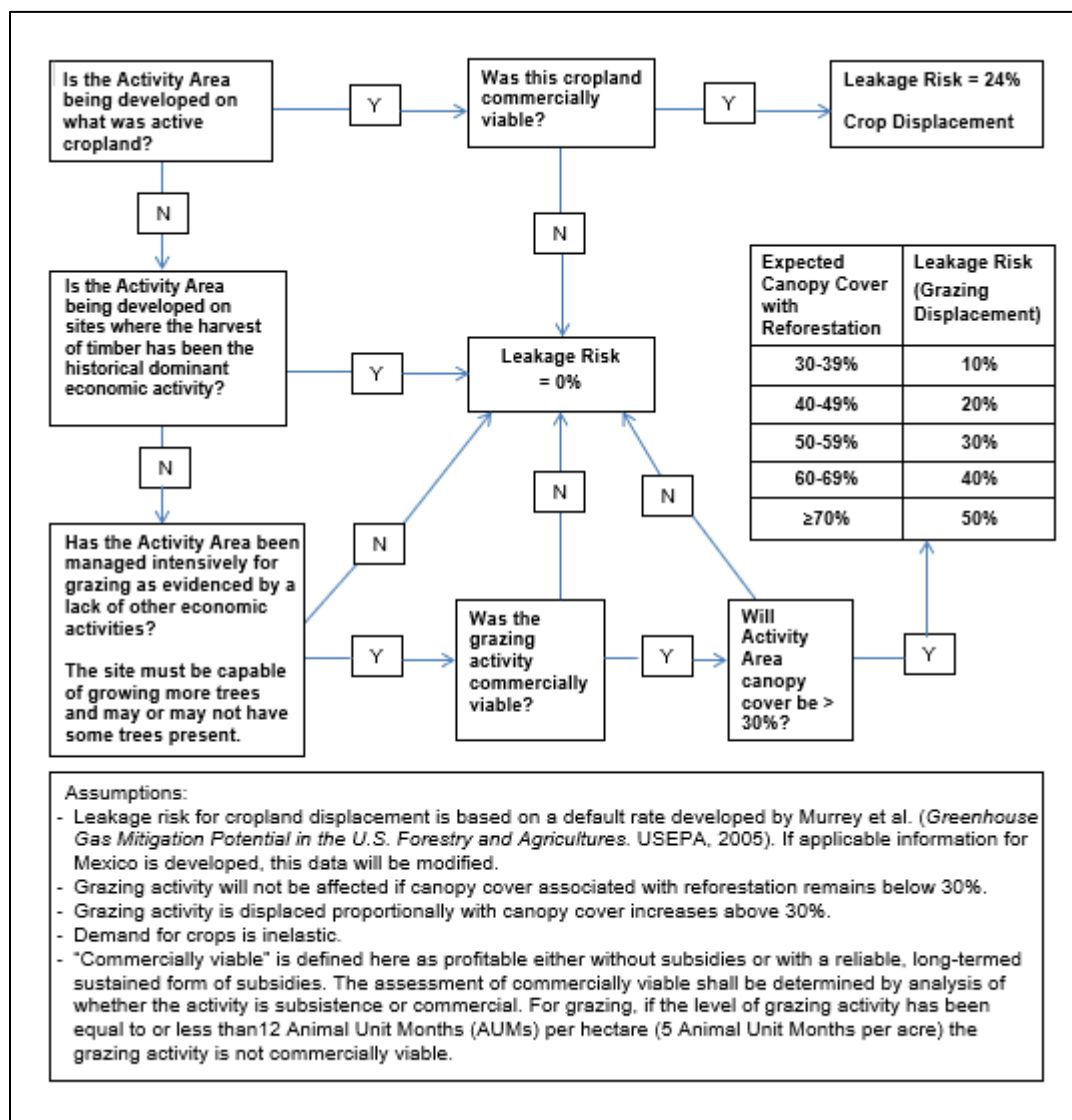
**Section:** 8

**Context:** Figure 8.1 displays the logic which must be applied to each Activity Area to calculate leakage risk percentages associated with the shifting of cropland or grazing due to reforestation activities.



To calculate the Secondary Effects related to the shifting of cropland or grazing from reforestation activities, the leakage risk percentage, as determined in Figure 8.1, must be multiplied by the amount of CO<sub>2</sub>e sequestered in Reporting Period *y*. The CMW automatically determines the Secondary Effects related to reforestation activities.

**Clarification:** Figure 8.1 displays the logic which must be applied to each Activity Area to calculate leakage risk percentages associated with the shifting of cropland or grazing due to reforestation activities.



To calculate the Secondary Effects related to the shifting of cropland or grazing from reforestation activities, the leakage risk percentage, as determined in Figure 8.1, must be determined for each Activity Area. The weighted average of the leakage risk percentages for each Activity Area, weighted by the CO<sub>2</sub>e sequestered in each Activity Area, should be included in the CMW, which automatically determines the Secondary Effects related to reforestation activities.

For example, if a project has three Activity Areas, and in a given Reporting Period each Activity Area sequesters 100 tCO<sub>2</sub>e, 200 tCO<sub>2</sub>e, and 300 tCO<sub>2</sub>e respectively, and the Project Developer determines the leakage risk factor for each Activity Area to be 10%, 20% and 30% respectively, the calculated weighted average would be 24%, which is what they would enter in the CMW.

	Sequestered Carbon (tCO <sub>2</sub> e)	Leakage Risk (LR)	Applied Leakage (tCO <sub>2</sub> e * LR)
AA 1	100	10%	10
AA 2	200	20%	40
AA 3	400	30%	120
Total tCO <sub>2</sub> e	700		170
<b>Weighted average = (170 tCO<sub>2</sub>e/700 tCO<sub>2</sub>e)</b>			<b>24%</b>

## Section 9

### 17. Tonne-Year Accounting (CLARIFICATION – August 26, 2019)

#### Section: 9.1

**Context:** Tonnes of CO<sub>2</sub>e sequestered and stored for shorter periods will receive a fractional amount of credits according to the length of time the sequestered CO<sub>2</sub>e is stored and/or contractually secured. Specifically, for each additional tonne of CO<sub>2</sub>e that is stored and verified, credits will be issued proportional to the value of the atmospheric impact of sequestering and maintaining each tonne for the amount of time in which it is secured. This is achieved by multiplying the number of tonnes of sequestered CO<sub>2</sub>e in a given Reporting Period by the radiative forcing coefficient for the period of time the CO<sub>2</sub>e is secured or maintained.

Quantified GHG removals that have been verified through site visit or desktop verifications, but are not yet secured are recognized by the Reserve as Verified Removals (VRs) and are not issued as CRTs until they have been secured through contract or time (see Section 11.1.3). If a contractual commitment is extended or renewed, further CRTs may be released based on the length of the extension and the atmospheric impact of securing the VRs. The proportion of further CRTs issued is thus based on the length of time the VRs will be secured and the radiative forcing coefficients for that time. Radiative forcing coefficients differ slightly based on the amount of time the carbon is maintained out of the atmosphere, but for the purposes of simplification, the following examples are based on a radiative forcing coefficient of 1% for each year.

**Clarification:** This is achieved by multiplying the number of tonnes CO<sub>2</sub>e sequestered in a given Reporting Period by the simplified radiative forcing coefficient of 1% per year. If a Forest Owner commits to maintaining carbon for a period longer than one year, credits will be issued proportional to the length of the commitment – e.g. 0.3 credits per tonne that is secured for 30 years.

Quantified GHG removals that have been verified through site visit or desktop verifications, but are not yet secured are recognized by the Reserve as Verified Removals (VRs) and are not issued as CRTs until they have been secured through contract or time (see Section 11.1.3). If a contractual commitment is extended or renewed, further CRTs may be released based on the length of the extension. The proportion of further CRTs issued is thus based on the length of time the VRs will be secured and the simplified radiative forcing coefficients of 1% per year. Radiative forcing coefficients differ slightly based on the amount of time the carbon is maintained out of the atmosphere, but for the purposes of simplification, the MFP uses a radiative forcing coefficient of 1% for each year.

This calculation is automated in the updated version of the Carbon Monitoring Worksheet.

## Section 10

### 18. Native Species Report (CLARIFICATION – May 14, 2018)

**Section:** 10.1.3.3

**Context:** Annual submission of the report is required along with the Annual Monitoring Report in order to facilitate verification of Environmental Safeguards 2 and 3.

**Clarification:** Submission of the report is required prior to all site verifications to facilitate verification of Environmental Safeguards 2 and 3.

## Glossary of Terms

### 19. Definition of Forestland (CLARIFICATION – May 14, 2018)

**Section:** 12

**Context:** Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ and that allows for management of one or more forest resources, including timber, fish and wildlife, biodiversity, water quality, recreation, aesthetics, and other public benefits.

**Clarification:** Land spanning more than 0.5 hectares with trees that have the potential to grow higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ and that allows for management of one or more forest resources, including timber, fish and wildlife, biodiversity, water quality, recreation, aesthetics, and other public benefits.

## Quantification Guidance

### 20. Project Area Sampling: Baseline Development (ERRATUM – August 26, 2019)

**Section:** 2

**Context:** The analysis is conducted using randomly placed points on remotely sensed data. This section includes a methodological approach that uses public data and a publicly available tool for establishing random points. The analysis of the point data enables the estimation of land areas converted from natural land cover to other uses and the estimation of current canopy cover, both in recently naturally disturbed areas as well as areas that have not been disturbed recently. An application on CALCBOSK is used to facilitate data management and analysis.

Randomized points are placed on the Project Area using the United States Forest Service's i-Tree Canopy Tool.

**Correction:** The risk threshold analysis for determining the project baseline eligibility is conducted using randomly placed points on remotely sensed data. This section includes a

methodological approach that uses public data and a publicly available tool for establishing random points. The analysis of the point data enables the estimation of land areas converted from natural land cover to other uses and the estimation of current canopy cover at the Project Area or municipal level in order to determine the level of risk of conversion for the project. An application on CALCBOSK is used to facilitate data management and analysis.

Randomized points are placed throughout the Project Area or municipality that physically contains the Project Area using the United States Forest Service's i-Tree Canopy Tool. Projects may alternatively choose to include neighboring municipalities in the analysis area, selecting randomized points placed throughout the municipality that physically contains the Project Area as well as all municipalities that are adjacent to the project's municipality. The project must meet the risk threshold for the selected area of analysis.

**Updated Correction:** The risk threshold analysis for determining the project baseline eligibility is conducted using randomly placed points on remotely sensed data. This section includes a methodological approach that uses public data and a publicly available tool for establishing random points. The analysis of the point data enables the estimation of land areas converted from natural land cover to other uses and the estimation of current canopy cover at the Project Area in order to determine the level of risk of conversion for the project. An application on CALCBOSK is used to facilitate data management and analysis.

Randomized points are placed throughout the Project Area using the United States Forest Service's i-Tree Canopy Tool. The project must meet the risk threshold using the Project Area.

## 21. Project Area Sampling: Baseline Development (CLARIFICATION – May 14, 2018)

### Section: 2

**Context:** In order to determine the current land cover and whether it is natural, publicly available photo images (Google Earth, etc.) from current and past years and other verifiable sources, such as local knowledge of management history, may be used to further inform the decision of land cover type; however, the most recent photo image must also be used to analyze current land cover. The reference area for determining the land cover type is an approximate 1/10<sup>th</sup> of a hectare surrounding the point; the land cover type should be identified by a pattern in land cover within the reference area. It is advisable to use the Google Earth tool to draw a polygon around the point to determine the reference area. As the determination of the reference area and land cover will require a level of subjectivity, the determination will need to be verified; however, the Reserve's default will be to assume that the Forest Owner properly determined the reference area and land cover type and the verifier should only flag cases in which there are clear and certain errors by the Forest Owner. When determining whether the point intersects with the tree canopy, however, the defined random point is the limit of consideration.

**Clarification:** In order to determine the current land cover and whether it is natural, publicly available photo images (Google Earth, etc.) from current and past years and other verifiable sources, such as local knowledge of management history, may be used to further inform the decision of land cover type; however, the most recent photo image must also be used to analyze current land cover. A reference area to provide context for determining the land cover type of a random point is an approximate 1/10<sup>th</sup> of a hectare surrounding the point; the land cover type should be identified for the defined random point using a pattern in land cover within

the reference area for context. It is advisable to use the Google Earth tool to draw a polygon around the point to determine the reference area. As the determination of the land cover will require a level of subjectivity, the determination will need to be verified; however, the Reserve's default will be to assume that the Forest Owner properly determined the land cover type and the verifier should only flag cases in which there are clear and certain errors by the Forest Owner. When determining whether the point intersects with the tree canopy, the defined random point is the limit of consideration.

## 22. Guidance for the Selection of the Vegetation/Land-Use Key (CLARIFICATION – May 14, 2018)

### Section: 2.1

#### Context:

Ecosystem	Formation	Vegetation Type	Land-Cover Key
<p><i>Bosque</i></p> <p>Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ.</p>	<i>Galería</i>	<i>Bosque de Galería</i>	CO
	Coníferas	<i>Bosque de ayarin (Ayarin &gt; 66% BA)</i>	
		<i>Bosque de cedro (Cedro &gt; 66% BA)</i>	
		<i>Bosque de oyamel (Oyamel &gt; 66% BA)</i>	
		<i>Bosque de pino (Pino &gt; 80%)</i>	
		<i>Bosque de pino-encino (Pino &gt; 50%, Encino Importante)</i>	
		<i>Bosque de táscate</i>	
		<i>Matorral de coníferas</i>	LA
	Latifoliadas	<i>Bosque de Encino (Encino &gt; 80%)</i>	
		<i>Bosque de encino-pino (Encino &gt; 50%, Pino Importante)</i>	
	Mesófilo	<i>Mesófilo de montana</i>	ME
		<i>Popal</i>	
		<i>Selva de galería</i>	
<i>Tular</i>			
<i>Vegetación de galería</i>			
<i>Vegetación halófila</i>			
<p><i>Selvas Non-acahuel</i></p> <p>Tropical forest vegetation where woody perennial species are dominant that develop spontaneously, with crown cover greater than 10%.</p>	Selva Caducifolia	<i>Matorral subtropical</i>	SE
		<i>Selva baja caducifolia</i>	
		<i>Selva mediana caducifolia</i>	
	Selva Espinosa	<i>Selva baja espinosa</i>	
	Selva Perennifolia	<i>Selva alta perennifolia</i>	
		<i>Selva alta subperennifolia</i>	
		<i>Selva baja perennifolia</i>	
		<i>Selva baja subperennifolia</i>	
		<i>Selva mediana perennifolia</i>	
		<i>Selva mediana subperennifolia</i>	
Selva Subcaducifolia	<i>Selva baja subcaducifolia</i>		
	<i>Selva mediana subcaducifolia</i>		
<p><i>Selva Acahuel</i></p> <p>Young tropical forest vegetation where woody perennial species are</p>	Same as above but regeneration (young – less than 25 years)		SEA



dominant that develop spontaneously, with crown cover greater than 10%.			
<p><i>Zonas áridas</i></p> <p>Vegetation that develops spontaneously in regions of arid or semiarid climate, with area larger 3 hectares.</p>	<p><i>Matorral Xerófilo</i></p>	<i>Chaparral</i>	<p>MA</p>
		<i>Matorral crasicaule</i>	
		<i>Matorral desértico microfilo</i>	
		<i>Matorral desértico rosetofilo</i>	
		<i>Matorral espinoso tamaulipeco</i>	
		<i>Matorral rosetofilo costero</i>	
		<i>Matorral sarcocaule</i>	
		<i>Matorral sarco-crasicaule</i>	
		<i>Matorral sarco-crasicaule de neblina</i>	
		<i>Matorral submontano</i>	
		<i>Mezquital</i>	
		<i>Mezquital Xerófilo</i>	
		<i>Vegetación de desiertos arenosos</i>	
<i>Vegetación gipsofila</i>			
<p><i>Plantación</i></p> <p>Land spanning more than 3 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. Plantations are characterized by 80% cover or more of one species, little variation in age and usually young trees.</p>	<p><i>Plantaciones Forestales</i></p>	<p><i>Bosque inducido</i> <i>Palmar inducido</i></p>	<p>PL</p>
<p><i>Otros Usos</i></p> <p>Lands devoted principally to agriculture or buildings, water systems (including flood plains), etc. Lands can be managed with agroforestry or urban forests.</p>	<p><i>Otros Usos</i></p>	<i>Agricultura</i>	AG
		<i>Agroforestal</i>	AGF
		<i>Asentamientos Humanos</i>	AS
		<i>Cuerpo de agua No-Natural</i>	AQH
		<i>Cuerpo de agua Natural</i>	AQ
		<i>Zona urbana</i>	UR
		<i>Pastizales Naturales</i>	PI
		<i>Pastizales No-Naturales</i>	PIH
		<i>Vegetación de dunas costeras</i>	VU
		<i>Rocas</i>	RO
		<i>Chaparral</i>	CH
<i>Otros Usos Humanos</i>	UH		
<p><i>Vegetación Hidrófila</i></p> <p>Lands that are saturated with water to create distinct and unique plant relationships.</p>	<p><i>Vegetación Hidrófila</i></p>	<i>Manglar</i>	VM
		<i>Popal</i>	VA
		<i>Selva de galería</i>	SG
		<i>Tular</i>	VT
		<i>Vegetación de galería</i>	VG
		<i>Vegetación halófila</i>	VH

**Clarification:**

Vegetation types for Chaparral No-Natural, Vegetación Hidrófila No-Natural, and Zona Arida No-Natural were added to further classify land cover classes. In addition, Selva Acahuel was changed to Young Selva to account for selva regeneration that is less than 25 years of age; young stands of selva that are part of an acahual system would be included in this category.

Ecosystem	Formation	Vegetation Type	Land-Cover Key		
<p><b>Bosque</b></p> <p>Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ.</p>	<i>Galería</i>	<i>Bosque de Galería</i>	CO		
	<i>Coníferas</i>	<i>Bosque de ayarín (Ayarín &gt; 66% BA)</i>			
		<i>Bosque de cedro (Cedro &gt; 66% BA)</i>			
		<i>Bosque de oyamel (Oyamel &gt; 66% BA)</i>			
		<i>Bosque de pino (Pino &gt; 80%)</i>			
		<i>Bosque de pino-encino (Pino &gt; 50%, Encino Importante)</i>			
		<i>Bosque de táscate</i>			
		<i>Matorral de coníferas</i>			
	<i>Latifoliadas</i>	<i>Bosque de Encino (Encino &gt; 80%)</i>			LA
		<i>Bosque de encino-pino (Encino &gt; 50%, Pino Importante)</i>			
<i>Mesófilo</i>	<i>Mesófilo de montana</i>		ME		
<p><b>Selvas</b></p> <p>Tropical forest vegetation where woody perennial species are dominant that develop spontaneously, with crown cover greater than 10%.</p>	<i>Selva Caducifolia</i>	<i>Matorral subtropical</i>	SE		
		<i>Selva baja caducifolia</i>			
		<i>Selva mediana caducifolia</i>			
	<i>Selva Espinosa</i>	<i>Selva baja espinosa</i>			
	<i>Selva Perennifolia</i>	<i>Selva alta perennifolia</i>			
		<i>Selva alta subperennifolia</i>			
		<i>Selva baja perennifolia</i>			
		<i>Selva baja subperennifolia</i>			
		<i>Selva mediana perennifolia</i>			
		<i>Selva mediana subperennifolia</i>			
	<i>Selva Subcaducifolia</i>	<i>Selva baja subcaducifolia</i>			
		<i>Selva mediana subcaducifolia</i>			
<u><i>Young Selva</i></u>	Same as above but regeneration (young – less than 25 years)		SEJ		
<p><b>Zonas áridas</b></p> <p>Vegetation that develops spontaneously in regions of arid or semiarid climate, with area larger 3 hectares.</p>	<i>Matorral Xerófilo</i>	<i>Chaparral</i>	MA		
		<i>Matorral crasicaule</i>			
		<i>Matorral desértico microfilo</i>			
		<i>Matorral desértico rosetofoilo</i>			
		<i>Matorral espinoso tamaulipeco</i>			
		<i>Matorral rosetofoilo costero</i>			
		<i>Matorral sarcocaulo</i>			
		<i>Matorral sarco-crasicaule</i>			
		<i>Matorral sarco-crasicaule de neblina</i>			
		<i>Matorral submontano</i>			
		<i>Mezquital</i>			
		<i>Mezquital Xerófilo</i>			
		<i>Vegetación de desiertos arenosos</i>			
		<i>Vegetación gipsofila</i>			

<p><i>Plantación</i></p> <p>Land spanning more than 3 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. Plantations are characterized by 80% cover or more of one species, little variation in age and usually young trees.</p>	<p><i>Plantaciones Forestales</i></p>	<p><i>Bosque inducido</i> <i>Palmar inducido</i></p>	<p>PL</p>
<p><i>Vegetación Hidrófila</i></p> <p>Lands that are saturated with water to create distinct and unique plant relationships.</p>	<p><i>Vegetación Hidrófila</i></p>	<p><i>Manglar</i></p>	<p>VM</p>
		<p><i>Popal</i></p>	<p>VA</p>
		<p><i>Selva de galería</i></p>	<p>SG</p>
		<p><i>Tular</i></p>	<p>VT</p>
		<p><i>Vegetación de galería</i></p>	<p>VG</p>
		<p><i>Vegetación halófila</i></p>	<p>VH</p>
<p><i>Otros Usos</i></p> <p>Lands devoted principally to agriculture or buildings, water systems (including flood plains), etc. Lands can be managed with agroforestry or urban forests.</p>	<p><i>Otros Usos</i></p>	<p><i>Agricultura</i></p>	<p>AG</p>
		<p><i>Agroforestal</i></p>	<p>AGF</p>
		<p><i>Asentamientos Humanos</i></p>	<p>AS</p>
		<p><i>Cuerpo de agua No-Natural</i></p>	<p>AQH</p>
		<p><i>Cuerpo de agua Natural</i></p>	<p>AQ</p>
		<p><i>Zona urbana</i></p>	<p>UR</p>
		<p><i>Pastizales Naturales</i></p>	<p>PI</p>
		<p><i>Pastizales No-Naturales</i></p>	<p>PIH</p>
		<p><i>Vegetación de dunas costeras</i></p>	<p>VU</p>
		<p><i>Rocas</i></p>	<p>RO</p>
		<p><i>Chaparral No-Natural</i></p>	<p>CH</p>
		<p><i>Otros Usos Humanos</i></p>	<p>UH</p>
<p><i>Vegetación Hidrófila No-Natural</i></p>	<p>VHN</p>		
<p><i>Zona Árida No-Natural</i></p>	<p>MAN</p>		

## 23. Definition of Natural Land Cover (CLARIFICATION – May 14, 2018)

### Section: 2.2

**Context:** A project is eligible if the natural land cover found in the Project Area is less than 90% of the original (prior to human influence, i.e. natural) land cover, i.e. at least 10% of the land cover is no longer a natural land cover type.

**Clarification:** A project is eligible if the natural land cover found in the area of analysis (see Section 2 of the Quantification Guidance) is less than 90% of the original (prior to human influence, i.e., natural) land cover, i.e., at least 10% of the land cover is no longer a natural land cover type.

Conceptually, natural land cover includes areas dominated by native species that may exhibit complex age and structural variation and contain critical habitat niches to fully support natural ecosystem functions. For the purposes of this protocol:

- Natural forest and shrub landcover (bosque, selva, zonas aridas) areas are identified where the dominant overstory vegetation is comprised of an overwhelming majority of native species, i.e., greater than 70% by CO<sub>2</sub>e stocking and the overall canopy density of the dominant vegetation across the assessment area is no less than 50% of canopy density levels found in similar natural plant communities without human intervention.
- Natural grassland areas are identified where grassland plant communities (native or non-native species) exist due to natural environmental features (soil conditions, precipitation etc.) and/or natural frequency of disturbance events. If the grasslands must be constantly grazed or burned more frequently than would be the case in a natural ecosystem, the grasslands would not meet the definition of natural.
- Water is natural where its existence does not depend on a dam, dike, excavation, or other form of human intervention to channelize or contain it.
- Rock and barren area are natural wherever they are found, excepting mine tailings, barren areas due to contaminants, and other human-related impacts.
- Wetlands are considered natural wherever they are found not being used for agriculture or intensive aquaculture and not part of a non-natural waterbody.

## 24. Ongoing Project Area Monitoring (CLARIFICATION – May 14, 2018)

### Section: 2.3

**Context:** To ensure project activities within the activity areas do not lead to reduced forest cover outside the activity areas, the same random set of points used to determine the project's baseline are also used to monitor changes in land cover and canopy cover prior to each 6-Reporting Period verification.

**Clarification:** To ensure project activities within the Activity Areas do not lead to reduced forest cover outside the Activity Areas, randomized points are placed on the Project Area using the United States Forest Service's i-Tree Canopy Tool. The Project Area is input as the 'Area of Interest' in the i-Tree Canopy Tool. The Project Area can be drawn (digitized) within the i-Tree Canopy Tool or a GIS shapefile representing the Project Area can be imported. The i-Tree Canopy Tool will create random points on an aerial photo of the Project Area, which should be used to monitor changes in land cover and canopy cover prior to all site verifications.

## 25. Inventory Sampling (CLARIFICATION – May 14, 2018)

### Section: 3.1.1

**Context:** Table 3.1 displays the data that are to be collected at each inventory plot.

**Clarification:** Table 3.1 displays the data that are to be collected at each inventory plot. Project Developers may use varying tools or sampling methods; however, all sampled data must be entered into CALCBOCK to calculate the carbon estimates for the Activity Areas and verifiers must use the sampling methodology as detailed in the Quantification Guidance. Special considerations are provided for mangrove forests, such that certain mangrove species do not require height measurements, including *Rhizophora mangle*, *Avicennia germinans*, *Laguncularia racemose*, *Conocarpus erectus*, or *Avicennia bicolor*. In addition, the DBH for *Rhizophora mangle* (mangle rojo) should be taken 30 cm above the highest stilt root. Further exemptions or modifications may be made on a case-by-case basis to be approved by the Reserve.

## 26. Inventory Sampling (ERRATUM – May 14, 2018)

### Section: 3.1.1

**Context:** Table 3.1 displays the data that are to be collected at each inventory plot, and states that for the fixed 1/100<sup>th</sup> hectare plot, all trees  $\geq 10$  cm and  $< 30$  cm DBH should be measured:

<p><b>On a Fixed 1/25<sup>th</sup> Hectare Radius (Radius = 11.28 m), all trees <math>\geq 30</math> cm DBH and <math>\geq 3</math> m height</b></p> <p><b>On a Fixed 1/100<sup>th</sup> Hectare Radius (Radius = 5.64 m), all trees <math>\geq 10</math> cm and <math>&lt; 30</math> cm DBH</b></p> <p><b>Radial measurements need to be corrected for horizontal distances based on the slope from plot center to each tree.</b></p> <p><b>Note: the radial measurements are based on distances from plot center to the base of the tree.</b></p>	
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### Correction:

<p><b>On a Fixed 1/25<sup>th</sup> Hectare Radius (Radius = 11.28 m), all trees <math>\geq 30</math> cm DBH and <math>\geq 3</math> m height</b></p> <p><b><u>On a Fixed 1/100<sup>th</sup> Hectare Radius (Radius = 5.64 m), all trees <math>\geq 5</math> cm and <math>&lt; 30</math> cm DBH</u></b></p> <p><b>Radial measurements need to be corrected for horizontal distances based on the slope from plot center to each tree.</b></p> <p><b>Note: the radial measurements are based on distances from plot center to the base of the tree.</b></p>	
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## 27. Defect (ERRATUM – May 14, 2018)


### Section: 3.1.1

**Context:** Table 3.1 displays the data that are to be collected at each inventory plot. For the Defect Estimate, the Quantification Guidance states:

14	Defect Estimate	Section of Tree	Standardized Portion of Biomass in each Section of Whole Trees	Actual portion remaining in each section of tree (Observed) Example: 100% if portion is complete, 0% if portion is totally missing.
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	Top 1/3	10%	0 – 100%
	Mid 1/3	30%	0 – 100%
	Bottom 1/3	60%	0 – 100%

**Correction:**

	Defect Estimate	Section of Tree	Standardized Portion of Biomass in each Section of Whole Trees	Actual portion of defect in each section of tree <u>(Observed as applied to whole tree)</u> <u>Example: 100% if entire portion is missing (i.e. full defect), 0% if no portion is missing (i.e. no defect).</u> <u>0% defect is the default in CALC BOSK.</u>
14		Top 1/3	10%	0 – 100%
		Mid 1/3	30%	0 – 100%
		Bottom 1/3	60%	0 – 100%

## 28. Forest Cover Monitoring (CLARIFICATION – May 14, 2018)

**Section:** 4.2

**Context:** A review of the forest cover of the Project Area must be conducted on an annual basis to determine changes in forest cover. This report must be prepared and submitted with each monitoring report.

**Clarification:** A review of the forest cover of the Project Area and the corresponding monitoring report must be prepared and submitted prior to every site verification.

## Verification Guidance

### 29. Conflicts (CLARIFICATION – May 14, 2018)

**Section:** 3.2

**Context:** Verification is complete if: verifier confirms that the document emitted by the Agrarian Attorney has been uploaded to the Reserve site and that Activity Areas are free of substantial conflicts or disputes with regards to ownership.

**Clarification:**

Verification is complete if:

- for ejidos and communities: verifier confirms that the document emitted by the Agrarian Attorney has been uploaded to the Reserve site and that Activity Areas are free of substantial conflicts or disputes with regards to ownership.
- for private land owners: verifier confirms that there are no boundary conflicts within the Activity Areas and that a signed attestation declaring that there are no lawsuits, claims or mortgages on the property has been uploaded to the Reserve site.

### 30. Project Area (CLARIFICATION – May 14, 2018)

**Section:** 3.3

**Context:** Verification Items: The Project Area has been presented as the entire ownership.

**Clarification:** Verification Items: The Project Area has been presented as the entire area where a common owner(s) is on title for one or many coincident properties.

### 31. Baseline Carbon Stocks (ERRATUM – May 14, 2018)

**Section:** 3.5

**Context:** The verifier will need to assess at least 10% of the random points and the respective reference areas the Forest Owner used to determine landcover throughout the Project Area and the percent of natural landcover used to meet the risk threshold for eligibility (see Quantification Guidance Section 2). The verifier should assess, based on an “agree” or “disagree” basis whether or not the landcover determined by the Forest Owner for each point and reference area is correct, and if at least 95% of the randomly selected points are agreed upon, may consider the landcover determination to be acceptable. If greater than 5% of the points are not agreed upon, the verifier will need to assess an additional 10% of the random points and reference areas until no more than 5% of the points are not agreed upon, or all points are exhausted and the verifier cannot approve the landcover determination.

**Correction:** The verifier will need to assess at least 10% of the random points and the respective reference areas the Forest Owner used to determine landcover throughout the area of analysis and the percent of natural landcover used to meet the risk threshold for eligibility (see Quantification Guidance Section 2). The verifier should assess, based on an “agree” or “disagree” basis whether or not the landcover determined by the Forest Owner for each point and reference area is correct, and if at least 95% of the randomly selected points are agreed upon, may consider the landcover determination to be acceptable. If greater than 5% of the

points are not agreed upon, the verifier will need to assess an additional 10% of the random points and reference areas until no more than 5% of the points are not agreed upon, or all points are exhausted and the verifier cannot approve the landcover determination.

## **32. Project Implementation Agreement (CLARIFICATION – May 14, 2018)**

**Section:** 3.6

**Context:** Verifier affirms that the PIA (if applicable) is executed and registered with the RAN in accordance with the MFP and guidance in the PIA.

**Clarification:** Verifier affirms that the PIA (if applicable) is executed and registered with the RAN or Public Registry in accordance with the MFP and guidance in the PIA.