PROPOSED PROJECT ACTIVITY ALIGNMENT ASSESSMENT

Ampliación proyecto Reforestadora Guacamayas

RG-002-COL-28012025 AMPLIACIÓN GUACAMAYAS, VICHADA, COLOMBIA

Reforestadora Guacamayas

Modality B project

February 13, 2025

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ALIGNMENT ASSESSMENT FOR THE PROJECT SUBMITTED BY REFORESTADORA GUACAMAYAS, "AMPLIACIÓN PROYECTO REFORESTADORA GUACAMAYAS", WITH AOCP IDENTIFIER RG-002-COL-28012025 AMPLIACIÓN GUACAMAYAS, VICHADA, COLOMBIA

CONTEXT

As part of the process for the certification of nature-positive projects and the consequent issuance of Verified Nature-Positive Credits (VNPCs) under the ASES On-Chain Protocol, the Project developer **"Reforestadora Guacamayas"** submitted the project **"Ampliación proyecto Reforestadora Guacamayas".** This Project activity is in the onboarding stage with the aOCP identification code **RG-002-COL-28012025 AMPLIACIÓN GUACAMAYAS, VICHADA, COLOMBIA,** and it has been in operation since 2009. This Project represents a continuation of the initial Project, including a reforestation expansion of approximately 3,500 hectares. Compliance with the principles, values, standards, and requirements of the aOCP is a fundamental requirement to participate in the program. This evaluation takes place during the onboarding phase, prior to the registration of the project activities, as stipulated in the aOCP Procedures document, which describes all the stages that a Project goes through from its inception to the issuance, sale and purchase.

Since Project activities have already been implemented before the start of the onboarding process, it participates as a project of Modality B. According to the *aOCP Procedures* document, Modality B projects shall go through the following process be registered:

1. Application via the Project Submission Form (PSF), done by Project proponent.
2. Documentation review and alignment assessment, done by aOCP Operations Team.
3. Payment of onboarding fee by the project proponent.
4. Project pre-registration, done by aOCP Operations Team.
5. On- site Validate of the implemented Project activities, done by aOCP Operations Team.
6. Elaboration of Baseline report, Monitoring plan, Contingent table of credits issuance, done by aOCP Operations Team.
7. Project proponent agreement.
8. Project Verification by an external, independent, 3rd-party Verifier, delivering a Project Verification Report.
9. Project registration letter and first credits issuance, done by aOCP Operations Team.

This report corresponds to step 2, alignment assessment. The methodology and data gathered on-site are presented here.

ALIGNMENT ASSESSMENT

The aOCP is founded on robust principles aimed at ensuring that Project activities seeking registration and accreditation with Verified Nature Positive Credits (VNPCs) demonstrably and positively impact ecosystems in a real, measurable, permanent and additional manner, while avoiding any harm to ecosystems and/or society.

Conformity with the aOCP's principles, values, rules, and requirements is a fundamental prerequisite for participation in the program. This evaluation occurs during the onboarding phase, prior to the registration of Project activities. This mandate is stipulated in the *aOCP Procedures* document, which outlines all the stages a Project undergoes from its inception to the issuance, trading, and retirement of VNPCs.

A positive result of the alignment assessment with aOCP's principles, values, rules, and requirements confirms that the proposed Project activity:

1. Falls into one of the following project types:
   a) Forest management, including Afforestation, Reforestation, and Revegetation (ARR)
   b) Regenerative agriculture
   c) Silvopastoral management
   d) Urban forests / individual tree climate action
   e) Biochar
2. Adheres to the environmental and social no-harm prerequisites,
3. Anticipated to yield positive impacts on biodiversity,
4. The Project was developed less than 5 years ago;
5. Conforms to the additionality criteria for the requested VNPCs,
6. Possesses documentation substantiating land ownership or an agreement for the project's duration,
7. The Project area has not been degraded, deforested or burned in the last 24 months;
8. For Projects requesting *Biodiversity Credits for Species Conservation,* a positive alignment assessment also confirms that the proposed Project area has a high conservation value due to its commendable state of preservation.
9. Areas where the Mean Species Abundance indicator (also reported as Biodiversity intactness) is lower than 0.80, indicating that biodiversity is at risk and requires restoration action are eligible for Biodiversity restoration credits.
10. The Key species for biodiversity conservation reported by the Project proponent, are recognized as Key species according to the criteria established in the *aOCP Methodology for biodiversity assessment for species conservation V1.0.*

Certain circumstances may result in an unfavorable assessment and, if not rectified or clarified satisfactorily, could lead to the rejection of the Project activity's registration within the aOCP.

These circumstances include:

- Non-compliance with aOCP's principles, values, rules, and requirements,
- Issuance of contradictory and/or false declarations by the Project proponent or Project developer,
- Diminished confidence in the Project activity's ability to yield anticipated ecosystem and/or social benefits due to an inadequate risk management plan, which encompasses a comprehensive assessment of internal, external, and natural risks, as well as risk mitigation and contingency planning.

According to the information provided by the Project proponent in the Project Submission Form (PSF), the proposed Project activity belongs to the aOCP category of Forest Management. The

"**Ampliación proyecto Reforestadora Guacamayas**" is a forest management initiative aimed at restoring natural savannas in Vichada, Colombia. Covering 8,304 hectares, with 5,980 hectares actively planted and 3,547 hectares included in the expansion plan, the project focuses on utilizing fast-growing species to enhance biodiversity, provide shelter for fauna and flora, and create carbon capture reservoirs. Activities include planting, maintenance, firebreaks, protection of natural forests, and strict hunting and fishing limitations. In addition, the project involves the plantation of 30 tree species with a final target of 6,643,780 trees and shrubs.

The Project area and sampling points used for the present analysis are shown in Figure 1.
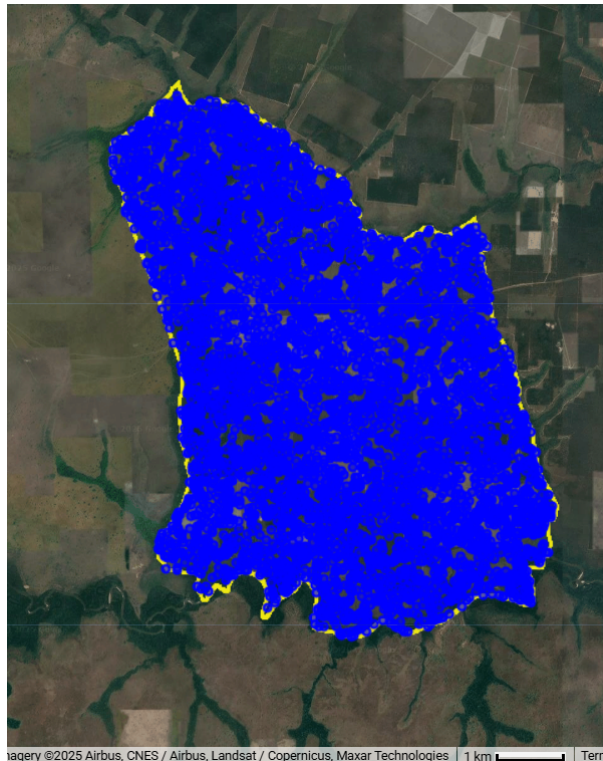

Imagery ©2025 Airbus, CNES / Airbus, Landsat / Copernicus, Maxar Technologies | 1 km |_____| | Term

Figure 1. Project area and sampling points used for the NDVI analysis.

METHOD OF ANALYSIS

The proposed Project activity was assessed for its alignment with the aOCP rules and requirements, using the following checklist.

Alignment criteria	Y: yes N: no P: Partially N.A.: not applicable	Comments
Does the project belong to one of the following types: • Forest management, including ARR • Regenerative agriculture • Silvopastoral management • Urban forests / individual climate action • Biochar	Y	
Does the project comply with the environmental and social no-harm requirement?	Y	
Is the project expected to have positive impacts on biodiversity?	Y	
If the project has already started, is it less than 5 years old?	P	**The project conservation has been underway since 2009; this project represents a 3,500-hectare expansion.**
Do the requested VNPCs comply with the additionality criteria?	Y	
Has documentation establishing landownership or an agreement for the project's duration been provided?	Y	
Have any trees or shrubs been cleared in the project area in the last 2 years?	N	
For biodiversity restoration credits, Biodiversity intactness indicator is < 80%	N.A	
For biodiversity conservation credits, Biodiversity intactness indicator is > 80%	Y	**The biodiversity intactness is 97.61%.**

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Are the proposed key species aligned with the aOCP criteria for key species?	**N.A**	**Species information not stated.**

Historical land cover dynamics was analyzed using Google Earth high-resolution images as well as NDVI (Normalized Difference Vegetation Index) analysis. The NDVI is a widely used remote sensing metric that provides information about the density and health of vegetation in a specific area. It is calculated from the difference between near-infrared and red-light reflectance from the Earth's surface.

When analyzing historic land cover, NDVI can be used to track changes in vegetation over time. By examining archived NDVI data, it is possible to observe trends in vegetation density, identify shifts in land use patterns, and monitor the effects of factors like urbanization, deforestation, or natural disasters.

NDVI provides information on the quantity and quality of vegetation in a given area. It varies from -1 to +1, where values closer to +1 indicate dense and healthy vegetation, while values close to -1 suggest a lack of vegetation or presence of artificial surfaces.

In Google Earth Engine, the maximum monthly NDVI from January 2019 to January 2025 was calculated using Sentinel-2 satellite imagery. Random control points were then plotted in each property (Figure 1) and the monthly NDVI value at each point was extracted.

Google Colab was used to generate a box plot showing the distribution of NDVI values at the control points. A box plot is a standardized way of displaying the distribution of a data set based on its summary of five numbers of data points: the "minimum", the first quartile [Q1], the median, the third quartile [Q3], and the "maximum". Box plots provide information on outliers, symmetry of the data, degree of clustering, and whether and how the data are skewed[1].

Biodiversity intactness quantifies the impact humans have had on the intactness of species communities. Anthropogenic pressures such as land use conversion cause dramatic changes to the composition of species communities and this layer illustrates these changes by focusing on the impact of forest change on biodiversity intactness[2]. This information was assessed via the Orbify platform.

RESULTS

The assessment of Google Earth images (Figure 2) reveals minimal changes in vegetation cover from 2019 to 2024. Throughout this period, the area has exhibited a consistent landscape, with no significant shifts in land cover or instances of deforestation, as evidenced by the images

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[1] Galarnyk, M. Understanding Boxplots. https://builtin.com/data-science/boxplot

[2] Hill, S. L., Arnell, A., Maney, C., Butchart, S. H., Hilton-Taylor, C., Ciciarelli, C., ... & Burgess, N. D. (2019). Measuring forest biodiversity status and changes globally. Frontiers in Forests and Global Change, 2, 70.

provided below. Any visible differences in the green cover of the images can be attributed to cloud cover and seasonality.
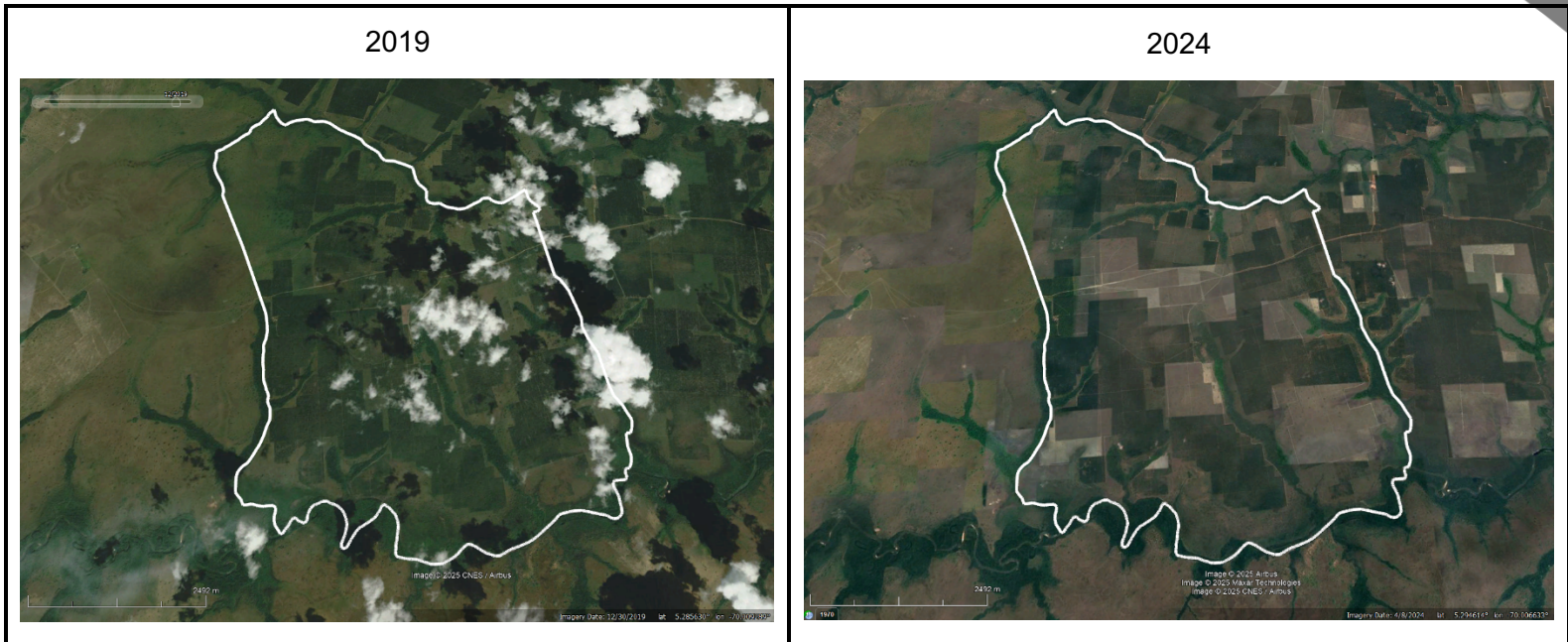

Figure 2. Google Earth images of the Project area from 2019 and 2024.

The analysis of NDVI in Figure 3 shows an overall increasing trend in vegetation health, with some seasonal fluctuations. The 12-month moving average (MA) started at 0.561 in late 2019 and steadily climbed to 0.647 by early 2025, indicating gradual ecosystem improvement. From 2021 onward, the average NDVI remained relatively stable, fluctuating between 0.57 and 0.66, with minor dips in mid-2021 and mid-2024. Despite occasional short-term declines, the long-term trend suggests sustained vegetation growth and recovery, reflecting ongoing reforestation efforts.
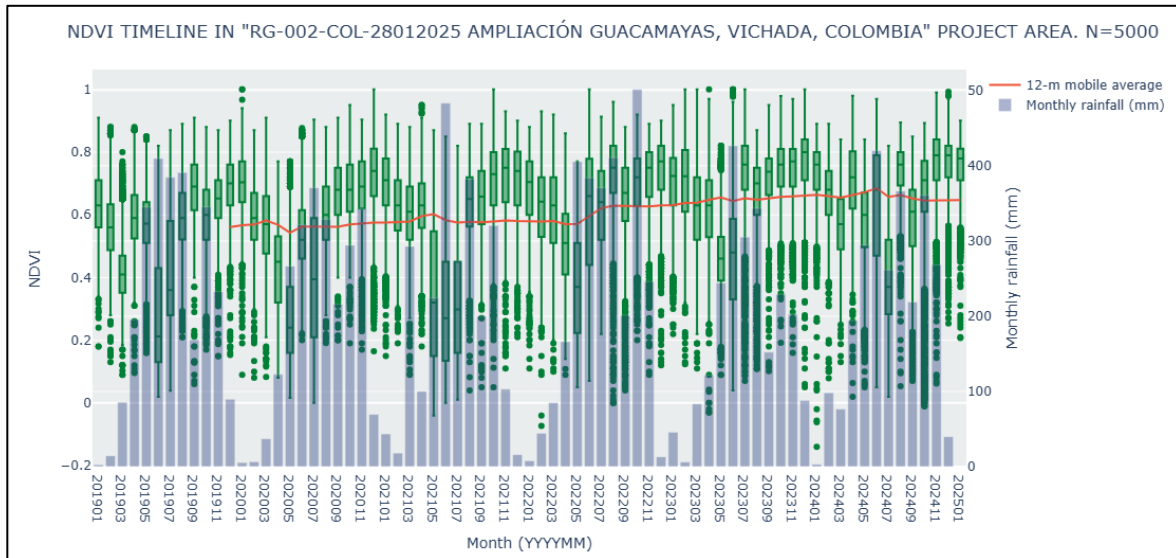

Figure 3. Monthly NDVI and rainfall from January 2019 to January 2025

Biodiversity intactness has been stable since 2017, with an average value of 97.61% (Figure 4). This value is aligned with biodiversity conservation objectives. More detailed information on the ecological status of the project area and its risks can be consulted in the *Preliminary assessment* document.
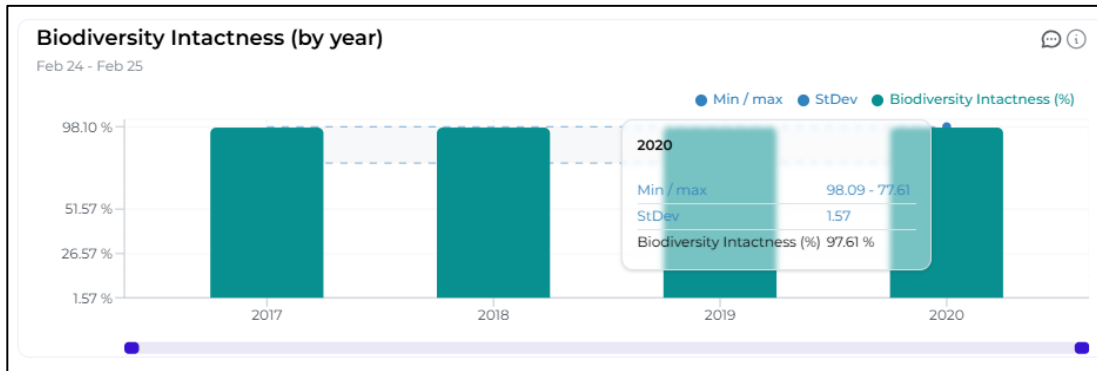

Figure 4. Biodiversity intactness

The project involves planting and maintaining fast-growing species, implementing firebreaks, protecting natural forest areas, and strictly limiting hunting and fishing to ensure biodiversity conservation within the project area. These activities play a crucial role in forest management and habitat restoration, supporting the colonization of native species and enhancing local ecosystem resilience. By expanding the intervention area and creating carbon capture reservoirs, the project strengthens wildlife mobility corridors and improves habitat connectivity. Some of the species involved are significant due to their ecological importance, and their presence within the project area aligns with bibliographic records of their potential distribution and conservation status.

. **Table 1. Key species with potential distribution (inaturalist.org)**

Class	Scientific Name	Common Name	Global status*	Distribution Colombia
Mammalia	*Tapirus terrestris*	South American Tapir	**VU**	**Native**
Mammalia	*Myrmecophaga tridactyla*	Giant Anteater	**VU**	**Native**
Mammalia	*Dasyprocta fuliginosa*	Black Agouti	**LC**	
Mammalia	*Leopardus pardalis*	Ocelot	**LC**	**Native**
Mammalia	*Sciurus granatensis*	Red-tailed Squirrel	**LC**	**Native**

Aves	*Mitu tomentosum*	Crestless Curassow	**NT**	
Mammalia	*Eira barbara*	Tayra	**LC**	**Native**
Mammalia	*Priodontes maximus*	Giant Armadillo	**VU**	**Native**
Mammalia	*Cuniculus paca*	Spotted Paca	**LC**	**Native**
Mammalia	*Sapajus apella*	Brown Capuchin	**LC**	**Native**
Reptilia	*Chelonoidis caronarius*	Red-footed Tortoise		**Native**

*Global status IUCN Red List: (E) Extinct, (EW) Extinct in the wild, Collapsed, (CR) Critically Endangered, (EN) Endangered, (VU) Vulnerable, (NT) Near Threatened, (LC) Least Concern, (DD) Data Deficient, (NE) Not Evaluated.

CONCLUSIONS

a) The Project area has a biodiversity intactness of 97.61%, which is aligned with biodiversity conservation objectives.

b) The proposed Project activities have the potential to contribute to the conservation of biodiversity.

c) The potential distribution of at least 11 species of fauna, in some category of risk and/or endemic, highlights the importance of biodiversity restoration activities in the project area.

d) The project has already begun its implementation (2009); however, the proponent proposes to carry out additional activities (planting on 3,500 hectares). To comply with the requirement that projects must not be more than 5 years old at the time of this alignment evaluation, the activities carried out that may be eligible and quantified will be only those developed in the last five years (period 2020 to 2025). Therefore, the Project Developer is requested to:

- Please provide a detailed description of the activities conducted during the eligible period (2020-2025) that fall within the eligible actions of the aOCP framework, including supporting evidence.

e) Additionally, the satellite assessment reveals the project area has not been cleared in the past two years.

f) Once the requested information is provided, the project plan is **eligible** to be registered as an aOCP Modality B, Forest management project; therefore, the project may proceed onto the next steps of assessment for **Verified Biodiversity-Based Credits (VBBCs).**