2025

ALIGNMENT ASSESSMENT

PH-001-COL-13062025 CHIPAQUE, CUNDINAMARCA, COLOMBIA

La Samaritana-Chipaque-Cundinamarca

PARQUEADEROS HEGAR SAS

June 18, 2025

The regenerative
Standard

ALIGNMENT EVALUATION FOR THE PROJECT SUBMITTED BY PARQUEADEROS HEGAR SAS, "LA SAMARITANA-CHIPAQUE-CUNDINAMARCA", IDENTIFIED WITH THE UNIQUE CODE PH-001-COL-13062025 CHIPAQUE, CUNDINAMARCA, COLOMBIA.

CONTEXT

As part of the certification process for positive nature projects and the subsequent issuance of Verified Positive Nature Credits (VNPCs) under the Ases On-Chain Protocol (aOCP) Certification Program, the project developer "PARQUEADEROS HEGAR SAS" presented the **"La Samaritana-Chipaque-Cundinamarca"** project. This project activity is in the aOCP onboarding stage. Compliance with the aOCP principles, values, standards, and requirements is a fundamental requirement for participation in the program. This assessment is carried out during the onboarding stage, prior to the registration of project activities, as stipulated in the aOCP Procedures document, which describes all the stages a project goes through from its inception to issuance, sale, and purchase.

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

1. Application through the Project Submission Form (PSF), completed by the project proponent.
2. Documentation review and alignment assessment, conducted by the aOCP Operations Team.
3. Payment of incorporation fee by the project proponent.
4. Project pre-registration, carried out by the aOCP Operations Team.
5. On-site validation of the Project's implemented activities, carried out by the OCP Operations Team.
6. Preparation of Baseline Report, Monitoring Plan, Credit Issuance Contingent Table, carried out by the aOCP Operations Team.
7. Project proponent agreement.
8. Project Validation by an external and independent Validator, delivering a Project Validation Report.
9. Project registration letter and issuance of first credits, carried out by the aOCP Operations Team.

This report corresponds to step 2, Alignment Assessment.

ALIGNMENT ASSESSMENT

The aOCP is based on sound principles intended to ensure that Project activities seeking registration and accreditation with VNPC demonstrably and positively impact ecosystems in a real, measurable, permanent and additional manner, while avoiding any harm to ecosystems and/or society.

Compliance with the aOCP principles, values, standards, and requirements is a fundamental requirement for participation in the program. This assessment is conducted during the onboarding phase, prior to the registration of project activities. This mandate is stipulated in the aOCP Procedures document, which describes all stages of a project from its inception to the issuance, marketing, and retirement of VNPCs.

A positive result of the Alignment Assessment with the principles, values, rules and requirements of aOCP confirms that the proposed Project activity:

1. It belongs to one of the following types of projects:
    a. Forest management, including afforestation, reforestation and revegetation (ARR)
    b. Regenerative agriculture
    c. Silvopastoral management
    d. Urban Forests / Climate Action of Individual Trees
    e. Biochar
2. Adheres to environmental and social requirements of doing no harm;
3. It is expected to have positive impacts on biodiversity;
4. The Project was developed less than 5 years ago;
5. Meets the additionality criteria for the requested VNPCs;
6. Has documentation proving ownership of the land or an agreement for the duration of the project;
7. The Project area has not been degraded, deforested or burned in the last 24 months;
8. For projects applying for biodiversity credits for species conservation, a positive Alignment Assessment also confirms that the proposed project area has a high conservation value due to its preservation status;
9. Areas where the average species abundance indicator (also reported as biodiversity integrity) is less than 0.80, indicating that biodiversity is at risk and requires restoration actions, 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 the evaluation of biodiversity for species conservation V1.0.

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

These circumstances include:

- Failure to comply with the principles, values, standards and requirements of aOCP,
- Issuance of contradictory and/or false statements by the proponent or developer of the Project,
- Decreased confidence in the Project activity's ability to deliver the intended ecosystem and/or societal benefits due to an inadequate risk management plan, which includes 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 "La Samaritana-Chipaque-Cundinamarca" project, led by Parqueaderos Hegar SAS, is a forest management and conservation initiative in Chipaque, Cundinamarca, Colombia. The project spans a 128-hectare property with a targeted intervention area of 5 hectares and began in April 2024. It addresses past agricultural degradation, unregulated road use, and fencing misplacement by the Bogotá aqueduct. Activities include removing invasive species, maintaining a frailejón nursery for ecological restoration, restoring eroded soils across 7 hectares, and planting 1,700 frailejones. Previous illegal mining activity on the site has been successfully halted. The project is applying for Carbon (VCC), Biodiversity (VBBC), and Water (VWC) Credits.

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

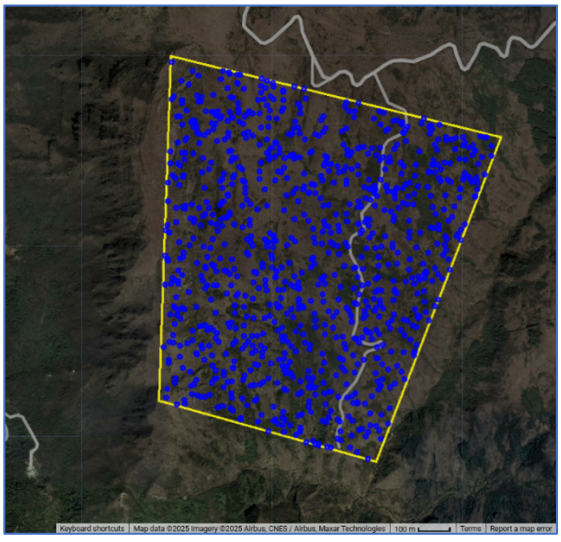


Figure 1. Project area and sampling points used for NDVI analysis.

METHOD OF ANALYSIS

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

Alignment criteria	Y: Yes N: No P: Partially NA: 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**	The project falls into the forest management category.
Does the project meet the requirement of not causing environmental and social harm?	**P**	They state that a local consultation was carried out, during which NGOs were identified as stakeholders, but no supporting evidence has been provided.
Has documentation proving landownership or an agreement been provided for the duration of the project?	**Y**	The deed and the power of attorney of the legal representative were submitted.
If the project has already started, is it less than 5 years old?	**Y**	The project began in April 2024.
Are the species considered for reforestation classified as “invasive” or “exotic”?	**N**	
Is the project expected to have positive impacts on biodiversity?	**Y**	Frailejón, a native and regulated páramo species, is being reforested. Invasive species are being removed. Habitat restoration efforts target key species such as the Andean bear, endemic hummingbirds, and Frailejón.
Do the requested VNPCs meet the additionality criteria?	**Y**	
Have any trees or shrubs been cut down in the project area in the last 2 years?	**N**	

Alignment criteria	Y: Yes N: No P: Partially NA: Not applicable	Comments
Is the project area located in a Protected Natural Area?	**N**	
For biodiversity restoration credits, the biodiversity integrity indicator is < 80%.	**Y**	The biodiversity integrity index is 71.32%.
For biodiversity conservation credits, the biodiversity integrity indicator is > 80%.	**NA**	
Are the proposed keystone species aligned with the aOCP criteria for keystone species?	**Y**	The greater project area is home to several species of frailejón, spectacled/Andean bear, endemic hummingbirds, Paramo goat (*Oxypogon guerinii*), trout, Aldine condor, and harriers.
For carbon credits, what is the value of the ARR Site Suitability Statistic?	**N**	86.3% Eligible, project within predominantly Rangeland (Suitable)
For carbon credits, what is the value of the New Project Performance Benchmark Estimation tool?	**N**	The performance benchmark is likely to be negligible or low.

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

By analyzing historical land cover, NDVI allows us to track changes in vegetation over time. By examining archived NDVI data, it is possible to observe trends in vegetation density, identify changes in land-use patterns, and monitor the effects of factors such as urbanization, deforestation, or natural disasters.

NDVI provides information on the quantity and quality of vegetation in a given area. It ranges from -1 to +1, with values close to +1 indicating dense, healthy vegetation, while values close to -1 suggest the absence of vegetation or the presence of artificial surfaces.

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

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

Biodiversity integrity quantifies the impact humans have had on the integrity of species communities. Anthropogenic pressures, such as land-use conversion, cause dramatic changes in the composition of species communities, and this layer illustrates these changes by focusing on the impact of forest changes on biodiversity integrity[2]. This information was evaluated through the Orbify platform.

RESULTS

Analysis of Google Earth imagery (Figure 2) reveals no notable changes in vegetation cover between 2020 and 2022. A more comprehensive analysis of vegetation cover can be seen in the NDVI analysis of the project area (Figure 3).

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

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

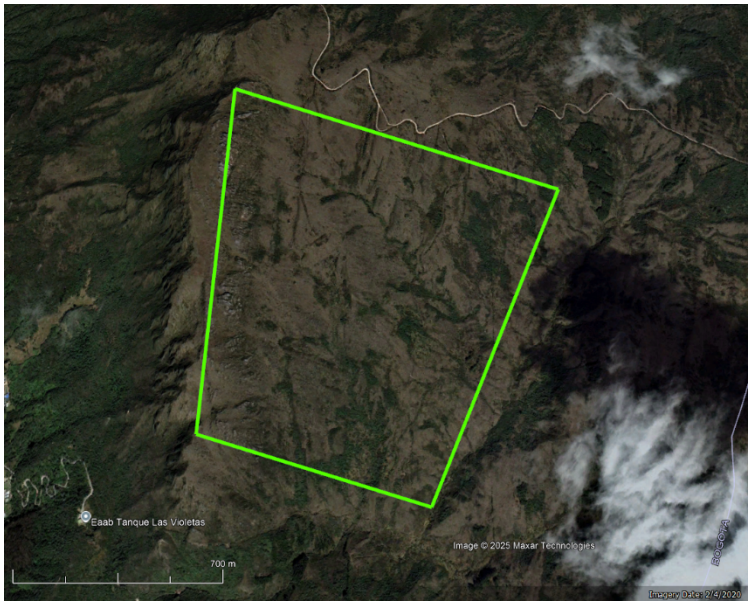
February 2020	December 2022
	

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

The NDVI analysis from 2019 to 2025 (Figure 3) shows a fluctuating trend with moderate overall growth in average greenness over time. Initially, NDVI values were low, with several months in 2019 recording values below 0.1, but there is a notable increase from early 2020 onward, with many peaks above 0.5, especially in the early months of each year. This pattern suggests a seasonal cycle, where NDVI typically rises during the winter and early spring months (e.g., January to April) and often dips mid-year (e.g., June to August), likely reflecting vegetation cycles such as winter rains and dry summers. The overall average NDVI gradually increases from 0.227 at the end of 2019 to values oscillating around 0.35–0.38 by 2025, indicating a long-term upward trend in vegetation health or coverage despite short-term variability and seasonal dips.

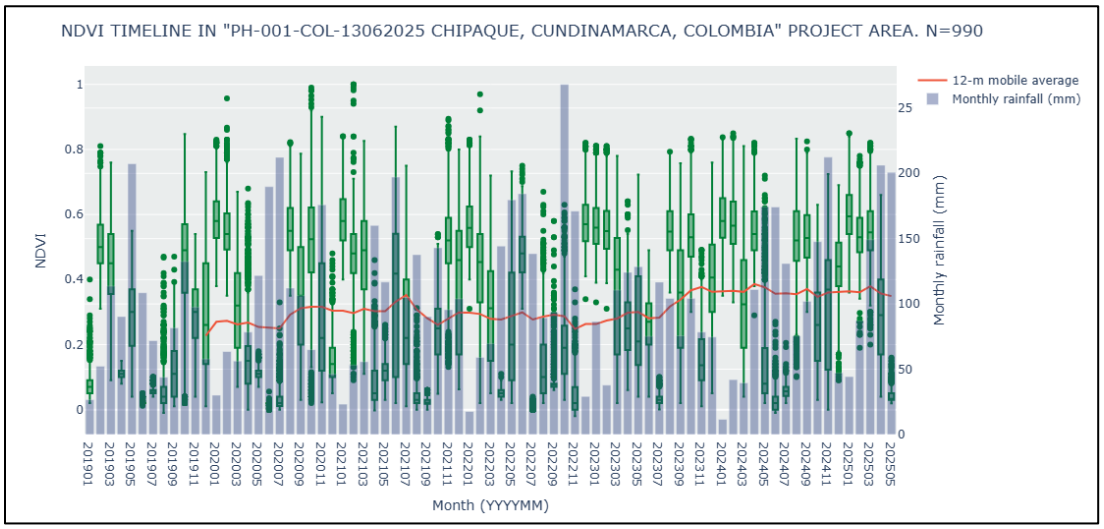


Figure 3. Monthly NDVI and precipitation from January 2019 to May 2025

Biodiversity integrity remained stable at 71.32% between 2017 and 2020 (Figure 4); therefore, this value is aligned with biodiversity restoration goals.

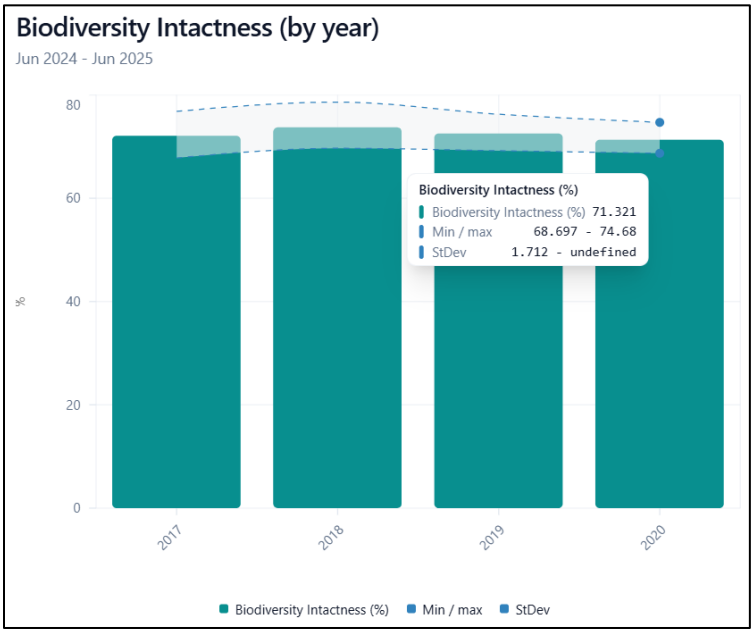


Figure 4. Biodiversity integrity

The "La Samaritana-Chipaque-Cundinamarca" project is deeply rooted in páramo ecosystem conservation, targeting key species like the frailejón, spectacled bear, endemic hummingbirds (*Oxypogon guerinii*), trout, Andean condor, and hawks. Restoration focuses on native flora and

fauna habitat protection through reforestation with frailejón, in line with national regulations that only permit this species in páramo reforestation. Natural regeneration is prioritized, and degraded zones are being stabilized via soil restoration. Although no formal risk assessments have yet been reported, prior issues, including unauthorized fencing by the aqueduct and illegal mining, have been addressed.

Beyond the scope of the project, there are other species, particularly those identified as key due to their endemism or classification as at-risk species. Their potential distribution is found within the project area, according to bibliographic information, which can be found in Table 1.

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

Class	Scientific name	Common name	National status*	World Status**	Distribution Colombia
Fauna					
Insecta	***Bombus rubicundus***			**DD**	**Native**
Reptilia	***Anolis heterodermus***	Flat Andes Anole		**LC**	
Mammalia	***Anoura geoffroyi***	Geoffroy's Tailless Bat		**LC**	**Native**
Reptilia	***Bolitoglossa adspersa***	Peter's Mushroomtongue Salamander		**NT**	**Endemic**
Reptilia	***Anadia bogotensis***	Bogotá Anadia		**NT**	**Endemic**
Mammalia	***Tremarctos ornatus***	Spectacled Bear		**VU**	**Native**
Aves	***Cinclodes albidiventris***	Chestnut-winged Cinclodes		**LC**	
Flora					
Liliopsida	***Puya trianae***			**LC**	**Endemic**
Liliopsida	***Puya nitida***			**LC**	**Endemic**
Magnoliopsida	***Espeletia grandiflora***			**LC**	**Endemic**
Magnoliopsida	***Quercus humboldtii***	Andean Oak	**VU**	**LC**	**Native**

*** National status of the Colombian Red List (Libro Rojo):** (RE) Regionally Extinct, (CR) Critically Endangered, (EN) Endangered, (VU) Vulnerable, (NT) Near Threatened, (LC) Least Concern, (DD) Data Deficient, (NE) Not Evaluated.

**** Global status of the 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 falls into the forest management category, specifically focused on wildlife habitat management, aligning with the criteria established by the aOCP Program.
b) Activities began in April 2024, which meets the requirement that projects be no more than five years old at the time of this alignment assessment.
c) The single species used for reforestation—frailejón—is native to Colombia and ecologically appropriate for the páramo ecosystem, in accordance with national environmental guidelines.
d) The project area has not been deforested in the last two years and has instead undergone natural regeneration, aligning with the criterion of avoiding environmental and/or ecological damage.
e) The project area is not located within a legally designated Protected Natural Area, which complies with the additionality criterion.
f) The project focuses on habitat restoration for key endemic and endangered species in a sensitive ecosystem, indicating alignment with biodiversity restoration objectives.
g) The Project Developer has submitted documentation proving land ownership, which fulfills the criterion of not generating social harm.
h) The activities proposed by the project have strong potential to contribute to biodiversity conservation:
    - The presence of key species such as the spectacled bear, Andean condor, endemic hummingbirds (e.g., *Oxypogon guerinii*), and frailejón highlights the ecological importance of the area and underscores the significance of conservation efforts.
i) The project presents a solid foundation for habitat and biodiversity restoration, as well as for water infiltration through reforestation of the area. However, some key information is still needed to ensure full eligibility for registration. The following additional information is requested:
    - Clear geolocation of project activities (e.g., restoration zones, species planting areas).
    - Format presenting the results of the Local Stakeholder Consultation.

Once the additional information requested in section "i" has been provided, the project may be **eligible** for registration under Modality B of the aOCP, allowing it to move forward in the evaluation process for the generation of **Verified Biodiversity Based Credits (VBBC)** and **Verified Water Credits (VWC).**