2025

ALIGNMENT ASSESSMENT

FPC-001-COL-16022025 CASANARE, OROCUÉ, COLOMBIA Nature Positive para la Reserva Natural de la Sociedad Civil (RNSC) de Palmarito en Casanare

Fundación Palmarito

November 10, 2025

The regenerative
Standard

ALIGNMENT EVALUATION FOR THE PROJECT SUBMITTED BY FUNDACIÓN PALMARITO, "NATURE POSITIVE PARA LA RESERVA NATURAL DE LA SOCIEDAD CIVIL (RNSC) DE PALMARITO EN CASANARE", IDENTIFIED WITH THE UNIQUE CODE FPC-001-COL-16022025 CASANARE, OROCUÉ, 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 "Fundación Palmarito" presented the "Palmarito" 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 prior 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 “Palmarito” project, led by Fundación Palmarito in Orocué, Casanare, Colombia, is a silvopastoral initiative covering 2,513 hectares of high-biodiversity land. Starting in October 2025,

it aims to conserve and restore ecosystems by implementing extensive biodiversity-focused interventions, including artificial habitat creation (nest boxes, ponds, refuges), reforestation with native species, riparian restoration, biological corridor establishment, regenerative agriculture and silviculture, landscape mosaics, species monitoring (camera traps, acoustic sensors, drones), fire prevention, water quality monitoring, and community education and participation programs. The project will plant trees and shrubs from 52 native species and integrate innovative biodiversity monitoring technologies. The project is applying for Biodiversity Credits (VBBC).

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

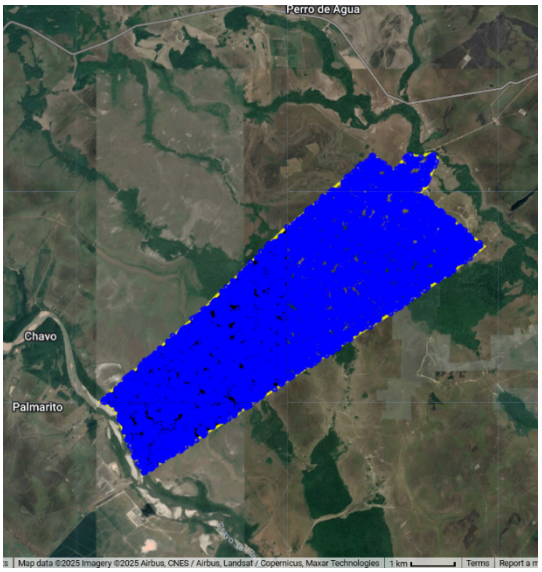


Figure 1. Project area and sampling points used for NDVI analysis.

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 silvopastoral management category.
Does the project meet the requirement of not causing environmental and social harm?	**Y**	
Has documentation proving landownership or an agreement been provided for the duration of the project?	**N**	The project developer has not provided proof of landownership.
If the project has already started, is it less than 5 years old?	**Y**	The project will begin in October 2025.
Are the species considered for reforestation classified as “invasive” or “exotic”?	*	The precise species were not provided.
Is the project expected to have positive impacts on biodiversity?	**Y**	The project will enhance biodiversity by restoring native habitats, creating ecological corridors, and implementing regenerative land management practices that support a wide range of species.
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**	
Is the project area located in a Protected Natural Area?	**Y**	The site composes the area “Reserva natural de la sociedad civil palmarito Casanare”.

Alignment criteria	Y: Yes N: No P: Partially NA: Not applicable	Comments
For biodiversity restoration credits, the biodiversity integrity indicator is < 80%.	**NA**	
For biodiversity conservation credits, the biodiversity integrity indicator is > 80%.	**Y**	The biodiversity integrity index is 91.599%.
Are the proposed keystone species aligned with the aOCP criteria for keystone species?	**NA**	
For carbon credits, what is the value of the ARR Site Suitability Statistic?	**N**	60.2% 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 July 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) shows that vegetation and landcover in the project area remained largely unchanged between 2021 and 2025. A more detailed assessment of vegetation dynamics is provided in the NDVI analysis (Figure 3).

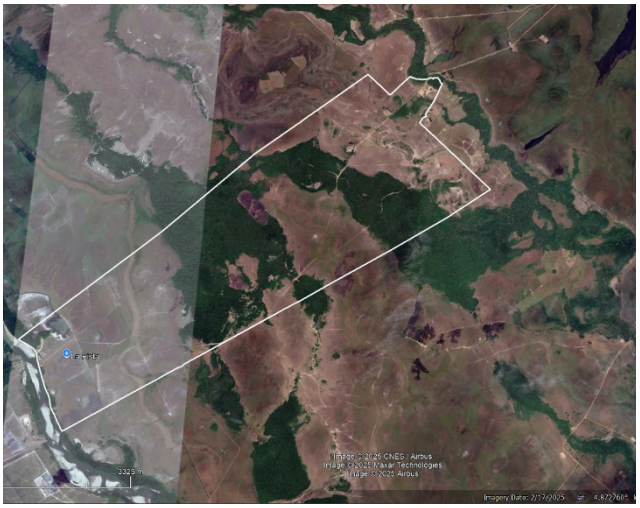
February 2021	February 2025
	

Figure 2. Google Earth images of the Project area from 2021 and 2025

The NDVI analysis from 2021 to 2025 (Figure 3) shows relatively stable but declining NDVI values throughout the period. Some periods of recovery were observed; however, the overall trend is

[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.

mostly negative, indicating slow and sustained loss of vegetation. Project activities, beginning in October 2025, are expected to have a positive impact on the landscape.

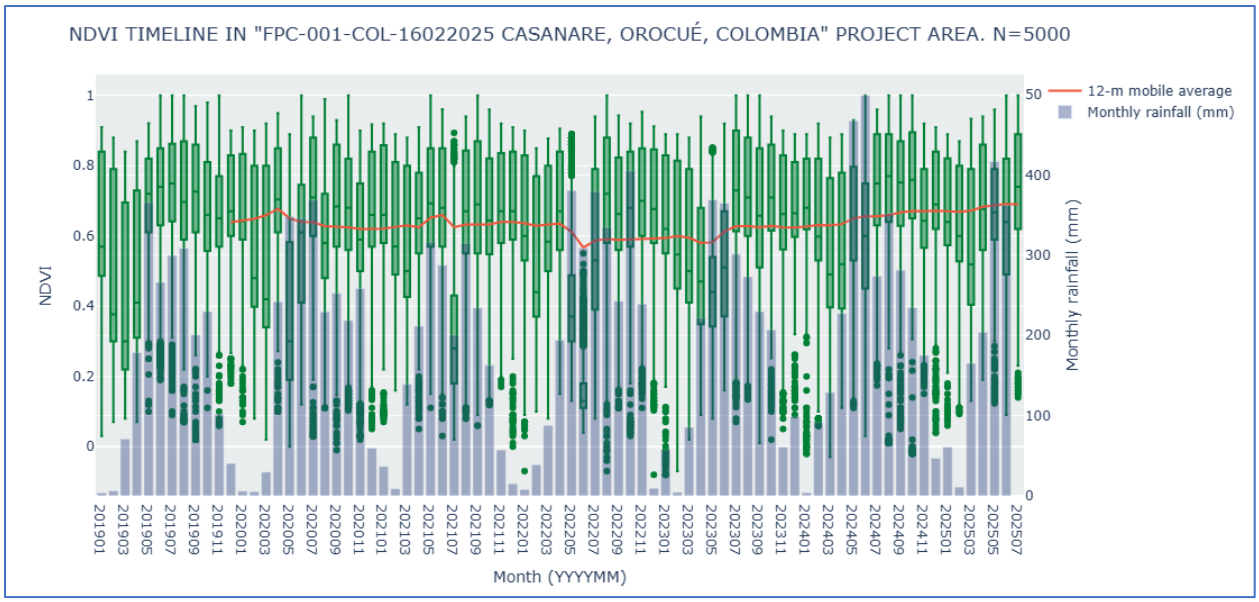


Figure 3. Monthly NDVI and precipitation from January 2019 to July 2025

Biodiversity integrity remained stable at 91.599% between 2017 and 2020 (Figure 4). This value is in line with conservation objectives.

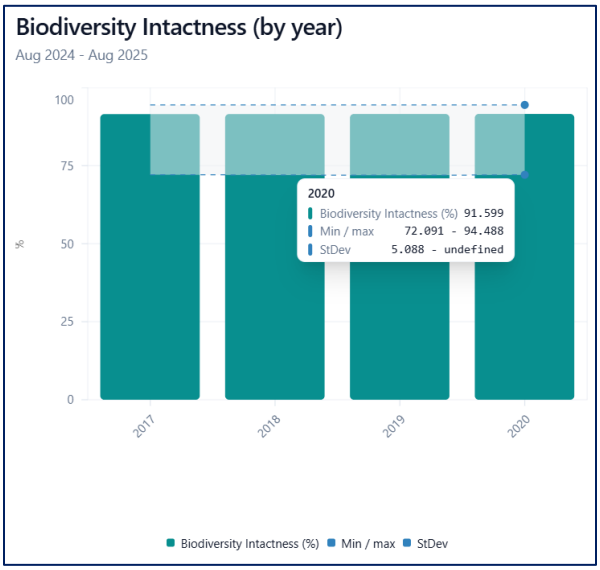


Figure 4. Biodiversity integrity

The biodiversity restoration and conservation strategy focuses on a comprehensive approach that integrates habitat creation, ecosystem restoration, species protection, and sustainable land management. Key actions include reforestation with 52 native species, riparian habitat restoration, and the establishment of biological corridors to improve habitat connectivity. Artificial habitats—such as nest boxes, burrows, ponds, floating platforms, and underwater refuges—will be installed to support birds, mammals, amphibians, reptiles, and aquatic species. Regenerative agriculture and silviculture practices will be implemented, including live hedgerows, wildflower strips for pollinators, and agroforestry systems that integrate trees into agricultural landscapes. Continuous ecological monitoring will be carried out using camera traps, acoustic sensors, drones, and satellite technology to assess species presence and habitat quality, while community engagement programs will train local stakeholders in biodiversity monitoring and native plant propagation, ensuring long-term stewardship of the restored ecosystems.

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					
Aves	***Jabiru mycteria***	Jabiru		**LC**	**Native**
Aves	***Eurypyga helias***	Sunbittern		**LC**	**Native**
Aves	***Megacercyle torquata***	Ringed Kingfisher		**LC**	**Native**
Aves	***Eudocimus ruber***	Scarlet Ibis		**LC**	**Native**
Aves	***Tigrisoma lineatum***	Rufescent Tiger-Heron		**LC**	**Native**
Mammalia	***Myrmecophaga tridactyla***	Giant Anteater		**VU**	**Native**
Aves	***Ara severus***	Chestnut-fronted Macaw		**LC**	**Native**
Reptilia	***Caiman crocodilus***	Spectacled Caiman		**LC**	**Native**
Aves	***Stilpnia cayana***	Burnished-buff Tanager		**LC**	**Native**
Aves	***Anhima cornuta***	Horned Screamer		**LC**	**Native**

** **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 silvopastoral management category, thereby aligning with the criteria established by the aOCP Program.
b) Activities will begin in October 2025, which meets the requirement that projects be no more than five years old at the time of this alignment assessment.
c) **The 52 species which will be used for reforestation are cited as native and/or ecologically appropriate for the region, supporting restoration and biodiversity goals; however, the species' identities have not been provided.**
    - Additionally, 10 species of fauna, either native or registered as an "at-risk" species, were documented within the project area.
d) The project area has not been subject to deforestation in the last two years, aligning with the criterion of avoiding environmental degradation.
e) The project area is located within its own Protected Natural Area; therefore, it is still in compliance with the additionality criterion.
f) Biodiversity intactness is 91.599%, aligning with biodiversity conservation objectives.
g) **The Project Developer has not submitted documentation proving landownership and an agreement with local communities, which does not fulfill the criterion of not generating social harm.**
h) The activities proposed by the project have strong potential to contribute to biodiversity conservation:
    - The project incorporates a diverse mix of 52 native tree and shrub species and avoids monoculture practices, helping to restore ecological function, enhance habitat heterogeneity, and create conditions that support the recovery and persistence of native wildlife. The project presents a sound foundation for ecosystem and biodiversity restoration. The project may be eligible for registration under **Modality B of the aOCP**, allowing it to advance in the evaluation process for the generation of Biodiversity (VBBC) credits.

Please provide:

- **Clear geolocation of project activities and intended zones for species-specific replantation.**
- **A detailed list of the 52 species intended for replantation.**
- **Proof of landownership or the right to intervene in the project area.**

i) Once the additional information requested in section "h" has been provided, the project may be **eligible** for registration under Modality B of the aOCP, which will allow it to advance to the next stages of evaluation for the generation of Verified Biodiversity-Based Credits (VBBC).