The Global Biodiversity Standard

TGBS Site Certification Registry

La Ortiga – Colombia

Project title:

Reforesting forests and restoring the border with paramos with Pasto indigenous communities in the Andean Cordillera of Colombia

Site name: Nariño (La Ortiga)

Final Score: 6.84

Criterion	Score
Criterion 1: Select appropriate sites to enhance native biodiversity	5.66
Criterion 2: Enhance protection of existing habitats and biodiversity	5.00
Criterion 3: Protect, restore and manage biodiversity in consultation and partnership with local communities and other stakeholders	8.00
Criterion 4: Aim to maximise biodiversity recovery through ecosystem restoration	7.60
Criterion 5: Avoid and reduce invasive or potentially invasive species	10.00
Criterion 6: Prioritise the use of native, threatened and rare species	6.00
Criterion 7: Promote biodiversity and adaptive capacity	5.00
Criterion 8: Implement robust monitoring, evaluation and adaptive management of biodiversity	7.50

Project details:

Name of applicant organization/s, agency/es or institution/s: Fundación Impulso Verde Kuaspe and Reforest'Action

Name of project: Reforestación del bosque alto-andino con las comunidades indígenas de Pasto en la cordillera de los Andes de Colombia

Site location: Guachucal, Nariño region, Colombia

Area: 1.2 hectares

Number of zones of different restoration types: 1

Restoration type: Ecological restoration

Restoration approach: Assisted natural recovery with planting

Biome: Tropical-subtropical forests biome

Ecosystem type: Tropical subtropical montane rainforest

Assessor details:

Names of assessors: Gabriela Orihuela, José Mamani

Affiliated institution: Huarango Nature

Dates of visit: 10/2024

Project Objectives:

- Biodiversity: Connectivity
- Biodiversity: Quality
- Climate: Adaptation
- Climate: Mitigation
- Climate: Resilience
- Community: Equity
- Community: Income
- Community: Practices
- Culture: Values
- Ecosystem: Functionality
- Ecosystem: Integrity
- Food and Products: Finance
- Food and Products: Market
- Food and Products: Yield
- Soil: Management
- Soil” Quality
- Water: Quality
- Water: Quantity

Restoration Activities:

- Enforcement of restrictions or prohibitions on ecosystem conversion or destruction
- Implementation of sustainable ecosystem management practices in productive landscapes
- Tree planting

Project description:

The evaluated sites are located in the region of Nariño, in the North Andean biogeographic province of the Eastern Cordillera, represented by the Andean massif, formed by the inter-Andean basins, high plateaus and volcanoes. It belongs to the Nudos de los Pastos group, Altiplano subset, with a cold climate, flat areas of tectonic origin with geomorphological formations of predominantly volcanic origin, densely populated with agricultural predominance; to which Ipiales and its surroundings belong.

The ecological restoration approach for the project is an assisted natural recovery with planting for water conservation. Some factors that have contributed to the project in the selected municipalities are:

a) The choice of native species in their planting schemes.
b) Involvement of local communities/associations.
c) A capacity building program
d) Measures implemented to reduce the presence of threats to biodiversity (fences to
e) prevent the entry of livestock, vigilance of association members).
f) Native plant nurseries within a strong network

The first Impulso Verde activities in the area are recorded since 2016, recognizing the work of local communities with capacity building programs for restoration practices delivered by the municipalities and with the implementation of 4 native plant nurseries. In one of the evaluated sites, restoration work was initiated 25 to 30 years ago by landowners. Currently the network of native plant nurseries implemented by Impulso Verde has 16 nurseries managed by local communities and financed in part by Reforest' Action. The current project started in 2021 and is planned to continue through 2026.

Ecosystem Integrity:

Key attribute	Sub-attribute	Baseline		Current Conditions		Trajectory	Score
		Description	Star Rating	Description	Star Rating		
Absence of Threats	Contamination	Unable to assess	N/A	Unable to assess	N/A	N/A	N/A
	Invasive species	Pasture	1 star	No invasive species have been recorded.	4 stars	Improving	10
	Over-utilisation	Pasture with frequent presence of cattle	1 star	There is minimal presence of livestock since the land is fenced.	3 stars	Improving	10
	Other degradation drivers	NDFI values between 0.8 and 0.9	4 stars	NDFI values between 0.8 and 0.9. The graph shows a slight upward trend.	4 stars	Improving	2
Physical conditions	Water chemo-physical conditions	Unable to assess	N/A	Unable to assess	N/A	N/A	N/A
	Substrate chemical conditions	Unable to assess	N/A	Unable to assess	N/A	N/A	N/A
	Substrate physical conditions (both abiotic and biotic components)	Pasture	1 star	Leaf litter cover has been found.	2 stars	Improving	6

Species composition	Desirable plants, fungi and lichens	Index smaller than 0.1	0 stars	Similarity index of 0.2 with dominant presence of native species, including some for medicinal use	2 star	Improving	10
	Desirable animals	The presence of desirable birds is at a low level due to the conversion of their habitat to pasture.	1 stars	Three species of pollinators and seven species of seed dispersers were recorded.	2 stars	Improving	6
	Rare and threatened species	There is no presence of rare or threatened species.	0 stars	Evidence of one species of *Polylepis* sp., cf. *P. sericeae*, a vulnerable species.	1 star	Improving	6
	No undesirable species	Livestock is occasionally present in the area. Weeds cover more than 50% of the surface. Domestic animals are occasionally present.	0 stars	There is little evidence of livestock, and weeds are present in an area covering approximately 20% of the grass cover. Weeds are being controlled.	2 stars	Improving	10
	Provenance, genetic diversity and genetic resilience	No seeds were collected in the area, nor was there a seed bank.	0 stars	A rustic seed bank was set up where the origin of the seeds from selected mother plants are stored and recorded.	3 stars	Improving	10
Structural Diversity	All vegetation strata	There was no tree cover	0 stars	The average height of the vegetation is 4.08 m.	2 stars	Improving	10
	All trophic level	Unable to assess	N/A	Unable to assess	N/A	N/A	N/A

	Spatial mosaic	Dominant forest cover but with patches of agriculture and pastures in the interior	1 star	Uniform forest cover within the polygon, but with a high number of patches in its surroundings (75).	3 stars	Improving	10
Ecosystem Function	Productivity/ cycling	GPP values with a similarity level of 75% of the reference ecosystem	4 stars	GPP values with a similarity level of 75% of the reference ecosystem	4 stars	No change	0
	Habitat & interactions	Unable to assess	N/A	Unable to assess	N/A	N/A	N/A
	Resilience & recruitment	The possible entry of livestock made the regeneration of species difficult.	0 stars	Two species were identified: *Smallanthus pyramidalis* and *Linochilus bicolor* 13% similarity.	1 star	Improving	6
External Exchanges	Landscape flows	Unable to assess	N/A	Unable to assess	N/A	N/A	N/A
	Intraspecific gene flows	The distance from the restored areas to the forest patches is more than 100 m. There is no evidence of native flora species.	1 star	The distance from the restored areas to the forest patches is more than 100 m. There is no evidence of native flora species.	1 star	No change	0
	Habitat links	Unable to assess	N/A	Unable to assess	N/A	N/A	N/A

Level of Protection:

Baseline: secondary conservation (2 star)

Management activity	Sufficient level	Insufficient level
Soil erosion control	x	
Watershed management		x
Management of wetland hydrology		
Enforcement of restrictions or prohibitions on ecosystem conversion or destruction	x	
Implementation of sustainable ecosystem management practices in productive landscapes (e.g., organic farming; agroforestry; Farmer Managed Regeneration)		x
Protection from overhunting, overharvesting, overfishing, or poaching	x	
Protection from uncharacteristic fire		
Maintenance of natural or semi-natural disturbance regimes (e.g., fire; flooding; grazing; haymaking)		
Fire management, including site preparation (e.g., thinning, hardwood reduction, establishment of fire breaks)		
Prescribed burning		
Grazing management (e.g., control of native grazer populations; reductions, removal, or exclusion of non-native grazers)	x	
Species control measures, physical or mechanical (e.g., cutting, pulling, burning, covering, digging up, ploughing, scalping, mowing, capturing, hunting)		

Species control measures, biological (release of biological control agents, grazing, predation)		
Species control measures, organic or non-synthetic chemical (e.g., organic herbicides)		
Species control measures, synthetic chemical		
Post-control measures		
Re-invasion monitoring and prevention measures		
Management of secondary invasives		
Other control of invasive species		

Current: Informal area of conservation (3 star)

Management activity	Sufficient level	Insufficient level
Soil erosion control	x	
Watershed management		x
Management of wetland hydrology		
Enforcement of restrictions or prohibitions on ecosystem conversion or destruction	x	
Implementation of sustainable ecosystem management practices in productive landscapes (e.g., organic farming; agroforestry; Farmer Managed Regeneration)	x	
Protection from overhunting, overharvesting, overfishing, or poaching	x	
Protection from uncharacteristic fire		

Maintenance of natural or semi-natural disturbance regimes (e.g., fire; flooding; grazing; haymaking)		
Fire management, including site preparation (e.g., thinning, hardwood reduction, establishment of fire breaks)		
Prescribed burning		
Grazing management (e.g., control of native grazer populations; reductions, removal, or exclusion of non-native grazers)	x	
Species control measures, physical or mechanical (e.g., cutting, pulling, burning, covering, digging up, ploughing, scalping, mowing, capturing, hunting)		
Species control measures, biological (release of biological control agents, grazing, predation)		
Species control measures, organic or non-synthetic chemical (e.g., organic herbicides)		
Species control measures, synthetic chemical		
Post-control measures		
Re-invasion monitoring and prevention measures		
Management of secondary invasives		
Other control of invasive species		

Stakeholder Engagement and Social Benefits:

Attribute		Score	Description
Stakeholder engagement	Stakeholders identified	1	Focus group with IMPULSO VERDE staff & interviews with members of Asocación PUMAMAQUI
	Grievance mechanism	0	No grievance mechanism in place.
	Primary stakeholders involved	1	Members of Asociación PUMAMAQUI own and manage the native plant nursery, selecting the tree species.
	Secondary stakeholders involved	1	Agreements were established with the Municipality and the University.
Benefits distribution	Capacity increased/building	1	Participation in training workshops.
	Benefits/opportunities equitably distributed	1	Diverse representation in the selection of training participants. Across the entire network of nurseries, 70% are women (16 women out of 20 partners).
	Improved community wellbeing	0	

Knowledge Enrichment	Inclusion of local or Indigenous knowledge in project development	0.5	They are part of the Pasto culture, which promotes the conservation of plants for medicinal use and food security. They collect seeds.
	Inclusion of scientific / conservation best practice in project development	0.5	Knowledge acquired through training with the Municipality (SENA).
	Project contributes to the scientific community / wider knowledge	0.5	Publication of the book "Guide to Plants and Knowledge" by Impulso Verde.
Sustainable Economies	Increased employment	0.5	Payments are made to nursery managers.
	Improvement to local supply chains/local economy	0.5	Production of honey, fertilizers, biofertilizers, and wine (chilacuan, a native fruit of Nariño) that contribute to the local economy.
	Inclusion of sustainable business and employment models	0.5	The nurseries are examples of sustainable businesses; for example, they also sell to the municipality (Aldan women).

Monitoring, Evaluation and Adaptive Management:

Ongoing Management Planning:

- The management plan is co-developed with stakeholders and rights and knowledge holders, including local restoration practitioners and implementers.
- The plan builds as far as possible on effective practices, including traditional and Indigenous Peoples' management practices.
- The plan incorporates relevant management agreements and includes a detailed description of all required activities specifying their duration of time and frequency.
- The management plan identifies the ongoing management team, and clearly communicates roles and responsibilities of members of the team.

Long-term Resourcing:

- The project conducts periodic monitoring of the site to check for recurrence of degradation and to protect the investment in restoration, involving local stakeholders and rights and knowledge holders, including indigenous peoples and key groups living in and adjacent to the project sites as much as possible.
- The project conducts site protection measures needed to prevent deleterious external or internal impacts (e.g. protection from unsustainable grazing, prevention of inappropriate fire, prevention of unsustainable harvesting, control of infestations by invasive species, management of weeds and other vegetative competitors).
- The project develops or supports training and stewardship programs for local communities and practitioners, to improve ongoing management of the site and prevent harm from inappropriate management.
- The project provides a governance structure to oversee ongoing management and stewardship of the site, and ensure legal protections for the investments made in restoration.

Adaptive Management:

- The project invests in knowledge sharing, acquisition and training to incorporate updated best practices when designing and implementing responses to unexpected or unforeseen events that threaten the integrity of the restoration site.

Continuous Improvement:

- The project adopts a policy of continuous improvement informed by reliable monitoring. Such a policy can allow managers to continually upgrade and build on project goals to advance initial recovery towards progressively higher outcomes, seeking the highest level of recovery possible over the long term.
- The project seeks opportunities for the implementation of additional restoration activities or projects at the project site or in the broader landscape or seascape through replication or scaling up.
- The project conducts additional restoration activities that take advantage of the improved condition of the site (e.g., infill planting, reintroduction or augmentation of rare species, reinstatement of natural disturbance regimes).

Monitoring and Evaluation:

- The monitoring programme/activities includes collecting, managing (including cleaning and meta-data documentation), and archiving data
- The monitoring program includes a plan for interpreting results and sharing findings
- The monitoring programme/activities is being used to apply lessons learned to adaptive management within and across programmes.

Certification issued to:

Fundación Impulso Verde Kuaspue

Address: Avenida 5B Norte 50N 05, Cali, Colombia

Website: https://impulsoverde.org/

and

Reforest'Action

Address: 10, rue Jacques Daguerre - 92500 Rueil-Malmaison – France

Website: https://www.reforestaction.com/en

Social Safeguarding:

This project has not undergone a social safeguards assessment by The Global Biodiversity Standard. Responsibility for identifying and managing environmental and social risks lies with the implementing organisation and associated funders.