Biocorridor Martin Sagrado REDD+ Project

Distinctive features

The Biocorridor Martin Sagrado REDD+ Project is located in Northern Peru, in the western part of the San Martin province. The proponent is Pur Projet, a private organization based in Paris. In implementing this project, Pur Projet is working closely with Cooperativa Agraria Cacaotera (ACOPAGRO), a co-operative created in 1997 as part of a United Nations program to substitute coca plantations with cocoa and other alternative crops. The REDD+ project started in January 2010, as a complementary strategy to the Alto Huayabamba reforestation project, which Pur Projet and ACOPAGRO are implementing since 2008, with a plan to replant more than 2,000,000 trees by 2012.

The objectives of the REDD+ Project are to protect forests with high conservation value and species at risk of extinction while also improving the quality of life of the families that live in these areas. The main deforestation agents are migrant farmers, who clear the forests for subsistence agriculture. An underlying driver of this deforestation is Peru's land tenure law, which allows people to own land by occupying it for five years. The project area consists of three concessions with conservation purposes that are each owned by a co-operative. The forested area of the concessions covers 295,654 ha, and this includes large tracts of healthy closed-canopy forests, as well as degraded forests. With the presence of several IUCN listed threatened species, the proponents consider this to be a high conservation value area.

 The concession holders have transferred the emission rights to the proponent. The proponent aims to protect carbon stocks by ensuring the legal status of the concessions is secure, thereby protecting them from being converted to economic development concessions. The proponent describes the project as a "community-implemented project, which involves all communities in the project area and in the buffer area" (18 communities). The project hopes to empower these communities and give them the opportunity to manage their environment and conserve the project area over the long-term. The proponent will engage the communities in developing and implementing sustainable forest management plans, which include assisted natural reforestation and enrichment planting as well as patrolling against illegal logging. In the leakage management area, the project will support land titling, land use planning, reforestation to provide fuelwood, alternative energy to reduce demand for fuelwood, and livelihood activities.

Heading	Explanation
Locational factors	
Location	Western part of the San Martin province, northern Peru
Spatial boundaries	Project area: 295,654 ha Reference area: 1,668,333 ha (includes project area) Leakage monitoring area: 250,067 ha Leakage management area: Areas near the project zone that have already been deforested have been delineated. Size not given
Land cover	▪Amazonian Moist Forests (Bosques Humedos Amazonicos) ▪Andean Moist Forests (Bosques Humedos Andinos) ▪Andean Dry Forests and Weric Scrub (Bosques secos y matorales wericos andinos) ▪White Water Floodplain Forests (Bosques inundables por aquas blancas) ▪Agriculture ▪Settlements ▪Water bodies
Agents and drivers of forest cover change	**Agents:** i. Local communities, ii. Migrant farmers, iii. Mining / oil companies, iv. Land dealers, v. Loggers, vi. Government **Underlying drivers:** Migrants coming into the region leading to increased pressure to convert forests for agriculture; Population growth rate in San Martin of 5% , also increasing pressure to convert forests for agriculture; Improved accessibility through the opening of roads; Lack of clear land property and titles; Lack of environmental education; Lack of livelihood alternatives; Demand for commercial timber; Lack of alternative to fuelwood for cooking; Powerful oil, developers and mining lobbies seeking to change Peruvian government policy and allow concessions in the project region **Proximate causes:** Conversion to croplands, pastures and housing – responsible agents: i, ii, iv Conversion to settlements / infrastructure (Roads, water and electricity) – responsible agents: i, ii, vi Selective logging of high-value species for commercial sales – responsible agents: i, ii, v Timber harvesting for local use (housing and infrastructures) – responsible agents: i, ii Fuelwood gathering – responsible agents: i, ii Uncontrolled fires – responsible agents: i, ii Intentional fires (Paths opening and fires for hunting) –

		responsible agents: i, ii

Basic project features		
	Objectives	Protect forests with high conservation value (protect species in risk of extinction while also improving the quality of life of families that live in these areas; maintain and increase carbon stocks in the area, enhancing the hydrology, as well as conserving biodiversity and endangered species)
	Proponent/s	Pur Projet
	Tenure and Carbon rights holder	▪Tenure held by three cooperatives/associations: ACOPAGO controls the Martin Sagrado concession, the Asociacion Dos de Mayo controls the El Breo Concession, and APAHUI was in the process of obtaining the Montecristo concession at the time of validation. ▪Carbon rights were transferred by each concession holder to Pur Projet through transfer agreements.
	Actors involved in project design and implementation and their roles	The project is being jointly implemented by Pur Projet and the Amazonia Viva Foundation, whose main members are Acopagro and Oro Verde cooperatives. ▪Pur Projet (private organization based in Paris): Project developer; participates in project design, administrates project activities and funds ▪Fundación Amazonía Viva (a Peruvian non-profit foundation created at Pur Projet's initiative): Coordinates project activities with member organizations, implements project management prioritizes activities, manages the allocation of funds, responsible for community engagement ▪Participating communities (inside project area and in buffer zone): Included in project design, decision process, prioritization of activities, and implementation of activities ▪Cooperativa Agraria Cacaotera (ACOPAGRO) (created in 1997, as part of a United Nations program to substitute coca plantations with cocoa and other alternative crops): Owner of the Martin Sagrado concession within the project area ▪Reforesta Perú (Reforesta) (Peruvian tree nursery company): Project partner for forestry expertise and seedlings sourcing for reforestation activities ▪ONF International: Technical partner assisting in carbon calculations, design, etc.
	Upfront financing	*No information* (Based on the current contract signed by ACOPAGRO and Pur Projet, Pur Projet will purchase the REDD credits generated by the Martin Sagrado Project at a price not

		less than US$ 1 per ton of CO2. The total project costs over the crediting period are estimated to be 22,939,137 USD.)
	Start date	1 January 2010
	Crediting period	40 years

	Baseline emissions	
	Methodology	VCS methodology VM0015, Version 1.1
	Reference data (unplanned deforestation/degradation)	Reference period: 2000-2010 Imagery: 3 time points were selected over the historical reference period: 2001 / 2005 / 2010. Landsat 7 ETM+ and SPOT 5 data were used for interpretation and validation
	Reference data (planned deforestation/degradation)	Not applicable
	Stratification of project area	3 forest strata ▪Amazon Moist Forest ▪Andean Moist Forest ▪Andean Dry Forest
	Deforestation/degradation rate and location	**Historical (unplanned deforestation/degradation):** 0.6% **Projected** 0.6% **Likely baseline scenario** Combination of the following: Conversion to croplands (perennial or annual crops), pastures and housing; Conversion to settlements / infrastructure; Selective logging of high-value species for commercial sales; Conversion to Economic Land concessions, Mining or Oil concessions **Modelling or other procedure to establish baseline procedure** Approach (a) of VM0015 methodology used, i.e. historical average approach (found to be most conservative of approaches tested). Location of baseline deforestation predicted using the Dinamica Ego spatial modelling framework.
	Carbon pools	**Carbon pools included ✓ ✗** ▪Aboveground tree biomass ✓ ▪Belowground tree biomass ✓ ▪Non-tree woody biomass ✓ (only for non-forest post-deforestation classes) ▪Litter ✗ ▪Dead wood ✓ (only standing deadwood included) ▪Soil ✗

	▪Wood products ✖ **Estimation method** Per ha carbon stocks estimated for three forest classes through field measurements. Plots sited using stratified random sampling. Sample size estimated using pre-survey. Total of 78 500 m^2 circular permanent sample plots established. DBH for all trees > 5cm measured. Height for palms measured. Local published allometrics used for estimating aboveground tree biomass of trees and palms. Root-shoot ratio used for belowground tree biomass. Uncertainties in carbon stock estimates were discounted.
Carbon stock changes	Assumptions made on % of forest converted to Non-forest vegetation and Bare Soil, Croplands and Settlements. Emissions factors were estimated for Non-forest vegetation and Bare Soil, Croplands and settlements, using defaults from the literature. A transition period is considered for each LU/LC class over which pre-deforestation carbon stocks will decrease linearly until reaching 0 after a period of 10 years, and post-deforestation carbon stocks will increase as new crops/plantations grow, linearly until reaching their long-term average value after 10 years. Specifically, as forests are cut and burnt, loss of aboveground biomass is assumed to be instantaneous, while belowground biomass decays linearly over 10 years.
GHG emissions:	None
Net emissions without project	14,865,413 tCO2-e

Project GHG emissions reduction strategy	
Scope	Deforestation (avoid unplanned frontier deforestation)
Activities	In concessions: Maintained legalisation of concessions (registration, and maintenance of concessions for conservation at regional government level, as well as registration at higher international level), forest management plans, participatory measurement and monitoring, forest patrolling, construction of walkways, assisted natural regeneration and enrichment planting
Leakage mitigation strategy	Activities in leakage management area: Land titling (only 10 to 20% of the farmers legally own the land on which they settle and use for agriculture), provide new livelihoods (including and technical and financial assistance to develop agro-forestry and agro-ecological practices), water and land resource development planning with communities, awareness raising on need to protect forests, investment in renewable energy to reduce reliance on fuel wood, and coordination between communities. The leakage management areas are

		deforested areas near the project zone.
	Additionality	Alternative land use scenarios, barrier analysis, and common practice analysis conducted. The barrier analysis concluded that it is unlikely that local farmers would implement conservation practices by themselves to ensure protection of the forest. Without the initiative of the project proponent, 2/3 of the area would not be under conservation leases, as communities could not organise themselves for such a large scale conservation initiative. 3/4 of the project activities are not covered by project revenues, so the project would not take place without carbon revenues. The common practice analysis found that at the start of the project, there were no concessions for conservation attributed to communities or community associations in San Martin Region.
	Non-permanence risk mitigation strategy	Not described.

With-project emissions		
	Effectiveness of measures	70%
	Carbon stocks	No decrease in carbon stocks due to planned activities in project scenario: Most of the project activities will be conducted in the leakage belt with the communities in the buffer area of the project area. Forest in the project area is old-growth primary forest where carbon stocks are already at their optimal level at maturity. No increase in carbon stocks due to project activities is therefore expected.
	GHG emissions	None: Decrease in N2O and CH4 emissions due to reduced occurrence of fire in the project area conservatively omitted
	Leakage	**Types** Activity shifting: Leakage belt was delineated using a mobility analysis. **Deduction** 15%
	Non-permanence risk	**Buffer:** 10,652 tCO2e for first 10 years [=1.69%] VCA AFOLU Non-Permanence Risk Tool applied. Overall risk rating of 0.5 estimated; risk rating of 10 applied, following the Tool's minimum requirement.
	Ex-ante estimated net greenhouse gas emissions reductions	**Total over crediting period:** 556,401 (first 10 years); 8,788,871 (project life) **Annual average:** 55,640 (first 10 years) **Annual average per ha:** 5.3 (first 10 years)

Monitoring of carbon stock changes and emissions	**Parameters** ▪ Area of land use land cover classes, using remote sensing analysis; Potential carbon stock decreases due to catastrophic events (no other carbon stock monitoring). ▪Activity displacement leakage in the leakage belt is monitored the same way carbon stock changes are monitored in the project area. ▪If Peru or San Martin Region develop a jurisdictional program or approved MRV system, the project will use the MRV data generated by the jurisdictional program. **Methods** ▪Remote sensing analysis, Field measurements **Frequency** ▪No information	

Stakeholder identification and engagement

	Stakeholders identified	▪Pur Projet team, Amazonia Viva and ACOPAGRO ▪3 communities living within the project area: La Morada, Canaan, and Anazco Pueblo ▪4 communities in the project zone, considered as major project partners ▪9 other communities in the project zone ▪2 other communities outside the project zone ▪ACOPAGRO cooperative ▪commune, district, and provincial government ▪civil society organizations including local NGOs▪
	Identification process	▪Exploratory field visit conducted by Pur Projet in 2009 ▪Information on communities collected from literature and 2 surveys covering a total of 299 people

Full and effective participation

	Access to information and consultation	▪Ongoing series of community dialogues in November 2009 ▪PRA exercise held within the communities including semi-structure interviews and group discussions ▪Follow-up workshop with stakeholders in April 2010 ▪The AMAZONIA VIVA Foundation will play an active role in distributing key project documents to affected community members and key stakeholders as well as publicizing community events/meetings. ▪Project documents and biodiversity and community monitoring data will be collected and processed by Pur Projet, and put at disposal of the communities and the cooperatives.
	Participation in design, implementation	▪Project development team of Pur Projet worked with ACOPAGRO Cooperative managers and agronomists to conduct a series of village Participatory Rural Appraisals

and monitoring	(PRAs) and community sketch maps to assess proposed project areas. Elected community forest management committee members, local farmers, and both men and women household heads participated.
	▪Over the course of the project, annual stakeholder dialogues with a focus on project communities will be held to generate feedback and information necessary for project adaptation and documentation.
	▪Communities are the primary stakeholders of this project and all decisions will be made via the approval by the Community Forest Management Committees, which are the main backbones of this project.
	▪Project employment: Local people will be prepared and trained, and will have the opportunity to be hired within some of the programs of this project (e.g., biodiversity monitors, climate monitors). They will also be invited to work in supporting field activities.
	▪Project communities will be involved in an annual participatory monitoring exercise to assess the extent to which project activities are achieving the community and project goals.
Feedback and grievance redress procedures	▪The project ensures regular community feedback through discussions between the AMAZONIA VIVA Foundation and the implementing communities, and Pur Projet. The Amazonia Viva Foundation will meet quarterly to review experience and best practices to identify innovations for extension.
	▪AMAZONIA VIVA Foundation will organize quarterly broader assemblies where all community members will be able to participate to give their feedback on the project.
	▪Given the lack of accessibility of some communities, AMAZONIA VIVA Foundation staff will conduct regular field visits to all communities involved to collect their feedback.
	▪Periodic focus group discussions will be used to document how key activities are progressing and identify problems and issues. Case studies will be written by project staff and consultants to ensure lessons are captured.
	▪The project relies on existing and emerging institutions to mediate any conflict arising from project related activities.
	▪Conflicts that may arise during the course of project implementation will be handled by a defined process (available on request) supervised by Public authority of National Park Rio Abiseo, in whose buffer area is developed the project. The National Park Rio Abiseo authority approved his role as a third-party mediator to

		address conflicts within 30 days and resolve them. The park authority has a strong legitimacy for the communities and the various organizations in the area. Project conflicts and their associated responses will be documented by the National Park Authority and Fundacion Amzonia Viva.
	Worker relations and safety	▪Hired people for the project will be made aware of their rights and obligations in their contracts as required by law. The recruiting done by Amazonia Viva Foundation is subject to the institution's external auditing. ▪Local communities are accustomed to living in the forest ecosystems and to being surrounded by an environment rich in biodiversity. Major risks that could arise from the implementation of this project are related to potential forestry and forest management activities, the use of machinery and equipment, and the other related activities. Whenever necessary, appropriate training will be offered to people involved in such activities, including all safety procedures and the use of protection equipment.
	Communities	
	Without-project scenario	Without the project, the following negative impacts for communities are expected: ▪increasing conflict with migrants, and concessionaires ▪loss of control over forest lands ▪deforestation of local forests critical for livelihood and environmental services ▪growing poverty and social marginalization ▪loss of biodiversity.
	With-project scenario	**Expected net benefits** 3 project goals expected to benefit communities: ▪improve the quality of the forests ▪maximize benefit flows to the local communities participating in the project ▪develop new REDD project sites that will benefit other forest-dependent communities. Expected direct benefits to communities are: ▪through training and support to local village organizations, increased forest management capacity and agro-forestry and agro-ecological practices ▪increased recognition from Peruvian Government of local communities forest management rights ▪carbon revenues that the community will use for forest restoration employment, improving farming systems, establishing micro-finance organizations, and capitalizing small livelihood enterprises

	▪maintaining the access and use rights of local communities to continue harvesting NTFPs for customary use from the project area forests.
	Possible negative impacts on other stakeholders and mitigation strategy
	▪Assisting project communities in establishing a dialogue with migrants to the area to inform them of the communities areas and management rules that govern them
	▪Awareness-raising for participating and neighbouring communities through discussions and trainings, billboards, boundary demarcation, and meetings, with encouragement for surrounding migrant communities to emulate sustainable forest management practices under future REDD expansion
	▪Facilitating a natural resource management planning process with project neighbouring communities that would involve local migrant families
	The project will include all neighbouring communities outside the project area in its socio-economic monitoring activities. This should allow feedback from non-project communities in the area concerning the negative and positive ways in which the project impacts them.
Impact monitoring	A full community impact monitoring plan will be developed within six months of the validation date through collaboration between the implementing partners and Pur Projet.
	Indicators
	Aspects to be monitored:
	▪social indicators
	▪economic indicators
	▪institutional indicators
	▪biodiversity indicators
	▪environmental indicators
	▪carbon stocks and forest condition
	Parameters to be measured will include:
	▪community member knowledge, attitudes, and behaviours related to the project, especially levels of participation
	▪changes to forest related income and employment;
	▪institutional capacity to manage natural resources and finances
	▪improvements in forest habitat and sighting frequency for indicator species
	▪changes in carbon stock levels and forest conditions.

Methodologies

▪Annual participatory assessment consisting of community focus group discussions, in-depth interviews, and sample surveys

▪field trip reports

▪minutes of meetings facilitated by the ACOPAGRO Cooperative

▪periodic sample surveys conducted with project families for long term monitoring

Frequency

Various: annual participatory monitoring; long-term monitoring

Biodiversity and ecosystem services		
	Without–project scenario	Forest cover is expected to continually decrease causing a loss of biodiversity, quantity of species present, and quality of forest ecosystems.
	With-project scenario	**Expected net benefits** ▪conserve and regenerate forest ecosystems ▪restore unique habitat for amphibians, reptiles, mammals, and birds, while restoring high value and endangered tree species ▪high conservation value areas of special environmental, biological, and rare ecosystem significance will be protected and flourish ▪create greater awareness among local communities regarding the value of biodiversity, as well as build monitoring, patrolling, and habitat restoration skills, which will result in better controls over hunting, poaching, and damage to critical habitat **Possible negative offsite impacts and mitigation strategy** ▪Monitoring and surveillance programs will extend to buffer zones and leakage area. They will generate the necessary information for avoiding and managing negative offsite impacts, such as those caused by illegal logging, deforestation, etc. ▪Strategies will be developed with project and neighbouring communities to compensate for any loss in income or harvested forest products due to project-related restrictions. ▪85% of trees to be planted will be native to the project zone and the other 15% will be non-invasive exotics. ▪Sustainable harvesting methods for NTFPs will be included as part of a capacity building and livelihood program both within the project areas and in the leakage belt to mitigate the negative impacts of displaced NTFP collection.

		▪The community-based biodiversity inventory will document all flora and fauna and their uses. Species that are reported to be scarce may receive protection or harvesting regulations based on these findings.
	Impact monitoring	**Indicators** Several key indicator species will be selected and monitored to track the impact of project activities in comparison to the baseline. At least one of these indicator species will be a species which has a market value and is commonly traded, thus indicating the human-wildlife dynamic as it evolves. **Methodologies** Participatory biodiversity monitoring methodology will be implemented, with reference to Danielsen, Finn et al. "A simple system for monitoring biodiversity in protected areas of a developing country" Biodiversity and Conservation (9:1671-1705), 2000. Main elements are: ▪standardized recording of routine observations ▪fixed point photography ▪line transect surveys ▪focus group discussions These methods have been field tested. **Frequency** ▪Participatory biodiversity inventory and monitoring began in April 2010. ▪Depending on indicators, frequency is either annual or every 5 years.

Progress

	Validation	VCS validation report issue date: 22 January 2013 CCBA validation report issue date: 25 February 2013
	Verification	VCS verification report issue date: Not verified, as of 16 November 2015 CCBA verification report issue date: Not verified, as of 16 November 2015
	Number of VCUs issued	Number: 0 As of: 16 November 2015

Further information

▪VCS Project Database: http://www.vcsprojectdatabase.org/#/project_details/958

▪CCBA Projects: http://www.climate-standards.org/?s=martin

Documents reviewed

CCBA project design document:
https://s3.amazonaws.com/CCBA/Projects/Biocarridor_Martin_Sagrado_REDD%2B_project/PDD+REDD+Biocorredor+Martin+Sagrado+CCBA+-+V4.0+(1).pdf

CCBA validation report:
https://s3.amazonaws.com/CCBA/Projects/Biocarridor_Martin_Sagrado_REDD%2B_project/CCB_PurProjet_MartinSagrado_FINAL_RPT_Validation_022513.pdf

VCS project description:
http://www.vcsprojectdatabase.org/services/publicViewServices/downloadDocumentById/11377

VCS validation report:
http://www.vcsprojectdatabase.org/services/publicViewServices/downloadDocumentById/15152