



Chocó-Darién Conservation Corridor REDD Project

Distinctive features

The Chocó-Darién Conservation Corridor is located in the Darién region of northwest Colombia within the administrative jurisdictions of the Department of Chocó and the Municipality of Acaandí. The project area covers 13,465 ha of mostly undisturbed humid and very humid tropical forests rich in biodiversity. Anthrotect, a Colombian organization dedicated to making conservation a viable alternative to economic opportunities that result in land degradation, is the proponent.


This project is the first REDD+ project in Latin America to be implemented on collectively-owned land. The project area is held by Cocomasur (The Council of Black Afro-Colombian Communities of the Tolo River Basin and Southern Coastal Zone). The local council represent a mix of Afro-descendant and mestizo families spread amongst 31 villages. The community landholders who have been granted collective titles own the environmental services. Cocomasur and Anthrotect signed an Emissions Reduction Purchase Agreement on 29 October 2010.

The project area is threatened by selective logging and conversion for subsistence and small-scale agriculture and cattle ranching. This project leverages carbon finance to avoid mosaic conversion of tropical forests and therefore reduce greenhouse gas emissions, through a combination of forest protection and sustainable development activities. This project will utilize carbon revenues to fund 14 activities designed to reduce deforestation in the project area. The project activities pertain to three themes: Building governance capacity; Improving enforcement and management (activities include demarcating territorial boundaries and establishing regular community surveillance to conserve existing forest); Developing economic alternatives and incentives (e.g. by improving agricultural and silvopastoral practices and technologies).




	Heading	Explanation
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Locational factors

	Location	<p>Darién region of northwest Colombia (within the administrative jurisdictions of the Department of Chocó and the Municipality of Acandí).</p>
	Spatial boundaries	<p>Project area: 13,465 ha Reference area: 18,721 ha (does not include project area) Leakage monitoring area: Leakage management area: 7,152 ha (activity shifting leakage area)</p>
	Land cover	<p>87.3% of the project area (11,755 ha) was undisturbed humid and very humid tropical forests in 2010, while all the land within the project area has been forest for at least 10 years prior to the project start date.</p>
	Land use (drivers of forest change)	<p>Agents: Ranchers; Sawyers and builders; Local farmers Underlying drivers: Need for income and local employment throughout the Chocó region (provided by selective logging); Need for subsistence Proximate causes: Selective logging; Slash and burn agriculture / Subsistence and small-scale agriculture; Cattle ranching</p>

Basic project features

	Objectives	<p>To mitigate the conversion threats posed by cattle ranching, agriculture, and selective logging using carbon financing and to strengthen indigenous peoples' capacity to collectively manage their traditional lands.</p>
	Proponent/s	<p>Anthrotect (a Colombian organization dedicated to making conservation a viable alternative to economic opportunities that result in land degradation)</p>
	Actors involved in project design and implementation and their roles	<ul style="list-style-type: none"> ▪Cocomasur (Implementing Organization) ▪Fund for Environmental Action (Implementing Partner) ▪ecoPartners (Technical Partner) ▪Carnegie Institution for Science (Technical Partner) ▪Strategic Environmental Management (Legal Advisor) ▪Medellin Botanical Garden (Technical Partner)
	Tenure and Carbon rights holder/s	<p>Tenure: The project area covers all land (13,465 ha) contained within Collective Title No. 1502 held by Cocomasur (The Council of Black Afro-Colombian Communities of the Tolo River Basin and Southern Coastal Zone). (The title was awarded on August 1, 2005 by the Instituto Colombiano para el Desarrollo Rural (INCODER) and is managed by the nine Local Councils of Cocomasur). The local council represent a mix of Afro-descendant and mestizo families spread amongst 31 villages. The most recent census accounts for 826 families and 5,782</p>

	<p>individuals.</p> <p>Carbon rights:</p> <p>The community has been granted collective titles own the environmental services (including from forests and soil). Cocomasur and AnthroTECT signed an Emissions Reduction Purchase Agreement on 29 October 2010.</p>
Upfront financing	Fondo Acción manages accounts from debt swaps (Enterprise for the Americas Account and Tropical Forest Conservation Account) as well as other accounts entrusted by the private sector and other donors.
Start date	18 October 18 2010
Crediting period	18 October 18 2010 - 17 October 2040 (30 years)

Baseline emissions



Methodology	VM0009 Methodology for Avoided Deforestation
Reference data (unplanned deforestation/degradation)	<p>Reference period: 1986-2010</p> <p>Types of data used: Results of PRA on agents and drivers of deforestation; ASTER digital elevation model (DEM); Landsat 7, June 21 2010, June 13 2007, June 7 2005, July 1 2002; Landsat 5, July 17 1999, July 24 1996; Landsat 4, October 1 1989; Landsat 5, August 20, 1986</p> <p>Proxy areas were delineated to estimate residual carbon stocks in the baseline scenario. The proxy areas are outside of the project.</p>
Reference data (planned deforestation/degradation)	Not applicable
Stratification of project area	One forest stratum
Deforestation rate and location	<p>Historical</p> <p>Not given</p> <p>Projected</p> <p>1.6%</p> <p>Likely baseline scenario</p> <p>The most likely land use scenario is characterized by a cascade of degradation that includes multiple drivers, selective logging and slash and burn agriculture, and ultimately results in an end land use of pasture for cattle ranching.</p> <p>Modelling procedure</p> <ul style="list-style-type: none"> ▪ As 54,899 m of 96,994 m (56.6%) of the project perimeter is deforested, VM0009 baseline type U2 was deemed appropriate. ▪ Proxy areas were delineated to estimate residual carbon stocks in the baseline scenario. The proxy areas are outside of the project and reference areas and were selected according to

	<p>the following criteria: forest state, proximity to the project area, and slope.</p> <ul style="list-style-type: none"> ▪ A reference area was selected to observe historical deforestation that has taken place near the project area. Based on available cloud-free historical Landsat imagery of the reference area, the reference period selected was 1986-2010. In order to estimate the deforestation parameters within +/- 15% on average, the point interpretation used a sample of 1531 points over eight years of historical imagery (for a total of 12248 observations). ▪ The deforestation parameters α, β were fit using the sample deforestation data from the reference area. When fit to a logistical function, sample deforestation data yielded the following values for α and β: -2.168942, 0.000117 ▪ Based on examination of Landsat 7 images from July 7 and September 25, 2010, 18,991 m of project area perimeter were found to be within 120 m of deforestation. Threatened perimeter was calculated by removing deforested perimeter and perimeter occupying slopes steeper than the 65% constraint; slope was generated using an ASTER Global Digital Elevation Model. 43,382 m of project area perimeter was designated as threatened.
<p>Carbon pools</p>	<p>Carbon pools included ✓ ✗</p> <ul style="list-style-type: none"> ▪ Aboveground tree biomass ✓ ▪ Belowground tree biomass ✓ ▪ Non-tree woody biomass ✗ ▪ Litter ✗ ▪ Dead wood ✗ ▪ Soil ✓ ▪ Wood products ✗ <p>Estimation method</p> <ul style="list-style-type: none"> ▪ Plots used in proxy areas for tree and soil biomass (sampling procedures are described in detail in Annex V – Forest Measurement Protocol [not available on VCS website]) ▪ Ratio of 0.37 (the IPCC default root-to-shoot ratio for wet tropical forests) used for belowground tree biomass estimates
<p>Carbon stock changes</p>	<ul style="list-style-type: none"> ▪ Above-ground merchantable trees: The proxy area sampling indicates that 0 tCO₂e/ha of carbon remains after a deforestation event. ▪ Above-ground non-merchantable trees: The proxy area sampling indicates that 53 tCO₂e/ha of carbon remains after a deforestation event. ▪ Soil organic carbon: Assumed to deplete to the SOC levels measured in the proxy area of 403.8 tCO₂e/ha. The depletion of SOC stocks occurs according to the decay function, which employed the default value (0.2) for the lambda term. ▪ Wood Products: Biomass remaining in WP is assumed to be restricted to a portion of AGMT biomass removed in the baseline

	scenario. Because fence posts harvested from the project area were determined to be <i>de minimus</i> , the biomass remaining in WP is assumed to be zero.
Other emissions:	None. Non-CO ₂ emissions in the baseline scenario would be largely due to methane emissions through increased cattle ranching, which are expected to be negligible given the extremely low density of cattle per hectare and the grass-based diet of cattle in the project zone.
Net emissions without project	2.3 million tCO ₂ e over the 30 year crediting period

Project GHG emissions reduction strategy



Scope	Deforestation (degradation excluded): Avoiding mosaic deforestation caused by subsistence agriculture
Activities	<p>The project will utilize carbon revenues to fund 14 activities designed to reduce deforestation in the project area. The project activities pertain to three themes:</p> <ul style="list-style-type: none"> ▪ Building governance capacity: Raising awareness of collective identity and rights, developing criteria and procedures for resolving land disputes, constructing collective visions and strategic plans for land use, and improving information, education and communication for effective local governance ▪ Improving enforcement and management: Demarcating territorial boundaries, establishing regular community surveillance to conserve existing forest, conducting ongoing monitoring of forest carbon stocks, promoting best practices for administrative and financial policies and processes; and, ▪ Developing economic alternatives and incentives: Improving agricultural and silvopastoral practices and technologies, developing plans and procedures for equitable and sustainable timber harvesting, assisting in the regeneration of deforested and degraded areas, identifying and increasing access to credit and markets for non-timber goods and services, educating and raising awareness of ecosystem service values, and increasing access to health and educational resources.
Leakage mitigation strategy	The risk of leakage will be minimized through project activities designed to improve economic alternatives and incentives for potential agents of deforestation, thereby reducing the likelihood of land conversion outside of the project area. These activities include: Improved agricultural and silvopastoral practices, sustainable timber harvesting; Reforestation; Access to credit and markets for non-timber goods and services; Education and awareness of ecosystem service values; Access to health and educational resources.
Non-permanence risk mitigation strategy	<p>Internal non-permanence risks: Agents of deforestation are expected to be active in the vicinity of the project area for the duration of the project crediting period.</p> <p>Management team engaged technical consultant ecoPartners to lead AFOLU project design and implementation and carbon</p>

	<p>accounting and reporting with adaptive management plan. ecoPartners has successfully managed projects through validation, verification and issuance of GHG credits. In addition.</p> <ul style="list-style-type: none"> ▪Project cash flow breakeven point is between 4 and up to 7 years from the current risk assessment. ▪Project has secured 15% to less than 40% of funding needed to cover the total cash out required before the project reaches break even ▪NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities ▪Project is protected by legally binding commitment to continue management practices over the length of the project crediting period. <p>Legal agreements are in place to continue the management practice.</p> <p>External non-permanence risks: There exist disputes over access/use rights and limited occurrences of land disputes in the project area. The project has implemented activities to resolve land disputes and overlapping claims.</p> <p>Natural risks</p> <ul style="list-style-type: none"> ▪Fire, Insect pests, Extreme weather, Geologic events. These risk are very low.
Additionality	<ul style="list-style-type: none"> ▪Investment analysis: The project produces no substantial financial benefits for project proponents other than VCS-related revenue. ▪Barrier analysis: Drivers of deforestation enjoy much lower investment and institutional barriers due to the maturity of the logging, cattle ranching, and agriculture industries in Colombia. There are four barriers that prevent the implementation of project activities: investment barriers, technological barriers, barriers due to prevailing practice, and barriers relating to land tenure and property rights. ▪Common practice analysis: There are no projects or activities similar to those proposed by this project underway in the project zone or within the broader region.

With-project emissions



Effectiveness of measures	76% [calculated from figures provided in VCS PD]
Carbon stock changes	As described for baseline
GHG emissions	None (Biomass burning and charcoal production are not included in project activities)
Leakage	<p>Types:</p> <p>Activity-shifting leakage: Leakage area was demarcated and 32 2 ha plots established. Sampling teams made observations in 32 plots and recorded the number of standing trees and stumps</p>

	<p>according to the visual estimation method for observation degradation.</p> <p>Market leakage: No logging taking place in project area</p> <p>Deduction: 5% of baseline emissions</p>
Non-permanence risk	Buffer: 16%
Ex-ante estimated net greenhouse gas emissions reductions	<p>Total over crediting period: 2,509,065 tCO₂e (2010-2040)</p> <p>Annual average: 80,938 tCO₂e</p> <p>Annual average per ha: 6.01 tCO₂e ha⁻¹</p>
Monitoring of carbon stock changes and emissions	<p>Annex Y – Monitoring Plan not available on VCS website</p> <p>Parameters and Methods</p> <ul style="list-style-type: none"> ▪ i. Forest Patrols and Perimeter Observation ▪ ii. Plot Measurements ▪ iii. Identification of Significant Disturbance ▪ iv. Recordation of Log Production <p>Frequency</p> <ul style="list-style-type: none"> ▪ i. Twice a year ▪ ii. Once per year. All plots will be re-measured at least once every five years. ▪ iii. Once every 2-3 years or after major disturbance event ▪ iv. When biomass harvest occurs in the project area

Stakeholder identification and engagement



Stakeholders identified	Direct project stakeholders include the governing entities of the territory, its members and neighbours, and participating communities organized into 9 Local Councils
Identification process	No information

Full and effective participation



Access to information and consultation	<p>The consultation process was carried out with community stakeholders from the local councils, and followed the procedures established in the bylaws of Cocomasur, including formal permissions granted from the territories' highest authority, the <i>Junta Directiva</i>, authorizing Anthroprotect to conduct the consultation with their full support and trust.</p> <p>Activities included:</p> <ol style="list-style-type: none"> 1) Training a team of local leaders to facilitate workshops on climate change, and payment for environmental services 2) Workshops covering the nine local councils in the territory and involving close to 300 participants 3) Analysis and documentation of the results of each workshop including photos, attendance lists, and workshop outputs 4) Preparation of a detailed project proposal based on
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	<p>information gathered in the consultation phase. There were several iterations of the proposal reflecting stakeholders inputs</p> <p>5) The project proposal was translated into Spanish and disseminated to communities for review and study</p> <p>6) Pre-Assembly to incorporate feedback prior to the General Assembly</p> <p>7) General Assembly to debate and authorize a study commission</p> <p>8) Study Commission to review final contractual details</p> <p>9) Signing of the contract (ERPA) between Cocomasur and Anthroct</p>
Participation in design, implementation and monitoring	<p>See Access to information and consultation</p> <p>Also, local community members will be prioritized in hiring decisions.</p>
Feedback and grievance redress procedures	<p>Any complaints, petitions, and grievances related to the project will be handled by the Office of Internal Control of the Municipality of Acandí, which is mandated to investigate complaints regarding to projects in the Municipality.</p>
Worker relations and safety	<p>All project activities and contracting of personnel will respect and take into account relevant Colombian labor laws.</p> <p>Risks to worker safety are systematically identified and addressed by Anthroct and Cocomasur in accordance with ILO guidelines for safety and health in the forestry sector.</p> <p>Hazards and risks are communicated and mitigated through training of personnel and human resource procedures and policy development. Risk evaluations are carried out for all project activities.</p>

Communities



Without-project scenario

- Erosion of territorial rights, dignity and identity
- Forest, ecosystem and livelihood degradation
- Low income and productivity

With-project scenario

Expected net benefits

- Improved wellbeing of Cocomasur members
- Maintenance and enhancement of cultural identity
- Expansion of educational and leadership opportunities
- Effective and inclusive territorial governance
- Access to health services
- Livelihood security

(participating communities are co-owners of the project who share 50% of carbon revenues.)

Possible negative impacts on other stakeholders and mitigation strategy

Post-conflict/security

- The project's community-based approach creates attractive local employment opportunities that are critical for resilience to

armed groups and durability of peace.

- Vulnerability to armed actors who aim to monopolize trade and intimidate those who assert their legal and territorial rights is best mitigated via strengthened community organizational structures and improving livelihoods - especially via carbon-based income alternatives, which offer important advantages associated with their intangibility. It is likely to act as a deterrent to the entry of armed groups to the project region.

2) Corruption and mismanagement

- The project will focus on building the administrative and financial management capacity of project management staff to reduce the financial risk of the organization.

3) Illegal logging

A value chain development approach for certified timber products will mitigate these risks, by adding value and investing in skills and diversified income opportunities with loggers, such as forest guards and monitors and agroforestry production.

4) Opportunity costs of REDD

- The project has been careful to include tangible short-term benefits, such as employment in project development and monitoring activities.

- The project also includes measures designed to mitigate the opportunity costs of REDD over the long term. First, participating communities are co-owners of the project who share 50% of carbon revenues. Second, pre-sales of carbon offsets to finance the project have been limited in order to guarantee that Cocomasur has a stake in future price increases which would likely correlate with opportunity costs. Lastly, the project prioritizes activities with high conservation impact that generate additional revenue for participating families, such as green ranching, mining, and forest products.

5) Viability of REDD offsets

The project will seek supplementary revenue in the form of grants or donor funding to ensure that unanticipated levels or fluctuations in demand do not threaten project activities.


Impact monitoring

A casual theory of change model has been applied to later develop the monitoring. A modified sustainable livelihoods framework for land-based carbon projects frames the methodology. Indicators for the social baseline and monitoring plan will be developed with community input and disseminated to through the local councils. Results of social impact monitoring will be publicly available on the Anthroct website or a platform created specifically for the project.

Indicators

[Not specifically identified in CCB PDD]

High Conservation Values 4-6: Ethnic and cultural diversity, Natural resource management practices, Population Structure, Quality of Life, Land Tenure, Land Use, Water Use, Forest resource use, Extractive needs, Equitable distribution of resources.

		<p>Methodologies [Not specifically identified in CCB PDD]</p> <p>Frequency [Not specifically identified in CCB PDD]</p>
Biodiversity		
	<p>Without-project scenario</p>	<ul style="list-style-type: none"> ▪ Degradation and destruction of this moist forest ecoregion considered to be one of the most species rich lowlands in the world in the world continue on an incremental scale ▪ Severe erosion and disruption in the hydrological service provided by the forest ▪ Reduction of species abundance as habitat is reduced and fragmented ▪ The conversion of habitat supporting the ecoregion’s highly diverse and endemic flora and fauna would place additional pressure on already threatened, vulnerable, endangered and near-endangered species
	<p>With-project scenario</p>	<p>Expected net benefits</p> <ul style="list-style-type: none"> ▪ Conservation of the many endemic, threatened, and endangered species that make this one of the most biodiverse places on earth. ▪ Maintenance and enhancement of high conservation values identified in the project zone that include critical hydrological services, conservation of a protected area, conservation of two designated Important Bird Areas (IBAs) and one Endemic Bird Area (EBA), protection of unique ecosystems (e.g. oak forest), and protection of threatened species. <p>Possible negative offsite impacts and mitigation strategy</p> <ul style="list-style-type: none"> ▪ There is some potential for hunting activities to be displaced from the project area to the surrounding zone. <p>Early consultations have engaged hunters in the identification of High Conservation Value zones within the project area; the project will seek their continued support in the implementation of biodiversity inventories and monitoring.</p> <ul style="list-style-type: none"> ▪ Overharvesting of wild crafted medicinal plant species discovered to be valuable through plant surveys and species taxonomy <p>If a commercially valuable medicinal plant species is discovered or identified in the project area, the project will adhere to the FairWild® standard for the sustainable collection and harvesting of medicinal and aromatic plants (MAPs) in addition to existing legal protocols for genetic resources. The project will endeavour to mitigate the overexploitation of any such species in the broader project zone by raising awareness and promoting regulation beyond the project area.</p>
	<p>Impact monitoring</p>	<p>An environmental impact assessment was not conducted</p> <ul style="list-style-type: none"> ▪ The project avoids deforestation and project activities are not

expected to cause any adverse environmental impacts
 Anthroprotect commits to developing a full monitoring plan within 12 months of validation to the standard. The plan and its results will be disseminated to communities and stakeholders in the project zone, and be made publicly available on the internet
 ■The leakage mitigation measures are expected to adequately mitigate off-site environmental impacts in the vicinity of the project.

Indicators

[Not identified in detail in CCB PDD]
 Bird and plant species are used as indicators in the project area.
 Land cover and vegetation classes are used as surrogates for monitoring ecosystem diversity and health.


Methodologies

[Not identified in detail in CCB PDD]
 The project will use a minimum representative sampling area of 15 km² (3 sampling modules according to the RAPELD system) in each habitat type.


Frequency

[Not identified in detail in CCB PDD]

Progress

	Validation	VCS validation report issue date: 27 August 2012 CCBA validation report issue date: February 2012 (Gold)
	Verification	VCS verification period and report issue date: 18 October 2010 to 15 June 2012; 14 November 2012 CCBA verification period and report issue date: None as of 01 February 2016
	Credits issued	Number: 104,478 As of: 14 February 2016

Further information

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|  | <ul style="list-style-type: none"> ■VCS Project Database: http://www.vcsprojectdatabase.org/#/project_details/856 ■CCBA Projects: http://www.climate-standards.org/?s=choco |
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Documents reviewed

- VCS Project description:
<http://www.vcsprojectdatabase.org/services/publicViewServices/downloadDocumentById/11475>
- VCS Validation Report:
<http://www.vcsprojectdatabase.org/services/publicViewServices/downloadDocumentById/11097>
- CCBA Project Design Document: https://s3.amazonaws.com/CCBA/Projects/Choco-Darien+Conservation+Corridor/Anthroprotect_Choco_Darien_CCB_PDD_v8.61.pdf