



ADPML Portel-Pará REDD Project

Distinctive features

Avoided Deforestation Project (Manaus) Limited (“ADPML”) is the project proposer and initial funder. ADPML is administered by Oak Trust (Guernsey) Limited who are professional fiduciaries licensed by the Guernsey Financial Services Commission. ADPML’s sole activity is that of carrying out a carbon credit generation scheme through REDD+ in the state of Para, Brazil.

The project area comprises 135,105.6 ha in 18 privately-owned forested parcels in the northwest of Brazil, in the State of Para, micro region of Portel, municipality of Portel. The project plans to manage the land in the form of a “private reserve” by developing and implementing a management plan.



There is currently limited deforestation and degradation within the project area, but experiences in the reference region suggests that the project will come under increasing pressure. Cattle ranchers are the main deforestation agent in the area. Cattle ranchers can expand their activities by their own means (in the case of well-capitalised agents) or as part of a process that includes pioneer agents such as selective loggers and squatters (in the case of small and medium size ranchers). For most of the agents the main driver of deforestation in the area is land speculation, followed by generation of economic revenue. Land speculation is generated by widespread unclear land tenure, regulations that do not provide security for landowners and from known corruption and weak enforcement in local-level institutions.



Key activities in the proposed project plan are monitoring of the project boundaries and activities to support local communities, both those living within and outside of the Project boundaries. The project boundaries will be divided into brigades to facilitate monitoring. Brigades will be constituted by a technician specialised in forestry topics who will function as a manager and a group of villagers as a patrol. Brigades will conduct regular visits around the perimeter of the project area to meet people and invite participation in leakage preventive measure activities. Brigades will identify and report any illegal activities (invasions and timber extraction).

The project will also offer land tenure rights for conservation results to villagers living within the project's boundaries but outside the accounting area. The landowner has signed an agreement to provide official land-use rights to villagers with the hope that they will own these lands in 40 years. As a requirement to receive a land title, each villager will have to sign a conservation agreement that will mainly state that granted lands cannot be sold, productive activities cannot expand into the project area and that the land use cannot change to mining or pasture.

To those living outside the project boundary in neighbouring villages, the project will provide knowledge to legally claim and secure land titles on unused public land. Additionally, the project will provide support to enhance community organisational capabilities for better management of local resources. The Project will also provide capacity building on agroforestry systems with native species and on implementation of energy efficient cook stoves for cassava production to villagers within and near the project boundary. Capacity building activities will be offered to ranchers (the main deforestation agents) to show them the benefits of pasture management and intensified cattle ranching.

	Heading	Explanation
Locational factors		
	Location	Northwest Brazil
	Spatial boundaries	Project area: 135,105.6 ha Reference area: 2,380,731.7 ha (reference region for deforestation includes project area, leakage belt and leakage mitigation area) Leakage monitoring area: leakage belt includes entire reference region for deforestation, i.e. 2,380,731.7 ha Leakage management area: size not given
	Land cover	Dense Ombrophilous Forest
	Agents and drivers of forest cover change	Agents: i. Selective loggers and squatters ii. Cattle ranchers Underlying drivers: i. Unclear tenure and weak enforcement ii. Ranching is a cheap and effective way of preventing regrowth of forest Proximate causes: i. Land clearance for sale (cleared land is worth 5 to 10 times that of forested area) ii. Ranching
Basic project features		
	Objectives	▪Avoiding net emissions of 22,273,993 tCO ₂ e

	<ul style="list-style-type: none"> ▪ Allow forest regeneration over the medium term ▪ Provide land tenure security to villagers in the project boundary ▪ Provide workshops to villagers outside the project boundary to assist them in legally claiming land use rights ▪ Conserve biodiversity through conservation of local ecosystems.
Proponent/s	Avoided Deforestation Project (Manaus) Limited (“ADPML”) – project proposer and initial funder
Actors involved in project design and implementation and their roles	<ul style="list-style-type: none"> ▪ Ecosystem Services LLC – responsible for project management ▪ SETA Ambiental – technical partner providing logistic support ▪ Community organisations from the ‘Vilas’ – communities’ representatives involved in management and planning ▪ Farmers – coordination and participation in agroforestry projects ▪ “Fariñeros” – community relationship and support
Tenure and Carbon rights holder/s	<p>Tenure:</p> <ul style="list-style-type: none"> ▪ Project zone is under private ownership <p>Carbon rights:</p> <ul style="list-style-type: none"> ▪ Project proponent as owner of the land is the holder of the carbon rights
Upfront financing	ADPML – until the end of 2013. After 2013, project should generate own funds through carbon credit sales
Start date	1 January 2009
Crediting period	40 years

Baseline emissions



Methodology used	VCS VM0015 REDD Methodology: Methodology for Unplanned Deforestation V2.0
Reference data (unplanned deforestation/degradation)	<p>Reference period: 1996-2008</p> <p>Types of data used:</p> <p>Landsat 5 TM images for three time points in time in 1996, 2004 and 2008; 7 Alos Palsar scenes 2011; SPOT 5 and RapidEye 2011 from Google Earth</p>
Reference data (planned deforestation/degradation)	Not applicable
Stratification of project area	Only one forest type and stratum..
Deforestation rate	Historical

<p>and location</p>	<p>1.77% during reference period</p> <p>Projected</p> <p>1.77%</p> <p>Likely baseline scenario</p> <p>Deforestation initially caused by illegal logging and squatters, followed by cattle ranching preventing recovery of the forest</p> <p>Modelling procedure</p> <ul style="list-style-type: none"> ▪ The Project calculated the historical deforestation rate of 1.7% and used this as the historical average to predict future deforestation rates. The projected future location of deforestation was mapped using IDRISI Selva, a peer reviewed software to estimate land cover change. ▪ Factors for the modelling include distance from roads, navigable rivers and non-forest areas.
<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"> ▪ Carbon content per 1 ha of forest in the reference region for deforestation, Project Area and Leakage Belt was calculated using a weighted average based on the results from the forest carbon inventory. ▪ Above-ground biomass for a DBH ≥ 10cm was calculated using Overman’s equation (Overman, Witte et al. 1994) corrected for biomass moisture content (Araujo, Higuchi et al. 1999). ▪ For carbon stock in grassland, IPCC’s Good Practice Guidance for Land Use was used.
<p>Carbon stock changes</p>	<p>Grassland assumed to be the only post-deforestation land use implemented in the reference region for deforestation because it can be developed anywhere in the region, it is the land use with most historical participation in deforestation, and the one with the highest average carbon stock per hectare.</p>
<p>GHG emissions</p>	<p>Non-CO₂ emissions from fires are accounted because fire is the main technology used to clear the forest</p>
<p>Net emissions without project</p>	<ul style="list-style-type: none"> ▪ 22,273,993 tCO₂e by the end of project lifetime. ▪ The first fixed baseline period is 7,690,722 tCO₂e

Project GHG emissions reduction strategy



Scope	Avoid unplanned deforestation
Activities	<ul style="list-style-type: none"> ▪ Provide training to communities on forest and biodiversity monitoring and management as well as opportunities to work as monitoring/enforcement staff ▪ Enhance community's organisational capabilities ▪ Provide legal land-ownership rights against results for conservation ▪ Provide capacity building on steps to gain land use rights over Government-owned forests ▪ Provide capacity building in agroforestry techniques and implement agroforestry pilots ▪ Provide capacity building on improved efficiency cook stoves and implement cook stove pilots ▪ Provide capacity building to develop small sustainable business ▪ Provide capacity building to cattle ranchers that get to the Project Boundary
Leakage mitigation strategy	<ul style="list-style-type: none"> ▪ Because of the presence of a neighbour REDD Project, parties from both projects agreed on signing a Leakage Agreement that will enter in force once both projects are validated. ▪ The Project will not generate leakage as activities are designed to provide all the deforestation agents with the opportunity to participate.
Non-permanence risk mitigation strategy	<ul style="list-style-type: none"> ▪ Renewable land use rights to be provided against results for conservation to families living within the Project Boundary. Families will be trained to monitor the area and to protect the forest. ▪ Although small-scale agriculture is not a significant driver of deforestation in the area, capacity building on agroforestry techniques will be provided. ▪ Risk of leakage, illegal logging and fire will be mitigated by building strong partnerships with villagers. ▪ Regular patrolling and land demarcation will be undertaken to ensure the protection of land rights over the long term.
Additionality	<ul style="list-style-type: none"> ▪ Alternative land use scenarios: 3 possible scenarios identified. ▪ Investment analysis: Simple cost analysis applied. Concluded that a lot of capital needed to set up project ▪ Barrier analysis: Considered not applicable ▪ Common practice analysis: 3 REDD Projects in the State of Para identified but none have independent validation

With-project emissions



Effectiveness of	Project assumed to prevent 95% of the deforestation in
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measures	the project area.
Carbon stock changes	The Project does not include planned deforestation, logging or fuel wood collection and charcoal production activities The Project assumes an Effectiveness Index (EI) 0.95
GHG emissions	<ul style="list-style-type: none"> ▪The Project activities will not generate non-CO₂ emissions because the Project's activities will not require fuel combustion, biomass burning or the use of synthetic fertilizers. ▪The Project's activities won't generate GHG emissions thus there won't be GHG emissions from leakage prevention activities.
Leakage	<p>The Project's activities will not generate GHG emissions thus there will not be GHG emissions from leakage prevention activities.</p> <p>Types Activity shifting: A mobility analysis was used to calculate the extent of the leakage belt of the Project</p> <p>Deduction None</p>
Non-permanence risk	Buffer 15.3%
Ex-ante estimated net greenhouse gas emissions reductions	Total over crediting period: 22,273,993 tCO ₂ e Annual average: 1,020,294 tCO ₂ e. Annual average per ha: 7.55 tCO ₂ e
Monitoring of carbon stock changes and emissions	<p>Parameters</p> <p><i>For carbon stock change</i></p> <ul style="list-style-type: none"> ▪ i. land use / land cover change from forest land to non-forest land <p><i>For baseline revaluation, variables to be used</i></p> <ul style="list-style-type: none"> ▪ ii. Socio-economic information retrieved from the Project's monitoring activities ▪ iii. Distance to new roads ▪ iv. Average distance to selective logging activities from pioneer roads ▪ v. Distance to non-forest ▪ vi. Planned infrastructure in the region <p>Methods</p> <ul style="list-style-type: none"> ▪ i. LANDSAT 8 imagery and/or radar imagery to generate annual deforestation data throughout the reference region ▪ ii. – vi. Not explained <p>Frequency</p>

	<ul style="list-style-type: none"> ▪ i. annually ▪ ii. second 10-year period of the project
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Stakeholder identification and engagement

	Stakeholders identified Stakeholders in the region identified and divided into four groups: Local Municipalities; State and Federal Programmes; Social Organisations and Institutions; Local Actors and Organisations
	Identification process Participatory Rural Appraisal

Full and effective participation

	Access to information and consultation <ul style="list-style-type: none"> ▪ Participatory Rural Appraisal (PRA) designed and implemented by a team of experienced anthropologists with the villages located in the project areas and within a 15 Km buffer from the project areas. ▪ PRA was developed through a series of field visits, observations, surveys, workshops and interviews to local leaders and experts whom were informed about the project idea, its activities, the potential benefits to the communities and their participation in the project. ▪ A series of workshops were held involving people from across 11 villages with a total of 138 workshop participants.
	Participation in design and implementation <ul style="list-style-type: none"> ▪ The information gathered in the field work, especially the needs and problems pointed out by the leaders and local villagers, has been the basis upon which the proposal for the activities of the project has been developed. ▪ Project activities were conceived right after the social evaluation and not the other way around. ▪ A Stakeholders' Committee will also be established at the beginning of the FPIC (Free Prior Informed Consent) process
	Feedback and grievance redress procedures Comprehensive complaints procedure centrally managed at an office in Portel. Complainant will be kept informed throughout and mediation with local leaders is expected. Resolution is aimed for within 45 days of receipt of complaint. Complaints will be tracked to ensure that agreed action is undertaken.
	Worker relations and safety The Project will comply with the principles stated in the ILO Declaration on Fundamental Principles and Rights at Work adopted in 1998 and reviewed in 2010.

Communities

	Without-project scenario <i>Assessed using PRA as very little secondary data on villages in the project zone existed</i> <ul style="list-style-type: none"> ▪ Moderate increase in population settled in the project
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	<p>area.</p> <ul style="list-style-type: none"> ▪ Increase in agricultural areas use to grow mainly cassava. Thereby, it is projected substantial increase in the forest areas affected by slash and burn. ▪ Incursion of illegal loggers and illegal activities (invasions) seeking areas to extract timber. ▪ Increase in timber extraction in the core sections of the project areas, with a related diminishment of timber resources nearby the villages. ▪ Decline of fish stocks in rivers and water bodies due to over-fishing by large companies coming from Portel and Breves.
With-project scenario	<p>Expected net benefits</p> <ul style="list-style-type: none"> ▪ Secured land tenure. ▪ Diversification of food through agroforestry practices thus an improvement in local nutrition. ▪ More efficient technologies to produce farinha therefore less time is consumed in this activity. ▪ Generation of income from monitoring activities. ▪ Better understanding of the importance of protecting the forest and how forest conservation will benefit their livelihoods. ▪ Opportunity to develop local businesses through an external fund. <p>Possible negative impacts on other stakeholders and mitigation strategy</p> <p>None</p>
Impact monitoring	<p>Indicators</p> <p><i>Indicators not yet finalised – indicators to assess number of people participating in the activities listed above</i></p> <p>Methodologies</p> <p>Participatory Rural Appraisal; Participatory Rural Census; Follow Up Activities</p> <p>Frequency</p> <p>Activities every 3 to 6 months; comprehensive annual assessment</p>

Biodiversity and ecosystem services



Without-project scenario

All the species inventoried were gathered from current literature about Caxiuanã National Forest and Eastern Amazon fauna and flora.

- Phanerogams in the area are responsible for approximately 62% of the region's representativeness. The second most predominant forest is the permanently flooded forest (igapó).
- Numerous species of animals, including mammals, birds, reptiles, amphibians and fish.

	<ul style="list-style-type: none"> ▪The baseline scenario presents deforestation happening simultaneously in two fronts: a consolidated frontier that moves northwards to the Project Area; in the northern part, squatters (invaders) clear-cut patches of forest through slash and burn to prove land ownership and attempt a future land resale.
With-project scenario	<p>Expected net benefits</p> <ul style="list-style-type: none"> ▪ Avoid ecosystem fragmentation and loss due to deforestation. ▪ Assistance with the conservation of an extreme priority site for biodiversity. <p>Possible negative offsite impacts and mitigation strategy</p> <p>Only positive offsite impacts expected.</p>
Impact monitoring	<p>Indicators</p> <p>Species abundance, vegetation structural analysis</p> <p>Methodologies</p> <p>The monitoring of the project zone will follow scientific inventories, monitoring species richness, presence and absence of flora and fauna, and the correspondent interactions.</p> <p>Frequency</p> <p>Area-limited species – every month; Resource-limited species – every month; Process-limited species – every two months; Invertebrates – every two months; Special interest species – every month; Bryophytes – every two months; Forest fragmentation – every week.</p>

Progress



Validation	<p>VCS validation report issue date: 15 February 2013</p> <p>CCBA validation report issue date: 15 April 2013 (Gold Level)</p>
Verification	<p>VCS verification period and report issue date: 1 January 2009 – 1 January 2012; 10 Nov. 2014</p> <p>CCBA verification period and report issue date: Not validated as of 18 February 2016</p>
Credits issued	<p>Number: 2,000</p> <p>As of: 21 January 2015</p>

Further information



- Ecosystems LLC Website: www.ecosystemllc.com
- VCS Project Database: <https://vcsprojectdatabase2.apx.com/myModule/Interactive.asp?Tab=Projects&a=2&i=981&lat=-2.4053&lon=-51.2641&bp=1>
- CCBA Projects: <http://www.climate-standards.org/?s=adpml>

Documents reviewed

VCS website: PD, Validation and verification reports
CCBA website: PDD, validation report