April Salumei REDD Project

Distinctive features

As part of its national REDD Strategy, the Papua New Guinea Forest Authority (PNGFA) has identified five official REDD pilot projects, one of which is the April Salumei REDD Project. The Project was formally announced at the 17th Conference of the Parties to the UNFCCC held in Durban in 2011.

The April Salumei REDD Project is located in the Wosera Gawi and Ambunti Drekiker Districts in East Sepik Province, PNG. The Project Area is defined by the area of forested land on mineral soils within the boundaries of two Forestry Management Agreements (FMAs), namely April Salumei (528,604 ha) and April River (75,108 ha). An FMA is a legal agreement between the landowners and the Government for a logging project. Under the terms of the FMA, the landowners have authorised the issuance of a 50-year timber concession license, allowing harvesting of timber in the FMA.

The project rights were acquired from the landowners by the PNGFA in 1996 when the FMA was established. On 10th May 2012 the National Executive Council awarded the project rights to the project proponent – Rainforest Project Management Limited (RPML). The main strategy of the Project is to reclassify the FMA as a REDD project area. In addition, the project aims to support a range of community development activities, test and implement agricultural regimes that are culturally appropriate and improve productivity, and encourage and assist in the development of small enterprises to generate alternative sources of income and reduce the pressure on the forest resource.

The April Salumei FMA is an ecologically significant area that is rich in traditional culture and possesses extraordinary levels of biodiversity. It is under customary ownership through Incorporated Land Groups (ILGs). In addition to protecting the forest and biodiversity in the project area, project goals also include providing income to landowners who reside there, improving the overall wellbeing of local communities, supporting sustainable agricultural

opportunities, improving access to healthcare, education, and infrastructure, all while preserving the rich cultural traditions and customs of the indigenous peoples.

The Project Area fits into two different VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Categories depending on whether the forest is converted during the baseline crediting period. These categories are Reduced Emissions from Deforestation and Forest Degradation – Avoided Planned (Sanctioned) Deforestation (REDD-APD), and Improved Forest Management – Logged to Protected Forest (IFM – LtPF). Conversion to agriculture is conservatively ignored in the baseline scenario.

	Heading	Explanation
Locational factors		
	**Location**	Wosera Gawi and Ambunti Drekiker Districts, East Sepik Province, PNG
	Spatial boundaries	Project area: 204,343 ha (7,640 – REDD-APD; 196,703 – IFM-LtPF) Reference area: 556,956 ha (for application of the REDD methodology) Leakage monitoring area: None Calculation of leakage under both Methodologies was conducted using a 'leakage factor' approach. Therefore there was no need for spatial delineation of a leakage buffer or area for activity shifting leakage. Leakage management area: None
	Land cover	Low altitude forest on plains and fans, low altitude forest on uplands
	Agents and drivers of forest cover change	Agents: Logging company Underlying drivers: Government policy on selective logging in natural forests Proximate causes: Tree felling and skidding, construction of roads, etc. associated with logging operation
Basic project features		
	**Objectives**	▪ Climate: To avoid greenhouse gas emissions related to planned deforestation and timber harvest in the Project Area ▪ Community: To result in a net increase in the wellbeing of communities in the Project Area, via improved health standards, education, transportation, employment opportunities, community support for conservation, and equitable distribution of project benefits ▪ Biodiversity: To maximise biodiversity value of the Project Area by preventing habitat and therefore species

		loss
	Proponent/s	▪ Rainforest Project Management Limited (RPML)
	Actors involved in project design and implementation and their roles	▪ Incorporated Land Groups (ILGs) – Chairman of ILGs sits on the April Salumei Group ▪ Pacific Forest Alliance – established to manage the project ▪ April Salumei Working Group – responsible for development of the Project Management Plan. Consists of members and representatives of the landowners within the Project Area ▪ Environmental Accounting Services (EAS) – technical design and development of the carbon project elements ▪ University of Papua New Guinea, School of Natural and Physical Sciences – provision of expert advice on forestry, climate change, natural resources, geology, mining, GIS, geography, sustainable development, hydrology, biodiversity, community livelihoods, law and policy ▪ Papua New Guinea Forest Research Institute – expert advice in tropical forestry and REDD management in Papua New Guinea ▪ Papua New Guinea Forest Authority – responsible for: official Government approval of the project, provision of forest inventory data and provincial land use planning, advice on REDD project implementation ▪ Prime Minister and Office of Climate Change and Development – advice on REDD policy and implementation ▪ Partners with Melanesia – conservation and community development programmes
	Tenure and Carbon rights holder/s	Tenure: Customary ownership of land, formalised via Incorporated Land Groups Carbon rights: Project developer holds carbon rights
	Upfront financing	No information
	Start date	22 May 2009
	Crediting period	38 years
	Baseline emissions	
	**Methodology used**	REDD-APD: REDD Methodology Modules, v1.3. VM0007 IFM-LtPF: Methodology for Improved Forest Management: Conversion from Logged to Protected Forest, v1.2 VM0010
	Reference data (unplanned deforestation/degradation)	Not applicable

Reference data (planned deforestation/degradation)	Reference period: 2000-2009 (for 7 proxy areas) Types of data used: Shape files to confirm appropriateness of 7 proxy areas; Landsat images were used in the detection of roads and logging infrastructure
Stratification of project area	One stratum: Moist Tropical Rainforest - Low Altitude Forest (one forest type)
Deforestation rate and location	**Historical** 0.07% (REDD) **Projected** 0.07% (REDD) **Likely baseline scenario** REDD-APD: Forests cleared for roading as part of logging operations IFM – LtPF: Legal timber harvesting Possible conversion of the selectively logged forest to non-forest cover. According to plans, parts of the FMA would be converted into a palm oil, cacao and coffee plantations, among other agricultural crops once logging had been conducted. **Modelling procedure** ▪ REDD: Deforestation rate calculated from reference area, which consists of 7 active logging concessions with similar characteristics to the Project Area including forest types, altitude, slope, soil classes and population density. Area of forest converted to roads over 10-year period calculated for each concession, and the average was used to model the baseline. [Details of the analysis are in an annex that was not available on VCS website] ▪ IFM: 'Common practice' used to model the baseline scenario. Assumed that logging company would follow the legal plan set out in the forest development plan and a timber harvest plan for the April River area, and that harvesting would be in accordance with the PNG Logging Code of Practice. Annual operable areas and harvesting plans were calculated.
Carbon pools	**Carbon pools included** ▪Aboveground tree biomass ✓ ▪Belowground tree biomass ✓ (excluded for IFM) ▪Non-tree woody biomass ✓ (excluded for IFM) ▪Litter ✓ (excluded for IFM) ▪Dead wood ✗ (included for logging slash for IFM) ▪Soil ✗ ▪Wood products ✓ **Estimation method** ▪ Chave, et. al. (2005) equation for wet tropical forests

		applied (DBH and species specific wood density). ▪ Field carbon survey conducted to collect information on stocking, tree species, DBH, aboveground non-tree biomass and litter. ▪ Root:shoot ratio of 0.37 t root dm/t AGB was assumed (from IPCC Guidelines for AFOLU (2006)). ▪ Non-tree vegetation in primary intact tropical forest was sampled using destructive sampling frames in sampling plots. Same root:shoot ratio used as for trees. ▪ Litter samples were collected from field sample plots using a 1m sampling frame. ▪ Extracted wood products were directly estimated using project inventories to estimate merchantable volume.
	Carbon stock changes	▪ REDD: It is assumed that all primary and secondary roads are permanently deforested and maintained for transport. Deforestation due to construction of tertiary timber harvesting roads is conservatively excluded. ▪ IMF: Carbon removed from forest, generation of deadwood and forest recovery considered in calculation.
	GHG emissions	▪ Non-CO_2 gases emitted from woody biomass burning - CH_4, N_2O ▪ CH_4 from biomass burning (IMF)
	Net emissions without project	▪ 4,093,741 tCO_2e (only calculated for first 10 years of project)
Project GHG emissions reduction strategy		
	**Scope**	Avoided planned deforestation
	Activities	▪ Reclassification of the FMA as a REDD Project Area ▪ Community development activities: Rennovation of housing and establishment of regional resource centres; Provision of education materials to existing schools and scholarships; Development of a project health plan and establishment of community health buildings; Purchase of five large (23 foot) dinghies with 40 horsepower outboard motors to support the transport needs of the communities; To improve communications, repair or replace faulty radios in the area and set up a satellite communications system; Update of all ILG's and mapping their consistent with the new ILG Act; Provide employment as Forest Stewards and Community Rangers. ▪ Test and implement agricultural regimes that are culturally appropriate and improve productivity. ▪ Encourage and assist in the development of small enterprises to generate alternative sources of income and reduce the pressure on the forest resource.
	Leakage mitigation strategy	▪ Not discussed (not considered a requirement of the project)

	Non-permanence risk mitigation strategy	▪ Not discussed
	Additionality	▪Alternative land use scenarios: 3 identified. Continuation of the pre-project land use (i.e. legal logging and road construction) is the most likely baseline scenario. ▪Barrier analysis: Identified barriers – Access to funding; Poor enforcement of Government policies & laws on sustainable land management; Need for sustainable revenue generation ▪Investment analysis: [Not conducted as separate step] ▪Common practice analysis: It is not common practice for landholder companies, such as the project proponent, to protect forest areas for financial return in Papua New Guinea, in the absence of carbon finance.
With-project emissions		
	**Effectiveness of measures**	100% successful in stopping logging and construction of logging roads.
	Carbon stock changes	Forest growth in project scenario conservatively excluded.
	GHG emissions	▪ Non-CO_2 gases emitted from woody biomass burning - CH_4, N_2O (REDD) included ▪ CH_4 from biomass burning (IMF) included (project emissions equal zero throughout the first ten year baseline period under VM0007 and VM0010)
	Leakage	**Types** Activity shifting: There is no leakage due to activity-shifting as the proponent has control over two other project sites in Papua New Guinea: 1) the Lake Murray REDD project in the District of Middle Fly, Western Province; and 2) the Pile Pile REDD Project in Western Province. The proponent has signed agreements with the landowners to develop REDD projects in each of these sites, and no harvesting is planned to occur in these areas. Market effects: Total leakage due to market effects was calculated as equal to the sum of market effects leakage through decreased timber harvest (14.7% of total emissions reductions for first 10 years). Leakage due to decreased harvest for fuelwood/charcoal product was excluded. **Deduction** 20%
	Non-permanence	**Buffer**

risk	0%
Ex-ante estimated net greenhouse gas emissions reductions	**Total over crediting period:** 3,493,020 tCO2e (over first 10 years) **Annual average:** 349302 tCO2e (for first 10 years) **Annual average per ha:** 1.71 tCO2e (for first 10 years)
GHG emissions impact monitoring	**Parameters** ▪ i. Project Forest Cover Monitoring Map, Area of Recorded Deforestation, Degradation and Disturbance Areas ▪ ii. Degradation ▪ iii. Result of Limited Degradation Survey ▪ iv. Total area of degradation sample plots in stratum i ▪ v. Biomass carbon of trees cut and removed through illegal logging and fuelwood and charcoal extraction degradation process ▪ vi. *Monitoring also performed for parameters needed for baseline renewal and for VM0010* **Methods** ▪ i. Remote sensing in combination with GPS data collected during ground truthing. ▪ ii. Participatory Rural Appraisal ▪ iii. Sampled by surveying several transects of known length and width across the access-buffer area ▪ iv. Sampling using plots systematically placed over the buffer zone so that they sample at least 3% of the area of the buffer zone ▪ v. diameter of all tree stumps is the designated plots will be measured ▪ vi. **Frequency** ▪ i. At least every 5 years or if verification occurs on a frequency of less than every 5 years ▪ ii. Every 2 years ▪ iii. Repeated each time the PRA indicates a potential for degradation. ▪ iv. Same as i ▪ v. Same as i ▪ vi.
Stakeholder identification and engagement	
 **Stakeholders identified**	Government stakeholders: Provincial, district and local governments Local stakeholders: 163 ILGs; umbrella landowner company, Hunstein Range Holdings Ltd
Identification process	Awareness and consultation program

Full and effective participation		
	**Access to information and consultation**	▪ Extensive awareness and consultation program, including awareness activities in local villages from project proponent; Landowner Company and ILG Chairman meetings held in the villages; Project booklet to be distributed to all ILGs. ▪ Individual signing of consent with 163 individual ILG's in English and *Tok Pisin*. ▪ Additional information distribution: Newsletter - to be produced and distributed quarterly to all landowners; 6 Monthly update of projects to be published in the National press; Radio – Monthly update on the local NBC network.
	Participation in design and implementation	▪ Ground-based monitoring will be undertaken by project employees from the local area. These 'Community Rangers' will be given comprehensive training, including induction, communication skills, and computer training. ▪ Forest Stewards will also be responsible for monitoring, observing and reporting of the forest at local level. They will be trained in measurement of key parameters like tree Diameter at Breast Height (DBH), tree height, tree count, classification of tree species, assessment of abnormalities (tree mortality, logging) and use of a GPS.
	Feedback and grievance redress procedures	▪ The project has a complaints and dispute resolution policy. Management will attempt to solve all reasonable grievances raised and provide a written response to grievances within 30 days. Grievances and project responses will be documented.
	Worker relations and safety	▪ A comprehensive Employment Induction Booklet has been completed and this along with the project policy documents will ensure the project meets and exceeds the local laws and regulations. A Health and Safety Policy is communicated in the Induction handbook.
Communities		
	**Without-project scenario**	▪ Limited administrative activities towards communities in April – Salumei; transfer of skills from logging only to a limited population in workforce ▪ Destruction of forest and biodiversity: logging practices do not adequately adhere to the Logging Code of Practice ▪ Road and bridges construction temporary and substandard ▪ Health and school building substandard and not conducive to the provision of these services ▪ Impact on water supplies through forest clearing for logging

	▪ Wildlife Mangement Area on its own does not provide adequate benefits to local community ▪ Wages paid to community restricted to employees and no tangible benefit to the majority of community Social Carbon Indicators = 14
With-project scenario	**Expected net benefits** ▪ Coordination of project activities ▪ Information, skills and technology ▪ Education ▪ Enhancement of traditional values ▪ Health services ▪ Road and River Access ▪ Community Enterprises ▪ Community Stewards ▪ ILG Boundaries ▪ Community Lifestyle Social Carbon Indicators = 56 **Possible negative impacts on other stakeholders and mitigation strategy** No identified unmitigated offsite community impacts are anticipated
Impact monitoring	**Indicators** Demographic growth; Road expansion, improvement and use; settlements; no. local families developing new sustainable economic activities; Number local students involved in environmental protection activities; Volumes of wood legally and illegally extracted; Ha. Converted; No. extracted non-wood products; No. training and capacitating activities carried out by the project; No. institutions with formal REDD representative; No. guided visits organized for locals and tourists in the project area, focused on the REDD project; No. signed or ratified agreements with public or private universities; No. researches carried out within the agreements with universities framework; No. publications made, reporting the main results of the researches carried out; Gender equality: % women participating in guided visits, % women involved in new sustainable commercial activities, women employed by the project, % women representing the project in local and regional institutions **Methodologies** Proponent commits to developing a full monitoring plan within twelve months of validation against the CCB Standards and to disseminate this plan and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders. Community

		stewards will be employed and trained by the foundation to monitor, observe and report at a local level on: conflict, hardship or damage to culturally important site (immediate reporting); summary of all issues reported in the immediate area and the actions taken (quarterly); community survey (annually) **Frequency** Immediate, quarterly, annually and every 5 years
Biodiversity and ecosystem services		
	**Without–project scenario**	Loss of species and habitat; Lower water quality; Competition caused by the introduction of invasive species; Greater hunting pressure as increased population looks for food.
	With-project scenario	**Expected net benefits** The project will save a significant portion of PNG's biological wealth. **Possible negative offsite impacts and mitigation strategy** No offsite negative biodiversity impacts anticipated
	Impact monitoring	**Indicators** Number of illegal events detected; Number of illegal hunting complaints; Number of native fauna confiscations; Amount of species/species families identified using selected indicator families (e.g. mammals or butterflies or moths (animals, key families (plants)), focus on globally, regionally or nationally significant biodiversity. **Methodologies** ▪ Details of monitoring methodologies will be developed and continue to be refined throughout the life of the Project. Includes use of sample plots. ▪ Local Biodiversity Stewards will be employed and trained by the foundation to monitor, observe and report at a local level: Any change in an area of high conservation value, Disturbance to nests or the taking of eggs from HCV fauna, The hunting, killing or finding of a dead animal of HCV, The identification of any invasive species (Immediate Reporting); Summary of any issues reported and the actions taken to resolve the issue, Identify any new species of fauna in sample plots (Quarterly Reporting); Report to be complied in conjunction with suitably qualified and independent third party (Annual Reporting). **Frequency** Immediate, quarterly, annually and every 5 years
Progress		
	**Validation**	VCS validation report issue date: 08 October 2013

		CCBA validation report issue date: 30 May 2011
	Verification	VCS verification period and report issue date: 22 May 2009 to 31 December 2012; 08 October 2013 CCBA verification period and report issue date: Not verified
	Credits issued	Number: 205,174 As of: 20 February 2016

Further information

- VCS Project Database:
https://vcsprojectdatabase2.apx.com/myModule/Interactive.asp?Tab=Projects&a=1&t=1
- CCBA Projects
http://www.climate-standards.org/?s=April+

Documents reviewed

VCS project website: PD, Validation Report, Verification Report
CCBA project website: PDD, Validation Report