

PACAJAI REDD+ PROJECT

Document Prepared By

Kanaka Management Services Private Limited (KMSPL)

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1 SUMMARY OF PROJECT BENEFITS

This section highlights some of these projects important benefits. Section 1.1 (Unique Project Benefits) should be aligned with a projects causal model and is specific to this project. Section 1.2 (Standardized Benefit Metrics) is the same quantifiable information for all CCB projects. This section does not replace the development of a project-specific causal model or the monitoring and reporting of all associated project-specific impacts (positive and negative) in Sections 2-5 of this document. The monitoring process includes verification of the project against CCB criteria for the monitoring period from 2nd January 2012 to 31st December 2017. Also, for period from 2nd January 2009 to 1st January 2012, verification has been conducted to demonstrate that it has produced net positive benefits over the project lifetime and has not caused harm to any community members.

1.1 Unique Project Benefits

Outcome or Impact	Achievements during the Monitoring Period	Section Reference	Achievements during the Project Lifetime
1) Cook stove distributed to community people	150 people benefitted	2.1.1	Same as Monitoring Period
2) Land Demarcation to prevent dislocation and eviction : land tenure related issues solved	Assessing the needs of the people to help them gain land tenure rights within the time frame. The positive impacts of land tenure for the poor are security, improved economy, stability and health and Environment. 200 people (Over 18,000 hectares) registered in the program to obtain the use from land that was titled as private property as per to the project and is shifted over to the riverine people to be their land.	2.1.1	Same as Monitoring Period

1.2 Standardized Benefit Metrics

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
GHG emission reductions & removals	Net estimated emission removals in the project area, measured against the without-project scenario	0		0
	Net estimated emission reductions in the project area, measured against the without-project scenario	9,582,742	2.3.3	9,582,742
Forest ¹ cover	For REDD ² projects: Number of hectares of reduced forest loss in the project area measured against the without-project scenario	Not Applicable		Not Applicable
	For ARR ³ projects: Number of hectares of forest cover increased in the project area measured against the without-project scenario	Not Applicable		Not Applicable
Improved land management	Number of hectares of existing production forest land in which IFM ⁴ practices have occurred as a result of the project's activities, measured against the without-project scenario	Not Applicable		Not Applicable
	Number of hectares of non-forest land in which improved land management has occurred as a result of the project's activities, measured against the without-project scenario	Not Applicable		Not Applicable

¹ Land with woody vegetation that meets an internationally accepted definition (e.g., UNFCCC, FAO or IPCC) of what constitutes a forest, which includes threshold parameters, such as minimum forest area, tree height and level of crown cover, and may include mature, secondary, degraded and wetland forests (*VCS Program Definitions*)

² Reduced emissions from deforestation and forest degradation (REDD) - Activities that reduce GHG emissions by slowing or stopping conversion of forests to non-forest land and/or reduce the degradation of forest land where forest biomass is lost (*VCS Program Definitions*)

³ Afforestation, reforestation and revegetation (ARR) - Activities that increase carbon stocks in woody biomass (and in some cases soils) by establishing, increasing and/or restoring vegetative cover through the planting, sowing and/or human-assisted natural regeneration of woody vegetation (*VCS Program Definitions*)

⁴ Improved forest management (IFM) - Activities that change forest management practices and increase carbon stock on forest lands managed for wood products such as saw timber, pulpwood and fuelwood (*VCS Program Definitions*)

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
Training	Total number of community members who have improved skills and/or knowledge resulting from training provided as part of project activities	35	2.3.7	Same as Monitoring Period
	Number of female community members who have improved skills and/or knowledge resulting from training provided as part of project activities	150	2.3.7	Same as Monitoring Period
Employment	Total number of people employed in of project activities, ⁵ expressed as number of full time employees ⁶	12	2.3.8	Same as Monitoring Period
	Number of women employed in project activities, expressed as number of full time employees	5	2.3.8	Same as Monitoring Period
Livelihoods	Total number of people with improved livelihoods ⁷ or income generated as a result of project activities	350	2.1.4	Same as Monitoring Period
	Number of women with improved livelihoods or income generated as a result of project activities	150	2.1.4	Same as Monitoring Period
Health	Total number of people for whom health services were improved as a result of project activities, measured against the without-project scenario	350	2.1.7	Same as Monitoring Period
	Number of women for whom health services were improved as a result of project activities, measured against the without-project scenario	260	2.1.7	Same as Monitoring Period

⁵ Employed in project activities means people directly working on project activities in return for compensation (financial or otherwise), including employees, contracted workers, sub-contracted workers and community members that are paid to carry out project-related work.

⁶ Full time equivalency is calculated as the total number of hours worked (by full-time, part-time, temporary and/or seasonal staff) divided by the average number of hours worked in full-time jobs within the country, region or economic territory (adapted from UN System of National Accounts (1993) paragraphs 17.14[15.102];[17.28])

⁷ Livelihoods are the capabilities, assets (including material and social resources) and activities required for a means of living (Krantz, Lasse, 2001. *The Sustainable Livelihood Approach to Poverty Reduction*. SIDA). Livelihood benefits may include benefits reported in the Employment metrics of this table.

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
Education	Total number of people for whom access to, or quality of, education was improved as a result of project activities, measured against the without-project scenario	300	4.4	Same as Monitoring Period
	Number of women and girls for whom access to, or quality of, education was improved as a result of project activities, measured against the without-project scenario	150	4.4	Same as Monitoring Period
Water	Total number of people who experienced increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	50		Same as Monitoring Period
	Number of women who experienced increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	35		Same as Monitoring Period
Well-being	Total number of community members whose well-being ⁸ was improved as a result of project activities	250		Same as Monitoring Period
	Number of women whose well-being was improved as a result of project activities	120		Same as Monitoring Period
Biodiversity conservation	Change in the number of hectares significantly better managed by the project for biodiversity conservation, ⁹ measured against the without-project scenario	Not applicable for this Monitoring Period		Same as Monitoring Period

⁸ Well-being is people's experience of the quality of their lives. Well-being benefits may include benefits reported in other metrics of this table (e.g. Training, Employment, Health, Education, Water, etc.), but could also include other benefits such as empowerment of community groups, strengthened legal rights to resources, conservation of access to areas of cultural significance, etc.

⁹ Biodiversity conservation in this context means areas where specific management measures are being implemented as a part of project activities with an objective of enhancing biodiversity conservation.

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
	Number of globally Critically Endangered or Endangered species ¹⁰ benefiting from reduced threats as a result of project activities, ¹¹ measured against the without-project scenario	Not Applicable		Same as Monitoring Period

2 GENERAL

2.1 Project Goals, Design and Long-Term Viability

2.1.1 Implementation Schedule (G1.9)

Date	Milestone(s) in the project's development and implementation
2005 to present	Forest protection initiatives and activities were developed back in 2005 and forest protection in the project area to provide a healthy ecosystem with much greater adaptation potential to climate change, with a higher resistance and recovery capability to extreme meteorological phenomena and a wide range of benefits to the neighbouring people.
2012 to present	Community Development: Number of community leaders trained to improve their level of organization, management and democratic governability.
2012 to present	People have always focused on Cassava (Mandioca). Starting in 2012 and at the request of the project to focus on Acai and other low-footprint activities and to consider the more expensive and complex crop of Black Pepper in order to improve the economic situation, black pepper still has not taken off, however now some people are focused on Honey and tree oils. From 2012 and onward as stated in the original PD a community census started, with this further analysis of the riverine communities took place, during this time interviews, land disputes were worked out amongst neighbour's, and interviews were conducted to get free and prior consent by the project to start helping each family gain the Cadastrol Ambiental Rural for the land.
1/2008	Project Start date

¹⁰ Per IUCN's Red List of Threatened Species

¹¹ In the absence of direct population or occupancy measures, measurement of reduced threats may be used as evidence of benefit

2012 to present	Project Implementation: Attract investors and gain government approval for the Project – continue forest protection and community development activities.
2013	March 2013 CCB Validation completed
2018	February 2018 CCB validation expired
2019	September 2019 VCS 2 nd verification completed
January 2021	CCB Project re validation and first verification
March 2021	Project Registration

The project has given out 150 cook stoves over the 2012 to 2017 period. These cook stoves have a tremendous benefit in the region for several regions. In some cases they had a fuel non-efficient cook stove that is rusted and needs high quantities of wood to use, and in other cases they would balance their cooking pan, between two pieces of wood and have a fire underneath- inside their house. A wood cook stove type arrangement in the back of their wood house causes both a severe fire risk and a severe health risk to the individuals.

The unique project benefits are several factors:

- Improved health by having a fuel efficient cook stove that is not going to create as much smoke and use as much fuel. Reduction of pollution.
- Improved time to cook having multi burner stove.
- Controlled fire, so less risk burning down the house.
- Smaller so for those who cook outside they can now cook inside, due to common rain in the region the woman get wet, and then can get sick.
- Improved environment so that large fires and trees don't need to cut to make fire wood for cooking.
- Improved cleanliness as easier to start the stove, easier to clean the ash, and easier to use in general.
- Primary benefactors are woman as it is not customary for men to cook in the region. Far easier for the woman. Less time to cook means women spend more time in agroforestry activities which are traditionally the domain of men.

The pictures were taken of a few people who have received cook stoves in the past. The paper they are holding is the receipt of the cook stove.







Land Demarcation to prevent dislocation and eviction

In the project area the main focus since 2009 is to help with land tenure related issues. Starting in 2012 we started assessing the needs of the people to help them gain land tenure rights, including the final goal of title. The locals faced serious risks and serious prejudice as they held no real land related title document.

The risks to the locals:

- 1.) Physical removal and displacement by illegal loggers, land grabbers, rural syndicates that use their power to extort the locals.
- 2.) Lack of ability to get loans without title.
- 3.) Land of real estate value, if they want to move, they get up and leave and lose everything behind, which results in a lack of mobility, but if they have an ability to sell their real estate title and land, they have higher mobility, they can sell the land for a large capital gain and move as they want.
- 4.) Lack of “want” to invest back into land that is not theirs, so they result in an underperforming personal economy. Why invest if they lose it all from day to night, there is no reason.

The goal of the project was to use 3 programs to gain title for the local riverine people in the project area:

Step 1: Cadastrol Ambiental Rural – this is a government program launched in 2008 that was paid for by the Norwegian government via the Amazon Fund that is run by the Brazilian development bank. This requires one on one interviews and a rough survey of the land.

Step 2: A formal survey of the land, which has been conducted on over 104 plots at this time.

Step 3: A request of donation from the government land agency of ITERPA of 100 hectares per family.

Land Tenure:

The program is intended by the government to show peoples land: What is forest and what is not, and then have a way to measure the land that is losing the forest, and then have a way to fine that person if he cuts the forest. This was the intent of the program, but the program has changed over the years, as better to show who owns what, as the government does not know who owns what. With this knowledge land conflict, land grabbing and murders are abated. Land conflict it a direct cause of deforestation in Brazil.

The reason land conflict and land ownership confusion is a cause of deforestation is that if a poor person has no document then a rich farmer can come in and start deforesting and then request a title document for that area from the government.

The steps taken:

The project originally went to all the poor riverine people in the project area in 2012 and offered 1 hectare in exchange for accepting sustainable practices, but we realized this was not going to suffice with their needs and their rights.

Starting in 2013 we focused on a strategy to help them gain 100 hectares per family. The project would do workshops explaining why they should go out and get the Cadastrol Ambiental Rural and why it was good for them. We explain it is a government program required for all people. It helps qualify them for development bank credit from the government bank Banco da Amazonia S.A. (BASA).

The illegal loggers in the region working through the Syndicate of Rural Workers did a “counter campaign” during this time state: “Cadastrol Ambiental Rural does not equal landowners, so there is no point to get it” So no one went to get the certificate that is required by law, because local NGO’s were uncooperative.

In 2014 we continued workshops and having documentation signed by the locals to the affect that they wanted to do this program, but no one would do it.

In 2015 we determined that we would have to do every aspect of the Cadastrol Ambiental Rural Program for them. So we started doing this. By 2017 we had conducted all the field work and by 2018 all the Cadastrol were entered into the government database.

The portion of the project area, and shows the government system – proving the Cadastro Ambiental Rural has been entered for each family. The large blocks on the top right and bottom left are the project area and the small plots of land going from the top left to the bottom right are the riverine lands that the project paid to enter into the government system. Thus proving that the goal has been met by the project during the 2012 to 2017 time period.

The positive impacts of land tenure for the poor are the following:

- Security – having security of your home, your location your plot in this region is crucial. There has been over 20 land conflict related murders in the last 10 years in this region. It does sound like many over ten years, but it is massive due to such a low population.
- Improved economy – Everyone was investing the bare minimum into their property because at any time they could face eviction. Now with rights to the land, and security to have the land, they can invest into more complicated crops such as black pepper, which have a long medium term pay out.
- Stability & health – The families living here’s biggest preoccupation prior to this was dislocation, and the stress related to this. It was a major underlying source of frustration and depression. By no longer fearing a situation of dislocation the families are able to focus on improving their life, improving their health, the education of their children.
- Environment – we raised the plot idea from 1 hectare to 100 hectares, as the Riverine people want to preserve, they depend on their livelihood from the forest and what it can provide. Thus by them gaining 100 hectares, about 90 hectares will always remain as forest, and this helps the project and helps the environment.

Improved Economy:

The project has had one-on-one discussions over 100 of the families in the project area. Mostly the woman, and have discussed alternative sources of income such as black pepper. It is a high-yield and low footprint crop that results in over 25,000 reais in income per hectare, versus less than 3000 per hectare for Cassava and mandioca.

The project has found that the locals don't do new things based on discussions, they need a catalyst to act. The lessons have been taught, but the inspiration to take on new projects has been prohibited in the past due to the land tenure concerns.

The Cassave crop fetches less than 50% of the value in the region of Portel than all other regions.

The project also discussed the following alternative source of income including the Jatai bee (*Tetragonisca angustula*). Some of the riverine people have already started cultivating this. The project has placed on order 200 bee boxes for the Jatai bee. The Jatai bee produces the most expensive honey in the world, allowing for low foot print, but higher economic gain.



The focal points moving post 2017 are as follows:

- Cupuacu (the national fruit of Brazil)
- Honey (specifically the Jatai bee)
- Andiroba Oil (an oil from a tree)
- Rice is a target for one of the areas already with about 30 hectares opened up, with a small tractor – as the region does not have rice and rice is the main expense.
- More efficient Cassava plantations.

2.1.2 Minor Changes to Project Design (*Rules 3.5.6*)

The project document is updated to CCB Project Description Template CCBv3.0

2.1.3 Project Description Deviations (*Rules 3.5.7 – 3.5.10*)

The project does not have any deviations to the Project Description document.

2.1.4 Risks to the Project (G1.10)

Human induced risks

The greatest human induced risk to the Project's benefits is continued deforestation. The Project Zone is undergoing large pressures for new agricultural land from both the expanding population and on-going immigration into the area.

Mitigation for this risk is through the Project Activities, mainly in the form of increased protection of the Project Area, creation of new income generating activities and through the promotion of improved agricultural methods as described in the Project Description Section.

The Project in this monitoring period has continued to reduce the risk of leakage, illegal logging and fire by building strong partnerships with villagers in the Project Boundaries and its vicinity thus preventing deforestation activities to start.

Illegal logging risks were mitigated through a number of measures including demarcating boundaries and posting signage, and regular patrolling.

Natural Risks

The region in which the Project is located is not generally susceptible to severe or destructive natural events. The primary types of natural events that could occur would be geologic events, pests or disease, flooding or fire. The area is not prone to any geologic activity and poses little to no risk to the Project. As the Project Area is a native and bio diverse ecosystem the risk from pests or disease that result in significant emissions reversal is low. The primary mitigation for this risk is to maintain the forest, and ensure through monitoring that the trees and ecosystem remain healthy and intact. There can be minor seasonal flooding from the annual monsoons. However, the species of this area are all adapted to the hydrological cycles and are not liable to monsoonal flooding. The Project Area is mountainous and there is a medium risk of erosion or landslides. Due to the Project activities that protect forests the risk of erosion or landslides is minimized. The risk of fire has the most potential to cause damage to the forests of the Project Area. However, the risk of significant emissions reversal is low. The evergreen and semi evergreen forest types are of a dense, evergreen, moist forest type that is not prone to forest fires. There have been no catastrophic fires in forests of this type in this region. Therefore, natural events have low risks to the Project's benefits.

The VCS non-permanence risk report submitted identified such risks as minimal which is applicable for this monitoring period.

1. Communities lack of effectiveness to control the Conservation Forest area

The Project did provide permanent land use rights against results for conservation to those families living within the Project Boundary. Families were trained to monitor the area and to protect the forest.

With the completed census, and knowing who individually owns what, if a family breaks the Conservation Forest Area plan, it is easy to identify who this is and future benefits from the project will be curtailed if the behavior continues. The project will have no way to revoke title that has been provided the riverine people. Around 200 CARs were registered for this monitoring period.

2. Population growth forces agricultural expansion in project area.

Although population is growing in the area, it is clear from the PRA and the LULC change analysis that small-scale agriculture is not a significant driver of deforestation in the area. Nevertheless, the Project includes capacity building on agroforestry techniques to help ribeirinhos to develop more efficient crop systems that require less area and longer rotation times, thus reducing the need of clearing forest patches under regeneration. Around 35 members of the community benefited from such trainings during this monitoring period.

3. Loss of carbon stocks through fire, illegal felling, and land clearing

The Project has reduce the risk of leakage, illegal logging and fire by building strong partnerships with villagers in the Project Boundaries and it its vicinity thus preventing deforestation activities to start. This includes by giving out cook stoves and also paying for the riverine in these locations to gain title. Also, capacity building workshops were held with cattle ranchers that get in the vicinity of the project to show them the benefits of intensified pasture management, thus preventing further LULC change in the area.

Illegal logging risks were mitigated through a number of measures including demarcating boundaries and posting signage, blocking machinery access through trenching and other methods, regular patrolling, development of a network of patrol huts to facilitate rapid movement, rapid response and confiscation of chainsaws and other equipment, and improved communications with local authorities in Portel through two-way radios and cell phones (where available).

2.1.5 Benefit Permanence (G1.11)

Community activities are designed to transform local economies over the life of the Project. In this regard, the focus of the PP developed local business and income-generating activities that are critical components of a long-term low carbon economy. Project activities that met this overarching objective focus on education, sustainable agriculture, community-based ecotourism and sustainable management of natural resources. These activities reduced the necessity of community members to deforest and degrade the Project Area. During the Project Lifetime, this will be achieved, for example, facilitating better education, through training farmers in sustainable agriculture.

Benefit permanence were ensured by regular monitoring of the benefits to community and enhancing the capacity building. Also as the forest area is protected, this did ensure that some timber products are available to community in quantity that is self-sustainable.

The Riverine way of life is a tradition that believes in personal consumption and preservation, and forest protection. They have a natural need and want to preserve what is directly behind their house.

There way of life is at risk in the even the forest around them is invaded and deforested. By giving land tenure to the riverine people this is more permanent than the project. Once they have the land tenure there is no taking it away. Not even the project is able to revoke land tenure documents now that they have. It is permanent.

Cook stoves on the other hand can be worn down and rust and will eventually need to be replaced like all appliances need replacement. The project next step is to take the CAR document and turn this into the Title Certificate. With this title there will be even more permanence and this will further prevent illegal loggers and land grabbers from coming in and near the end life of the project. The region should be stable enough to maintain itself because of the built up stability of the project.

The project focuses on three principal strategies to ensure the maintenance and enhancement of the project benefits beyond the project lifetime. For this monitoring period also the focus is the same.

1. Skill and capacity development.
2. Goal of permanent Land ownership
3. Health benefits

The skills are learnt by the communities throughout the projects lifetime. These relate to better land resource management. The project has initiated several awareness programmes for efficient use of land for agricultural practices and has also provided cook stoves which have the benefit of lessening the time for Farinha production and the overall cooking time. The protection of the forests itself ensure that due to lesser degradation there is greater potential to provide timber and non-timber forest products on a sustainable basis. The community has been made aware and trained in alternative crops of agroforestry such as black pepper, honey or andiroba oil. Around 35 community members have received training during this monitoring period.

The goal of permanent land ownership to the communities is one of the main initiatives of the project and this provides permanent ownership even beyond the project lifetime. This provides the community to implement the skills and learnings on their own land which is self-sustainable and provides benefits beyond the projects lifetime. Around 200 CARs have been distributed during this monitoring period.

The health benefits to the women and to the overall community are expected to continue beyond the projects lifetime. In a 2002 report, WHO listed indoor smoke from solid fuels among the top 10 risks to human health. "Day in and day out, and for hours at a time, women and their small children breathe in amounts of smoke equivalent to consuming two packs of cigarettes per day," WHO reported in the 2006 report Fuel for Life: Household Energy and Health. As greenhouse gas emissions have increased, the smoke from kitchens in the developing world has escalated from a local to a worldwide threat. The average cooking fire produces about as much carbon dioxide as a car, and produces more soot, also known as black carbon. Reducing these emissions may be

among the fastest, cheapest ways to fight global climate change. Around 150 women have received cook stoves which translates to improved livelihood during this monitoring period.

The permanence of the benefits associated with the project are captured during the feedback from the community during the periodic community meetings in which around 75% of them prefer to continue the good practices.

2.1.6 Grouped Projects

This is not a grouped project

1) New Project Areas and Communities (G1.13)

Not Applicable

2) Project Zone Map (G1.13)

Not Applicable

3) Eligibility Criteria for Grouped Projects (G1.14)

Not Applicable

4) Scalability Limits for Grouped Projects (G1.15)

Not Applicable

5) Risk Mitigation for Grouped Projects (G1.15)

Not Applicable

6) Changes to Management (G4.1)

Not Applicable

2.2 Stakeholder Engagement

2.2.1 Stakeholder Access to Project Documents (G3.1)

All the documents/results are published and communicated in Portuguese in a simple language to the council of stakeholders for their awareness and free participation. The project CCB implementation from validation onwards is described in the relevant section in the MR.

The organized community meetings were held in 2012. Around 80 households / year were visited by the survey teams during this monitoring period.

Apart from the survey teams the main form of communication followed was one-to-one meetings with the community in which the feedback on the benefits provided were communicated which are periodic. Further during this period, the benefits were mainly related to Skill and capacity

development, Goal of permanent Land ownership and improved land management practices which were categorized as both long term and short term benefits in the relevant sections of the MR.

2.2.2 Dissemination of Summary Project Documents (G3.1)

All the documents/results are published and communicated in Portuguese in a simple language to the council of stakeholders for their awareness and free participation. The project proponent conducted periodic review meetings with the community and circulated the project related information to the community at public places in each village.

Apart from the survey teams the main form of communication followed was one-to-one meetings with the community in which the feedback on the benefits provided were communicated which are periodic. Further during this period, the benefits were mainly related to Skill and capacity development, Goal of permanent Land ownership and improved land management practices which were categorised as both long term and short term benefits in the relevant sections of the MR.

2.2.3 Informational Meetings with Stakeholders (G3.1)

Good amount of information about the characteristics of the population in the Project zone was collected through PRA. The surveys applied to the local villagers have allowed knowing the main social and economic characteristics of the population, and the interviews held with the local leaders have brought information about the characteristics regarding their organization, production, relation with state authorities and other institutions, mains needs and concerns, among other.

2.2.4 Community Costs, Risks, and Benefits (G3.2)

Information about Community Costs, Risks, and Benefits was exchanged and discussed during consultative meetings. The project has no costs to the communities, the team of technicians have always based the modus operandi as go-to-the point, thus the project team goes to the community, we don't request the community to come to the project team. The travel cost is the greatest burden for the community. It was discussed and explained during all meetings that the carbon credit project will not cost the community anything, It was explained that the project is 100% their to benefit the locals in a business-as-usual situation.

The Risks is zero, as explained in the community meetings and one-on-one discussions that there is no risk to the community.

The benefits are explained to be cook stoves, land tenure documentation and survey work and training for a better sustainable living and improved livelihoods.

2.2.5 Information to Stakeholder on Verification Process (G3.3)

- The Project's executive summary, including project information and project benefits has been translated into Portuguese and is posted in public places in each village communities throughout the Project Zone.

- During community meetings held by project staff as part of the project outreach process the validation / verification process was described.
- A poster/notice in Portuguese advertising the Project's public comment period and the validation /verification field visit was posted in communities public places throughout the Project Zone.

2.2.6 Site Visit Information and Opportunities to Communicate with Auditor (G3.3)

The Project Proponent has actively communicated to community members and stakeholders about the start of the Public Comment Period and the methods with which they can submit comments on the Project as well as how to view full project documentation. This was accomplished by communicating the Project - Public Comment Period and Verification field visit dates to previously identified stakeholders, community leaders, leaders of the faith communities and public officials. They were then requested to pass that information onto their communities.

Two weeks prior to site visit, verbal communication was done, and it was requested that 3 to 5 people in each village be prepared to answer questions of the auditor. One on one interview of the village people with the auditor was arranged.

2.2.7 Stakeholder Consultation (G3.4)

The Project designed its activities based on the results of the PRA. It was intended since the beginning to develop activities that were tuned with local livelihoods and the best way to do so was by first consulting with local stakeholders.

All Project activities are based fundamentally on local customs and needs. Such activities do not constitute dramatic changes on local ways of life or customs but only provide knowledge and finance to improve and make more efficient what is already happening on the ground.

The team was able to consult with the community originally in 2012 with large organized community meetings.

The technicians who go to the land stay in the houses of the riverine people while doing survey work, eat at their table and greatly support the project, this has greatly help build trust with the stakeholders. Around 35 households / year were visited by the survey teams.

2.2.8 Continued Consultation and Adaptive Management (G3.4)

Two of the project team live in Portel and have been with the project since 2012. They were hired as they know each family in the project area their local knowledge facilitated the warm reception for the project. They are both the project guides and pilots for the technicians and team. They know first-hand everyone in the community and this knowledge allows there to be seamless communication between the project team and the local communities. It may require a cell phone call to representative, who will then call on the radio to the specific village, or vice versa.

Throughout the lifetime of the project, we maintain a direct line of communication with community members, and relevant stakeholders. This establishes a commitment to communication and

consultation to keep stakeholders informed of project activities including restoration, maintenance, monitoring and the CCB validation and verification process.

With-project scenario there is an increase to the socio-ecological resilience, reduce the vulnerability and improve the adaptation capacity through a better management of the natural resources, including adaptive management. In addition to this, forest protection in the project area does provide a healthy ecosystem with much greater adaptation potential to climate change, with a higher resistance and recovery capability to extreme meteorological phenomena and a wide range of benefits to the neighbouring people.

2.2.9 Stakeholder Consultation Channels (G3.5)

We have conducted a number of stakeholder engagement and consultation meetings with identified project communities and other stakeholders from the nearby villages and settlements. Our project staffs have conducted participatory surveys with the Participatory Rural Appraisal (PRA) method as part of the consultative process. This included focus group discussions (FGDs), interviews with men and women living in nearby settlements and villages, and observation and ground checks with local residents including participatory visits to a variety of important areas and community epicenters.

2.2.10 Stakeholder Participation in Decision-Making and Implementation (G3.6)

The project proposes conduct a process of FPIC to continue the informative process initiated with the PRA in order to promote a reasonable understanding about the project is and their activities, a equitable participation in decision-making processes and the involvement of the population in the implementation of the proposed project. Consultations ensure to engage with both men and women, and more marginal stakeholder groups in culturally appropriate ways to ensure that the project can hear a wide range of perspectives. Apart from the survey teams the main form of communication followed was one-to-one meetings with the community.

2.2.11 Anti-Discrimination Assurance (G3.7)

The has company policies to prevent discrimination and outline a course of action, should it occur, the human resource (HR) policy provides a clear statement on discrimination relating to gender, religion or sexual discrimination. Discrimination is considered a level A misconduct under the HR policy. Where discrimination occurs within the company, partner organisations or within project areas (project participants), actions are outlined in the grievance policy to ensure that any discrimination is dealt with by the senior management. All company employees and field partners sign a code of conduct with ES that includes anti-discrimination. No such related incidents have been reported for this monitoring period.

2.2.12 Grievances (G3.8)

The conflict resolution approach will be sequentially adopted and will respond to the conformity or inconformity of the complainer to the proposed solution. The evaluator may also propose a specific approach for the resolution depending on the complexity of the case and the assessment of the same. The present mechanism does not exclude the right of local people to present the case to any public entities estimated to be convenient. Actually, during the census, the Project's management team will inform local people of the creation of such committee and will be informed of their right to present grievances directly to public entities, making a clear point that all claims and/or complaints will be addressed equally notwithstanding the line of grievance. No such related incidents have been reported for this monitoring period.

2.2.13 Worker Training (G3.9)

Project's activity is designed to provide training to local villagers that did generate the required capabilities to undertake forest monitoring as well as monitoring for social and biodiversity variables. Please refer to Section G.3.2 item 1 and section CM4.2 for more details in regards to how these capacity building efforts did target a wide range of people in the communities.

The Project did make sure that all members of local villages have the same opportunity to attend capacity building workshops and participate in demonstrational activities, regardless of race, religion, sexual orientation, or gender. Although the opportunity to actively participate in all the activities of the Project, it is finally a decision of each stakeholder to participate and the managerial team did not try to put any sort of pressing to involve villagers.

Special attentions were put to make sure that under-represented groups (elder people, woman and children) are aware of the on-going training workshops and activities. The content and language of capacity training and demonstrational activities were adapted accordingly to each participating group. The Project considers developing and implementing workshops specifically designed for age classes groups to better transmit the information.

Capacity building is a relevant aspect in the implementation and operation of the project. In order to achieve the goals successfully the member of the community must be trained to have the skills and knowledge to effectively carry out the work.

A number of specific capacity building programs, researched by project proponents as potentially applicable to Project Zone community needs, are presented below. However, the final programs were designed in collaboration with the communities to ensure that they address current community concerns and prioritize community needs for capacity building.

2.2.14 Community Employment Opportunities (G3.10)

The Project did design employment opportunities to make sure the underrepresented riverine people have equal opportunities of finding employment in within the Project management and demonstrative activities.

Employment positions primarily are assisting the technicians go from plot to plot and house to house, carrying equipment and brining cement property markers for the survey work. Some work has required demanding physical work and a higher risk (i.e. on the ground monitoring of former logging trails, sampling biomass in forest plots, monitoring of Project Boundaries by boat to detect illegal logging activities, setting and revisiting biodiversity camera traps) were filled by persons between the age of 18 and 60 years and/or according to the experience and physical strength of a person, assessed on and individual basis.

2.2.15 Relevant Laws and Regulations Related to Worker's Rights (G3.11)

Local villages did receive clear and adequate information about the requirements of national and international regulations on workers' rights before entering in a contract agreement with Project Proponent.

Project Proponent did make sure to comply with the applicable national regulations on workers' rights. This was assured by yearly audits held by a third party that were identified once the project starts its census in the area. Such audits were announced to local authorities and villagers and they were encouraged to meet with audit entity. This way, local people can rest assure that all their complaints about workers' rights are known in a straightforward and clear way.

The following is a list of Brazil's all relevant laws and regulations covering worker's rights:

- The Brazilian Constitution, Chapter II-Social Rights, Articles 7- 11 which addressed: o Minimum wage o Normal working hours o Guidance on vacation and weekly leave o Guidance on maternity and paternity leave o Recognition of collective bargaining o Prohibition of discrimination.

- In addition to the Constitution, there are two additional decrees related to Brazilian labor laws. Consolidação das Leis do Trabalho (CLT): DECRETO-LEI N.º 5.452, DE 1º DE MAIO DE 1943 (Consolidate of Working Laws)³⁵. This decree gives more clarification on: o Hourly, daily, weekly and monthly work hours o Employment of minors and women o Establishes a minimum wage o Worker safety and safe working environments o Defines penalties for non-compliance by employers Establishes a judicial work-related process for addressing all worker related issues.

- Estatui normas reguladoras do trabalho rural: LEI No 5.889, DE 8 DE JUNHO DE 1973 (Establishes Regular Norms for Rural Workers)³⁶. This is a complimentary law to the aforementioned 1943 decree because prior to 1973, rural workers did not have the same rights as urban workers. In 1973, this law was established to specify the equality between urban and rural workers, along with compensation for overtime.

The labour laws in Brazil, although they have previous origin, are born in the government of Getúlio Vargas. From the year 1930, President Vargas joined a group of lawyers and legislators to elaborate the Consolidation of Labour Laws - CLT.

The labour laws of Vargas's era, as they are also called, took 13 years of development, and sought to guarantee a series of securities and regulations in the relationship between employers and employees.

Since 1943, the CLT has undergone a series of modifications - natural, in Law. The Labour Laws in 2015 best represent the new labour relations, and the main changes relate to new technologies, and their use in work.

There are a number of issues addressed in the CLT, but some stand out due to the advances that have accrued for the living conditions of the working classes and to the systematization of the Brazilian labour market.

Undoubtedly, the CLT is one of the greatest examples of a law that is concerned with the worker. The following are the main Brazilian labour laws:

- Law 605/1949 - Repouso Semanal Remunerado (Paid Weekly Rest);

- Law 2.959/1956 - Contrato por Obra ou Serviço Certo (Contract for Work or Right Service);
- Law 3.030/1956 - Desconto por Fornecimento de Alimentação (Discount for Food Supply);
- Law 4.090/1962 - Gratificação de Natal;
- Law 4.749/1965 - 13º Salário
- Law 4.886/1965 - Representantes Comerciais Autônomos (Autonomous Business Representatives);
- Law 4.950-A/1966 - Remuneração de Profissionais

2.2.16 Occupational Safety Assessment (G3.12)

Project's activities do not hold risk besides those inherent to the day a day life in the forest. Project's activities do not require the use of heavy machinery or dangerous substances. Nevertheless, the Project management team did provide adequate protection equipment to employees working in forest monitoring activities. Also, monitoring staff were equipped with first aid kits. Protection equipment did include but was not limited to:

- Hard hat
- Cap with the company's logo
- Reflective/fluorescente security vest with the company's logo
- Rubber boots
- Gloves
- Fast-dry uniforms with the company's logo
- Two-way rádios
- GPS
- Digital camera
- Field backpack
- Camelpack
- LED Flashlight
- Whistle
- Machete
- Pocket knife
- First aid kit

Risks for each type of work were assessed and safety guidelines were developed help identifying and reducing such risks. Guidelines were written in clear and adequate language and distributed among workers. Additionally, workers did receive safety inductions to make sure any doubts and suggestions are taken care of.

During this period such training was provided to 25 people who have been employed of which five are women.

2.3 Management Capacity

2.3.1 Required Technical Skills (G4.2)

Project participants			
Key Function	Organization involved	Type of group /organization	Brief description of activities

Project administration	Oak	Project Participant	- Administrative - Reinvestment - Financial planning - Market research - Project prospecting - Administer funds - Review field data, track project developments - Serve as key actor in dispute resolution
Technical Support	KMSPL	Project consultant	- Ensure project implementation in accordance with contract and PD - Manage and support technical demands of project

2.3.2 Management Team Experience (G4.2)

Mr. Mark Salmon, Manager, Mark grew up in Cape Town, South Africa, where he spent his formative years prior to emigrating to the United Kingdom. After completing his A-Levels at Abingdon School in Oxfordshire, Mark secured an audit position with PricewaterhouseCoopers in London. He went on to study for a Bachelor of Science Honours degree in Money, Banking, and Finance at the University of Birmingham. Mark joined the Oak Trust Guernsey office in 2007 and has completed the Society of Trust and Estate Practitioners Diploma under support from Oak.

Michael Greene – Project Coordinator and landowner. Is currently responsible for the general coordination of the project. He has a Bachelors degree in Industrial Engineering from Kettering University in Michigan. He has lived in Brazil for 10 years, consulting related to complex real estate situations. Michael's specialty is the coordination of the program plots for the poor. This is a program to help each family gain title. He oversees an engineer and geomancer team of 4 people in the field and 2 people in front of computers, categorizing each family and where their plots of land are located. He also directs the security boat patrols and is taking quotations from companies to build 30 security houses within the project area.

2.3.3 Project Management Partnerships/Team Development (G4.2)

Mr.H.B.Muralidhara, Director – Technical & Operations - Murali is a strategic leader with proven track record of building and leading effective cross-functional, multisite, multi-business teams and driving change initiatives and implementing Climate change, Sustainability, EHS and Systems strategies. Murali is a graduate engineer with nearly 40 years of professional experience. Besides an engineering degree he has earned several PG Diplomas in Ecology,

Environment, Safety and Risk management. During the past four decades he has worked in various organizations including Bureau Veritas. Head quartered in France, Bureau Veritas is a recognized world leader in testing, inspection and certification services. In the past Murali was heading the CDM, VCS, GS, Sustainability and GHG auditing and assurance services division of BV. He was involved in several thousands of audit days and hundreds of projects as a Lead Auditor, Technical Reviewer and Approver. He has provided several hundreds of days of training on various subjects since last twenty years to thousands of participants in various countries across the World.

Dr.R.Madhukara, Director – Projects & Client Engagement – Dr. Madhu is a Doctorate in Environmental Science. He has more than ten years of experience in GHG auditing, consultancy, research and development in Environment and climate change related areas. He has participated as Auditor, Lead Auditor, Technical Reviewer in various validation, verification and certification audits for CDM, VCS, GS, CCB, Plan Vivo, REDD+ and GHG projects globally for various UNFCCC/VERRAS/GS approved auditing agencies. He has undergone extensive training on CDM, VCS, VCS+CCB, GS, Plan Vivo, REDD+ project development and involved technically in various successful projects across the World. Madhu is a Lead Auditor for ISO 26000 certified by Professional Evaluation and Certification Board (PECB). He has successfully completed various training courses on carbon monitoring in REDD+, afforestation and reforestation projects.

Bipin Charles – Director - Bipin Charles has a Bachelor's in Botany, Zoology & Environmental Science and Master's in Environmental Science. Bipin is having around 22 years of industry experience. His research and teaching interests include conservation planning of non-charismatic species, Biodiversity assessment, risk assessment of invasive species and applications of Geographical Information System & Remote Sensing in conservation biology. He has more than 10 years of experience in managing various GIS and Remote Sensing projects. He has extensive experience in managing GIS and RS projects viz., Land Use Land Cover change modelling, time series analysis of Land surface temperature, digitization and spatial analysis. He has been a key resource for training RS and GIS modules in various reputed universities and institutes in Asia. He has completed around 20 training workshops on RS, GIS and species distribution. He has the distinction of winning various fellowships and grants programmes related to conservation, ecology and environment. He has various technical publications to his credit since many years.

All relevant project management experience is present in the current KMSPL. Consultancy and project development has been a part of our DNA since 2004. We are working as a team since 2004 and formally established this organization in the year 2007. We started our operations on the premise that there is a better and meaningful way to deliver to the clients, industry and society at large. Climate change is a real danger to this planet and it is our collective responsibility to address and work towards climate change mitigation and adaptation.

Our ability to draw upon our long years of proven expertise in consultancy, training and project development makes us truly unique and we are able to continuously deliver insights and services.

2.3.4 Financial Health of Implementing Organization(s) (G4.3)

Funding for Project activities is secured by funds committed by the Project Proponent until the end of 2013. After 2013 the project is expected to generate enough revenues from carbon credit sale to cover Project costs. The Project financial analysis makes clear how important is the

revenue generated through carbon credits to protect the Project Area and to implement the Projects activities.

For a detailed financial analysis refer to the attached Financial Evidence of this Projects VCS PD.

2.3.5 Avoidance of Corruption and Other Unethical Behavior (G4.3)

As a collaborative effort, the project team is committed to upholding a high level of integrity and professionalism throughout all aspects of project design and implementation. We have a zero-tolerance attitude towards corruption and unethical behavior, and are not involved in, or complicit in, any form of corruption such as bribery, embezzlement, fraud, extortion, and collusion.

2.3.6 Commercially Sensitive Information (Rules 3.5.13 – 3.5.14)

There is no commercially sensitive information in the Monitoring Report . Supporting documents which include commercially sensitive information that will not be made publicly available include: the MOU; Contracts with Buyers and Service Providers; and documents related to project financials.

2.4 Legal Status and Property Rights

2.4.1 Recognition of Property Rights (G5.1)

Name of the Law	Description	Project Compliance
Law number 4771, September 15th 1965 (D.O.U of September 16th 1965).	The Brazilian forest code of 1965 – Brazilian Forest Code –provides for example: II – area of permanent preservation: protected area in the terms of article 20 and 30 of this law, covered or not by native vegetation, with the role of protecting the water resources, landscape, geological stability, biodiversity, flux of genes of plants and animals, protect de soil and secure a good environment for the human population; III – Legal Reserve Areas: Area located in the property or “posse rural” excluding the areas of permanent preservation, for the sustainable use of the natural resources, conservation and restoration of the ecological process, biodiversity conservation and refugee and protection of native animals and plants; Art. 150 – It is prohibited under empirical form the exploration of primitive forest of the Amazon watershed, but only can be explored in accordance of technical	All properties have legal reserve areas and APPs defined. In accordance with the CARs (Environment Rural Registry) at SEMA (Environment State Institute).

Normative Instruction number 003 of May 23th 2007 – Executive office of environment , science and technology – SECTAM.	management plans approved by act of Public authorities, to be issued in oneyear term. Regulatory of the Environmental Rural Registry -CAR in the state of Pará and providence of other requirements. Art 1 – establish criteria and procedures for implementation of the CAR – PA as an instrument for identification of the rural properties in the state of Pará that must be issued by SECTAM-PA in accordance with this Normative Instruction. Art 2 – It is necessary for all rural properties in the state of Pará to be registered in the CAR-PA, even the properties that have no production activity. Art 3 – The issuance of the CAR-PA, as toll for identification of the property will be done only once for each property. It will be a registry number with a sequential number. This number will be in all licenses, authorizations, and other documents issued for the environmental regularization of the rural property. This registry number will be linked to the land, independent if the land is sold, transferred or taken possession by other person. Single paragraph – There will be no concession of any license for the land that has no registry at CAR-PA. Art 4 – In the CAR-PA it will be mentioned all the basic data of the rural property, Total area-AT, Area of permanent preservation – APP, legal reserve areas – ARL, and area of alternative use of the soil – AUAS , in addition the name and profession of the land owner, geographic coordinates and other information required by complementary laws.	Development of CAR in all lands in the Project Area.
Federal Decree number 5.975/2006	Art. 10 – Forest exploration and succession formations that require shallow harvest of the forest only will be permitted under specific authorization for alternative land uses issued by SISNAMA. # 1o By alternative land use is understood any conversion of the forest to other land cover, such as settlements, agriculture, pasture, industry, energy generation, mining and	All properties have legal reserve areas and APPs defined. In accordance with the CARs (Environment Rural Registry) at SEMA (Environment State Institute).

	transportation.	
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2.4.2 Free, Prior and Informed Consent (G5.2)

Free prior and informed consent (FPIC) is the principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use.

The project proposes conduct a process of FPIC to continue the informative process initiated with the PRA in order to promote a reasonable understanding about the project is and their activities, an equitable participation in decision-making processes and the involvement of the population in the implementation of the proposed project.

In this regard, we will consider the following elements conductors for this process

Avoiding the exercise of coercion, intimidation or manipulation (FREE); Consent is required in advance to any authorization or beginning of the activities (PRIOR);

Providing information that covers the following information:

- a. The nature, importance, rhythm, reversibility and approach of the project and the proposed activities;
 - b. The purpose of the project and its activities;
 - c. The duration of the project;
 - d. The area where the project and its activities will be developed, as well as the localities involved;
 - e. The results of the initial diagnosis of the economic, social, cultural and environmental situation, including possible risks and benefits;
 - f. The institutions and staff that probably will intervene in the implementation of the proposed project, and
 - g. The procedures the project may include (claims resolution mechanism);
- The consultation must be carried out through the establishment of a frank dialogue within an atmosphere of mutual respect, good faith and full and equitable participation (CONSENT);
- The process must include genre perspective. Women participation is essential, as well as the involvement of children, young people and vulnerable groups. It is important to mention that the definite protocol for FPIC will be produced after the validation of the project and will include a detailed development of each one of the activities, protocols, annexes, formats and tools that will be utilized.

2.4.3 Property Right Protection (G5.3)

Our project activities do not lead to involuntary removal or relocation of property rights holders from their lands or territories and does not force rights holders to relocate activities important to their culture or livelihood. If in the future any relocation of activities needs to be undertaken, it will take place with a written agreement that demonstrates that the agreement was made with the free, prior, and informed consent of those concerned and includes provisions for just and fair compensation.

2.4.4 Identification of Illegal Activity (G5.4)

Illegal activities in the area are constituted by unplanned timber extraction. Such logging operations are evidenced by the proliferation of pioneer roads as presented in Map 12. It is

known from literature that extractive operations will take advantage from the fact that local farmers don't have land titles to displace them or to gain access to the forest resources nearby villages (Araujo, Bonjean et al. 2009). At the same time, illegal logging operations thrive whenever there are forested areas that seem to be under no-use and where the presence of the landowner is not made evident (Margulis 2004).

The Project has trained local villagers to work as monitoring staff in the Project Area and the LMA. This is the main activity to identify, prevent and avoid illegal activities from taking place in the Project Area.

As support measures against illegal activities, the Project did provide land titles against conservation results to villagers living within the Project Boundaries and did provide support to neighbor villagers to achieve land tenure on unused public lands.

Stakeholders in neighbouring villages were encouraged to report encroachers and illegal loggers trying to get into nearby forests. The Project did proceed to make the respective denounce to local authorities as just like the situation is occurring in the Project Area. Through this mechanism the project were generating positive leakage.

No identification of illegal activities were reported for this monitoring period.

2.4.5 Ongoing Disputes (G5.5)

There are no on-going disputes or any previously unresolved conflicts inside the project area.

2.4.6 National and Local Laws (G5.6)

Even though there aren't any national law or regulations regarding REDD policies, there are some local initiatives to encourage REDD projects. The majority of these initiatives are at the municipality level. For example: Paragominas, a municipality located at about 400 km from the project area, has approved (July 26th 2011) a municipality environmental policy (Law number 765/2011) that includes REDD. With this it was created a municipal-level system for reduction of emissions from degradation and deforestation that will be linked to a potential national or state REDD system.

2.4.7 Project Benefit Crediting (G5.9)

The project has not nor does it intend to create non-VCS/CCB GHG emissions reductions or any another form of environmental credits or social credits for this monitoring period and a declaration to this effect is submitted to VVB.

The publication of Law No. 12,651/2012 and also Decree No. 7,830/2012 and No. 8,235/2014 brings important advances in land use planning and is essential both for conservation and/or environmental preservation and rural property regularization in Brazil. These advances can be evidenced by the adhesions to the Rural Environmental Registry (CAR) and the Environmental Regularization Program (PRA), which clearly demonstrate the percentage of areas in rural properties conserved with native vegetation, a condition that contributes to the maintenance of many ecosystem services, including those related to the maintenance of aquifers and water resources. This is because CAR and PRA bring, in a parallel and permanent way, strategies for the management of rural enterprise, since adhesion to the Registry establishes the areas that can be occupied, the Areas of Permanent Preservation (APP) and the percentages of Legal Reserve recovery, conservation and/or compensation, as indicated in legislation. It is the set of actions or initiatives that must be developed by rural landowners and/or squatters to adapt and promote the

environmental regularization of their properties, as established in Federal Decree No. 7,830 from October 17, 2012 and Federal Decree No. 8,235 from May 5, 2014.

3 CLIMATE

3.1 Net Positive Climate Impacts

3.1.1 Net Impact (CL2.2, CL3.1, CL3.3)

The Project will prevent and avoid unplanned deforestation mainly through monitoring activities. The Project has verified 9,582,742tCO₂e for this monitoring period which can be verified from the VCS monitoring report. The project applies VCS methodology VM 0015.

3.2 Offsite Climate Impacts (Leakage)

3.2.1 Leakage Mitigation (CL3.2)

The Project main climate objective is to manage the Project Area in the form of a “private reserve” by developing and implementing a management plan. Such plan will include a rigorous monitoring and enforcement plan built up on the existing experience of on going surveillance activities in the area since 2008. Such scaled-up monitoring activities will actively count with the participation of local villagers that will be trained in forest management and monitoring techniques.

The Project will also address cattle ranchers, which are the main agents of deforestation that arrive to the Project Boundary. The objective is to provide them with training to understand the benefits of better managing their pastures with the expected result of enhanced pastures productivity and lower deforestation. Refer to validated VCS PD for details

3.3 Climate Impact Monitoring

3.3.1 Climate Impact Monitoring Results (CL4.1)

The justification for the selection of the carbon pools is presented below (see the Table below). Selection of carbon pools followed the guidelines of VCS VM0015 methodology. *Refer to validated VCS PD for details*

Table: Carbon pools considered by the Project

Carbon pools	Included / TBD/Excluded	Justification / Explanation of choice
Above-ground	Included	Carbon stock change in this pool is always significant
Below-ground	Included	Included to account for all the Trees biomass.
Dead wood	Excluded	This pool is less present in the

		Baseline scenario than in the Project scenario, thus is conservatively excluded.
Harvested wood products	Excluded	This pool didn't pass 5% significance test.
Litter	Included	This pool should be excluded according to VCS VM0015 methodology.
Soil organic carbon	Excluded	Not to be measure when forest is Converted to pastures according To VCS VM0015 methodology.

3.3.2 Dissemination of Monitoring Plan and Results (CL4.2)

A monitoring plan for climate benefits along with the monitoring plan and results were communicated to the communities and other stakeholders via the website for the project where the Monitoring plan is listed.

In addition to this the technicians who travel to the land are required to carry all the most up-to-date documents and go through them with the communities at their request.

The head of each village were shown a hard copy of the results and a discussion took place to make sure that this person understood it.

3.4 Optional Criterion: Climate Change Adaptation Benefits

3.4.1 Activities and/or Processes Implemented for Adaptation (GL1.3)

Please refer to Section 2.1.1 for a detailed description of the Project's implementation status. This section will include a brief overview of implemented project activities and how they specifically assist communities or biodiversity adapt to climate change.

Communities

The implemented activities to assist communities with the adaptation to probably impacts of climate change includes the direct employment by the Project and training on new income generating activities and training on new and improved agricultural methods. Both activities will help mitigate for the communities the most probably impacts of climate change, notably reduction in agricultural yield due to climatic changes and loss of income and damage from flooding.

Biodiversity

The most primary and most vital project activity for to assist biodiversity is the protection of the project area from deforestation and degradation. Through the maintenance of the native forest condition in a unfragmented state, it will provide the forest ecosystem with the greatest resilience against the most probable impacts of climate change. This will provide the biodiversity with continued food and water sources in a sustainable fashion, and a stable habitat.

3.4.2 Adaptation Monitoring (GL1.4)

Table describes the expected climate changes in the project zone, their effect on the communities or biodiversity and the project's adaptive strategy. The Project is also employing adaptive management; therefore, as new climate change risks and/or effects are identified during the Project's lifetime new adaptive strategies will be developed and implemented. The project's casual model is shown in the PD Sections 2.1.11. These results chains demonstrate the how the project activities will achieve the Project's stated adaptation benefits

Table: Project climate change adaptation Benefits

Climate change risks	Potential effects	Potential mitigative/adaptive strategies
More intense and longer droughts	Low land productivity or complete crop failure, less pasture for livestock and wildlife, more severe fires	Reduce dependence on livestock and land through alternative promote cultivation of drought resistant crops, improve storage facilities and management of crops, water harvesting and water storage, raise awareness of danger of fires,
Increased flood risk	Destruction of agricultural crops and development	Conservation of the forest in the Project Area will increase water eco-system services, reducing flood risk. Improved agricultural techniques will help crops survive flooding.
Low capacity of local populations to adapt to frequent natural disasters	Increase in periods of food insecurity, potential increase in disease and deaths with continuing very low health standards, potential for increasing inter-community conflict	Increase support of local institutional structures including the norms and rules of governance to help develop adaptive strategies, increase literacy levels, diversification of livelihood activities and income generation projects, involve women to a greater degree in decision making processes, increase general participation in decision making at the local

		level
Decreased biodiversity, loss of forest cover to drought, temperature change	Reduction in species, more species at risk	Help to maintain intact and interconnected ecosystems through protection of ecosystems, ensure landscape connectivity to allow migration, regeneration activities using indigenous, droughtresistant trees

4 COMMUNITY

4.1 Net Positive Community Impacts

4.1.1 Community Impacts (CM2.1)

Community Group	• Riverine Community • The entire community is all the riverine in the project area. • The community is broken into villages, these villages are better described as families. Each village had at least one riverine people trained in biodiversity and forest Monitoring •
Impact(s)	• Number of riverine people participating in the monitoring • Improved livelihood • monitoring activities each month • One person in each village, with a general awareness to all member in each village. • 17 People total, with 17 villages total. • Team of technicians completing the survey work for each family are trained to biodiversity monitor and report back any unique events.
Type of Benefit/Cost/Risk	• Actual benefit. • Capacity building related to the monitoring and management of the forest and biodiversity. • Very little cost, as the monitoring is done via cell phone camera when there is a unique event, such as a large carnivore enter the village. • Job Opportunities
Change in Well-being	• Improved livelihood – more aware of the fauna and flora.

Community Group	• Riverine Community • 17 community leaders, one for each village, were trained of the riverine communities. Rio Marinau Baia de Caxiuna Baia de Caxiuana Ilha Tapera Rio Guajara Furo da Laguna Sao Pedro de Viseu Furo do Pacajai Sao Pedro Baia Pacajai Corrego da Onea Ilhas do Comandai Bahia do Cachuana Boa Vista Bom Jardim Baia de Caxuana Sao Joao do Pracajuba
Impact(s)	• Better governance • They are trained to be the point person for the project to improve their level of organization, management and democratic governability • An association was set up to help the governability it is called: • Associacao de Ribeirinhos e Moradores de Portel, Para Ltda. • The goal is eventually to have this person to be the organization head of the project village and the person to head up large scale socio economic activity.
Type of Benefit/Cost/Risk	• Actual benefit • overall satisfaction of community
Change in Well-being	• Better governance

Community Group	• Riverine Community •
Impact(s)	• 150 people were trained on the efficient cook stoves. • 150 cook stoves have been provided to the riverine people. • Number of improved cooking stoves pilots implemented in local families

	- Capacity building related to efficient and improved cooking stoves - improvement in health
Type of Benefit/Cost/Risk	- Actual benefit - overall satisfaction and health of community
Change in Well-being	Improvement in overall satisfaction and health of community

Community Group	- Riverine Community
Impact(s)	- Over 150 people in the 17 villages were sat down and had a 1 on 1 instruction of how black pepper would work in an agro-forestry scenario. - Number of people trained in agroforestry techniques - Number of implemented agroforestry pilot projects - Capacity building - Improved agricultural practices
Type of Benefit/Cost/Risk	- Predicted benefit - overall satisfaction and food security of community
Change in Well-being	- Improvement in overall understanding that Casava, just because it is comfortable, is not the only option. - In all meetings and interviews and discussions it was informed way that cassava was not the best option from and economic standpoint. - At least 200 people.

Community Group	- Riverine Community - All riverine communities inside and outside that is within the leakage belt will also receive land title. - Each land title results in a commitment to the project.
Impact(s)	200 received land tenure document known as CAR - Providing land ownership legal rights
Type of Benefit/Cost/Risk	- The land title undermines the illegal loggers - The land title brings stability to the local community. - It prevents land invasion by land invaders.
Change in Well-being	Improvement in overall satisfaction and security of community

4.1.2 Negative Community Impact Mitigation (CM2.2)

There are no negative community impacts and hence there is no need for mitigation.

4.1.3 Net Positive Community Well-Being (CM2.3, GL1.4)

Net Positive community impacts are expected to be:

- 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.

As shown in Section 4.1.1, most of the activities initiated during the reporting period will have multiple positive impacts on a large segment of the communities under the project. The potential costs or negative impacts from implementing the proposed project activities are nil/minimal and are being mitigated for to some extent through the community projects (e.g., for poachers). Consequently, the net well-being impacts for the reporting period are overwhelmingly positive given the proportion of the population potentially impacted, the magnitude of the impacts and their long-term nature.

4.1.4 Protection of High Conservation Values (CM2.4)

As shown under Section 4.1.1, the project activities undertaken during the reporting period were all geared towards reducing pressure on the forest by diversifying livelihoods away from direct natural resource exploitation and enhancing forest protection. No negative effects are anticipated because of the project activities.

4.2 Other Stakeholder Impacts

4.2.1 Mitigation of Negative Impacts on Other Stakeholders (CM3.2)

There are not expected negative offsite impacts thus no mitigation strategies are required.

4.2.2 Net Impacts on Other Stakeholders (CM3.3)

Not Applicable

4.3 Community Impact Monitoring

4.3.1 Community Monitoring Plan (CM4.1, CM4.2, GL1.4, GL2.2, GL2.3, GL2.5)

The project proponents have designed a Social Impacts Monitoring Plan in accordance to the results obtained in the rural participatory diagnosis developed in the project area and initially considering the indicators for the products of the proposed activities based on the identification of

the necessities indicated by the population and the strategies foreseen to accomplish the project goals.

The following Table shows a non-comprehensive list of activities and indicators that will be considered during monitoring. A full and detailed list will be presented in the monitoring plan that will be developed and submitted within the first six months after validation.

Table: Some activities and indicators of the social monitoring

Activity	Product Indicator
1. Capacity building related to the monitoring and management of the forest and biodiversity. Opportunities to work as control/supervision staff.	• 17 community leaders of trained people in biodiversity and forest monitoring. There is 17 villages thus the project made a goal to have 1 point person to talk to at each village, who would then follow the flow chart to relay information to the riverine people in that area. • Each village was trained to participating in the monitoring activities each month. • Technicians completing survey work in the project area and staying in the forest for long period of time are able to monitor biodiversity.
2. Improving organizational capacities of each community.	• 17 community leaders (1 per village) trained to improve their level of organization, management and democratic governability • Number of local leaders participating in the development of an organization system • Number of local associations/organizations strengthened by the project activities
3. Providing land ownership legal rights versus conservation results	• Over 200 people living inside LMA and its proximities • 200 of people registered in the program to become legal land owners (inside and outside project area and LMA) • 200 of people that meet the forest conservation <i>agreement</i>.
4. Providing assistance to obtain land use rights over the forest owned by the private property landowners	• 200 people (Over 18,000 hectares) registered in the program to obtain the <i>use from land that was titled as private property as par to the project and is shifted over to the riverine people to be their land</i>. The reason we know 200 were done is because the project did this, reviewing each CAR, one by one, as listed above the process is tedious with visit after visit to the same location, with locations very far from the town of Portel.
5. Providing assistance and training in agroforestry techniques and implementing <i>pilot cases</i> .	• Over 35 people have been given lessons and training in alternative crops of agroforestry such as black pepper, honey or andiroba oil. • Two trial projects for honey and andiroba oil with no pilot project yet for black pepper due to the massive implementation expenses.
6. Capacity building related to efficient and improved cooking stoves and implementation of pilot <i>demonstrative cases</i>	• 150 people trained in the use of efficient improved cooking stoves • 150 of improved cooking stoves pilots implemented <i>in local Families</i>

A Participatory Census were carried out previously to the design of the definite Monitoring Plan in the Project area. This intends to collect information about the unsatisfied basic needs, health, education, family economy, communal organization, etc., which were come the project baseline and also represent the social indicators to be monitored throughout the project's execution.

Likewise, in order to develop the social-environmental indicators for the results, several communitarian workshops will take place as a fundamental part of the Social Communitarian Monitoring System that will facilitate the follow-up and evaluation of the benefits of the project to improve the quality of life of the communities.

This system will have trained communitarian monitors that will continuously carry out the follow up activities evaluating the commitments, project activities and communities every 3 to 6 months. Also, the Communitarian Impacts Monitoring Plan will carry out an exhaustive annual assessment of the indicators.

The Social Impacts Monitoring Plan aims at creating an association and mutual responsibility sense between the project and local communities in the management of social environmental impacts, as well as improving the perception of the social responsibility adopted by the project. The PP is committed to develop a complete Social Impacts Monitoring Plan with the characteristics here mentioned in the first year from validation.

Monitoring Plan Dissemination (CM4.3)

The plan was provided to local access via the project webpage and they have this.

In addition to this the technicians who travel to the land are required to carry all the most up-to-date documents and go through them with the communities at their request.

The head of each village were shown a hard copy of the results and a discussion took place to make sure that this person understood it.

4.4 Optional Criterion: Exceptional Community Benefits

The project has implemented distribution of energy efficient cook stoves for cooking and farinha (flour) production for the community members. A number of people have been trained in the use of efficient improved cooking stoves and the number of improved cooking stoves pilots implemented in local families is part of the monitoring plan and theory of change. This ensures capacity building related to efficient and improved cooking stoves, improvement in health and Improvement in overall satisfaction and health of community. Also this reduces the firewood consumption as cook stoves are more efficient compared to open stoves traditionally used.

Land Tenure: The project has provided 200 CAR documents in the region, land tenure certificates. This prevents the illegal loggers from evicting the local population, which faces severe displacement scenarios when. This is the centrepiece of the project, as human rights is a major factor in the project.

4.4.1 Short-term and Long-term Community Benefits (GL2.2)

Cook Stoves: The project has implement distribution of energy efficient cook stoves for farinha production for the community members. A number of people have been trained in the use of efficient improved cooking stoves and the number of improved cooking stoves pilots implemented in local families is part of the monitoring plan and theory of change. This ensures capacity building related to efficient and improved cooking stoves, improvement in health and Improvement in overall satisfaction and health of community. Also this reduces the firewood consumption as cook stoves are more efficient compared to open stoves traditionally used. This results in long term community benefits.

Land Tenure: The 2012 to 2017 period dealt with numerous trial and error type census of going back and forth to each house to gain the data necessary for entering the data into the system, then came the deconfliction. So in the short term we were able to be successful in getting

enough data to complete the CAR for each household. The long term benefits of this are the following:

The community was told by illegal loggers not to gain CAR. Thus if a person did not have the CAR in the system they would no longer be able to EVER gain a CAR in the future.

The CAR is required to be able to gain bank financing for any type of project from sustainable fishing, to agro-forestry, to black pepper, to even buy the seeds for the Cassava. Thus the project saved the entire community from being unable to continue gaining the 2000 to 3000 reais from the governments development bank financing that Riverine people are entitled to, to gain their seeds for the Casava plantings.

However the project saved the people in the project area and the Leakage management area by doing the Car, but thousands of other riverine people outside the LMA were not fortunate, they do not have the CAR and thus don't have rights, have no way to access bank credit and are in an extremely dire situation.

4.4.2 Marginalized and/or Vulnerable Community Groups (GL2.4)

Community group 1	Riverine community which are categorised as poor
Net positive impacts	With improvement in livelihood, the riverine community will experience the net benefits associated with the project at both short term and long term levels.
Benefit access	The short term and long term benefits ensure a better safety, security and sustainable living. Also the door to door meetings ensure that the project calibrates itself to meet the expectations of the benefit programmes implemented.
Negative impacts	The project has a role to facilitate feedback from the most poor members of the community. This process of regular interaction will prevent negative impacts on community members.

Community group 2	Women in riverine community
Net positive impacts	Improved livelihood of the women is expected to occur from the health benefits of using improved cook stoves for cooking. Also the lesser time it takes for farinha productions means they can spend more time involving in other activities such as agroforestry which ensures overall better livelihood.
Benefit access	The short term and long term benefits for women ensure a better safety, security and sustainable living. Also the door to door meetings ensure that the project calibrates itself to meet the expectations of the benefit programmes implemented.
Negative impacts	The project has a role to facilitate feedback from the most vulnerable and marginalized members of the community. This

	process of regular interaction will prevent negative impacts on community members.
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4.4.3 Net Impacts on Women (GL2.5)

The net impacts on women observed during this monitoring period is summarised below:

- Around 150 cook stoves have been distributed of which the main beneficiaries are women. Being a double burner cook stove, overall cooking time is reduced.
- The extra time is being spent by women for agroforestry activities such as bee keeping. During the one to one meetings, more interest to use the bee boxes was observed. Around 200 bee boxes were distributed during this monitoring period as a trial.
- The participation of women in meetings has been recorded to be of more than sufficient level given the historically existing gender imbalance in the region. The average representation in the one to one meetings is ensured as women are usually at the household and they are the main contributors for the survey inputs. More than 70% of the respondents interviewed were women.
- Long term benefits such as improvement in indoor quality is also recorded by means of surveys. This has a direct impact of improving women's overall health. Around 89% of women responded positively on this aspect.
- Overall around 260 women have benefitted during the monitoring period.

The women are the heads of the households and are typically the main points of contact for the project so they make the decisions.

4.4.4 Benefit Sharing Mechanisms (GL2.6)

- The focus of the project is to eventually give out a quarterly financial contribution to each family, but the project has not had the financial wherewithal to do that, as well as implementation of the social aspects.
- It is to set up a governance structure operated by the locals throughout the community.
- It is to counter other syndicates in the region that are set up and backed by the illegal logging syndicates. These other syndicates have no clear governance structure on what their actual goals for the people are. Such as granting them title. The other syndicates were behind the campaigns telling the riverine people not to do the government required CAR certificates – which resulted in the project doing it for everyone.
- To pay for the boat, the team, the survey work, and the work related to the land tenure has resulted in a cost of over USD 400,000 Dollars and this has been the focus as of this time. This land tenure is the first step, this is the CAR.
- The 150 cook stoves cost about USD 50 dollars, each but delivery to the region is an additional USD 100 dollars including freight, staff salaries.

Future benefit sharing mechanism is the following:

- 350 additional cook stoves

- Additional survey work which will cost about USD 1 million dollars to finalize the full implementation of land tenure of all the land surrounding the project area. This is in relation to gaining the Final Title, completing the process for every family.
- A future key project is, the first trial boxes of 200 boxes have already been distributed. These bee boxes cost 30 dollars each and the additional equipment, freight, logistics is a USD 1 million dollar project to improve the economy. The goal is to produce 1 liter of Jatai Honey per bee box

4.4.5 Governance and Implementation Structures (GL2.8)

- The project has hired Anthropologists who specialize in traditional people to work as the liaisons for the project and interface with the locals. The project technicians are very good at interfacing, but the anthropologist and their ability to analyze the people helped improve on communication and implementation of the needs.
- The project also set up an association for the project to implement all aspects: This association provides the social benefits to the local population. Active participation of the association was observed during this monitoring period.
- The project governance is set up to work through the boat pilot who is the point of communication for the project, when the team is not on the ground. He relays all communication back to the operational team; he does surveys of the people when the operational team needs information. He has been involved in the project since 2009, and knows every person in the project area, making ease of communication very good.
- The project works from small community of 4 to 10 houses at a time. It focuses on individual explanation and one on one discussions. It was very difficult to explain what “carbon” is or “credit” is and the word carbon credit is even more foreign to them. Carbon they don’t know what it is thus individual discussions has been key. However based on the questions that took place between 2012 and 2017 everyone accepted the project and wants to do the project. They see any benefit better than no benefit.
- Most discussions revolve around what they are comfortable with working on versus what we want them to do. Some more complex agriculture projects have been deemed uncomfortable and they prefer to focus on projects that have already been proven to work by someone else in the region. In other words: “no re-inventing the wheel”
- The governance is not designed to make broad and general decisions, it is to focus on each group of houses and their goals. Thus if one group of houses wants to do honey as a way to improve their economy then we don’t try to force this onto another group. We do what the other group of houses wants to complete.

4.4.6 Smallholders/Community Members Capacity Development (GL2.9)

During this period the project has been working with several academic institutes and associations as summarized below:

- a) The project has been working with the Professors of Geography at the University of Para. They have been advising and coordinating the aspect of land Tenure for the rural population within the project area. The University of Para is not directly affiliated with the project, but as Professor brings a major expertise to the programs and procedures related to fulfilling the more complex land tenure questions within the project area. Professor and his team of

interns and technicians have been successfully working to implement these land tenure aspects and explain to the local community that benefits from this.

- b) The Association of Riberinhos and Moradores of Portel, Para is working to become the representative body for the local population, by helping defending their rights against illegal loggers in the region, to help coordinate a formal security presence and to help represent them legally from illegal land invasion threats that are still ever present.
- c) The Association of Ribeiorinhos and Moradores of Portel, is also acting as a custodian for those landowners who do not possess a Birth Certificate, tax ID number or ID number. For many people the distribution of these documents was done by the association for this monitoring period. Those people need to gain these documents before they are able to own the land the project is arranging for them. So the association holds the title as a custodian, where the title can only be transferred at the time that they possess this. Once all the paperwork is complete the project will pay for the people to gain these documents, in this case the main cost is transportation as the local notary is obliged by law to provide for free.

5 BIODIVERSITY

5.1 Net Positive Biodiversity Impacts

5.1.1 Biodiversity Changes (B2.1)

The project focus exclusively on conservation measures within the project boundaries and its buffer, which makes negative offsite effects unlikely to happen. Besides, monitoring of flora and fauna will assure that any minimal offsite negative effect will be taken care of immediately. Also, as mentioned on G3.2, the Projects activities do not involve the introduction of non-native species and the engagement of local community contributes for the socio-environmental safeguarding activities.

It is also very unlikely that the Project's activities within its boundaries (implementation of agroforestry techniques, energy efficient cook stoves for farinha production, and tenure rights) have any offsite impact. Therefore, considering these activities and "with project" scenario, the effects of the project on biodiversity is positive.

Change in Biodiversity	Vegetation cover /land use patterns
Monitored Change	Approximately 10 % Improvement of carbon stocks in the forest area was observed.
Justification of Change	Periodic analysis of satellite imagery and GIS analysis and assumptions used to estimate or document the change. Greatly reduced illegal logging in the project area, and this is mostly allowed old logging roads to fill with vegetation. This elimination of illegal wood activities has helped the flora replenish

Change in Biodiversity	Monitor area-limited species: species that require large patches to maintain viable populations, such as large carnivores. That will indicate potential habitat losses and prey availability
Monitored Change	Increase in number of specific category species noted by sightings during regular patrolling for this monitoring period. Puma concolor/ onca-parda- 5 Panthera onca/ onca-pintada - 6
Justification of Change	Increase in number of specific category species as the project area is not disturbed by agents of deforestation. This is noted by sightings during regular patrolling.

Change in Biodiversity	Monitor resource-limited species: species requiring specific resources, such as frugivorous species, nectar species, snags etc. Bats can be great bio indicators as they have different feeding habits, such as insects, fruits, nectar/pollen, blood etc. They are also abundant through the region and its taxonomy has been well documented
Monitored Change	Increase in number of specific category species noted by sightings during regular patrolling for this monitoring period; jacamim-de-costas-verdes - 1 Ararajuba - 2 tiriba-pérola - 1
Justification of Change	Increase in number of specific category species as the project area is not disturbed by agents of deforestation. This is noted by sightings during regular patrolling.

Change in Biodiversity	Monitor “special interest” species, critically endangered species, endangered species, and threatened species (IUCN, IBAMA)
Monitored Change	Increase in number of specific category species noted by sightings during regular patrolling macaco-precgo - 2 macaco-de-cheiro - 3 Puma concolor/ onca-parda- 5 Panthera onca/ onca-pintada - 6
Justification of Change	Increase in number of specific category species as the project area is not disturbed by agents of deforestation. This is noted by sightings during regular patrolling.

5.1.2 Mitigation Actions (B2.3)

The project during the monitoring period has sent teams of people, every year in two forms: Security and Monitoring, and the other team is training / implementing social projects (land tenure/cookstoves) and conservation education. The biodiversity monitoring is implemented as part of the regular patrolling conducted. The patrol guards note the sightings in the log book, which is reflected for this monitoring period. On an average 6 to 7 patrols have been conducted each year during this monitoring period. It is also informed that such patrols which have been on-going since project start date of 2009 onwards Security Patrols are coordinated by Silas, Camerao and Sergio. Further mitigation actions such as creating the awareness on conservation issues to the community and steps to prevent and remove land grabbers and illegal logging activities have ensured that the habitat is not fragmented.

5.1.3 Net Positive Biodiversity Impacts (B2.2, GL1.4)

Net positive impacts on biodiversity have been demonstrated for this monitoring plan over time through periodic monitoring and reporting of biodiversity indicators as per the Biodiversity Monitoring Plan.

5.1.4 High Conservation Values Protected (B2.4)

High Conservation Value	Caxiuana National Forest
Qualifying Attribute	The Caxiuana National Forest is considered the oldest in the Amazon region and the second in Brazil. It is amongst the most known conservation units in north of Brazil, and it has the presence of many important researchers from Brazil and abroad. There have been no changes to the HCV area for this monitoring period as analysed from GIS data. Further this serves as a biodiversity corridor resulting in the sightings of the endangered species in the project area.
Focal Area	On the northern border of the reference region there is a national conservation unit called National Forest Caxiuanã. It was created in 1961 and today it has an area of 322,694.34 hectares. The Conservation Units are types of conservation areas that were created to allow sustainable use of the forest and its natural resources

5.1.5 Invasive Species (B2.5)

None of the Projects activities will introduce invasive species or genetically modified organisms. The Project's developer will only approve agroforestry activities that use native species commonly known to occur in the Para region and are not in the Global Invasive Species Database before approving the utilization of particular species. Hence no invasive species were introduced for this monitoring period.

5.1.6 Impacts of Non-native Species (B2.6)

No non-native species will be used in the Project Accounting Area.

5.1.7 GMO Exclusion (B2.7)

No GMOs will be used both within the Project Accounting Area and Project Zone.

5.1.8 Inputs Justification (B2.8)

Not Applicable

5.2 Offsite Biodiversity Impacts

5.2.1 Negative Offsite Biodiversity Impacts (B3.1) and Mitigation Actions (B3.2)

The conservation itself as the aim of the project is already a mitigation strategy. The entire area will benefit from it since there is no activity involving any kind of human disturbance. Furthermore, conservation of the project area increases landscape integrity and adaptation, avoiding edge effect, as described in the “with project” scenario, benefiting biodiversity (Wunder 2008).

A representative conservation area in which biodiversity can persist guarantees the maintenance of ecological processes and contributes to avoid fragmentation of the ecosystem, both through timber extraction and agricultural activities. The project will help landscapes enhancing its ecological health, including its adaptability to climate change and consequently reducing offsite greenhouse gas emissions (Wunder 2008). Moreover, the conservation of this area will maintain microclimate, avoiding wildfires (Soares-Filho 2006).

Hence as there are no offsite negative biodiversity impacts, there are no planned mitigation measures.

Negative Offsite Impact	Mitigation Measure(s)
There are no offsite negative biodiversity impacts	Not applicable

5.2.2 Net Offsite Biodiversity Benefits (B3.3)

The Project is expected to generate positive leakage on biodiversity by avoiding ecosystem fragmentation through voluntary engagement of neighbour communities in the Project activities. As described above, the project focus exclusively on conservation measures within the project boundaries and its buffer, which makes negative offsite effects unlikely to happen. Besides, monitoring of flora and fauna will assure that any minimal offsite negative effect will be taken care of immediately. Also, as mentioned on G3.2, the Project activities do not involve the introduction of non-native species. Therefore, considering these activities and “with project” scenario, the effects of the project on biodiversity is positive for this monitoring period.

5.3 Biodiversity Impact Monitoring

5.3.1 Biodiversity Monitoring Plan (B4.1, B4.2, GL1.4, GL3.4)

Indicators are important in impact assessment because they respond to the basic question “what should be measured to show that the claimed net social benefits are real and additional?” (Richards & Panfil 2011) An ideal indicator from the perspective of showing attribution is one that measures an ‘intermediate state’ or assumption between an output and outcome or an outcome and an impact, clearly showing progress along a causal chain (Richards & Panfil, 2011). Thus, we used our theory of change logic as the basis for selecting indicators that factor in attribution. We then decided on the best sampling methods to use to collect these data to acceptable levels accuracy, precision and cost effectiveness whilst retaining transparency and simplicity. From this, a Monitoring Plan was developed to guide data collection.

Further, the indicators will be analyzed based on the Pressure-State-Response framework, which also relies on a causal-chain logic, where threats negatively impact the status/condition of biodiversity, while responses or project interventions reduce pressure. Most Response indicators can be grouped under:

- Habitat improvement
- Security enhancement; and
- Improvement of community livelihoods efforts.

Pressure indicators fall under:

- Human population size and dynamics;
- Human-wildlife conflict (HWC); and
- Incidences including poaching, grazing, encroachment, charcoal and firewood collection amongst others.

Finally, State indicators are grouped into three categories:

Wildlife: wildlife surveys and monitoring for all species was done by using information of sightings and recording evidence of species habitation.

Vegetation and land-use: carbon plot monitoring plots and remote sensing (based on LANDSAT imagery) and GIS techniques.

The riverine people were required to report all instances including human-wildlife conflict. This was reported to the local point of contact reported this back for verified first hand instances during this monitoring period. No significant incidents were recorded for poaching, grazing, encroachment, charcoal and firewood collection.

5.3.2 Biodiversity Monitoring Plan Dissemination (B4.3)

A summary of the monitoring plan was translated to local language and disseminated to the community groups and other stakeholders prior to validation. Monitoring results was also communicated through meetings.

5.4 Optional Criterion: Exceptional Biodiversity Benefits

This project is seeking Exceptional Biodiversity Benefits based on the presence of IUCN Red Listed species and critical ecological functions.

5.4.1 Trigger Species Population Trends (GL3.3)

Trigger Species	Not applicable as this gold level biodiversity criteria is not claimed due to insufficient data.
With-project Scenario	This criterion is not monitored for this monitoring period.

5.4.2 Effectiveness of Threat Reduction Actions (GL3.4)

Not applicable as this gold level biodiversity criteria is not claimed due to insufficient data. This criterion is not monitored for this monitoring period.

6 ADDITIONAL PROJECT IMPLEMENTATION INFORMATION

The monitoring process includes verification of the project against CCB criteria for the monitoring period from 2nd January 2012 to 31st December 2017. Also, for period from 2nd January 2009 to 1st January 2012, verification has been conducted to demonstrate that it has produced net positive benefits over the project lifetime and has not caused harm to any community members.

7 ADDITIONAL PROJECT IMPACT INFORMATION

NA

