

The Envira Amazonia Project

A Tropical Forest Conservation Project in Acre, Brazil



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COVER PAGE

I. Project Name: The Envira Amazonia Project - A Tropical Forest Conservation Project in Acre, Brazil (i.e., The Envira Amazonia Project)

II. Project Location: Near city of Feijó, State of Acre, Brazil

III. Project Proponent: CarbonCo, LLC is the lead Project Proponent, along with Carbon Securities and JR Agropecuária e Empreendimentos EIRELI. CarbonCo's contact and address is:

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IV. Auditor: Instituto Manejo Certificacao Florestal e Agrícola (IMAFLORA) is the auditor, with assistance from Rainforest Alliance. IMAFLORA's contact and address is:

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Klaus Geiger, Rainforest Alliance
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V. Project State Date, GHG Accounting Period, and Project Lifetime: The Project Start Date is August 2, 2012 with a 10 year GHG Accounting Period and the Project Lifetime is 30 years.

VI. Project Implementation Period: The initial CCBS Project Implementation Report (PIR) covered the first monitoring, reporting and verification (MRV) time period from August 2, 2012 to December 31, 2014. This second CCBS PIR covers the MRV time period from January 1, 2015 to December 31, 2015.

VII. History of CCB Status: The CCBS Project Design Document was officially validated on April 15, 2015. The Project's initial CCBS PIR was verified on February 16, 2016. The Project is now undergoing its second CCBS verification.

VIII. Edition of CCB Standard Being Used: Third Edition

IX. Summary of Climate, Community and Biodiversity Benefits Generated: From August 2, 2012 to December 31, 2014, the Envira Amazonia Project reduced deforestation and mitigated the associated greenhouse gas emissions, engaged local communities, hired a local project manager, began designing various projects and programs such as commercializing the collection of medicinal plants and granting land tenure, numerous vulnerable trees species and endemic bird species have been discovered, and the Project conserved the Project Area's rich tropical biodiversity.

From January 1, 2015 to December 31, 2015, the Envira Amazonia Project reduced deforestation and mitigated the associated greenhouse gas emissions, preserved biologically diverse habitats, initiated and completed an onsite bird study which identified several endemic and threatened species, continued engaging local communities and stakeholders, and distributed dental kits.

X. Gold Level Criteria Being Used and Summary of Gold Level Benefits Generated: The Envira Amazonia Project was validated to the Gold Level for climate adaptation, along with Gold Level for exceptional community and biodiversity benefits. The Project is incorporating climate adaptation measures, promoting a pro-poor initiative, and conserving several vulnerable tree species along with numerous endemic bird species.

XI. Date of Completion of this Version and Version Number: This version, Version 1.0, was completed on December 08, 2016.

INTRODUCTION

The Envira Amazonia Project (“Project”) is a payment for ecosystem services forest conservation project, otherwise known as a Reducing Emissions from Deforestation and forest Degradation (REDD+) project, on 39,300.6 hectares or approximately 97,072.5 acres of privately-owned land in Acre, Brazil.¹ The total property is 200,000 hectares or approximately 494,000 acres and the Project shall seek to conserve the entire property, but the Project activities will specifically focus on the subset Project Area of 39,300.6 hectares.

The three main Project Proponents are CarbonCo, LLC (“CarbonCo”), Freitas International Group, LLC (“Freitas International Group or Carbon Securities”), and JR Agropecuária e Empreendimentos EIRELI. CarbonCo, the wholly-owned subsidiary of Carbonfund.org, is responsible for getting the Project certified and for early-stage Project finance. Carbon Securities acts as a liaison between CarbonCo and JR Agropecuária e Empreendimentos EIRELI, along with acting as a translator and assisting with logistics for site visits. JR Agropecuária e Empreendimentos EIRELI, which translates into JR Agriculture-Livestock and Ventures, is an Acre, Brazil-based company and is primarily responsible for day-to-day management of the Project and the implementation of activities to mitigate deforestation.

The ultimate project activities are to undertake a forest carbon inventory, model regional deforestation and land-use patterns, and mitigate deforestation pressures by utilizing payments for the Project’s ecosystem services, along with ongoing monitoring of the climate, community and biodiversity impacts of the Project. In addition to voluntarily foregoing plans to convert the forests to a large-scale cattle ranch, JR Agropecuária e Empreendimentos EIRELI will also implement numerous activities to assist local communities and mitigate deforestation pressures such as: offering agricultural extension training courses; beginning patrols of potential deforestation sites in the early stages of the Project; granting land tenure to local communities;

¹ The Term REDD and REDD+ will be used interchangeably. REDD+ includes REDD along with forest conservation, sustainable forest management and the enhancement of carbon stocks. Thus, the Russas Project includes elements of forest conservation, sustainable forest management and reforestation.

and establishing alternative economic activities including commercializing the collection of medicinal plants and açaí.

The Project was officially validated by Environmental Services, Inc. (ESI) to the Climate, Community and Biodiversity Standard (CCBS, Third Edition) in April 2015 and to the Verified Carbon Standard (VCS, Version 3.4) in April 2015. The Project was then verified by ESI to the CCBS and the VCS in February 2016 and May 2016. Furthermore, the Project is aligned with the REDD+ Social and Environmental Standards and the State of Acre's Payment for Ecosystem Services (Law # 2.308/2010). The Project is now being reviewed for its second verification to the VCS and CCBS.

Please contact Brian McFarland of CarbonCo, LLC with any questions, comments or concerns regarding the Envira Amazonia Project 1-240-595-6883 or via email at BMcFarland@CarbonCoLLC.com.

GENERAL SECTION

G1. Project Goals, Design and Long-Term Viability

The Envira Amazonia Project has clearly-defined objectives to generate net positive climate, community and biodiversity benefits throughout the Project Zone and over the Project Lifetime. Potential project risks, including natural, anthropogenic and project-level risks, have been identified and shall be both monitored and managed to ensure ongoing net positive benefits.

Project Overview

Project Proponents

The three main Project Proponents are CarbonCo, LLC ("CarbonCo"), Freitas International Group, LLC ("Freitas International Group or Carbon Securities"), and JR Agropecuária e Empreendimentos EIRELI. CarbonCo, the wholly-owned subsidiary of Carbonfund.org, is responsible for getting the Project certified and for early-stage Project finance. Carbon Securities acts as a liaison between CarbonCo and JR Agropecuária e Empreendimentos EIRELI, along with acting as a translator and assisting with logistics for site visits. JR Agropecuária e Empreendimentos EIRELI is an Acre, Brazil-based company and is primarily responsible for day-to-day management of the Project and the implementation of activities to mitigate deforestation.

The Primary Project Proponent is CarbonCo and CarbonCo's contact information is as follows:

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Project's Climate, Community and Biodiversity Objectives

The overarching objective of the Project is to generate sustainable economic opportunities for the local communities and to implement social projects, while mitigating deforestation (i.e., which

results in less greenhouse gas emissions) and preserving the tropical rainforest habitat for the Project's rich biodiversity.

By voluntarily foregoing plans to convert the forests to a large-scale cattle ranch and by mitigating local deforestation pressures, payments for ecosystem services will be generated which will enable the implementation of on-the-ground social projects and the creation of economic opportunities for the local communities. Similarly, by improving local livelihoods and creating alternative economic opportunities, there will be less pressure on the forests and a reduction in deforestation. Improving local livelihoods and reducing deforestation are key mechanisms, in addition to the landowners' willingness to forego forest conversion, to preserve the Project's tropical rainforest habitat and biodiversity.

Project Location and Parameters

The Amazon Basin is approximately 1.4 to 2.3 million square miles and its extensive watersheds – consisting of nearly 363 to 596 million hectares – cover the eight countries of Brazil, Bolivia, Peru, Ecuador, Columbia, Venezuela, Guyana, and Suriname; 60% of which is considered Brazilian territory. The Legal Amazon of Brazil covers the states of Acre, Amapá, Amazonas, Maranhão, Mato Grosso, Pará, Rondônia, Roraima and Tocantins.

The following political map is the State of Acre which borders the Brazilian state of Amazonas along with the countries of Peru and Bolivia:²



Map 1: State of Acre (Credit: V-Brazil)

More specifically, the Envira Amazonia Project is located in Acre, Brazil and approximately 40 kilometers (“as the crow flies”) from the city of Feijó. The entire 200,000 hectare property is located from the Envira River, crosses over the Jurupari River, and stops at the Purus River. To reach the Project Area along with Jurupari River (pictured below), one would drive South from

² V-Brazil.com, “Map of Acre, Brazil,” Available: <http://www.v-brazil.com/tourism/acre/map-acre.html>

Feijó to Rio Branco for approximately 82 kilometers, then turn right off of the BR-364 Highway, and there is an Ramal approximately 5 kilometers long to the Project Area.



Map 2: Map of Envira Amazonia Project (Credit: TerraCarbon)

Basic Physical Parameters

Please see the validated PDD for information on the Envira Amazonia Project's soil, topography, climate, temperature, and precipitation. Below is an overview of the vegetation and forest types of the Envira Amazonia Project.

Types and Condition of Vegetation and Forest

The five main forest classifications in Acre – which cover nearly 72% of the State – are:

- Open forest with bamboo + open forest with palms (40,546 km² or 24.69% of State)
- Open forest with palms + open forest with bamboo (22,416 km² or 13.65%)
- Open forest with palms + open forests with bamboo + dense forest (21,579 km² or 13.14%)
- Open forest with palms + dense forest (16,964 km² or 10.33%)
- Open forest with bamboo (16,455 km² or 10.02%)

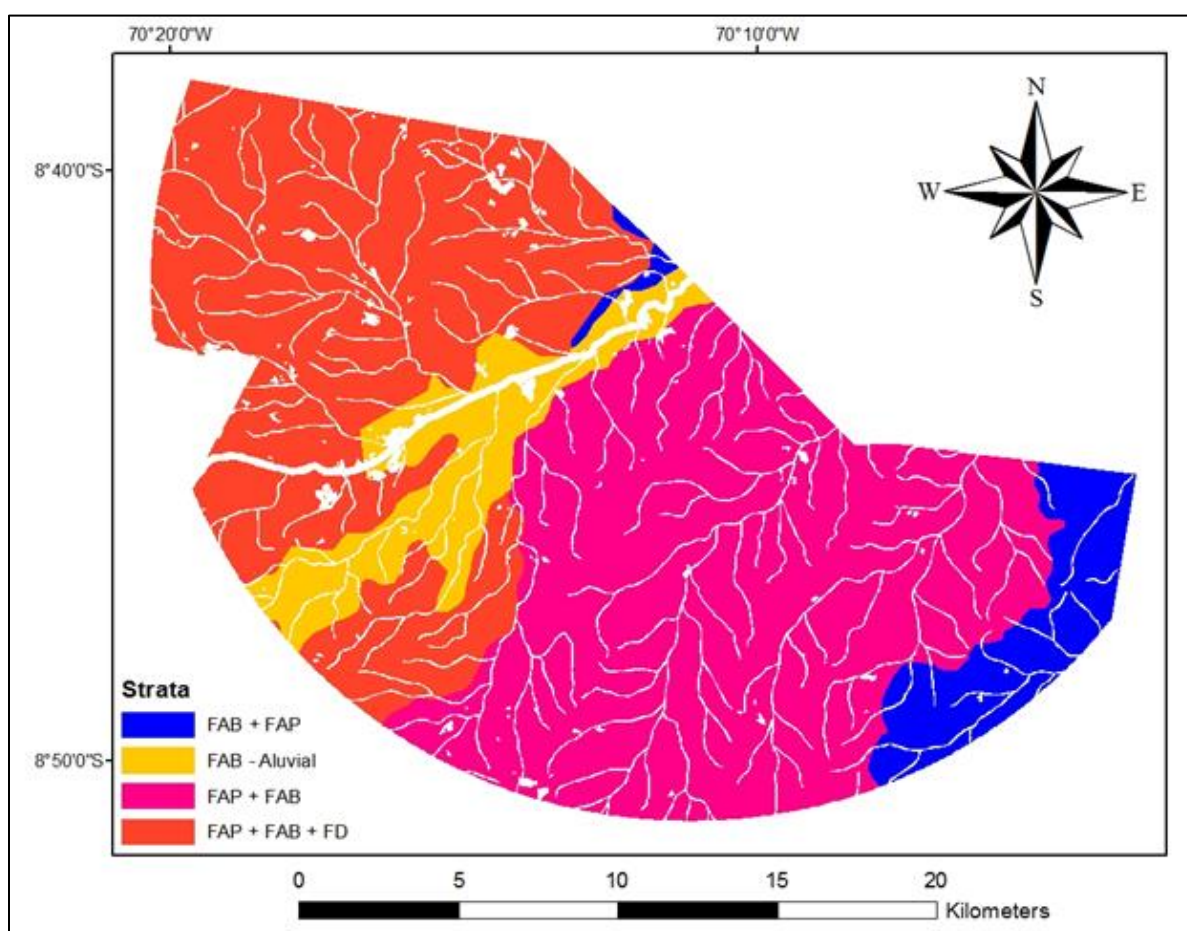
With respect to these five forest classifications, it is important to note that “the order of typology determines that the first typology is more predominant than the following ones.”³

³ State of Acre and GCF, “Acre GCF Database,” Available: [http://www.gcftaskforce.org/documents/Final_db_versions/GCF%20Acre%20Database%20\(November%202010\).pdf](http://www.gcftaskforce.org/documents/Final_db_versions/GCF%20Acre%20Database%20(November%202010).pdf), Page 1

Similarly, the Envira Amazonia Project consists of the following four vegetative strata:

Stratum	Stratum Description	Area (Hectares)
FAB + FAP	Open bamboo forest with palm	2,914.6
FAB - Aluvial	Open aluvial forest with bamboo	3,280.9
FAP + FAB	Open palm forest with bamboo	18,305.5
FAP + FAB + FD	Open forest with bamboo and palm and dense forest	14,799.6

Figure 1: Vegetative Strata at Envira Amazonia Project (Credit: TerraCarbon and TECMAN)



Map 3: Vegetative Strata of Envira Amazonia Project (Credit: TerraCarbon)

The forests within the Project Area are primary, tropical forests.

Basic Social Parameters

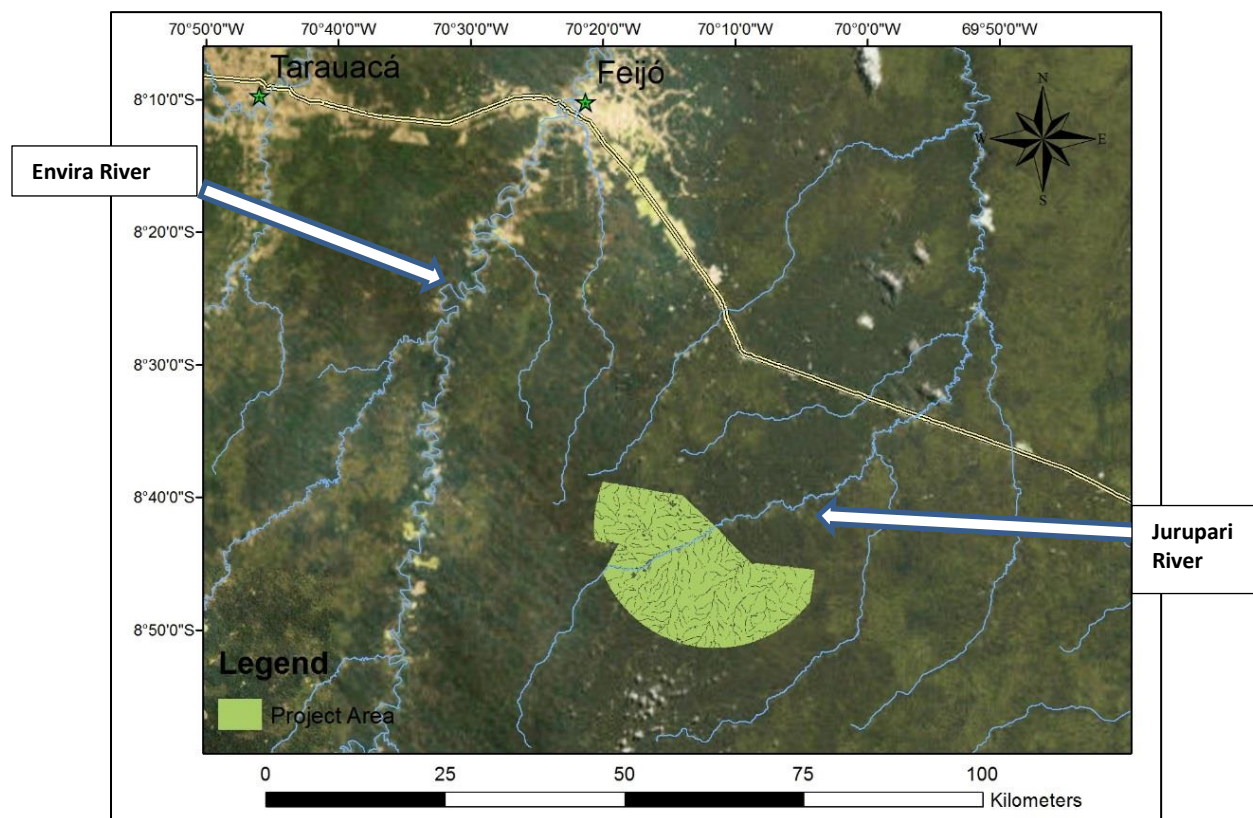
The families living within the Project Zone, along with the Other Stakeholders on the Envira River, are riverine communities and the majority of the families are former extractivists (i.e.,

rubber tappers). The Project Zone includes a balance of men and women, with generations of children, parents, and grandparents. All of the families within the Project Zone practice subsistence agriculture, most of the families raise cattle, and many families also raise small animals such as pigs, chickens and ducks. While no communities reported selling timber, many communities utilize charcoal or propane gas for cooking. Many of the families fish in the Jurupari River or in nearby oxbow lakes, and many also hunt within the forests of the Project Zone. Boats, and especially wooden canoes, are a very important mode of transportation for families living throughout the Project Zone. In addition to being former rubber tappers, the local community's ethnicity is further characterized by their Brazilian nationality and a common language (Portuguese), along with shared religious beliefs (Christianity) and customs such as playing soccer, hunting, and agriculture.

Project Design and Boundaries

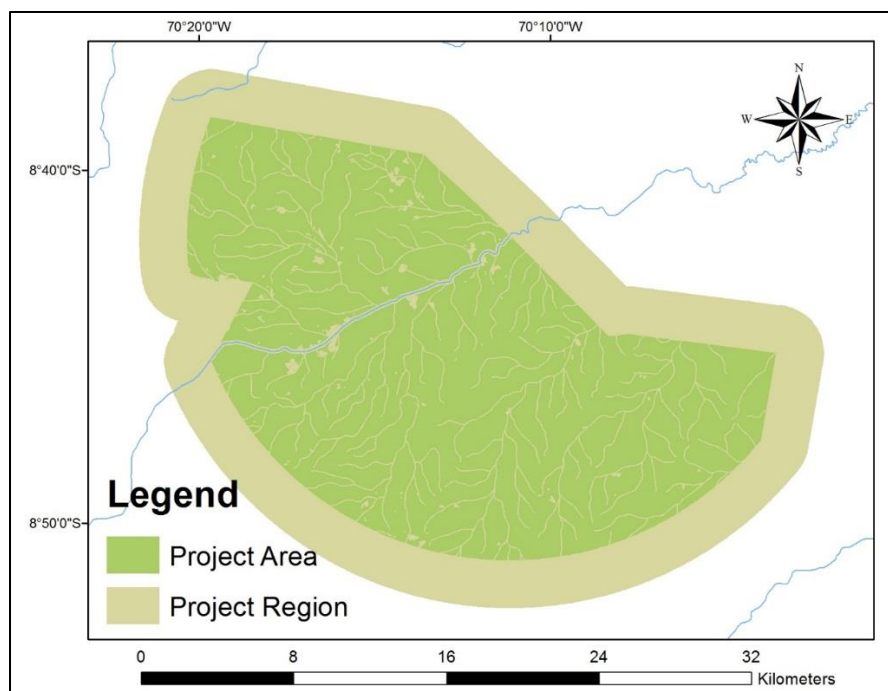
Project Area and Project Zone

The Envira Amazonia's Project Area, which is where project activities generated net positive climate benefits by reducing deforestation, is approximately 39,300.6 hectares and located alongside the Jurupari River.



Map 4: Project Area of Envira Amazonia Project (Credit: TerraCarbon)

The Envira Amazonia's Project Zone ("Project Region"), which is where project activities were implemented and which had an impact on the both the land and community's resources, encompasses the Project Area.



Map 5: Project Area and Project Zone ("Project Region") (Credit: TerraCarbon)

Although outside the Project Zone, the Project Proponents shall also implement project activities throughout the remaining 200,000 hectares and especially with the Other Stakeholders on the Envira River.

Stakeholder Identification and Analysis

The Project Proponents conducted an extensive stakeholder identification and stakeholder engagement or involvement process. For a comprehensive list of the Envira Amazonia Project's stakeholders, please refer to *Appendix C, Stakeholder Identification*.

Stakeholders were primarily analyzed based off their influence and importance, along with their rights, interests and relevance to the Project.⁴

Communities, Community Groups and Other Stakeholders

The following stakeholders, considered primary and secondary stakeholders, were identified and were involved in project design to optimize climate, community and biodiversity benefits while ensuring the Envira Amazonia Project was properly aligned with the State of Acre.

Consultations with all stakeholders, but especially these following stakeholders, shall continue throughout the Project Lifetime:

- JR Agropecuária e Empreendimentos EIRELI
- Families living within the Envira Amazonia Project Zone
- Carbonfund.org Foundation, Inc. and CarbonCo, LLC

⁴ CARE (2002), Annex XIV contains guidance on stakeholder analysis in project design: http://www.proventionconsortium.org/themes/default/pdfs/CRA/HLSA2002_meth.pdf

- Freitas Group International LLC and Carbon Securities
- TerraCarbon
- TECMAN LTDA
- Professor Antonio Willian Flores de Melo of UFAC
- Ayri Saraiva Rando
- Landowners and families living around the Envira Amazonia Project
- State of Acre, particularly the Climate Change Institute of Acre (IMC)
- State of California, including the California Air Resources Board (ARB) and REDD Offset Working Group (ROW), along with the Governors' Climate and Forest Task Force
- Environmental Services, Inc. (ESI), the initial Project Auditor
- IMAFLORA, the current Project auditor
- Verified Carbon Standard Association
- Climate, Community and Biodiversity Alliance

It is important to note that the Project Proponents used socially and culturally appropriate methods for stakeholder consultations and these stakeholder consultations were inclusive of gender, inter-generations, and language. High Conservation Values were also respected, along with local customs and values. In addition, meetings often took place at the most convenient locations (for example, at the families' homes instead of in Rio Branco) for stakeholders. A brief summary of project meetings and stakeholder comments have been provided below. Additional information on these meetings can be found in the document "Envira Amazonia Project Meeting Notes" as found in the project database.

March 9-18, 2011 - CarbonCo, Carbon Securities and TerraCarbon traveled to Acre, Brazil to better understand how to implement REDD+ projects in Acre, Brazil. A few key milestones included:

- CarbonCo, Carbon Securities and TerraCarbon held initial meetings with PESACRE (Grupo de Pesquisa e Extensão em Sistemas Agroflorestais do Acre), IPAM (Instituto de Pesquisa Ambiental da Amazônia), FUNTAC (Fundacao de Tecnologia do Estado do Acre), and SISA (System of Incentives for Environmental Services) to gain an understanding of the agents and drivers of deforestation in Acre state, how forest biomass stocks vary across the state, and local REDD+ and forest conservation initiatives;
- Carbon Securities and TerraCarbon met with Acre State Officials, including Monica Julissa De Los Rios de Leal and Eufan Amaral, on Friday, March 18th.
- The Purus Project's design, which would later influence how the Envira Amazonia Project was designed, was revised based off this initial site visit in March 2011. For example, the Project Proponents: began to design the Project around the identified drivers and agents of deforestation (i.e., selection of appropriate VCS methodology); chose the source of satellite imagery (i.e., FUNTAC/Climate Change Institute); and began a close, consultative relationship with the State of Acre.

August 9-18, 2011 - CarbonCo, Carbon Securities, and TerraCarbon visited Rio Branco. A few key milestones included:

- TerraCarbon led a classroom forest carbon inventory training for TECMAN field crew for the Purus Project. TECMAN would later be hired for the Envira Amazonia Project.

- CarbonCo, Carbon Securities, TerraCarbon, and TECMAN met with Acre State officials, including Monica Julissa De Los Rios de Leal and Lucio Flavio, to discuss how to best design the forest carbon inventory to align with the State of Acre's goals and future forest inventory plans. The Project's forest carbon inventory design (for example, the size of each plot and the plot design) was revised based off the State of Acre and TECMAN's input;
- CarbonCo, Carbon Securities, and TerraCarbon visited the Purus Project to train TECMAN's field crew in forest inventory practices and standard operating procedures, which would later be used during the Envira Amazonia Project's forest carbon inventory.
- CarbonCo, Carbon Securities, and TerraCarbon met with Willian Flores to discuss the VCS methodology, VM0007 REDD Methodology Modules, applicable to modeling regional deforestation. Willian Flores would later be contracted for assistance with the Envira Amazonia Project.
- CarbonCo, Carbon Securities, TerraCarbon, and Willian Flores met with Acre State officials, including Monica Julissa De Los Rios de Leal, Eufraan Amaral and Lucio Flavio on Tuesday, August 9th to discuss how to best develop the project-level baseline; how private projects will nest with a forthcoming state-level baseline; and the type of GIS data available from the State of Acre.

November 21, 2011 – CarbonCo spoke with Shaina Brown, Project Director at the Green Technology Leadership Group and Tony Brunello, the REDD Offset Working (ROW) Group's facilitator to better understand the developments in the State of California and how they relate to the State of Acre.

February 10, 2012 – CarbonCo spoke with Natalie Unterstell, the focal point for REDD+ at Brazil's Federal Ministry of Environment. Discussions were based around:

- The role of Brazil's Federal Government in the REDD+ context; Progress of the Amazon Fund; How States, particularly Acre, might nest into the National Government; How Brazil's domestic cap-and-trade market is shaping up; Market mechanisms and REDD+ as potentially eligible offsets; Where to go for REDD+ information on Federal government updates and how to inform the Government of our Project.

August 2, 2012 – CarbonCo, Carbon Securities and JR Agropecuária e Empreendimentos EIRELI signed Tri-Party Agreement

April 5, 2013 - CarbonCo, Carbon Securities, and Ilderlei Souza Rodrigues Cordeiro (owner of Russas Project) met again with Eufraan Amaral from the Climate Change Institute to give an update on all the Projects, including informing about moving forward with the Envira Amazonia Project, and received updates on the work of the Climate Change Institute.

April 30, 2013 – CarbonCo held another call with Natalie Unterstell of Brazil's Ministry of Environment to update her that the Purus Project became the first dual VCS-CCBS validated REDD+ Project in Acre and that the Envira Amazonia Project would undergo VCS-CCBS validation later in 2014.

January 31, 2014 – Brian McFarland of CarbonCo presented at the Forests as Capital Conference hosted by the Yale School of Forestry & Environmental Studies’ Chapter of the International Society of Tropical Foresters. Brian’s presentation gave an introduction to CarbonCo, described CarbonCo’s Acre REDD+ Projects, and discussed REDD+ and other conservation financing instruments.

May 7-9, 2014 – CarbonCo, Carbon Securities and TerraCarbon met JR Agropecuária e Empreendimentos EIRELI (particularly Duarte Jose do Couto Neto, Fredis C. Vasques and Jose Elves Araruna Sousa) to discuss the VCS Project Description and CCBS Project Design Document. The conversations focused on identifying proxy sites and further refining the proposed project activities.

May 8, 2014 – CarbonCo, Carbon Securities and TerraCarbon met with the Climate Change Institute to give an update on all Acre REDD+ projects, including the Envira Amazonia Project, and received updates on the latest developments at the Climate Change Institute. More specifically, this meeting was with Monica Julissa De Los Rios de Leal and Magaly Medeiros, the new director of the Climate Change Institute.

May 9, 2014 – CarbonCo, Carbon Securities, JR Agropecuária e Empreendimentos EIRELI (particularly Fredis C. Vasques) and TerraCarbon met TECMAN for a classroom training refresher on the Envira Amazonia Project’s forest carbon inventory and standard operating procedures.

May 10, 2014 - CarbonCo, Carbon Securities, JR Agropecuária e Empreendimentos EIRELI (particularly Fredis C. Vasques) and TerraCarbon met TECMAN in the field to further refine field techniques for the Envira Amazonia Project’s forest carbon inventory and further reviewed the standard operating procedures.

May 13, 2014 – CarbonCo and Carbon Securities met Ayri Saraiva Rando to review community surveys and discuss logistics to visit Envira Amazonia Project.

May 13, 2014 – CarbonCo and Carbon Securities met Fronika de Wit to introduce the Project Proponents, gave an overview of all Acre REDD+ projects underway (particularly the Envira Amazonia Project), and discussed how Fronika de Wit might be able to participate in the Project.

May 19, 2014 – Carbon Securities met with Rodrigo Fernandes das Neves, the State Prosecutor, to discuss the Acre REDD+ Projects including the Envira Amazonia Project, and to get an update on the state-level baseline.

May 20-21, 2014 – CarbonCo, Carbon Securities, and JR Agropecuária e Empreendimentos EIRELI met Maron Greenleaf to introduce the Project Proponents, give an overview of all Acre REDD+ projects underway (particularly the Envira Amazonia Project), and discussed Maron Greenleaf’s anthropological research in Acre for her PhD at Stanford University.

May 20 – June 11, 2014 – Ayri Rando met with a total of 10 families in the Project Zone and 31 families along the Envira River (i.e., outside the Project Zone) to: explain what is REDD+,

explain the landowners' proposed activities and explain the overall Project design; discuss the benefits of the Project and listen to the concerns of the local families and listen to the families' anticipated results; inform the families about another visit in October or November to notify them about the CCBS Public Comment Period and another visit in December with an independent auditor; and to conduct research on basic necessities, agricultural needs, and participatory rural appraisals. The Project was significantly revised based off the families' input. For example, the Project was revised by incorporating specific agricultural extension courses, restructuring the Project's implementation schedule, and targeting the needs of women.

June 24, 2014 – Brian McFarland of CarbonCo presented at Ecosystem Marketplace's State of the Voluntary Carbon Market and gave an overview of CarbonCo's work in Acre, Brazil.

August 10-31, 2014 - CarbonCo and Carbon Securities contacted several potential contractors to assist the Project Proponents in 2015 with a rapid assessment of endemic and vulnerable bird species throughout the Project Zone. This includes Brazilian biologists Guilherme Serpa, Luiz Henrique Medeiros Borges, Fernando Pacheco, and Tomaz Nascimento de Melo.

September 3, 2014 - CarbonCo and TerraCarbon held a call with the VCSA to give an update on the Acre REDD+ Projects, including the Envira Amazonia Project, and discussed the future developments necessary to best position the Acre REDD+ Projects for their potential inclusion in a California compliance carbon market.

December 10, 2014 – CarbonCo, Carbon Securities, TerraCarbon and JR Agropecuária e Empreendimentos EIRELI met with Mr. Hammerly Albuquerque, the mayor of Feijó, during his visit to Rio Branco. The Project Proponents introduced the Project and discussed current land-use activities in Feijó.

December 12, 2014 - CarbonCo, Carbon Securities, TerraCarbon, and JR Agropecuária e Empreendimentos EIRELI met José Cláudio Araújo Bomfim (the Secretary of Environmental Affairs) and José Rivaldo Silva de Souza (the Secretary of Agriculture) to discuss the Project and to learn more about their work in Feijó.

January 30, 2015 - Brian McFarland of CarbonCo presented at the US-China Business and Cultural Exchange Center and gave an overview of forest carbon projects and particularly CarbonCo's work in Acre, Brazil.

June 23, 2015 - Brian McFarland of CarbonCo presented "A Global Perspective on the Voluntary Carbon Markets" in Thessaloniki, Greece which included a case study on the Purus Project.

August 29, 2015 - Brian McFarland of CarbonCo presented "Investing in the Voluntary Carbon Markets and Developing Forest Carbon Projects" for the Sustainability & Investing course at the University of Maryland's Robert H. Smith School of Business.

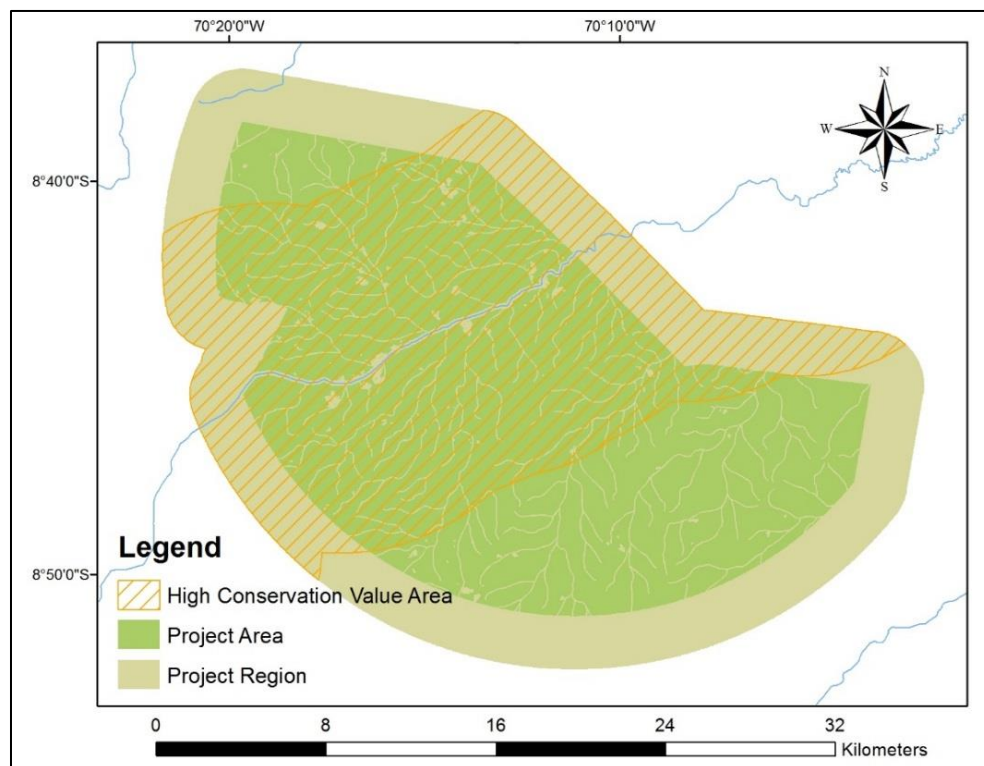
November 12, 2015 – The Project Proponents met again with Mr. Hammerly Albuquerque, the mayor of Feijó. The Project Proponents shared an update on the Envira Amazonia Project and the latest developments with REDD+ policy.

November 22, 2015 – Brian McFarland of CarbonCo met Antonio Viveiros in Brasilia. Antonio's family owns land adjacent to the Envira Amazonia Project. Brian and Antonio discussed how REDD+ projects are developed, the approximate costs, and discussed specifics about both the property of Antonio's family and specifics about the Envira Amazonia Project.

December 5-12, 2015 - CarbonCo and Carbon Securities attended COP21 in Paris, France.

Maps Identifying Location of Communities and Project

The following map identifies the Project Area, the Project Zone and the locations of High Conservation Value (HCVs) areas.



Map 6: Communities' High Conservation Value Areas (Credit: TerraCarbon)

The communities' HCVs were mapped using a participatory approach. Essentially, a distance of 8 kilometers from the banks of the Jurupari River was determined to be the location of the HCVs where communities primarily collect food, water, and wood.

Project Activities, Outputs, Outcomes and Impacts

The following section will briefly describe each of the Project's activities and will explain how the activities shall achieve the project's net positive climate, community and biodiversity benefits by using the Theory of Change causal model.

As noted in the Social Impact Assessment Toolbox, “in simple terms, {the Theory of Change} is a roadmap drawn up by the Project Proponents and stakeholders of how the project plans to get from Point A (project strategy and activities) to Point Z (project impacts).”⁵ Likewise, the Envira Amazonia Project’s overall strategies and on-the-ground activities will directly lead to outputs, followed by outcomes, and ultimately by net positive climate, community and biodiversity impacts.

To clearly define activities, outputs, outcomes and impacts, the following definitions were utilized:

“Project *activities* are the physical or implemented activities of the projects.

Project *outputs* are the tangible short-term results of project activities and normally take the form of products or services provided during the project lifetime and as a direct result of project funding.

Project *outcomes* are the direct intended results stemming from the outputs. They are short- and medium term changes experienced by project stakeholders and/or by the physical environment, and are less tangible and easy to measure than outputs.

Project *impacts* are the end results sought by the project, especially as regards net social changes. They may occur as a direct or indirect result of project outcomes.”⁶

Climate Project Activities

To achieve the major climate objective of mitigating deforestation and the subsequent release of GHG emissions, the Project Proponents undertook a forest carbon inventory, developed a regional land-use and deforestation model, and are now addressing the underlying deforestation drivers to mitigate the release of GHGs with a plan for ongoing monitoring.

It is also important to note an additional climate project activity is that JR Agropecuária e Empreendimentos EIRELI has voluntarily foregone plans to convert the forests to a large-scale cattle ranch.

Voluntary Foregoing Conversion

JR Agropecuária e Empreendimentos EIRELI has voluntarily foregone plans to convert the forests to a large-scale cattle ranch. JR Agropecuária e Empreendimentos EIRELI has all the necessary approvals, experience and ability to establish a large-scale cattle ranch, but have decided to undertake a forest conservation project instead.

As a result of foregoing plans to convert the forest, the estimates of greenhouse gas emission (GHG) credits eligible for issuance as Verified Carbon Units (VCUs) for the Envira Amazonia Project for calendar year 2015 were calculated as follows:

⁵ Richards, M. and Panfil, S.N. 2011. Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects: Part 1 – Core Guidance for Project Proponents. Climate, Community & Biodiversity Alliance, Forest Trends, Fauna & Flora International, and Rainforest Alliance. Washington, DC., Page 13.

⁶ Sources: Based on GEF Evaluation Office and Conservation Development Centre 2009; Schreckenberg et al. 2010.

Estimated GHG emission reduction credits =
Baseline emissions, fixed for 10 years at validation *minus*
Project emissions *minus*
Leakage *minus*
Non-permanence Risk Buffer withholding (calculated as a percent of net change in carbon stocks prior to deduction of leakage)

Estimate of Net Emission Reduction Credits. Values in this table have been rounded to the nearest whole number.

Years	Baseline emissions or removals (tCO _{2e})	Project emissions or removals (tCO _{2e})	Leakage emissions (tCO _{2e})	Risk buffer (%)	Deductions for AFOLU pooled buffer account (tCO _{2e})	Net GHG emission reductions or removals issued as VCUs (tCO _{2e})
2015	3,560,825	31,812	597,415	23%	811,673	2,119,925

Forest Carbon Inventory

The forest carbon inventory was an important project activity to undertake because it is difficult to manage an objective that is not measured. The forest carbon inventory generated a scientifically robust and statistically accurate representation of the carbon stocks throughout the Project Area of the Envira Amazonia Project.

The forest carbon inventory was conducted by the renowned local forestry company TECMAN which is the same firm that conducted the forest carbon inventories at the Russas, Valparaíso and Purus Projects on behalf of CarbonCo. TECMAN was contracted by CarbonCo in April 2014, participated in a classroom and field-based training from TerraCarbon in May 2014, and then TECMAN conducted the Envira Amazonia Project's forest carbon inventory from May to July 2014.

TECMAN is an example of a local hire; TECMAN received a transfer of technical knowledge and know-how from TerraCarbon and TECMAN received certificates of completion to demonstrate their knowledge of conducting a forest carbon inventory.

TECMAN's work was overseen by both CarbonCo and the international experts at TerraCarbon. For a more detailed discussion, please see the VCS Project Description.

Regional Land-use and Deforestation Modeling

Similar to the need for a measurement of carbon stocks, there was a need to develop a regional land-use and deforestation model to determine a performance baseline for the Project Proponents. Using proxy sites, along with satellite imagery and conversations with local communities, the Project Proponents can now predict where (i.e., location), when, and how much deforestation is expected, along with where to assist with leakage mitigation and primarily where to monitor.

This regional land-use and deforestation modeling was conducted by TerraCarbon and reviewed by Professor Antonio Flores from the Federal University of Acre. Professor Antonio Flores has provided assistance to CarbonCo's other REDD+ Projects in Acre, including the Russas, Valparaíso and Purus Projects.

Professor Flores was contracted by CarbonCo in March 2014 and March 2015. Professor Flores assisted with the review of the Envira Amazonia Project's modeling and assisted with data acquisition throughout 2014 and 2015.

Professor Flores is another example of a local hire; Professor Flores received a transfer of technical knowledge and know-how from TerraCarbon.

Again for a more detailed discussion, please see the VCS Project Description.

Address Underlying Deforestation Drivers to Mitigate Release of GHGs

While understanding the Envira Amazonia Project's carbon stocks and deforestation scenario, the Project Proponents are now beginning to address the underlying deforestation drivers to mitigate the release of GHGs. In addition to JR Agropecuária e Empreendimentos EIRELI willingly foregoing the conversion of the Project Area's forests to cattle pastures, the Project Proponents are also working with local families to mitigate any unplanned deforestation.

Please see the community section below for the expected outputs, outcomes and impacts of the activities which are aimed at assisting the local communities.

Addressing the underlying deforestation drivers - for example, committing JR Agropecuária e Empreendimentos EIRELI to voluntarily forego conversion of their property's forests and providing agricultural extension trainings to the local communities – is relevant to achieving the climate objective of reducing net GHG reductions by: reducing the communities' dependence on forest resources through intensification of agricultural and livestock practices; by providing alternative income to both the landowners and the communities; and by providing education about the effects of deforestation and benefits of protecting forest resources.

Develop Climate Monitoring Plan and Monitor Deforestation

The Project Proponents intend to monitor deforestation by boat along the Envira, Jurupari and Purus Rivers as well as from the State of Acre's satellite imagery.

The Project Proponents have reviewed the satellite imagery from 2012 to 2015. From 2012 to 2014, the local project manager Jose Aurimar Tavares Carneiro (Jose's nickname is "Mazinho") also started to informally monitor for deforestation via boat with a focus on the Jurupari River.

To review the Theory of Change model for the climate monitoring plan and monitoring of deforestation, please see the Community Section on monitoring for deforestation.

Developing a climate monitoring plan and monitoring deforestation has assisted the Project Proponents with achieving the climate, community and biodiversity objectives. Thus, the climate monitoring plan and monitoring of deforestation resulted in net GHG emission reductions because such activities provide an early detection of deforestation, while enabling the

Project Proponents to identify the specific drivers and agents of deforestation and to implement the appropriate actions to mitigate such deforestation and subsequent release of GHG emissions. By mitigating deforestation, the Project shall raise carbon finance that will be utilized to assist local communities and to preserve the biodiversity.

Community Project Activities

To generate sustainable economic opportunities and to implement local social projects for communities living in and around the Envira Amazonia Project, the Project Proponents have undertaken, or began to plan for, the following project activities: Project Awareness, Meet Community, and Discuss Project; Design Social Projects and Programs for Community; Implement Social Projects and Programs for Community; Develop Community Monitoring Plan and Monitor Community Impacts.

Project Awareness, Meet Community and Discuss Project

The communities are an essential component of the Envira Amazonia Project and in 2014 and 2015, the Envira Amazonia Project was discussed in great detail with the local families to ensure they were fully aware of the Project, were able to contribute to the Project design, able to openly express desired outcomes and concerns, understood the third-party grievance procedure, and were able to voluntarily give Free, Prior and Informed Consent (FPIC).

More specifically, Ayri Saraiva Rando was hired by CarbonCo in April 2014 as an independent community specialist and visited a total of 41 families between May 20th and June 11th, 2014.

Local families who wanted to join the Envira Amazonia Project either verbally agreed to join the Project and/or signed an “ata” between May 20th and June 11th, 2014. As of June 2014, all of the community members interviewed within the Envira Amazonia Project Area have either signed the “ata” or verbally agreed to join the Project.

Ayri Saraiva Rando is another example of a local hire; Mr. Rando received a transfer of technical knowledge and know-how from CarbonCo.

Through meeting with the local families, the Project Proponents were able to gain the community’s insights about project design and to better incorporate the communities into the Project. As a result, the community objective of generating sustainable economic opportunities and implementing social projects and programs will be best achieved with active, on-going participation and input from the local families.

Design and Implementation of Social Projects and Programs for Community

Social projects and programs for the local families, will not only generate sustainable economic opportunities, but will also result in: less pressure on the local forests; a reduction in deforestation; mitigation of greenhouse gas emissions; and the preservation of biodiversity.

Over the Project Lifetime, JR Agropecuária e Empreendimentos EIRELI would like to further design and implement the following project activities:

- Hire Project Manager

- Initiate Patrols of Deforestation by Boat
- Create Structure for Collection, Processing and Sales of Açaí
- Create Structure for Collection, Processing and Sales of Medicinal Plants
- Reestablish Rubber Tree Collection
- Offer Agriculture Extension Courses
- Help Communities Obtain Land Tenure
- Establish a Headquarters
- Improve and Build Health Center with Dental Clinic

Hire Project Manager

Jose Aurimar Tavares Carneiro (“Mazinho”) was hired to be the local project manager of the Envira Amazonia Project. Mazinho helps with monitoring for deforestation, along with helping visitors at the Project by providing logistics. Mazinho also helped with the biodiversity and community impact monitoring plans. More specifically, Mazinho assisted the local community specialist Ayri Rando from May to June 2014 with the community surveys and then Mazinho assisted the local biologist Tomaz Nascimento from April to May 2015 with the bird study.

Mazinho was born on the property and has good rapport with the local families. Mazinho currently splits his time between staying at his house in Feijó and staying at his house along the Envira River.

In addition to Mazinho’s assistance, Francisco Circlandio (“Francisco”) will also assist with the project as Francisco lives along with Jurupari River. Francisco is the son of Cazuza Circlandio; Cazuza lives in Feijó and Cazuza’s house along the Jurupari River is temporarily serving as the Envira Amazonia Project’s informal headquarters.

Hiring a local project manager helped to achieve the climate, community and biodiversity objectives by enabling the Project Proponents to rapidly address deforestation while conserving biodiversity and increasing economic opportunities (both via employment and via future carbon finance to implement social projects and programs).

Initiate Patrols of Deforestation

In addition to serving as local project managers, Jose Aurimar Tavares Carneiro (Mazinho) and Francisco Circlandio both monitor for deforestation. Mazinho was originally hired back in 2003 to informally monitor the property. Mazinho and Francisco will officially monitor for deforestation along the Jurupari, Purus and Envira Rivers by boat approximately every 60 days.

JR Agropecuária e Empreendimentos EIRELI ordered a boat with 15 seats and a boat engine in May 2014 which will be used to access the property and for deforestation monitoring. This order was not completed due to a lack of financial resources. The boat will be reordered in 2016 or 2017 and will be used shortly thereafter.

If and when deforestation is identified, JR Agropecuária e Empreendimentos EIRELI will immediately document and transfer this information to Carbon Securities and CarbonCo. Collectively, CarbonCo and JR Agropecuária e Empreendimentos will discuss the appropriate actions to undertake to counteract any reported deforestation.

When the official deforestation monitoring commences, the monitors will write down observations in a notebook, document the community meetings, input this data into the monitoring template, and upload the document onto a shared DropBox account among the Project Proponents. The monitoring template includes:

- Name of Monitor
- Date of Monitor
- Communities Visited
- Meeting Notes with Community
- Grievances and Concerns of Community
- Location and Date of Deforestation
- Responsible Actor for Deforestation
- Observations Pertaining to Deforestation
- Biodiversity Observed
- Other Notes Related to the Project

The monitoring of deforestation helped the Project Proponents achieve both the climate and community objective. Thus monitoring resulted in net GHG emission reductions because such activities provide an early detection of deforestation, while enabling the Project Proponents to identify the specific drivers and agents of deforestation and to implement the appropriate actions to mitigate such deforestation and the subsequent release of GHG emissions.

Create Structure for Collection, Processing and Sales of Açaí

JR Agropecuária e Empreendimentos EIRELI will develop a structure for the collection, processing, transportation and eventual sales of açaí.

This structure will involve the creation of decentralized units throughout the Project Area, with each unit managed by a local community member. Each unit will collect locally produced açaí berries, the raw berries will be transported to a processing plant, the açaí berries will be processed into açaí juice, and then the finished products will be sold to end consumers.

Between 2012 and 2015, the idea of creating a structure for açaí was formulated, the idea was discussed with the local communities to gauge their level of interest and then the Project Proponents drafted a high-level timeline and budget. Furthermore, CarbonCo engaged an international firm to look into developing an agroforestry project with a specific focus on sustainably sourced cacao. The initial engagement began in late 2015 with a Memorandum of Agreement (MOA) signed in February 2016.

The collection, processing, and sales of açaí will help the Envira Amazonia Project achieve the climate, community and biodiversity objectives. Thus by diversifying the landowners and local communities' incomes, there will be less pressure on forest resources and shall help preserve the Project Zone's biodiversity.

Create Structure for Collection, Processing and Sales of Medicinal Plants

JR Agropecuária e Empreendimentos EIRELI would also like to create a management and sales structure that would enable the local communities to collect and dry medicinal plants.

Duarte Jose do Couto Neto (“Duarte”) will eventually apply to the government for approval to sell a specific quantity of medicinal plants. Collecting and selling medicinal plants will provide alternative economic opportunities for both local communities and for JR Agropecuária e Empreendimentos EIRELI. For example, there is a factory called Dr. Roots in Rio Branco, that sells medicinal roots and there is also a cosmetic factory in Tarauacá which sells to national markets. In the past, Duarte was working with a French company about medicinal plants. According to the local families, some of the most important medicinal plants found in the region include: Amburana; Andiroba; Balso; Copaiba; Espira ai; Jatoba; Mastruz; and Quina-Quina.

Between 2012 and 2014, the idea of collecting medicinal plants was formulated, the idea was discussed with local communities to gauge their level of interest, the most important medicinal plants were identified, and then the Project Proponents drafted a high-level timeline and budget. The Project Proponents also informally visited potential buyers of medicinal plants in Rio Branco in 2014 and 2015.

Collecting, drying and selling medicinal plants will enable the Project Proponents to achieve the climate, community and biodiversity objectives. By diversifying and increasing community and JR Agropecuária e Empreendimentos EIRELI revenue, there will be less deforestation pressure on the tropical forests while simultaneously reducing GHG emissions.

Reestablish Rubber Tree Collection

JR Agropecuária e Empreendimentos EIRELI will reestablish a rubber trees project. The region is very rich in rubber, but the local families do not know how to sell the rubber because of the crash in rubber prices. Although rubber prices have recovered, the local families do not have the management and sales structure. JR Agropecuária e Empreendimentos EIRELI will also reforest approximately 1,000 hectares of deforested land with rubber trees.

Essentially, rubber throughout the Project Area will be collected and transferred to Feijó. The rubber will then be primarily sold to São Paulo for use in the soles of shoes.

Between 2012 and 2014, the idea to start recollecting rubber was formulated and the idea was discussed with communities to gauge their level of interest. The Project Proponents then drafted a high-level timeline and budget. The Project Proponents also started to look into the market for rubber and preliminarily identified potential places to reforest with rubber trees. As previously mentioned, CarbonCo engaged an international firm to look into developing an agroforestry project with a specific focus on sustainably sourced cacao. The initial engagement began in late 2015 with a Memorandum of Agreement (MOA) signed in February 2016.

Collecting rubber, reforesting deforested areas with rubber trees, and selling rubber will enable the Project Proponents to achieve the climate, community and biodiversity objectives. By diversifying and increasing community and JR Agropecuária e Empreendimentos EIRELI revenue, there will be less deforestation pressure on the tropical forests while simultaneously reducing GHG emissions.

Offer Agriculture Extension Courses

Based off feedback from the local families, JR Agropecuária e Empreendimentos EIRELI will offer several agricultural extension courses. Such agricultural extension courses shall include:

- Alternatives to the use of fire in land preparation
- Improved pasture management, including rotational cattle pastures and vaccinations
- Extraction and processing of medicinal plants for commercial purposes
- Production of açai
- Raising chickens, including how to diagnosis and cure diseases that appear in them

Between 2012 and 2014, the Project Proponents discussed agricultural extension courses with the local communities, identified the most desired courses, and then drafted a high-level timeline and budget for the offering of such agricultural extension courses.

Agricultural extension trainings will assist the Project Proponents achieve both the climate and community objectives of the Envira Amazonia Project. These activities will result in both net GHG emission reductions by reducing the communities' dependence on forest resources through intensifying agriculture and livestock, while also providing the communities with alternative incomes.

Help Communities Obtain Land Tenure

Community members that have been living on the land and who made the land productive (e.g., by growing agriculture or raising animals) for ten years have the right to be titled to land. JR Agropecuária e Empreendimentos EIRELI will voluntarily recognize whatever area is currently deforested and under productive use by each family and up to the recommended size that a family in the municipality of Feijó needs for a sustainable livelihood according to State and Federal laws. All communities, whether they join the Envira Amazonia Project or not, will be titled the land they have put under productive use.

Between 2012 and 2014, JR Agropecuária e Empreendimentos EIRELI agreed to voluntarily title land to the local communities, the idea of receiving land tenure was discussed with the local communities, and then the Project Proponents drafted a high-level timeline and budget for the eventual titling of land. The Project Proponents also identified potential independent organizations (e.g., STR-Feijó) in case assistance is needed. In 2016, another REDD+ project developed by CarbonCo and Carbon Securities granted official title to the first community member. This experience, and the technical details, will be shared with JR Agropecuária e Empreendimentos EIRELI to hopefully make the process more efficient for the Envira Amazonia Project.

Helping families obtain land tenure will assist the Project Proponents with facilitating the community's sustainable economic opportunities. This formal recognition of the community's land tenure and the ability of families to access credit (i.e., due to their property collateral) will reduce GHG emissions as families will have greater responsibility and ownership over their land.

Establish a Headquarters

In the past, JR Agropecuária e Empreendimentos EIRELI had a headquarters established along the Envira River and the headquarters was called the “Casarao Antigo do Seringal Canada.” In the future, this headquarters will be reactivated and an official headquarters will be established inside the Project Area along the Jurupari River. In the short term, Cazuza’s house will be temporarily used as the informal headquarters of the Envira Amazonia Project.

The future headquarters will provide: a place for visitors to sleep and eat; a place for community meetings and teaching courses; provide storage for project items; and supply education materials such as the onsite Project Documents.

Between 2012 and 2014, the idea of a formal headquarters was discussed amongst the Project Proponents, with CarbonCo and Carbon Securities sharing examples from their other REDD+ projects in Acre. In addition, the Project Proponents discussed how to incorporate climate change adaptation techniques, and drafted a high-level timeline and budget for the eventual creation of a formal headquarters.

Building a headquarters will contribute to the community objective because the office will serve as a centralized headquarters and will facilitate JR Agropecuária e Empreendimentos EIRELI’s social projects and programs.

Improve and Build Health Center and Dental Clinic

JR Agropecuária e Empreendimentos EIRELI plans to improve the health center along the Envira River and to build a health center in the Project Area along the Jurupari River. These health centers will provide local families with preventive and curative medicine, including dental. JR Agropecuária e Empreendimentos EIRELI will also facilitate the increased frequency of visits from the doctor in Feijó via the boat being purchased.

Between 2012 and 2014, the Project Proponents discussed the eventual creation of a local health center and dental clinic, discussed how to incorporate climate change adaptation techniques, discussed the idea with local communities, and then drafted a high-level timeline and budget. JR Agropecuária e Empreendimentos EIRELI donated dental hygiene kits with toothbrushes and toothpaste to the local communities in November 2015. JR Agropecuária e Empreendimentos EIRELI would also like to distribute medicine including malaria pills. Also in 2015, CarbonCo and Carbon Securities shared details of the health clinic that was constructed at another one of their REDD+ projects in Acre, along with details on how the doctor and dentist visits were arranged.

The health center and dental clinic is also relevant to the community objective because this is another main social project that JR Agropecuária e Empreendimentos EIRELI would like to facilitate. The health centers will ultimately improve life quality and increase life expectancies, which will result in healthier, more productive community members.

Develop Community Monitoring Plan and Monitor Community Impacts

The community monitoring plan will essentially help the Project Proponents better understand if the social projects and programs for the community were able to generate sustainable economic opportunities and overall positive outputs, outcomes and impacts.

The community monitoring plans include the Basic Necessity Survey (BNS) and the Participatory Rural Assessment / Household Survey (PRA). The BNS and PRA were designed between November 2013 and March 2014, Ayri Saraiva Rando was hired by CarbonCo in April 2014 as an independent community specialist and visited the Envira Amazonia Project between May 20th and June 11th, 2014. After discussing the Project with the local communities, Mr. Rando then interviewed the communities using the BNS and PRA. A final report was delivered from Mr. Rando to CarbonCo in July 2014. The Project design was revised and then the CCBS PDD was submitted for validation in October 2014. The next community surveys will be administered at the Envira Amazonia Project in 2018.

Developing a community monitoring plan and ongoing monitoring of community impacts will assist the Project Proponents with achieving the community objective.

Major Biodiversity Objective

To preserve the Project's rich biodiversity, the Project Proponents will generate sustainable economic opportunities for the local community and implement local social projects with the goal of addressing the underlying causes of deforestation and reducing the release of GHGs. In addition, the Project Proponents rapidly assessed biodiversity on the Project and developed a biodiversity monitoring plan.

Rapidly Assess Biodiversity on Project

A rapid assessment of the Project Zone's biodiversity was conducted from January to August 2014. This included background research on the region's biodiversity and a review of the Integrated Biodiversity Assessment Tool (IBAT), along with an assessment of vulnerable tree species and endemic bird species throughout the Project Area.

This rapid assessment of biodiversity contributed to the objective of preserving the Project's rich biodiversity by providing an understanding of what flora and fauna exist within the Project.

Furthermore, in addition to helping local communities and reducing tropical deforestation, many voluntary carbon market donors appreciate seeing pictures of rare and threatened species.

A rapid biodiversity assessment helped achieve the climate, community and biodiversity objectives by providing an alternative economic opportunity for a couple local community members to assist with the future biodiversity monitoring plan. In addition, the generation of carbon finance from the reduction of deforestation will be enhanced through the understanding and preservation of the Project's biodiversity.

Develop Biodiversity Monitoring Plan and Monitor Biodiversity Impacts

The biodiversity monitoring plan will essentially help the Project Proponents better understand if the climate and community objectives are aligned with preserving the Project's rich biodiversity.

The biodiversity monitoring plan of identifying threatened tree species was designed between January 2014 and March 2014, TECMAN was contracted by CarbonCo in April 2014, and then TECMAN conducted the forest carbon inventory – which included identifying threatened tree species for the biodiversity monitoring plan – from May to July 2014. The results of this biodiversity monitoring plan was analyzed in August 2014. The next biodiversity monitoring event for threatened tree species will be conducted in 2024.

The biodiversity monitoring plan of identifying threatened and endemic bird species was designed and revised between July 2014 and March 2015. Identifying qualified ornithologists, sending Request for Proposals (RFPs) and reviewing proposals took place from August 2014 to March 2015. Tomaz Nascimento de Melo, who was selected as the ornithologist, was contracted in April 2015. An informal observation of bird species along the Jurupari River was initially conducted in December 2014 and a formal observation of bird species throughout the Project Area was conducted in May 2015 by Tomaz Nascimento de Melo. Tomaz Nascimento de Melo formally wrote up his work throughout the remained of 2015 and he published his work from the Envira Amazonia Project in the January and February 2016 edition of the journal, “Ornithology News.” The next biodiversity monitoring event for threatened, endangered and critically endangered bird species will be conducted in 2020.

Designing and implementing the Project’s biodiversity monitoring plan will help achieve the climate, community and biodiversity objectives by providing an alternative economic opportunity for a couple local community members to assist with the biodiversity monitoring plan. In addition, the generation of carbon finance from the reduction of deforestation will be enhanced through monitoring and preserving the Project’s biodiversity.

Project Start Date, Lifetime, and GHG Accounting Period

The following section shall outline the Envira Amazonia Project’s key dates, implementation schedule, and milestones.

Project Start Date, Lifetime, and GHG Accounting Period

The Envira Amazonia Project’s Start Date is August 2, 2012 based off the signing date of the Tri-Party Agreement between the three Project Proponents. The Project Lifetime is 30 years. The Project’s GHG Accounting Period is 10 years. Both the Project Lifetime and the GHG Accounting Period start on August 2, 2012. The GHG Accounting Period differs from the Project Lifetime because the modelling of planned deforestation and its emissions would occur over the first 10 years of the Project. However, numerous project activities – such as maintaining forest cover, hiring local project managers, creating a structure for acai, medicinal plants and rubber trees, etc. – shall be implemented over the first 10 years and continue throughout the Project Lifetime.

The biodiversity and community benefits assessment period shall be done on an annual or biennial basis, while the Basic Necessity Survey (BNS) and Participatory Rural Assessment (PRA) shall be conducted every 4 years.

Implementation Schedule

The approximate implementation schedule for the Envira Amazonia Project's first 10 years is as follows:

Pre- and Post-Validation: Years 1 and 2 (2014-2015)

- Signing and Authentication of Tri-Party Agreement between Project Proponents
 - The Tri-Party Agreement was signed on August 2, 2012. After completing the due diligence and believing the Envira Amazonia Project was viable, the Tri-Party Agreement was notarized on May 6, 2013 and then certified by the Clerk of the Circuit Court for Montgomery County on May, 10 2013 and was finally authenticated by the Consulate General of Brazil in Washington on June 17, 2013.
- Stakeholder Consultations and Community Visits
 - Stakeholders were engaged throughout 2012 – 2016. In addition, Ayri Saraiva Rando was hired by CarbonCo in April 2014 as an independent community specialist and visited a total of 41 families between May 20th and June 11th, 2014.
- Forest Carbon Inventory
 - TECMAN was contracted by CarbonCo in April 2014, participated in a classroom and field-based training from TerraCarbon in May 2014, and then TECMAN conducted the forest carbon inventory from May to July 2014.
- Land-use and Deforestation Modeling
 - Professor Flores was contracted by CarbonCo in February 2014, March 2015, and March 2016. Professor Flores assisted with the review of the Envira Amazonia Project's modeling and assisted with data acquisition throughout 2014 to 2016.
- Project Design Documents Written
 - The VCS Project Description and CCBS Project Design Documents were written and revised from December 2014 to March 2015.
- Hire Project Manager
 - Jose Aurimar Tavares Carneiro ("Mazinho") and Francisco Circlandio ("Francisco") were hired as the initial local project managers.
- Initiate Patrols of Deforestation
 - The Project Proponents have reviewed the satellite imagery from 2012 to 2015. Mazinho and Francisco also began informal monitoring via boat with a focus on the Jurupari River.
- Biodiversity and Community Impact Monitoring Plans Developed
 - A rapid assessment of the Project Zone's biodiversity was conducted from January to August 2014. The biodiversity monitoring plan of identifying threatened tree species was designed between January 2014 and March 2014. The biodiversity monitoring plan of identifying threatened and endemic bird species was designed and revised between July 2014 and March 2015. The BNS and PRA (two surveys used for the community impact monitoring plan) were designed between November 2013 and March 2014.
- Project Validated to CCBS and VCS Standards
 - The Envira Amazonia Project was validated in April 2015.
- Carbon Finance Generated, Pending Verification to the CCBS and VCS Standards
 - The Envira Amazonia Project was verified in February 2016 and May 2016 and the Project is actively seeking carbon finance.

- Establish Initial Headquarters
 - Initial headquarters has been established.

Post-Validation: Years 3 to 5 (2016-2018)

- Renovate Headquarters and Create New Headquarters
 - This is a near term activity and the Project Proponents are actively seeking to structure carbon financing to be able to build a new headquarters.
- Help Communities Obtain Land Tenure
 - This is a near term activity and the Project Proponents are actively seeking to structure carbon financing to be able to afford the legal costs associated with granting land titles to local communities.
- Create Structure for Açaí, Medicinal Plants, and Rubber Trees
 - This is a near term activity and the Project Proponents are actively seeking to structure carbon financing to be able to create the infrastructure and transportation network for these activities.
- Offer Agricultural Extension Courses
 - This is a near term activity and the Project Proponents are actively seeking to structure carbon financing to be able to provide agricultural extension courses.
- Improve Health Center and Dental Clinic
 - This is a near term activity and the Project Proponents are actively seeking to structure carbon financing to be able to build a health center and dental clinic, as well as provide the logistics for visiting doctors.

Post-Validation: Years 6 to 10 (2019-2023)

- Reassessment of Land-use and Deforestation Modeling Baseline

Ongoing Activities

- Monitoring of Climate, Community and Biodiversity Impacts
 - Basic Necessities Survey (BNS) to take place every 4 years
 - The initial BNS took place from May to June 2014.
 - Participatory Rural Appraisal (PRA) to take place every 4 years
 - The initial PRA took place from May to June 2014.
 - Illegal Logging Assessment to take place every 4 years
 - The initial assessment took place from May to June 2014.
 - Deforestation Monitoring and Periodic Review of Satellite Imagery
 - The Project Proponents have reviewed the satellite imagery from 2012, 2013, 2014 and 2015. Monitoring shall also take place via boat.
 - Biodiversity Monitoring every 5 years
 - The initial biodiversity monitoring took place in May 2015.
- Engaging Stakeholders and Community Consultations
 - The Project Proponents have engaged stakeholders and communities throughout 2012, 2013, 2014 and 2015.

GL1. Climate Change Adaptation Benefits

The Envira Amazonia Project has incorporated climate change adaptation benefits.

Likely Regional Climate Change, Climate Variability Scenarios, and Impacts

The Project Proponents studied the CREAS Project (Regional Climate Change Scenarios for South America in English) to better understand the regional climate change and climate variability scenarios for Acre, Brazil.

As forecasted by the CREAS Project, “intense rainfall events in western Amazonia, losses in natural ecosystems, rain forest and biodiversity” are the primary risks, along with the potential for “low river levels affecting transportation and commerce” and “more favorable conditions for spread of forest fires.”⁷ For example, major flooding took place in Acre in February to April 2014 and in January to April 2015.

These intense rainfall events in western Amazonia, in conjunction with the absence of the Project, would likely increase the rate of top soil erosion and more quickly deplete soil nutrients which in turn would likely increase the conversion of primary forests to agriculture and pasture lands by the local community.

Significant flooding throughout the Project Zone would likely result from the Project’s deforestation, along with the increase in both localized rainfall as well as increased rainfall and continuing deforestation in neighboring Peru. Such flooding could impact local land-use scenarios due to: local crops destroyed which leads to communities planting more hectares to maintain historic harvest levels; fishing grounds could be disrupted due to faster moving currents and oxbow lakes could be altered; increased mosquito-borne illnesses due to greater pools of water; and game could move further into the forests to escape raising water levels.

Climate Changes’ Impact on Communities and/or Biodiversity

The State of Acre and neighboring state of Rondônia are already experiencing increased rainfalls and severe flooding. In March and April 2014, the flooding of the Madeira River led Acre to declare a state of emergency due to the trade of vital resources (e.g., food, health supplies, fuel, etc.) being disrupted.⁸ If State and Federal governmental scarce resources are used to repair roads, bridges, and other infrastructure due to climate change and its impacts, then there will be fewer resources available to help riverine communities.

The families throughout the Project Zone and along the Envira River are already feeling the local impact of global climate change. The following are ten excerpts from the conversations Ayri Rando had with community members:

1. “The temperature is higher, causing farmers to be unable to work more because they are directly exposed to the sun.” (João Nazário Rodrigues)
2. “Previously, the Amazon winter ended in May, but lately you never know when it ends, it will be in May, June, or even in July. Another change perceived is that the weather is warmer.” (Antônio Francisco Lopes da Silva)

⁷ Jose A. Marengo, “Regional Climate Change Scenarios for South America - The CREAS,” Available: [projecthttp://unstats.un.org/unsd/climate_change/docs/papers/Session3_CCPapers_Marengo_1.pdf](http://unstats.un.org/unsd/climate_change/docs/papers/Session3_CCPapers_Marengo_1.pdf).

⁸ Travel and Tour World, “Brazil state Acre declared a state of flood calamity,” Available: <http://www.travelandtourworld.com/news/article/brazil-state-acre-declared-a-state-of-flood-calamity/>

3. “The sun is getting stronger and deforestation is one of the causes.” Manoel Pereira do Nascimento)
4. Before I “could work all day and be exposed to direct sun, but now I cannot due to the fact the sun is stronger. Moreover, at the time of the Amazonian summer it is difficult to travel by river because of smoke from forest fires.” (Francisco Chagas Silva de Araújo)
5. I “notice a lot of smoke at the time of the Amazonian summer, which makes breathing difficult.” (Joaquim de Oliveira da Silva)
6. “The temperature is getting higher, before it was not so hot.” (Antônio Geovan de Sousa Rodrigues)
7. “The temperature {has} increased, it seems that the "haze" is greater.” (José Bento de Paula)
8. “The temperature is getting warmer and the river is shallower with each passing year. Furthermore, {the} Envira River fills and empties very quickly.” (Espedito da Silva Menezes)
9. “The sun is warmer due to forest destruction.” (Jeandro Castro de Araújo)
10. “Time has changed a lot, the temperature is higher and suddenly it rains and {then} it's cold, it's changing very fast.” (Manoel Joaquim Gomes da Silva)

Adaptation Measures to Assist Communities and/or Biodiversity

The Project Proponents incorporated climate change adaptation activities and the following Theory of Change causal models demonstrate how the project activities intend on achieving the Project's predicted climate change adaptation benefits.

These climate change adaptation benefits include, but are not limited to: building the community health center to mitigate potential increases in mosquito-borne illnesses; ensuring agricultural extension courses incorporate climate change adaptation techniques; assisting local families with access to markets for their products to overcome increased difficulty in transportation networks; and locating facilities such as the headquarters and health centers further away from river banks to minimize risk of flooding.

During the monitoring and reporting period of August 2012 to December 2014, the Project Proponents collaborated with local communities to finalize the list of climate change adaptation activities and then the Project Proponents discussed a timeline for implementation, began to work through the technical details, drafted a preliminary budget, and identified potential partners.

Thus, localized flooding and increased rainfall will likely increase the difficulty of road transportation along highways in western Amazonia, including BR-364, which will likely increase the loss of agricultural products due to spoilage and result in less money for local families. In addition, the resulting lower river levels will increase the difficulty transportation along rivers such as the Envira and Jurupari Rivers.

Indicators for Adaptation Benefits to Communities

CarbonCo, and its parent company Carbonfund.org, are both climate change organizations and will continuously monitor the latest developments in climate change science and climate change impacts.

The Project Proponents incorporated adaptation activities into the Envira Amazonia Project and have incorporated the following indicators to demonstrate the Project activities are assisting local families to adapt to the probable impacts of climate change:

Mitigate Increase in Mosquito-Borne Illnesses

The Project Proponents will continue to monitor the following indicators to assess whether the Project is effectively mitigating an increase in mosquito-borne illnesses:

- Number of Health Centers Established
- Number of Mosquito Nets Distributed
- Number of Local Communities Attending Health Center
- Trend of Mosquito-Borne Illnesses in Project Zone

Climate Change Adaptation Incorporated into Agricultural Extension Courses

The Project Proponents will continue to monitor the following indicators to assess whether the Project effectively incorporated climate change adaptation into the agricultural extension courses and whether the lessons are being practiced by the local communities:

- Number of Families Surveyed About Desired Agricultural Extension Courses
- Number of Agricultural Extension Courses Taught
- Number of Agricultural Extensions Courses Taught Which Incorporated Climate Change Adaptation Measures
- Number of Lessons Learned (Related to Climate Change Adaptation) and Incorporated by Local Families in Project Zone

Improving with Transportation Networks

The Project Proponents will continue to monitor the following indicators to assess whether the Project is effectively improving transportation networks that would otherwise be hindered by climate change:

- Number of Boats Purchased by JR Agropecuária e Empreendimentos EIRELI to Assist with Transportation of Community Goods (e.g., Açaí, Rubber, and Medicinal Plants)
- Number of Shipments Via JR Agropecuária e Empreendimentos EIRELI's Road Transportation Network
- Number of Shipments Disrupted Due to Impact of Increased Flooding, Heavy Rainfalls, and Lower River Levels

Establishing Facilities Far from River Banks

The Project Proponents will continue to monitor the following indicators to assess whether the Project is effectively establishing facilities far from river banks:

- Number of Facilities Built Along Envira River
- Number of Facilities Built Along Jurupari River
- Number of Flooding Events and Heavy Rainfall Damaging Health Centers
- Number of Flooding Events and Heavy Rainfall Damaging Headquarters

GL2. Exceptional Community Benefits

The Envira Amazonia Project is targeting both short-term and long-term benefits to globally poor communities located throughout the Project Zone. Such benefits will be shared equitably, including amongst the more marginalized or vulnerable households, and local governance structures will be developed to maximize the benefits.

Demonstrate Project Zone’s Communities Below National Poverty Line

According to the United Nations Development Programme’s International Human Development Index (HDI), Brazil is considered a high human development country.⁹ However, it can be demonstrated that at least 50% of the population in the Project Zone are below the national poverty line. According to a World Bank study¹⁰, the national poverty line per capita per month in Brazil is 180.14 (2005 PPP\$) while the “nominal value of the median monthly income per capita of rural, permanent households” in the municipality of Feijó is R\$28.00.¹¹

Demonstrate Short- and Long-Term Net Positive Community Benefits

The Envira Amazonia Project has both short-term and long-term net positive benefits for local families throughout the Project Zone. Short-term activities which shall be implemented shortly after the Project achieves validation and verification include offering agricultural extension courses and creating the structure for açaí, medicinal plants, and rubber trees. A few of the short-term community benefits that took place from August 2012 to December 2014 included community consultations about Project design, hiring Mazinho as the local project manager, hiring local communities as guides, boat drivers, and cooks, and distributing soccer balls to children at the Project. Throughout 2015, community consultations about the Project continued, Mazinho remained as the local project manager, local communities were hired to assist with the bird study, and the Project Proponents distributed both machetes and dental kits.

Activities that will have long-term net positive benefits for local communities including helping the communities obtain official land title and to establish a local health center.

Indicators of the well-being impacts from these short-term and long-term activities were incorporated into the community impact monitoring plan’s Basic Necessity Survey and Participatory Rural Assessment.

⁹ UNDP, “Table 1: Human Development Index and its components,” Available: <https://data.undp.org/dataset/Table-1-Human-Development-Index-and-its-components/wxub-qc5k>

¹⁰ Martin Ravallion et al., “Dollar a Day Revisited,” Available: http://www-wds.worldbank.org/servlet/WDSCContentServer/WDSP/IB/2008/09/02/000158349_20080902095754/Rendered/PDF/wps4620.pdf

¹¹ IBGE, “Acre: Feijó,” Available: <http://cidades.ibge.gov.br/xtras/temas.php?lang=&codmun=120030&idtema=16&search=acrefeijo|sintese-das-informacoes->

Identify Risks for Community Members Participation

The most common risk that the families shared with Ayri Rando is their concern about losing their traditional livelihoods, which involves slash-and-burn agriculture, if they participate in the Project. In addition, the local families are concerned about potentially being removed since they do not have title to the land. In contrast, the Project shall grant official land title to the families to strengthen their land tenure and negate any concerns they have about potentially being removed. In addition, the Project shall offer agricultural extension training courses that will demonstrate alternatives to traditional slash-and-burn agriculture.

Identify Marginalized and/or Vulnerable Community Groups

All of the communities in the Project Zone are relatively marginalized and vulnerable due to having limited health care services, being located relatively far from Feijó, and by not having official land title. Currently, data from the Participatory Rural Assessment – particularly with respect to the number of cattle owned by each family – will serve as an approximation for which families are considered the most marginalized. In the future, the Basic Necessity Survey will be used to identify the most marginalized families and to monitor whether such families are receiving net positive impacts. Ultimately, the Project is designed and shall be implemented to generate net positive impacts for all families living throughout the Project Zone.

Demonstrate Project Generates Net Positive Impacts for Women

As part of the community engagement, Ayri Rando interviewed women and allowed all community members – including women – to share their insights.

The PRA asked what activities are most important to women and what can be done to increase the participation of women. Two valuable insights were shared and was incorporated into the Project to help ensure the Project generates net positive impacts for women. The first insight is that the Project should allow children to attend any courses (assuming children are out of school) in order to allow women to participate in the courses. The second, related insight is that the Project should offer to compensate a few women to look after the community's children in order to allow women to participate more fully in the courses.

In the future, the PRAs shall inquire about the specific impacts the Project has had on women.

Describe Design and Implementation of Benefit Sharing Mechanism

The Project Proponents, based off their experience in Acre and based off the other REDD+ projects implemented by CarbonCo and Carbon Securities, designed an initial list of activities aimed at sharing benefits with the local community. CarbonCo then hired Ayri Rando to visit the communities to explain, among other things, the proposed list of activities and to solicit their feedback. This process was participatory and resulted in additional activities being incorporated into the Project and a restructuring of the implementation schedule.

All benefits described in section, *Project Activities, Outputs, Outcomes, and Impacts*, will be available (i.e., distributed) to local communities throughout the Project Zone. This includes employment opportunities (e.g., support staff and local project manager), participation in the collection, processing and sales of açaí and medicinal plants, participation in reestablishing rubber tree collection, receiving agriculture extension courses, and ability to use the local health

clinic with dental clinic that will be built at the Project. The only benefit that will not be distributed to all local communities is the granting of land title. The reason is because JR Agropecuária e Empreendimentos EIRELI can only grant land title to local families living on JR Agropecuária e Empreendimentos EIRELI's property. Similarly, JR Agropecuária e Empreendimentos EIRELI cannot grant land title to local families living in the Project Zone but outside the Project Area and on someone else's property.

Explain Communication of Benefits, Costs and Risks

Ayri Rando personally visited families throughout the Project Zone to communicate the Project's proposed benefits and the potential costs and risks of participation. The community also shared what benefits they would like to receive and shared their concerns of participating in the Project (i.e., losing traditional livelihoods or being forced to move). The Project Proponents received the community's feedback through Ayri Rando. Carbon Securities and CarbonCo then visited the communities in December 2014 for the validation of the Envira Amazonia Project and also helped to future explain the Project to local communities. Carbon Securities and CarbonCo conducted another site visit in November 2015 for the verification audit and again, helped to explain the Project.

The complete project documents, including the Summary Document, were made available to the local community which further communicated the Project's benefits, costs and risks. In addition, the Project Proponents – or their representatives - will regularly visit the Project and Duarte intends on recording radio messages containing Project updates for the community.

Describe Project's Governance and Implementation Structures

During Ayri Rando's visit, the families were asked if there was a history of collective decision-making and there is no such tradition of community-wide decisions or community elders making decisions on behalf of the community.

The Project is being collectively governed by JR Agropecuária e Empreendimentos EIRELI, Carbon Securities and CarbonCo. JR Agropecuária e Empreendimentos EIRELI is primarily responsible for the implementation of the local social projects and programs. To decentralize decision-making and to empower the local communities, JR Agropecuária e Empreendimentos EIRELI will establish sub-divisions for the açaí, rubber and medicinal plant projects throughout the Project Zone.

Demonstrate Project is Developing Local Capacity

The Participatory Rural Assessment asked the local communities whether there were any local organizations or institutions. The only local institution, which does not visit the Project Zone on a regular occasion, is STR-Feijó. The Project Proponents shall engage STR-Feijó to inform about the Envira Amazonia Project and explore whether there are opportunities for collaboration.

As previously mentioned, in December 2015, Duarte Jose do Couto Neto ("Duarte") spoke over the phone with Mr. Cesonir Paiva Freitas, the President of STR-Feijó to present the Envira Amazonia Project. Both agreed to meet in person in 2016 to strengthen the relationship and to further explore potential areas of assistance from STR-Feijo.

In addition to engaging STR-Feijó, the Project Proponents are directly engaging the local community to develop local capacity in the design, implementation and ongoing management of the Project. Such local capacity includes, but is not limited to: the participatory process of designing the Project; developing the structure to collect, process, transport and sell açaí, rubber and medicinal plants; and learning new techniques via the agricultural extension courses.

It is also important to note the Project will work to build this local capacity with all families, including women and marginalized families.

GL3. Exceptional Biodiversity Benefits

The Envira Amazonia Project is conserving a globally significant site of biodiversity on the basis of the Key Biodiversity Area (KBA) framework of vulnerability.

Demonstrate Project Zone's High Biodiversity Conservation Priority

The Envira Amazonia Project is a site of high biodiversity conservation priority due to the KBA framework of vulnerability. The two main trigger species are *Rinorea longistipulata* (known as Canela de Velho in Portuguese) and *Cedrela odorata* (known as Spanish Cedar, Cigar-box Wood, and Red Cedar in English or Cedro rosa in Portuguese).

The following chart demonstrates that more than 30 individuals of *Rinorea longistipulata* and *Cedrela odorata* were identified by TECMAN at the Envira Amazonia Project:

	Kingdom	Genus	Species	Common Names (English)	Nome Vernacular (Common Portuguese Name)	Red List Status	Number of Individuals Identified
1	PLANTAE	Amburana	acreana	N/A	Cerejeira	Vulnerable	15
2	PLANTAE	Cedrela	odorata	Spanish Cedar, Cigar-box Wood, Red Cedar	Cedro rosa	Vulnerable	39
3	PLANTAE	Rinorea	longistipulata*	N/A	Canela de Velho	Vulnerable	297
4	PLANTAE	Swietenia	macrophylla	Big Leaf Mahogany, Brazilian Mahogany, Large-leaved Mahogany	Mogno	Vulnerable	25

Figure 2: IUCN Red Listed Species Identified in Project Area (Credit: TECMAN)

Furthermore according to the Integrated Biodiversity Assessment Tool (IBAT), the region where the Envira Amazonia Project is located has also been identified as a KBA due to the endemic and IUCN Red List bird species. The following chart is the IBAT trigger species:

	Taxonomic Group	Scientific Name	Common Names (English)	IUCN Red List	Endemic to Southwestern Amazon
1	Birds	<i>Brachygalba albogularis</i>	White-throated Jacamar	Least Concern	-
2	Birds	<i>Cercomacra manu</i>	Manu Antbird	Least Concern	-
3	Birds	<i>Conioptilon mcilhennyi</i>	Black-faced Cotinga	Least Concern	Endemic
4	Birds	<i>Crypturellus atropillus</i>	Black-capped Tinamou	Near Threatened	-
5	Birds	<i>Cymbilainus sanctaemariae</i>	Bamboo Antshrike	Least Concern	-
6	Birds	<i>Epinecrophyla leucophthalma</i>	White-eyed Antwren	Least Concern	-
7	Birds	<i>Eubucco tucinkae</i>	Scarlet-hooded Barbet	Least Concern	Endemic
8	Birds	<i>Formicarius rufifrons</i>	Rufous-fronted Antthrush	Near Threatened	Endemic
9	Birds	<i>Galbalcyrrhynchus purusianus</i>	Chestnut Jacamar	Least Concern	-
10	Birds	<i>Galbula cyanescens</i>	Bluish-fronted Jacamar	Least Concern	-
11	Birds	<i>Gymnopathys salvini</i>	White-throated Antbird	Least Concern	-
12	Birds	<i>Hemitriccus flammulatus</i>	Flammulated Bamboo-tyrant	Least Concern	-
13	Birds	<i>Hylopezus berlepschi</i>	Amazonian Antpitta	Least Concern	-
14	Birds	<i>Hypocnemoides maculicauda</i>	Band-tailed Antbird	Least Concern	-
15	Birds	<i>Lanio versicolor</i>	White-winged Shrike-tanager	Least Concern	-
16	Birds	<i>Lophotriccus eulophotes</i>	Long-crested Pygmy-tyrant	Least Concern	Endemic
17	Birds	<i>Malacoptila semicincta</i>	Semicollared Puffbird	Least Concern	-
18	Birds	<i>Myrmeciza goeldii</i>	Goeldi's Antbird	Least Concern	Endemic
19	Birds	<i>Myrmotherula iheringi</i>	Ihering's Antwren	Least Concern	-
20	Birds	<i>Myrmotherula sclateri</i>	Sclater's Antwren	Least Concern	-
21	Birds	<i>Nannopsittaca dachilleae</i>	Amazonian Parrotlet	Near Threatened	Endemic
22	Birds	<i>Neopelma sulphureiventer</i>	Sulphur-bellied Tyrant-manakin	Least Concern	-
23	Birds	<i>Nonnula sclateri</i>	Fulvous-chinned Nunlet	Least Concern	-
24	Birds	<i>Percnostola lophotes</i>	White-lined Antbird	Near Threatened	Endemic
25	Birds	<i>Phaethornis philippii</i>	Needle-billed Hermit	Least Concern	-
26	Birds	<i>Picumnus subtilis</i>	Fine-barred Piculet	Least Concern	Endemic
27	Birds	<i>Pionites leucogaster</i>	White-bellied Parrot	Endangered	-
28	Birds	<i>Primolius couloni</i>	Blue-headed Macaw	Vulnerable	-
29	Birds	<i>Psophia leucoptera</i>	Pale-winged Trumpeter	Least Concern	-
30	Birds	<i>Pteroglossus beauharnaesii</i>	Curl-crested Aracari	Least Concern	-
31	Birds	<i>Pyrrhura rupicola</i>	Black-capped Parakeet	Near Threatened	-
32	Birds	<i>Simoxenops ucayalae</i>	Peruvian Recurvebill	Near Threatened	-
33	Birds	<i>Synallaxis cherriei</i>	Chestnut-throated Spinetail	Near Threatened	-
34	Birds	<i>Thamnomanes schistogynus</i>	Bluish-slate Antshrike	Least Concern	-
35	Birds	<i>Thryothorus griseus</i>	Grey Wren	Least Concern	Endemic

Figure 3: IBAT Trigger Species (Credit: IBAT)

Many of these bird species were identified in 2015 by Tomaz Nascimento.

Describe Recent Population Trends of Each Trigger Species

The following analysis will focus on the nine trigger species which are endemic to the Southwestern Amazon, along with the four trigger species considered vulnerable or endangered by the International Union for the Conservation of Nature (IUCN).

Grey Wren

According to research compiled by the IUCN, the population trend of the Grey Wren (*Thryothorus griseus*) is decreasing. Furthermore, the IUCN states the Grey Wren:

Has a very large range, and hence does not approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence <20,000 km² combined with a declining or fluctuating range size, habitat extent/quality, or population size and a small number of locations or severe fragmentation). Despite the fact that the population trend appears to be decreasing, the decline is

not believed to be sufficiently rapid to approach the thresholds for Vulnerable under the population trend criterion (>30% decline over ten years or three generations). The population size has not been quantified, but it is not believed to approach the thresholds for Vulnerable under the population size criterion (<10,000 mature individuals with a continuing decline estimated to be >10% in ten years or three generations, or with a specified population structure). For these reasons the species is evaluated as Least Concern.¹²

Although the Grey Wren has a large range, the Grey Wren's population within the Project Zone would likely further decrease in the without project land-use scenario.

White-bellied Parrot

According to research compiled by the IUCN, the White-bellied Parrot is considered Endangered and the population trend of the White-bellied Parrot (*Pionites leucogaster*) is decreasing. The IUCN states that "based on a model of deforestation in the Amazon basin, and the potential susceptibility of this newly split species to hunting, it is suspected that its population will decline very rapidly over three generations from 2002, and it is therefore listed as Endangered."¹³ If the Project Zone were to be clear-cut for cattle ranches, it is likely the population of the White-bellied Parrot would further decrease.

Blue-headed Macaw

According to research compiled by the IUCN, the Blue-headed Macaw (*Primolius couloni*) is considered Vulnerable and the Blue-headed Macaws' population is decreasing. Furthermore, the population is "estimated at 9,200-46,000 mature individuals (roughly equivalent to 10,000-70,000 total individuals), based on conservative estimates of range size and density. (...) This species is listed as Vulnerable because it has a small population which is declining owing to exploitation for the cagebird trade and deforestation."¹⁴ The population of the Blue-headed Macaw would likely decrease in the without-Project land-use scenario.

Fine-barred Piculet

According to research compiled by the IUCN, the Fine-barred Piculet (*Picumnus subtilis*) is considered stable. The IUCN explains that this is because:

Although this species may have a restricted range, it is not believed to approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence <20,000 km² combined with a declining or fluctuating range size, habitat extent/quality, or population size and a small number of locations or severe fragmentation). Despite the fact that the population trend appears to be decreasing, the decline is not believed to be sufficiently rapid to approach the thresholds for Vulnerable under the population trend criterion (>30% decline over ten years or three generations). The population size has not been quantified, but it is not believed to approach the thresholds for Vulnerable under the population size criterion (<10,000 mature individuals with a continuing decline estimated to be >10% in ten years or three generations, or with a specified population structure). For these reasons the species is evaluated as Least Concern.¹⁵

The Fine-barred Piculet, due to its restricted range, would possibly decrease in population from the without-Project land-use scenario.

¹² IUCN, "Thryothorus griseus," Available: <http://www.iucnredlist.org/details/22711479/0>

¹³ IUCN, "Pionites leucogaster," Available: <http://www.iucnredlist.org/details/62181308/0>

¹⁴ IUCN, "Primolius couloni," Available: <http://www.iucnredlist.org/details/22685593/0>

¹⁵ IUCN, "Picumnus subtilis," Available: <http://www.iucnredlist.org/details/22680771/0>

White-lined Antbird

According to research compiled by the IUCN, the White-lined Antbird (*Percnostola lophotes*) population is decreasing. The IUCN reasons that “based on a model of future deforestation in the Amazon basin, and its particular susceptibility to forest fragmentation, it is suspected that the population of this species will decline by 25-30% over the next three generations, and it has therefore been uplisted to Near Threatened.”¹⁶ The without-Project land-use scenario, which would result in deforestation and forest fragmentation, would likely further decrease the population of the White-lined Antbird.

Amazonia Parrotlet

According to research compiled by the IUCN, the population trend of the Amazonia Parrotlet (*Nannopsittaca dachilleae*) is decreasing. The IUCN states that:

This species is currently classified as Near Threatened as it is thought to have a moderately small, declining population of which the majority of individuals are in one subpopulation. If the population is found to be considerably larger than previously thought it may be downlisted to Least Concern. (...) The species’ population is suspected to number c.10,000 individuals, equivalent to c.6,700 mature individuals. This figure is applied here as a preliminary estimate; however, there are no data available and further research is needed.¹⁷

The without-Project land-use scenario would likely further decrease the population of the Amazonia Parrotlet.

Long-crested Pygmy-tyrant

According to research compiled by the IUCN, the Long-crested Pygmy-tyrant (*Lophotriccus eulophotes*) population is decreasing. In addition, the IUCN states that:

This species has a very large range, and hence does not approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence <20,000 km² combined with a declining or fluctuating range size, habitat extent/quality, or population size and a small number of locations or severe fragmentation). Despite the fact that the population trend appears to be decreasing, the decline is not believed to be sufficiently rapid to approach the thresholds for Vulnerable under the population trend criterion (>30% decline over ten years or three generations). The population size has not been quantified, but it is not believed to approach the thresholds for Vulnerable under the population size criterion (<10,000 mature individuals with a continuing decline estimated to be >10% in ten years or three generations, or with a specified population structure). For these reasons the species is evaluated as Least Concern.¹⁸

Although the Long-crested Pygmy-tyrant has a large range, the Long-crested Pygmy-tyrant’s population within the Project Zone would likely further decrease in the without project land-use scenario.

¹⁶ IUCN, “*Percnostola lophotes*,” Available: <http://www.iucnredlist.org/details/22701776/0>

¹⁷ IUCN, “*Nannopsittaca dachilleae*,” Available: <http://www.iucnredlist.org/details/22686000/0>

¹⁸ IUCN, “*Lophotriccus eulophotes*,” Available: <http://www.iucnredlist.org/details/22699564/0>

Goeldi's Antbird, Scarlet-hooded Barbet, and Black-faced Cotinga

According to research compiled by the IUCN, the populations of the Goeldi's Antbird (*Myrmeciza goeldii*)¹⁹, the Scarlet-hooded Barbet (*Eubucco tucinkae*)²⁰, and the Black-faced Cotinga (*Conioptilon mcilhennyi*)²¹ are all stable. Each of the species:

Has a very large range, and hence does not approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence <20,000 km² combined with a declining or fluctuating range size, habitat extent/quality, or population size and a small number of locations or severe fragmentation). Despite the fact that the population trend appears to be decreasing, the decline is not believed to be sufficiently rapid to approach the thresholds for Vulnerable under the population trend criterion (>30% decline over ten years or three generations). The population size has not been quantified, but it is not believed to approach the thresholds for Vulnerable under the population size criterion (<10,000 mature individuals with a continuing decline estimated to be >10% in ten years or three generations, or with a specified population structure). For these reasons the species is evaluated as Least Concern.

Although the species each have a large range and staple population, the populations within the Project Zone would likely decrease in the without-Project land-use scenario.

Rufous-fronted Antthrush

According to research compiled by the IUCN, the Rufous-fronted Antthrush (*Formicarius rufifrons*) population is decreasing. In addition, “this species is considered Near Threatened as it is known from only a small range, and is apparently rare and patchily distributed. However, the range is not yet severely fragmented or restricted to few locations (Collar *et al.* 1992). For these reasons, the species is classified as Near Threatened.”²² The without-Project land-use scenario, would further fragment the Rufous-fronted Antthrush’s range, and thus likely lead to a decrease in the population.

Canela de Velho

There is no population information on the Canela de Velho (*Rinorea longistipulata*) via the IUCN Red List,²³ the Encyclopedia of Life,²⁴ or the Global Biodiversity Information Facility.²⁵ However, the species is considered Vulnerable and the without-Project land-use scenario, which would be the creation of a large cattle-ranch, would likely result in a decrease in population.

Red Cedar

According to research compiled by the IUCN, the Red Cedar (*Cedrela odorata*) is listed as Vulnerable and appears to be decreasing in population:

Exploitation has continued on a large scale over the past 200 years and the species is now widely threatened at the provenance level. Trees are often cut opportunistically while other species, such

¹⁹ IUCN, “*Myrmeciza goeldii*,” Available: <http://www.iucnredlist.org/details/22701838/0>

²⁰ IUCN, “*Eubucco tucinkae*,” Available: <http://www.iucnredlist.org/details/22681942/0>

²¹ IUCN, “*Conioptilon mcilhennyi*,” Available: <http://www.iucnredlist.org/details/22700913/0>

²² IUCN, “*Formicarius rufifrons*,” Available: <http://www.iucnredlist.org/details/22703203/0>

²³ IUCN, “*Rinorea longistipulata*,” Available: <http://www.iucnredlist.org/details/35985/0>

²⁴ Encyclopedia of Life, “*Rinorea longistipulata*,” Available: <http://eol.org/pages/5748360/overview>

²⁵ Global Biodiversity Information Facility, “Species: *Rinorea longistipulata* W.H.A.Hekking, Available: <http://data.gbif.org/species/4074938/>

as mahogany, *Amburana* and *Machaerium*, are being sought-after. Natural regeneration is generally good, but there are reports of trees being felled before they reach maturity.²⁶

The without-Project land-use scenario would result in the Red Cedar being logged for commercial purposes and thus, the population of Red Cedar would surely decrease in the Project Area.

Describe Measures to Maintain or Enhance Population of Trigger Species

The essential measure needed and taken at the Envira Amazonia Project is forest conservation, which shall both maintain and enhance the population status of the aforementioned trigger species. This includes JR Agropecuária e Empreendimentos EIRELI foregoing the creation of a large cattle ranch, along with several social projects and programs (e.g., hiring local staff, medicinal plant and rubber tree projects, agricultural extension courses, etc.) aimed at improving the socio-economic status of local families. Furthermore, the Project has climate, community and biodiversity impact monitoring plans in place to ensure the activities are leading to the desired impacts.

The greatest threat to the trigger species – both threatened tree species and endemic bird species – is deforestation. For birds, deforestation leads to a decrease in overall habitat availability, fragmented habitats, less food availability, greater chance of predation and hunting, and fewer potential mates. For trees – particularly Red Cedar – deforestation leads to easier access to the trees for commercial harvesting and degraded landscapes threaten the survival of trees species due to a reduced source of seeds and greater exposure to the elements (e.g., more direct sunlight, drying of soil, etc.).

For example, the IUCN states deforestation as the greatest threat to the white-bellied parrot:

The primary threat to this species is accelerating rates of deforestation in the Amazon basin (Soares-Filho et al. 2006, Bird et al. 2011). Proposed changes to the Brazilian Forest Code reduce the percentage of land a private landowner is legally required to maintain as forest (including, critically, a reduction in the width of forest buffers alongside perennial streams) and include an amnesty for landowners who deforested before July 2008 (who would subsequently be absolved of the need to reforest illegally cleared land) (Bird et al. 2011). Despite being common in undisturbed landscapes, this species is not thought to be tolerant of secondary forest or agropastoral land and appears restricted to alluvial habitats. It may also be susceptible to hunting (A. Lees in litt. 2011).²⁷

Indications of Trigger Species' Population Trend

The Project Proponents will monitor the number of individuals identified for threatened tree species, along with the number of individuals identified for endemic and threatened bird species. In addition, the greatest threat to these tree species and bird species is deforestation, which is regularly monitored via satellite imagery and via forest patrols to help maintain or enhance their population status.

²⁶ IUCN, “*Cedrela odorata*,” Available: <http://www.iucnredlist.org/details/32292/0>

²⁷ IUCN, “*Pionites leucogaster*,” Available: <http://www.iucnredlist.org/details/62181308/0>

Appendix A: Feedback and Grievance Redress Procedure

Demonstrate Formalized, Clear Grievance Redress Procedure

In case any disputes arise, the Project Proponents formalized a clear process for handling unresolved conflicts and grievances throughout the Project's planning and implementation phases.

Essentially, if conflicts or grievances are unable to be resolved by the Project Proponents (particularly JR Agropecuária e Empreendimentos EIRELI and the local project manager Mazinho), the State of Acre's Climate Change Institute – acting as a third party mediator to prevent any conflict of interest - will hear, respond to, and help resolve all reasonable grievances with the Project through an impartial and accessible process.

More specifically, the State of Acre's Climate Change Institute has established an Ombudsman who will be the specific person to receive and refer any grievances about the Project. Any stakeholder is free to contact or visit the Climate Change Institute with any unresolved conflicts or grievances. Below is the physical address, phone numbers, fax numbers and email address:

Instituto de Mudanças Climáticas e Regulação de Serviços Ambientais
(Climate Change Institute)

Address: Rua Floriano Peixoto, nº 460, Primeiro Andar, Centro, Acre, Brazil

Telephone: +55 (68) 3223-1933 / +55 (68) 3223 9962 / +55 (68) 3223 1903

Fax: +55 (68) 3223 9962 Email Address: gabinete.imc@ac.gov.br

The Climate Change Institute's process for hearing, responding to, and resolving reasonable grievances is as follows:

- **Receiving:** Any person may visit or contact the Climate Change Institute. Any person who makes contact with the Ombudsman over the internet will receive a notification of receipt by email.
- **Verification and Acceptance:** The Ombudsman will decide whether a complaint is considered reasonable and whether the complaint should be accepted by the Climate Change Institute.
- **Referral to Internal Areas:** When deciding to accept a demand, the Ombudsman records the complaint and informs the person raising the complaint of the protocol number and the deadline for a response. If the demand is accepted, the demand will be internally referred to the appropriate specialist. If the demand is rejected, the Ombudsman will inform the person of the reason for the rejection.
- **Monitoring:** The Ombudsman will monitor the protocol and will monitor the internal areas responsible for collecting the answers to the complaint.
- **Resolution:** When the settlement is decided, the Ombudsman will make contact with the person who raised the complaint and the Ombudsman will close the protocol. All complaints received by the Ombudsman are usually answered within five working days and the person can call to know the progress of their protocol.

Each month the Ombudsman shall prepare a report and forward it to Board and President of the Climate Change Institute. In this report, the Ombudsman will: summarize actions taken to address complaints; quantify complaints and provide graphics to compare number of complaints against previous months; report amount of open and closed protocols; and provide relevant suggestions for process improvements and final considerations of the Ombudsman.

Furthermore, all conflicts or grievances will be addressed within a reasonable timeframe, the resolutions will be documented, and this process has been publicized to all stakeholders and especially to the local communities. Stakeholders are free to contact the Climate Change Institute and the Ombudsman to access the grievance reports. In the future, the Ombudsman would like to have an established website that will publicly post the grievances.

If the Ombudsman and Climate Change Institute are unable to resolve the complaint, then the issue will be referred to the courts in Acre.

To the best of the Project Proponents' knowledge, there were no grievances about the Envira Amazonia Project during the verification period of August 2012 to December 2015, and nor did any grievances about the Envira Amazonia Project get referred to the Ombudsman.