

AMAZON RIO REDD+ IFM GHG EMISSION REDUCTIONS FROM AVOIDING PLANNED DEGRADATION



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Note: The Project Description (PD) Version 1.0 of the Amazon Rio REDD+ IFM Project was prepared by Rosana Della Mía e Virgílio Viana with the technical support from the consultants Mariano Cenamo, Diego Serrano, Bruno Matta, Pablo Pacheco, Thais Megid, Renata Freire, Priscila Barros, Rodrigo Freire and Lucas Rosa, as well as the documents: (i) Free, Prior and Informed Consent (FPIC), (ii) Expeditious Forest Inventory, (iii) Management Plan of the Amazon Rio RPDS Conservation Unit and (iv) vegetation and other maps; that can be found in the Annexes.	

Project Title	Amazon Rio REDD+ IFM Reduction of GHG emissions avoided by degradation
Localization Project	Rio Amazon I, II, III e IV. Município de Manicoré, Estado do Amazonas, Brasil.
Project Proponent	EBCF – Empresa Brasileira de Conservação Florestal Contato: Leonardo Barrionuevo (CEO) Leonardo@ebcf.com.br – fone +1 305-321-4577
Auditor	Rainforest Alliance (Klaus Geiger kgeiger@ra.org; Tel: +1 (802)923-3766) e Imaflora (Bruno B. Souza, bruno@imaflora.org; Tel +55 (19) 98324 5522.
Project start date	August 17, 2012; crediting period of 37 years, 37 years of project time (can be extended for longer).
Type validation	Complete (Full Validation).
Historical status CCBA	No history; first proposition (Validation and Initial verification)
Edition CCBA Standard	CCBA. 2013. Climate, Community & Biodiversity Standards Third Edition. CCBA, Arlington, VA, USA. December, 2013. At: www.climate-standards.org
Project summary	The EBCF bought the property and its respective management plan. However, it ceased operations management voluntarily. Thus, the GHG emissions that would be generated and environmental impacts on local flora and fauna that occur during harvesting and processing of timber, no longer happen. It is replaced by an alternative use of project land without significant impacts to the environment, involving local communities as decision maker's agents. Structuring the area for ecotourism and Extractive non-wood products. The project is designed to prevent the emission of approximately 3.2 million tons of carbon, benefiting directly more than 450 families in an area of 20 thousand

Gold Level Criteria	hectares of Amazonian biodiversity.
	On the climate issue is understood that balanced ecosystems have greater ecological and social resilience and adaptability to climate change, whether through the protection of water bodies and flow regulation of rivers on the peaks of flood and drought, is the regular supply food products and environmental services. From the social point of view the project has a strong presence along the clearly marginalized populations the social care system of the state and was strategies interact with the communities to give more visibility to women, elderly and children. Exceptional benefits for biodiversity is realized on the fact that the Amazon River project present several qualifying attributes of "High Conservation Values", such as endemic species and / or rare and have several species protected by specific legislation prohibiting cutting, such as the chestnut tree, rubber tree and mahogany.
	09, September, 2016.
Expected schedule check	Periodic every 5 years

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ABBREVIATIONS

- AFOLU: Agriculture, Forestry and Other Land Use
- ANTAQ: National Agency for Waterway Services (Agência Nacional de Transportes Aquaviários)
- AP: Project Area
- APD: Avoided Planned Deforestation
- APP: Areas of Permanent Preservation (Áreas de Preservação Permanente)
- ATER: Technical Assistance and Rural Development (Assistência Técnica e Extensão Rural)
- AUTEX: Logging Authorization (Autorização de Exploração Florestal)
- CAAD: Council of Agro-Extrativist Associations of Democracia (Conselho das Associações Agroextrativistas de Democracia)
- CAAM: Council of Agro-Extrativist Associations of Manicoré (Conselho das Associações Agroextrativistas de Manicoré)
- CDM: Clean Development Mechanism

CFI:	Continuous Forest Inventory
CNS:	National Council of Extractivist Populations (Conselho Nacional das Populações Extrativistas)
CRA:	Environmental Reserve Quotas (Cotas de Reserva Ambiental)
DBH:	Diameter at Breast Height
DETER:	Real Time Deforestation Detection System
DOF:	Document of Forest Origin (Documento de Origem Florestal)
EIA:	Environmental Impact Assessment
FAS:	Amazonas Sustainable Foundation (Fundação Amazonas Sustentável)
FSC:	Forest Stewardship Council
FUNAI:	National Indigenous Peoples Foundation (Fundação Nacional do Índio)
GHG:	Greenhouse Gases
GIS:	Geographic Information System
HCV:	High Conservation Value
IBAMA:	Brazilian Institute of Environment and Renewable Natural Resources (Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis)
ICU:	Intensive Care Unit
IDAM:	Institute of Agricultural and Forestry Development of the State of Amazonas (Instituto de Desenvolvimento Agropecuário e Florestal do Estado do Amazonas)
IEA:	International Energy Agency
IEB:	International Institute of Education of Brazil (Instituto Internacional de Educação do Brasil)
IFM-LtPF:	Improved Forest Management - Logged to Protected Forest
IMAZON:	Institute of Man and Environment in the Amazon (Instituto do Homem e Meio Ambiente da Amazônia)
INPE:	National Institute for Space Research (Instituto Nacional de Pesquisas Espaciais)
IPAAM:	Amazon Institute of Environmental Protection (Instituto de Proteção Ambiental do Amazonas)
IPCC:	Intergovernmental Panel on Climate Change
LR:	Legal Reserve (Reserva Legal)
MCT:	Ministry of Science and Technology (Ministério da Ciência e Tecnologia)
MMA:	Ministry of Environment (Ministério do Meio Ambiente)
MP:	Monitoring Plan
NTFP:	Non-Timber Forest Product
PD:	Project Description
PES:	Payment for Environmental Services
POA:	Annual Operational Extraction Plan (Plano Operacional Anual de Extração)

PPE:	Personal Protective Equipment
PROARCO:	Program for the Prevention and Control of Forest Fires in the Arc of Deforestation (Programa de Prevenção e Controle às Queimadas e Incêndios no Arco do Desflorestamento)
PROBUC:	Program for Monitoring Biodiversity and Use of Natural Resources in Conservation Units (Programa de Monitoramento da Biodiversidade e Uso do Recursos Naturais em UCs)
PRODES:	Program to Calculate Deforestation in the Amazon (Programa de Cálculo do Desflorestamento da Amazônia)
RDS:	Sustainable Development Reserves (Reservas de Desenvolvimento Sustentável)
RPDS:	Private Reserves for Sustainable Development (Reserva Particular de Desenvolvimento Sustentável)
RPPN:	Private Reserve of Natural Heritage (Reserva Particular do Patrimônio Natural)
SAD:	Deforestation Alert System (Sistema de Alerta de Desmatamento)
SDS:	Secretary of the State for the Environment and Sustainable Development of Amazonas (Secretaria de Estado do Meio Ambiente e Desenvolvimento Sustentável do Amazonas)
SEUC:	State System of Conservation Units (Sistema Estadual de Unidades de Conservação)
SFM:	Sustainable Forest Management
SFMP:	Sustainable Forest Management Plan
UC:	Conservation Units (Unidade de Conservação)
UEA:	State University of Amazonas (Universidade Estadual do Amazonas)
UFAM:	Federal University of Amazonas (Universidade Federal do Amazonas)
UNFCCC:	United Nations Framework Convention on Climate Change
UPA:	Annual Production Unit (Unidade Produtiva Anual)
VCU:	Verified Carbon Unit
WBCSD:	World Business Council for Sustainable Development
WRI:	World Resources Institute

1 PROJECT DESCRIPTION

1.1 Summary Description of the Project

The Amazon Rio project consists of the conservation of a mosaic of four private areas called Amazon Rio I, II, III and IV, which add up to 20,387 hectares (ha) of primary forest, located in the municipality of Manicoré in the state of Amazonas. The project's target area is characterized by being a region of sedimentary Solimões Basin, dominated by Alluvial Holocene, Içá formation and Detritus-lateritic formation. The relief is of the flat type with primary vegetation formation consisting of areas of land, floodplain and some formations igapó due to the influence of Rio Manicoré.

The Amazon Rio areas dominated forests of humid tropical rainforest Lowlands emerging Canopy and Forest Open Rain Lowlands with palm trees (79%), the Atlantic rain forest Alluvial emerging canopy (11%), Rain Forest Open Alluvial with palm trees (8%), Pioneer formations influenced fluvial and /or lacustrine - herbaceous and shrubby with palm trees (1%).

The main focus of the project is: (i) the conservation of forest ecosystems and biodiversity; (ii) the sustainable social development of the region, including the promotion of ecotourism and scientific research, and (iii) the reduction in carbon dioxide (CO₂) emissions through the prevention of deforestation and forest degradation.

In 1998, a logging plan for logging activities was approved by the authorized environmental agencies on 19,800 ha of land over a period of 25 years (the total area does not include Permanent Preservation Areas (APP) and water bodies. Between 1999 and 2010, 4,347.69 ha were degraded due to an authorized logging operation (Annexes 1, 2, 3 and 4). In February 2011, the area was acquired by the *Empresa Brasileira de Conservação de Florestas* (EBCF) which, in order to implement the objectives of the project, made two important decisions: to suspend the logging operations underway in the project areas since 1999 and transform them into Private Reserves for Sustainable Development (Reservas Particulares de Desenvolvimento Sustentável - RPDSs), supported by State Law no. 53 of June 2007 and Decree no. 30,108 of June 2010.

1.2 Project Objectives

General objective

The objectives of this project takes a holistic approach to the region and keep full affinity to the recent statement of the United Nations in the design of the seventeen goals of Sustainable

Development1 (ODS). In this sense, the project objectives have a direct relationship with some of the ODS and take others as a source of inspiration for the implementation of activities in partnership with local communities. These guidelines will be key elements in the local discussion process around the project activities.

Thus, it is assumed as a general objective of the project "contribute to the maintenance of global climate (goal 13), through the implementation of activities to prevent the emission of greenhouse gases locally by replacing the forest selective logging for a project conservation of forest biodiversity (goal 15), preserving the traditional culture of the population of surrounding communities (goal 3), promoting income generation (goal 1, 8) and contributing to local social development (goals 2, 5, 4, 6, 7) ".

Specific objectives

Specifically, the project aims to:

1. Implement economic alternative activities to selective logging to generate revenue for the project, benefiting at least 300 families surrounding the target area;
2. Reduce approximately 3.2 million tons of carbon dioxide as a result of project activities;
3. To contribute to the maintenance of regional biodiversity through the preservation and conservation of the forest;
4. Contribute to improve educational processes and attention to regional health;
5. Promote the inclusion and women's empowerment in the project area communities.

¹ The seventeen Sustainable Development Goals at the United Nations are: (1) Ending poverty in all its formase everywhere; (2) Ending eat hunger, achieve food security, improve nutrition; (3) To ensure a healthy life and promote well-being for all; (4) To ensure inclusive education, equitable and quality; (5) Alacançar equal gênenro and empower all women; (6) Ensure availability and sustainable water management; (7) Ensure acessoà energy, reliable and sustainable; (8) To promote sustained, inclusive and sustainable economic growth; (9) Building resilient infrastructure, promote inclusive industrialization; (10) To reduce inequality between and within countries; (11) Making cities inclusive human settlements, secure, resilient; (12) To ensure standards of sustainable consumption and production; (13) Take urgent action to combat climate change; (14) To preserve and promote the sustainable use of the oceans; (15) To protect, restore and promote the sustainable use of forests; (16) To promote peaceful and inclusive societies for sustainable development; (17) To strengthen the implementation mechanisms and revitalize the global partnership.

1.3 Project Location

Location

The Amazon Rio Project is located in the southern region of the state of Amazonas in the municipality of Manicoré (Figure 01). The waterway and air constitute arrival means to the city, with approximate distance of 333 km by air and 427 km by river is the starting point for the city of Manaus, the state capital. The Project areas are near the Madeira River and between the Sustainable Development Reserves (RDS) Rio Madeira and Rio Amapá (Figure 02).

Figure 1 - Location of the Municipality of Manicoré - AM.

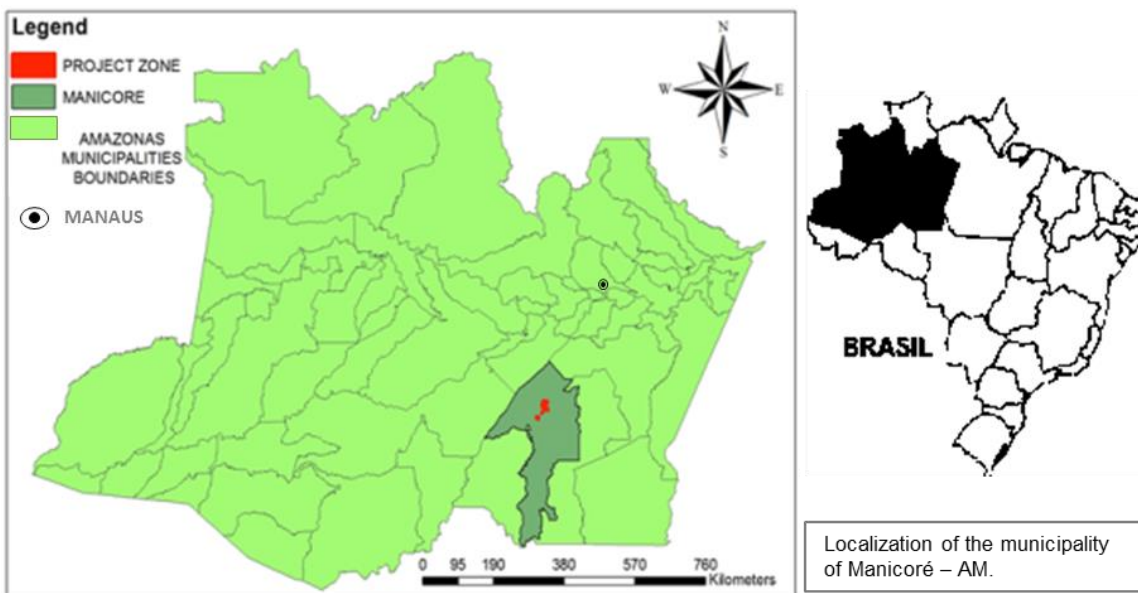
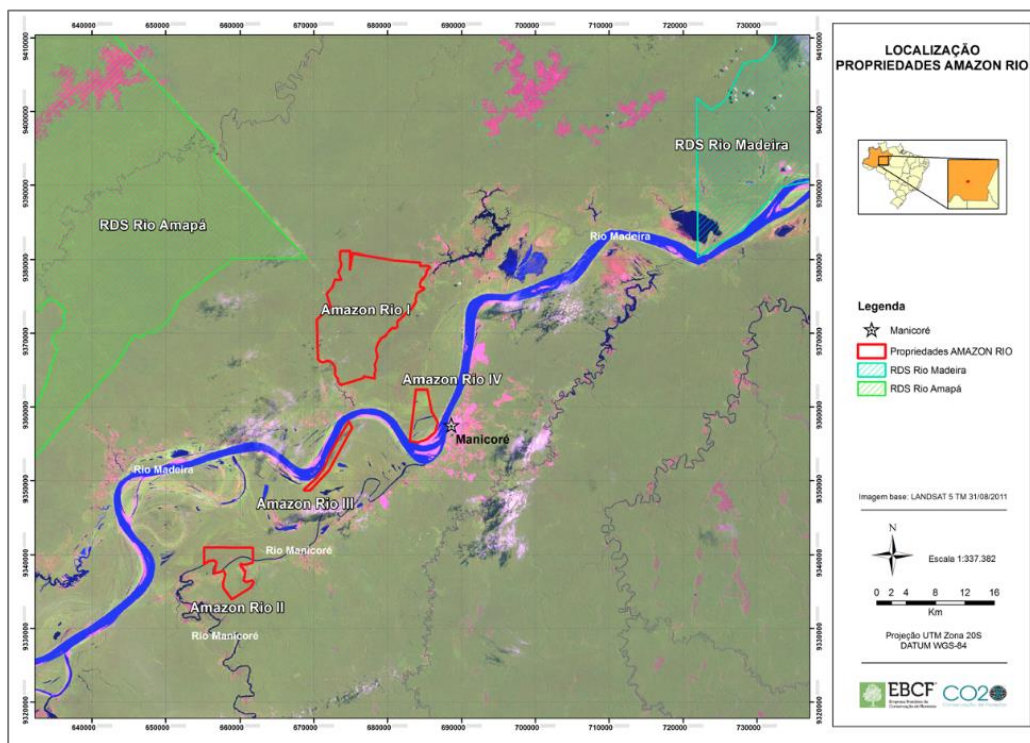


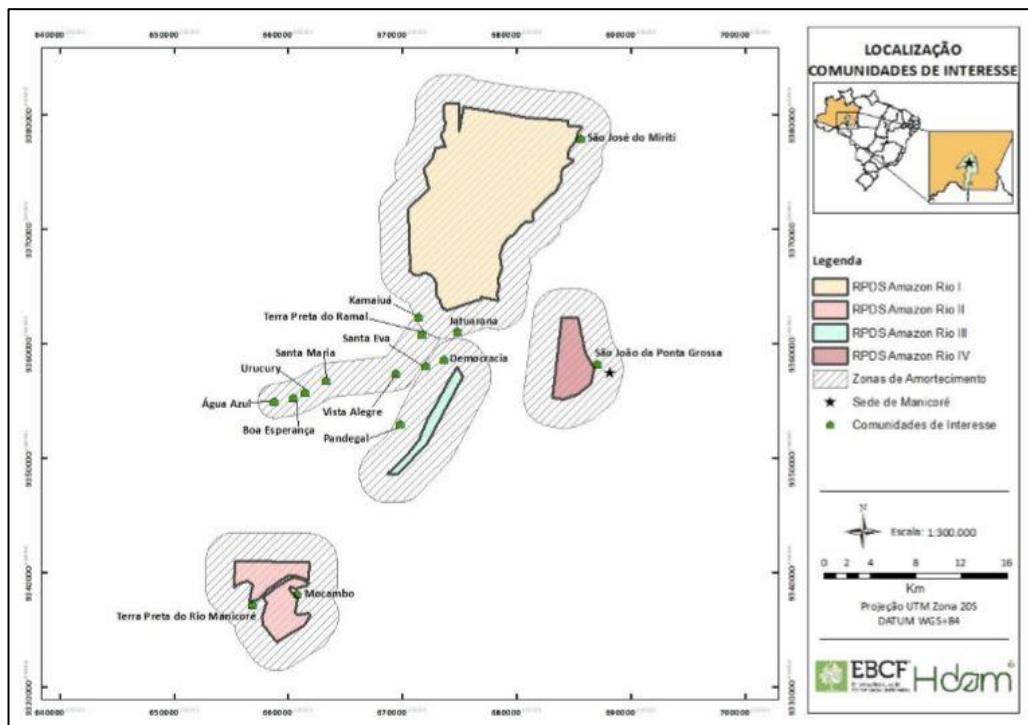
Figure 2: Location of Amazon Rio I, II, III, IV.



The four project areas include 15 surrounding communities (buffer zone), totaling more than 450 families. The populations living in the buffer zone of the Amazon River areas are known as "caboclo" and are distributed in fifteen communities, as listed below:

1. Urucury
2. Água Azul
3. Vista Alegre
4. Boa Esperança
5. Santa Eva
6. Santa Maria
7. Pandegal
8. Democracia
9. Jatuarana
10. Terra Preta do Ramal
11. Kamayuá e São José do Miriti
12. São João
13. Ponta Grossa
14. Terra Preta do Rio Manicoré
15. Mocambo

Figure 3: Project Zone and community's location in the project área.



1.4 Conditions Prior to Project Initiation

Before the conservation project, the most important economic activity in the area was timber logging using a sustainable logging plan and authorized by government environmental agencies in 1998 (Appendices 1, 2, 3, 4, and 6).

This activity began in 1999 after authorization for selective logging was granted on 97% of the property for a period of 25 years and concluded in 2010 with the initiation of discussions about the creation of private conservation units. On the occasion of the approval of the timber logging plan, the project proponent (EBCF) still had no knowledge of the area, nor did it plan to purchase the land for conservation purposes or non-timber forest management. Therefore the timeline and duration of events described above rule out any doubts as to the possible implementation of a timber logging plan with a view for creating a baseline scenario for greenhouse gas (GHG) emissions, for further development of an emissions reduction project.

Currently, all the communities surrounding the Amazon Rio areas have associations that form a Council of Agro Extrativist Associations of Democracia (Conselho das Associações

Agroextrativistas de Democracia – CAAD), which in turn is linked to the Council of Agro Extrativist Associations of Manicoré (Conselho das Associacoes Agroextrativistas de Manicoré – CAAM) and to COVEMA², responsible for the purchase, processing and marketing of nuts in the region.

1.5 Project Proponent

Organization Name	Empresa Brasileira de Conservação de Florestas S.A. (EBCF)
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Title	President
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1.6 Other Entities Involved in the Project

Organization Name	Original Trade Consulting
Role in the Project	Update of the Amazon Rio REDD+ IFM Project Description (PD) (V2.0) and coordination of certification process
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Title	Director
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Email	tezza.neto@originaltrade.net

Organization Name	CO2X Conservação de Florestas Ltda.
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² COVEMA assists all communities around the reserves, as well as 40 other communities in the municipality, within and outside of Conservation Units and Settlement Projects. There are more than 500 registered Brazil nut harvesters, the second largest job generating institution in the city of Manicoré, just behind the City government. Such performance grants it a preeminent position in the state of Amazonas. In 2011, COVEMA expanded its operations to the neighboring municipality of Novo Aripuanã, to purchase the production of the Madeira and Juma RDSs.

Role in the Project	Tecnical coordination of the Amazon Rio REDD+ IFM Project Description (PD) Version 1.0, including the Free, Prior and Informed Consent (FPIC), the Expeditious Forest Inventory and the Management Plan of the Amazon Rio RPDS Conservation Unit.
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Role in the Project	Social programs implementation
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Nome da empresa	HDOM
Função	Degradation and deforestation report; Forest inventory for biomass calculation purposes in the project area and support the PD review
Contato	Francisco Higushi
Cargo	Director
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1.7 Project Start Date

The project began on August 17, 2012, when the board and EBCF shareholders formally approved the company's Business Plan (Annex 27), which set out the objectives of conserving forests

through the REDD + , provision of services and sustainable use of forest resources excluded logging activities.

1.8 Project Crediting Period

The first crediting period of the project is 37 years, beginning on August 17, 2012 and ending on 17 August 2049. This period is equivalent to the remaining 12 years of the first authorized management plan (25 years from 1998) added to another 25 years in respect of a new forest management plan that was intended, as the common practice of forestry in Brazil. The logging activities could continue beyond 37 years, aiming for a second crediting period.

2 DESIGN

2.1 Sectoral Scope and Project Type

- Project Scope: Agriculture, Forest and other Land Use (AFOLU)
- Project Category: Reduction Emission from Deforestation and Degradation from Planned Deforestation (REDD-APD)
- Type of Activity: Improved Forest Management - Logged to Protected Forest (IFM LfPF)

2.2 Description of the Project Activity

The Amazon Rio project expects greenhouse gas emissions reductions from the Amazon Rio I, II, III and IV areas by promoting forest conservation activities instead of the logging, licensed in August 1998 and beginning in 1999.

To efficiently and successfully implement the Plan, preliminary activities such as inventories, research, diagnostics and training courses must be carried out. In addition, programs will be deployed to monitor the use of the plants, animals and various natural resources systems by surrounding communities, similar to the Program for Monitoring Biodiversity and Use of Natural Resources in Conservation Units (ProBUC), and the Voluntary Environmental Agent (AAV) both developed by the Secretary of Environment and Sustainable Development of the Amazon (Secretaria de Meio Ambiente e Desenvolvimento Sustentável do Estado do Amazonas - SDS)

Table 1 - Implementation schedule and next activities.

Ano	Atividade
-----	-----------

2010	EBCF performs the symbolic protocol creation of the first RPDs during the seminar results and perspective of the State of Amazonas Conservation Units held by the SDS.
2011	EBCF submits the formal protocol to CEUC.
2011	Meeting presentation EBCF for communities near the Amazon River I, II, III and IV.
2011	EBCF attended the informal invitation made by the management of RDS Rio Amapá and representative CEUC - Silvia Elena, the training workshop and delivery portfolios ENVIRONMENTAL VOLUNTEERS AGENTS held in the Boa Esperança community.
2011	EBCF participated in the event organized by the CAAD which had the agenda: General Assembly, accountability of CAAD year 2009/2010, RDS Management Plan Amapá Rio, Bolsa Floresta, Municipal Management, IDAM contribution, contribution Covema, IEB's contribution and delivery of equipment for processing of acai, held on 24/03/2011 in the community of Democracy and 25/03/2011 in the Boa esperança Community.
2011	Inspection of CEUC on farms for approval on RPDs.
2011	The board of EBCF makes his 1st visit the communities and farms.
2011	EBCF in partnership with the Municipal Government of Manipur, perform the recovery local road (approximately 20KM) linking Democracia community, Jatuarana communities, Terra Preta Community, Santa Eva and Vista Alegre.
2012	Visit of the president and directors of EBCF the communities surrounding the reserves, together with the president of PATAC Marcelo Marder and Andre Albuquerque president for socioeconomic communities report presentation.
2012	Business Plan Project approval and EBCF shareholders agreement, authorizing the start of the REDD project.

2013	Workshop I - Diagnosis for the development of areas of the Amazon River Management Plan I, II, III & IV.
2013	Visit communities to complement the workshop I for interviews with the locals.
2013	Meeting in CEUC after the second workshop to update the work with the communities and the progress of the approval of the areas.
2013	Technical meeting with the team CO2X, Renascer and Human Development EBCF in Curitiba for the review and evaluation of the first part of the Management Plan (diagnosis); Definition of programs and subprograms of the Plan; identification of key issues, potential threats and opportunities with the creation of RPDs; definition of vision and action strategy.
2013	The Secretary of State for the Environment (SDS) officiated at the World Environment Day, the first Private Reserve Sustainable Development (RPDs) of the Amazon with the signing of the decree no. 86.
2013	Workshop II - presentation of the carbon project as one of the fundraising programs for the implementation of the Management Plan.
2013	Field work with communities and farms for mapping biodiversity and hunting and fishing grounds.
2013	The EBCF performs a complete socioeconomic census in the surrounding communities of RPDs.
2013	Meeting with CEUC for delivery and presentation of the draft of RPDs Amazon River Management Plan I.
2013	Supplementary Meeting to communities who could not attend the Workshop II & III Workshop Creation of the Advisory Council for RPDs Amazon River I.
2013	The EBCF performs social and economic Census in Kamayurá community.

2015	Realization of field activities for "Biomass Inventory Estimation".
2016	Vitor Belfort visit and launch of income-generating initiatives.
2016	Distribution of medical kits for community health workers and launching the Health Program in the Amazon.
2016	Deforestation Report.
2016	PD Review and preparation of the monitoring report.
2016	REDD + Project Certification (VCS and CCV).
2016	Project planning for structuring the supply chain of vegetable oils certificates.
2017	Fundraising from the REDD project.
2017	Ecotourism Project Design.
2017	Workshop Achievement "Participatory Planning Project REDD + activity EBCF".
2017	ProBUC Deployment.
2018	Implementation of Voluntary Environmental Agent program.

2.3 Management of Risks to Project Benefits

Authorized timber extraction

The authorized extraction of timber should not be considered a risk to the project, since the initiative intends to transform the areas into conservation units. Thus, terminating the logging activities was the initiative of the applicant itself, who is the legal owner of the areas.

Illegal logging

Illegal logging is perhaps one of the greatest risks to the permanence of carbon stocks of any conservation project in the Amazon, including the Amazon Rio project. Because it is often associated with indiscriminate hunting, illegal logging also presents serious risks to biodiversity especially for maintenance and balance of plant species.

Forest fires

Forest fires also represent a frequent risk to agriculture, forestry and other land use projects (AFOLU), and represent a major threat to the surrounding communities and to their livelihoods. Besides natural and criminal causes, fires can also be caused by the traditional activities of opening and clearing new areas for agriculture and renewing pastures. Such practices should therefore be subject to the control and adoption of management systems.

The fact that the project area is neighboring the Rio Amapá Sustainable Development Reserve (RDS), a synergy is expected between the two conservation units in terms of monitoring illegal activities in the region, especially illegal logging and forest fires. Additionally, the Management Plan foresees training of local people in agricultural techniques that do not require the use of fire for opening and clearing (slash and burn) the cultivation areas, as well as the installation of an efficient system for preventing and fighting forest fires, which should rely on trained teams, installation of observation towers and environmental education programs.

Impacts to surrounding communities

So that the project contributes to a more equitable division of resources and its benefits external agents that recognize local systems of use and ownership of resources are vital, so that internal conflicts do not escalate, but rather establish actions that favor the collective interests of the groups involved. Poorly prepared and executed projects may introduce new conflicts or aggravate existing ones. Conversely, projects that rely on community participation in its early stages of development and consider the conflicts and their systems of land division and resource usage can help reduce and prevent disputes.

Predatory exploitation of plant and animal resources

An imminent risk to biodiversity is the predatory exploitation of natural resources, especially fish stocks, hunting and timber and non-timber forest resources. This risk will be mitigated through the implementation of biodiversity monitoring programs and the use of natural resources in the Amazon State conservation units (ProBUC), and Voluntary Environmental Agent program (AAV), in

addition to the hunting and fishing agreements to be implemented at the main entry points these for these resources in the project area.

Description of high conservation value (HCV) present in the project area and its surroundings (CM1, indicator 2) (B1, indicator 2)

Protected areas

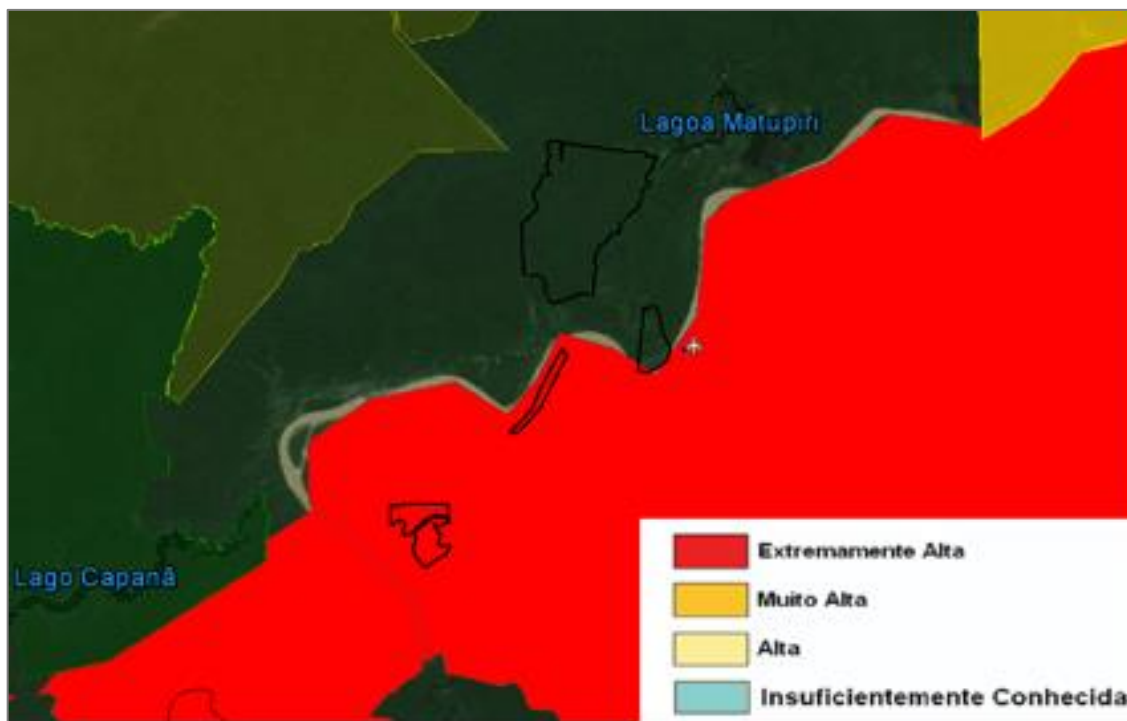
The objective of the project areas is to contribute effectively to the maintenance of the forests of the South-Central State of Amazonas. They are therefore established as priority areas to be protected for nature conservation, through the creation of Private Sustainable Development Reserve (RPDSs), provided for by the State System of Protected Areas of the Amazon (SEUC).

The project areas are strategic for environmental conservation, for harboring approximately 20,000 hectares of well-preserved forests, and for ensuring connectivity between large blocks of protected forests under the Federal Government jurisdiction (Lago Caparanã Grande RDS) and under the State of Amazonas' jurisdiction (Rio Amapá RDS, Rio, Matupiri State Park RDS and Juma RDS).

For this reason, the reserves have high conservation value over an ecologically varied landscape, facilitating gene flow between animals and plants through these protected forest tracts, especially in light of possible future scenarios of intensive land occupation and conversion of forests into agriculture and livestock production.

The location of the Amazon Rio II and Amazon Rio III areas is also of importance within a macro-region of the municipality of Manicoré, on the right bank of the Madeira River, which considered to be of extremely high biological significance by the Ministry of the Environment and a priority area for conservation in Brazil (MMA, 2007). See map below.

Figure 4 - Areas Amazon Rio II and III located in macro-region classified as extremely high for the conservation of biodiversity in accordance with MMA (2007) (G1, Indicator 7).



The areas identified were classified according to degree of importance for biodiversity and the urgency in implementing the suggested actions. For this purpose, the following typology was adopted: extremely high, very high, high, and insufficiently known.

The methodology used by the MMA to define priority areas for conservation, sustainable use and benefits sharing from the biodiversity found in Brazil considers:

- Biodiversity targets: endemic species, endangered or species of limited distribution, biologically exceptional or rare phenomena;
- Targets for sustainable use: species of economic or medicinal importance; areas/species important to traditional populations and for the maintenance of their traditional knowledge; flag-ship species that motivate conservation and sustainable use activities; key species on which the sustainable use of biodiversity components depends; important areas for conservation-based development; areas that provide environmental services to agricultural areas (such as those dependent on pollination and biological control); important areas for the cultural and social diversity associated with biodiversity;

Target persistence and processes: important areas for the maintenance of environmental services (maintenance, biogeochemical cycles, climate hydrological processes, groundwater recharge areas); centers of endemism; evolutionary processes; important areas for species and migratory

pollinating species; climate havens; areas important for connectivity and gene flow; protective areas for watersheds; important areas for maintenance of the flood pulse in floodplains; extensive areas for species with large habitat requirements.

2.4 Project Financing

The carbon project integrates a broad vision of territorial management as part of the Management Plan of the Amazon Rio Private Reservation I. Accordingly, it stipulates that all actions necessary to implement this Plan should be enabled from resources obtained by payments for environmental services, such as carbon credits and CRAs.

In this context, the main difference between a permanent protection private reserve (e.g. RPPN) and a private sustainable development reserve (e.g. RPDS) is that the long-term financial viability of sustainable reserves usage comes from the marketing of non-timber forest products with high added value and other sustainable businesses in compensation for environmental services. This flow of resources is expected to occur during and after the implementation period. The proposal is that with external support and through their political representatives, local communities will be able to establish partnerships and contracts with companies, cooperatives and industries interested in supporting social and environmental initiatives in the project areas.

As for the revenues obtained from the market for greenhouse gas emissions reductions, a projection using two prices for carbon credits was considered, considering 'future' (USD 4/VCU) and issued credits (USD 7/VCU).

2.5 Employment Opportunities and Worker Safety

The project intends to promote specific and culturally relevant trainings that include workshops, meetings, courses and extended technical assistance to improve the knowledge and skills of community leaders, residents and employees of the project. To complement such trainings, we intend to install diversified agroforestry systems, to restore and reuse degraded areas, to encourage handicrafts and tourism, and to improving the management of non-timber forest products, with emphasis on Brazil nuts, andiroba, copaiba and Acai. As a result management practices are expected to improve in the long-term, as well as and the fostering of local culture, combining technical and scientific knowledge with traditional knowledge.

2.6 Stakeholders

Consultation prior to the beginning of the project

The populations involved in the carbon project are direct users of forest resources that are present in the Amazon Rio I, II, III & IV areas for the practice of plant and animal extraction. Initially they were indicated by the Council of Agro-Extrativist Associations of Democracia (Conselho das Associações Agroextrativistas de Democracia - CAAD), which gathers associations of residents from ten communities located near the Amazon Rio I Reserve. Following this indication, the EBCF hired the services of the consulting company *CO2X Conservação de Florestas Ltda* to perform a series of workshops and meetings to prepare the Amazon Rio I Management Plan (Annex 9) and to develop the Amazon Rio REDD+ IFM project. In these meetings different forms and spaces of participation of the people and government and non-governmental institutions were discussed to support the development and implementation of the Management Plan, culminating in the creation of an Advisory Council.

3 LEGAL STATUS

3.1 Compliance with Laws, Statutes, Property Rights and Other Regulatory Frameworks

Considering that the project is based on the conservation activities and sustainable use of non-timber forest products, there is no conflict between these activities and any legislation (municipal, state or federal), international laws and regulations for the implementation of the activities proposed by the project.

3.2 Evidence of Right of Use

The land use rights within the limits of the project are set by the State System of Protected Areas of the Amazon (Centro Estadual de Unidades de Conservação - SEUC), in the category of conservation for sustainable use, establishing the Private Sustainable Development Reserve, and regulated by Decree 30.108 of June 2010.

3.3 Respect for Rights and No Involuntary Relocation

In the three workshops explaining the Carbon project to 15 communities, the eight REDD+ principles and the social and environmental safeguards were presented. Those safeguards were previously established in a series of meetings throughout the Amazon between 2009 and 2010, and included several Civil Society Organizations.

4 APPLICATION OF METHODOLOGY

4.1 Title and Reference of Methodology

VCS VM0011: Methodology for Improved Forest Management – Logged to Protected Forest (LtPF): Calculating the GHG Benefits from Preventing Planned Degradation, version 1.0

4.2 Project Boundary³

The total area of the property is 20,387 ha (Figure 1) and a buffer zone was established around each of the four areas in order to include communities that use the resources within their boundaries (Figure 7a). Project activity areas (for purposes of calculating the emissions reductions called the project area or PA) are only those for which logging is permitted, a total of 19,800 ha (Figure 7b), excluding the Permanent Preservation Areas (APPs) and bodies of water. A logging plan has been approved for this area for selective logging (Annexes 1, 2, 3, 4, 6 and 7).

4.3 Baseline Scenario

The baseline scenario for the project identified as the most likely to occur was selective logging⁴ (continuation of Business As Usual - BAU). The reference scenario assumes 37 years of selective logging, according to the 25 year logging plan, approved in August 1998 (Annex 6 - document: "Vald.II T01 POA 1998") that in the absence of project activities would be renewed in 2024 for another 25 years until 2049.

4.4 Additionality

The additionality analysis of the Amazon Rio project REDD+ IFM was conducted with the latest version of the VCS Tool for the demonstration and assessment of additionality in Agriculture, Forestry and Other Land Use VCS projects, the VT0001 **Erro! Indicador não efinido.**(VCS, 2012a).

³ Ref.: section 2.2 of VM0011

⁴ Additional information about choosing the baseline are presented in section 4.6 (steps 1 and 2)

5 QUANTIFICATION OF GHG EMISSIONS REDUCTIONS AND REMOVALS (CLIMATE)

5.1 Project Scale and Estimated GHG Emission Reductions or Removals

Table 2. Scale of greenhouse gas emissions reduction project

<i>Project</i>	X
<i>Large Project</i>	

5.1.1 Reduction of Net Anthropogenic GHG Emissions

Table 3. Ex-ante net reductions in GHG emissions in tons of CO₂e for the first 10, 20 and 37 years of the project

Year	Estimated GHG emissions reductions or removals (tCO ₂ e)
2012	86,770
2013	86,729
2014	86,755
2015	86,755
2016	86,755
2017	86,755
2018	86,755
2019	86,755
2020	86,755
2030	86,755
2048	86,755
Total estimated ERs	3,209,909
Total number of crediting years	37
Average annual ERs	86,754

5.2 Baseline Emissions

For the project baseline calculation, guidelines, criteria and assumptions contained in Section 3 – Baseline Accounting - from the VCS VM0011 methodology were used.

Table 4. Ex-ante estimates summary

Year	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emissions reductions or removals (tCO ₂ e)
2012	86,755.00	15.81	0	86,739.19
2013	86,755.00	54.57	0	86,700.43
2014	86,755.00	4.84	2,962.96	83,787.20
2015	86,755.00	6.20	0	86,748.80
2016	86,755.00	21.00	0	86,734.00
2017	86,755.00	21.00	0	86,734.00
2018	86,755.00	21.00	0	86,734.00
2019	86,755.00	21.00	0	86,734.00
2020	86,755.00	21.00	0	86,734.00
2030	86,755.00	21.00	0	86,734.00
2048	86,755.00	21.00	0	86,734.00
Total	3,123,180	252.03	2,962.96	3,119,989

5.3 Climate Change Adaptation Benefits

There is a relatively widespread understanding in the scientific community that balanced ecosystems have greater ecological and social resilience and adaptability to climate change, whether through protection of water bodies and regulation of river flows during peak flood and drought, or through the regular supply of environmental services, products and services.

6 COMMUNITY

6.1 Net Positive Community Impacts

The programs provided by the project will be implemented in collaboration with residents' associations of the 15 communities in a 34 year time horizon and will rely on partnerships with governmental and nongovernmental organizations, as well as supporters and investors interested in sustainable businesses. Various environmental conservation and rehabilitation programs, multiple use of forests, increased income and quality of life of communities are planned (Table 8 of Annex 9).

6.2 Exceptional Community Benefits (GL2)

In general, environmental projects perceive rural communities as undifferentiated social units, without a diversity of interests and needs, especially the most remote ones, as is the case of the communities surrounding Amazon Rio I Reserve. Based on this assumption, they attribute equal power and resources, and therefore, the same level of opportunities to all residents. Without the recognition of differences, however, projects fail to propose alternatives to meet the needs and expectations of disparate groups, especially marginalized and less visible or weaker ones, such as women, elderly and indigenous people.

7 BIODIVERSITY

7.1 Net Positive Biodiversity Impacts

The Amazon Rio I, II, III and V areas support a potentially valuable timber, non-timber and wildlife forest resources. According to MMA (2001, 2007), it is a high priority area for biodiversity, especially birds, aquatic biota, mammals, reptiles, amphibians and invertebrates. Therefore, the main recommendations for these environments with their associated plant and animal species to remain protected are: the creation of protected areas of sustainable use, surveys and biological inventories, sustainable use of natural resources and environmental education.

7.2 Exceptional Biodiversity Benefits

High Conservation Values (AVC)

The Amazon Rio project has various qualification attributes of High Conservation Value (HCV), and it includes the protection of endangered species, threatened or rare ecosystems, and critical ecosystem services. On a global scale, the project significantly contributes to the conservation of plant and animal diversity and to the reduction in CO₂ emissions, as it is located within the Municipality of Manicoré in southern Amazonas state, which along with the cities of Apuí, Lábrea, Boca do Acre and Canutama form an extremely critical, threatened and subjected to the expansion of indiscriminate logging.

8 MONITORING

8.1 Monitoring Plan Description

Due to its innovative, comprehensive and integrative character, the project needs to be monitored regularly so that its actions, activities and impacts can be constantly measured and evaluated. To meet this requirement, the monitoring process must meet three main objectives:

- i. To serve as an internal management project tool;
- ii. To collaborate as an instrument of collective learning from the communities and social groups directly involved;
- iii. To work as a means of communicating results and impacts to interested institutions and society in general. Furthermore, it is important to consider that monitoring, if successful, will transcend the managerial aspects of the project and strengthening the plan.

8.1.1 Monitoring of Climate Impacts

The construction of the PM of the climate benefits made in full compliance with the methodological framework provided by VM0011 – IFM LPF (VCS 2011) and CCBA (2008), which consists of four specific actions to be monitored:

- i. Implementation and execution of the project;
- ii. Dynamics and stock of the forest biomass;
- iii. Deforestation and forest degradation;
- iv. Periodic reviews of *ex post* emissions.

8.1.2 Monitoring Impacts to Biodiversity

Since animal inventories have not been conducted in Amazon Rio project areas (for this project biological information for the Rio Amapá RDS management plan were used), a biodiversity monitoring system that will follow the RAPELD methodology (Rapid surveys of various taxonomic groups (RAP) for long-term ecological studies) (MAGNUSSON et al, 2005).

8.1.3 Monitoring Social Impacts

The monitoring of social aspects include both the collection of numerical data, such as quantity, volume, weight (quantitative indicators), as well as information expressing opinions and experiences (qualitative indicators), remembering that such measures are compatible and interchangeable. Data collection should be systematic and have a pre-established rate and, most likely, a single indicator will require several data collection instruments such as plans, field records, reports etc.

8.1.4 Identification of the Organizational Structure and Responsibilities

Table 4 shows the actors involved in the project and their representatives and accountabilities.

Table 5. Description of the organizational structure and actors involved in the project

Institution	Representative	Responsibilities
EBCF Curitiba	Leonardo Barrionuevo	Management of the Reserves and Project implementation
EBCF Manaus	Valdenor da Costa Junior	Coordination and implementation of the Monitoring Plan
Original Trade Consultoria Especializada	João Tezza Neto	Coordinating the review and update of PD (V2.0) Project Amazon River REDD + APD and conducting the certification process.
CO2X Conservação de Florestas Ltda.	Rosana Della Méa	Tecnical coordination of the Amazon Rio REDD+ IFM Project Description (PD) Version 1.0, and of the Management Plan for the Amazon Rio RPDS Conservation Unit.
Renascer Desenvolvimento Humano	André Albuquerque	Implementation of socio-environmental programs
HDOM	Francisco Higushi	Forest biomass inventory and technical support to project review
Communities	Community Leaders	Users and implementors
RPDS Advisory Board	Communities, local NGOs, government bodies	Project facilitators and monitors

The development of the PD Version 1.0 was carried out by the *CO2X Conservação de Florestas Ltda* and Associated Consultants and included the following professionals:

Rosana Della Méa – Environmental Technology, MSc – General Coordination

Virgílio Viana – Forestry Engineering, PhD – Review and Guidance

Mariano Cenamo – Forestry Engineering, MSc – Review and Guidance

Renata Freire – Agronomy, PhD Agronomist, PhD

Diego Serrano – Forestry Engineering, MSc

Bruno Matta – Environmental Engineering

Pablo Pacheco - Biology, MSc

Thais Megid – Agronomic Engineering

Rodrigo Freire - Biology, MSc

Priscila Barros – Forestry Engineering, MSc

Lucas Rosa – Geography

The review and update of PD, version 2.0, was performed by Original Trade Consulting and included the following professionals:

João Tezza Neto - Economist, MBA - Review and General Coordination

Mariano Cenamo - Eng Eng Forestry, MSc - Review

Francisco Higushi - Eng Forestry, Dr. - Review

8.1.5 Methods for Generation, Record, Storage, Organization and Verification of Monitored Data and Parameters

EBCF will also be responsible for centralizing all the documentary information of the project, including their respective MPs. In this sense, EBCF undertakes to promote training events for the crew involved in the creation of primary data as well as apply methodological verification procedures and calibration. The subsequent systematic analogical and digital storage of information and documentation in general (reports, spreadsheets and field books, electronic spreadsheets, photos, GIS files, bibliography, among other information) in the appropriate database will also be under their responsibility.

Due to the prolonged duration of the project, the storage and systematization of this documentation is essential for the monitoring of actions and its outcomes, whose transparency and accessibility is essential to ensure credibility, engagement and confidence in social actors directly and indirectly involved in the project.

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