



FUNDAÇÃO  
AMAZONAS  
SUSTENTÁVEL

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THE RIO MADEIRA  
SUSTAINABLE DEVELOPMENT RESERVE  
REDD+ PROJECT

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AMAZONAS, BRAZIL



## SUMMARY

**Type of activities:**

REDD+

**Social Benefits:**

3,694 people, living in 55 villages

**Crediting period:**

2006-2020

**Greenhouse gases targeted:**

Carbon Dioxide (CO<sub>2</sub>)

**Applicable carbon standards:**

Verified Carbon Standard (VCS) and Climate, Community and Biodiversity Standard (CCBS)

**Expected deforestation in the baseline scenario (2011-2020):**

16,548.97 ha

**Location:**

Brazil, State of Amazonas

**Expected net emissions reductions (2006-2020):**

4,232,891 tCO<sub>2</sub>e

**Project Area Rio Madeira Sustainable**

**Development Reserve:**

283,117 ha

**Project duration:**

25 years

**Buffer credits (2006-2009):**

1,128,771 tCO<sub>2</sub>e

**Project start date:**

2006

Curbing deforestation and its GHG emissions within a region with a great land use pressure in the State of Amazonas, and fostering socio-economic activities for the sustainable development of riverine traditional communities.

The Madeira Reserve REDD+ Project will be the second project to be implemented through the partnership of Secretary of Environment of Amazonas Government (SEMA) and Amazonas Sustainable Foundation (FAS). The first was the Juma Project (Viana *et al.*, 2008), which was the first REDD+ Project in Brazil to be validated through CCBA and received numerous awards and recognitions. Established in 2006, the Madeira Sustainable Development Reserve (Figure 1) was designed to be operated within a REDD-based rationale.

The region of the Madeira Reserve REDD+ Project would be partially deforested under the "business as usual" (BAU) scenario for 2020 if the current land use practices in the Amazon region prevail and several drives including the paving highways (BR-319 and AM-174) will result in losses of large native forested areas.

It is estimated that **16,548.97 ha** of the Reserve would be deforested by 2020, under the BAU scenario. The project seeks to reduce deforestation by 100% and avoid the emission of **4.2 million tons of CO<sub>2</sub>e**.

Revenues from the verified emission reductions will enable FAS and the Amazonas Government to conserve Amazon forests and improve the welfare of hundreds local communities within the project region following the project's axes (Figure 2).

FIGURE 1. LOCATION OF THE MADEIRA RESERVE REDD PROJECT.

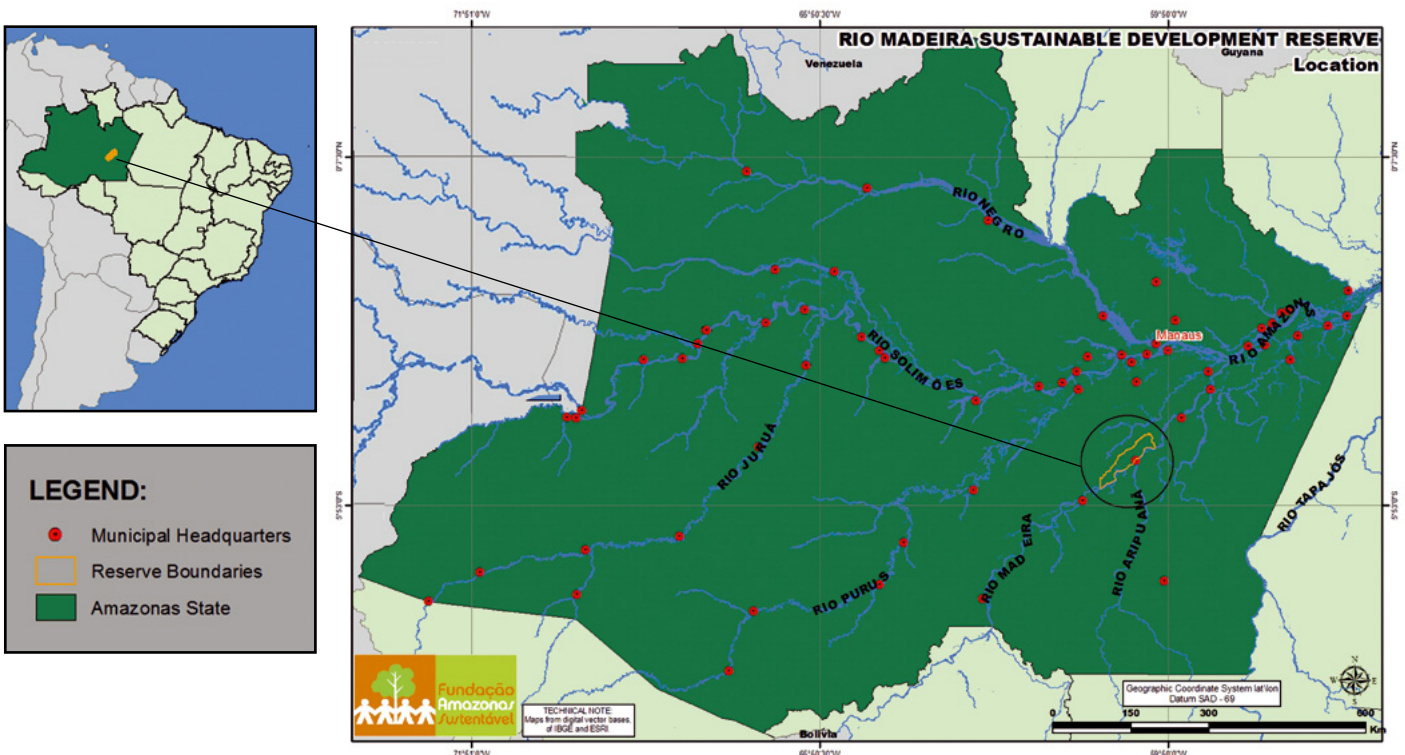


FOTO CAPA: CAIO PALAZZO

## COMMUNITIES INSIDE AND AROUND THE PROJECT AREA

The residents living inside the Madeira Reserve are characterized by traditional population. The majority of family heads were born in the Reserve (Costa *et al.*, 2014). According to the latest social inventory taken in September 2015, as part of the Bolsa Floresta Program database, the reserve hosts 3,694 people (1,029 families), distributed in 55 communities inside and in the surrounding areas of the Reserve – an average of 3.6 persons per family and 18.7 families per community. These figures are updated monthly at <http://fas-amazonas.org/transparencia>.

## DESCRIPTION OF THE PROJECT ACTIVITY

The success of this project depends on activities and measures developed in two major axes: REDD+ activities and REDD+ credits. Those axes branch out in five major areas (Figure 2).

**1a** The design and creation of the Madeira Sustainable Development Reserve was the first step. This process began in 2005 with several studies in the project area conducted by different institutions aiming at diagnosing biological and socio-economic aspects, ethno-characterization of the landscape and mapping of natural resources, archeological sites and applying land tenure surveys. All data were validated in public consultations.

The publication of the governmental decree of creation of the Madeira Sustainable Development Reserve was in July 2006.

The development and implementation of the Reserve Management Plan include community engagement to identify demands and to implement all the necessary measures to promote the conservation of natural resources, and to promote sustainable development within the Reserve. The Management Plan process began in 2009 and the final document was published in July 2014.

Actions on environmental protection, monitoring and management will combine improvements in the surveillance that is already performed by the communities with large investments in the Protected Areas.

**1b** Payment for Environmental Services (Bolsa Floresta Program) A share of the project's financial resources will be allocated to direct payments for environmental services to traditional communities in the Madeira Reserve. This will be done within the Bolsa Floresta Program's components: i) Family; ii) Social; iii) Association; and iv) Income Generation. These components deliver concrete

FIGURE 2. GENERAL SCHEME OF PROJECT'S ACTIVITIES.

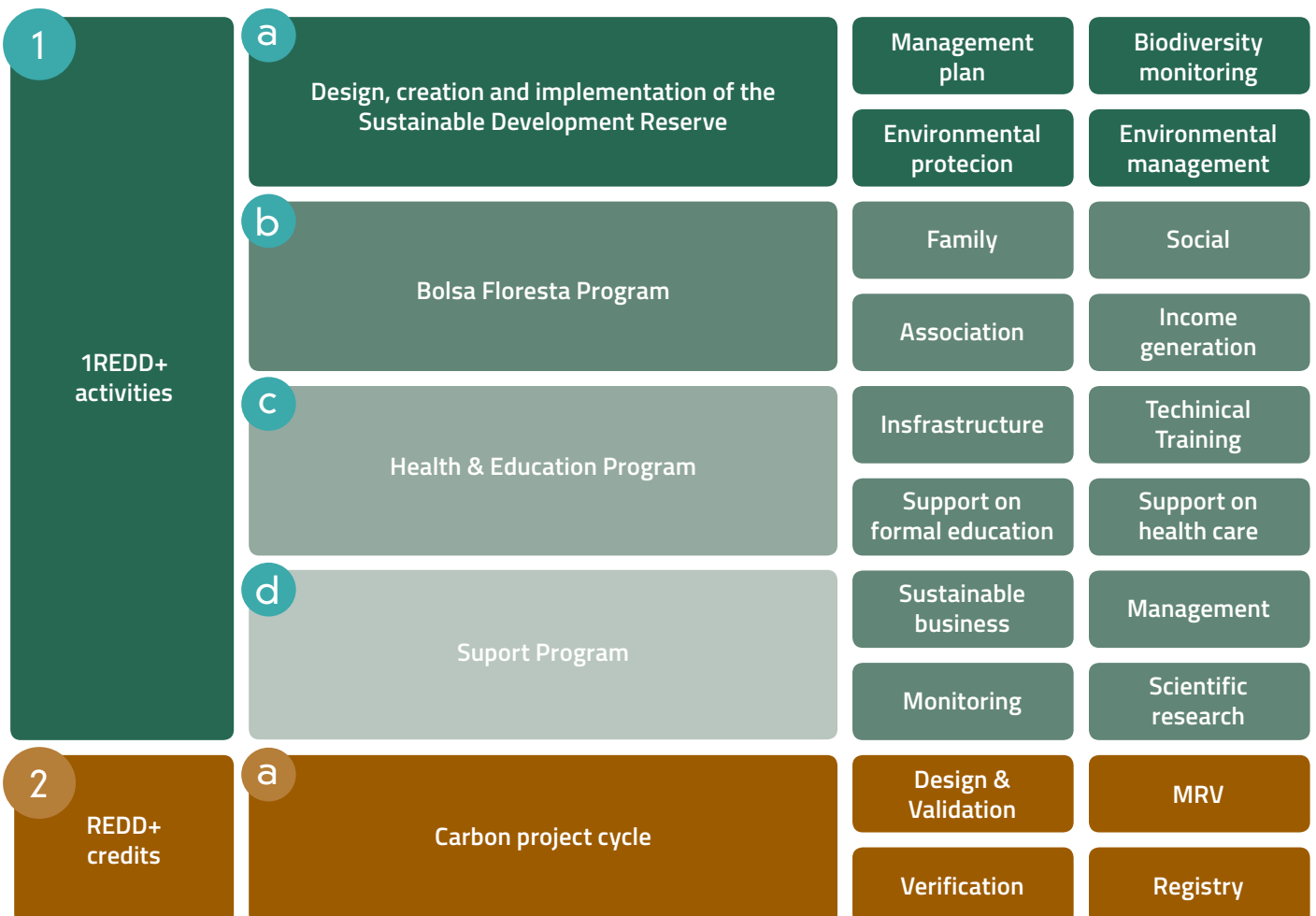


TABLE 1. TIMELINE OF THE MAJOR ACTIVITIES WITHIN THE MADEIRA RESERVE REDD+ PROJECT.

PROJECT'S ACTIVITIES	PLANNED DATE (FREQUENCY)	STATUS
Creation of the Reserve	2006	Accomplished
Management of the Reserve	2006	Ongoing
Establishment of the Bolsa Floresta Program	2008	Ongoing
Elaboration of the Reserve Management Plan	2009-2014	Accomplished
Monitoring Activities (Climate)	2006 (yearly)	Ongoing
Monitoring Activities (Community)	2006 (yearly)	Ongoing
Monitoring Activities (Biodiversity)	2016 (yearly)	Ongoing
Development and Validation of the REDD+ Project Design Document (VCS/CCB)	2016	Expected
Verification of the VERs	2016; 2018; 2020	Expected
Commercialization of VERs	2016-2020	Expected

and direct benefits to some of the most marginalized and vulnerable local populations, who are dependent on the forest for their survival.

**1c Health & Education Program** Provide health support to local communities in order to improving their welfare. They will receive direct benefits for their contributions on conservation, such as access to clean water, healthcare and medical assistance etc.

**1d Support Program** They are crucial in order to provide social and economic sustainability of both Bolsa Floresta Program and REDD goals. It encompasses: (i) Support on Sustainable Business; (ii) Support on Protected Area Management; (iii) Support on Scientific Research; (iv) Support on Community Forest Monitoring.

## ADDITIONALITY

Until 2002, the BAU scenario for land use in Amazonas was characterized by incentives to agriculture and cattle raising. Deforestation rates at that time were escalating – for instance, the governor at that time used to distribute chainsaws in political campaigns to promote deforestation.

In January 2003, Amazonas created a number of sustainable policy initiatives under the umbrella of the “Green Free Trade Zone” Program (ZFV) as a way to reduce deforestation and promote sustainable development in Amazonas by adding value to the environmental services within the state forests.

Such sustainable development policies have provided positive impacts on the reduction of deforestation. However, they are costly and compete for very limited governmental resources. Given the huge demand for social program funding – mainly health and education – investing in activities directly aimed at reducing deforestation was a huge challenge with high political risks.

Amazonas government, at that time, took the risks and put in place a program for creating State Protected Areas as central focus at ZFV: a 133%-increase in the protected area in Amazonas<sup>1</sup> and the deforestation reduced by 53% (INPE, 2015). Such results and an intense process of political articulation both in national and international levels were the foundation of the first proposal of a compensation mechanism for ecosystem services provided by the Amazonas state<sup>2</sup>.

This first proposal was presented by the Government of Amazonas at COP11 (2005), Montreal (Viana *et al.*, 2005). It was the first time REDD was discussed as an official agenda at COP.

The creation of the new protected areas in Amazonas was only possible with the perspective of implementation of the financial mechanism under construction through the activity of the Amazonas Initiative (Viana, 2006) -- presented in 2006 (COP12). The creation of the Rio Madeira and Juma Reserves (in 2006), followed by the elaboration of the Juma REDD Project (2008), shown the long-term commitment by Amazonas started in 2003. Therefore, the definition of the project crediting period considered when the project's boundaries were clearly delimited and the Madeira Reserve REDD+ Project started being implemented “on the ground”, i.e. 2006.

There was no legal requirement or commitment for Amazonas to create the Rio Madeira Reserve and others. The most likely scenario for the land would be the creation of rural settlements for cattle ranching or agriculture, or its occupation by land-grabbers (Barona et al., 2010; Mahli et al., 2008). This situation can be confirmed as the business as usual scenario for land use observed in the other states of the Brazilian Amazon in recent years (Bowman et al., 2012; Laurance et al., 2004). The consideration of carbon finance in the decision of creating state reserves was always considered, as ZFV and PES envisioned by the Government of Amazonas in 2003.

In 2003, there was no mechanism for compensating reduction of emissions from deforestation, nor in the perspective of the UNFCCC negotiations, nor in the global voluntary markets. The now so-called "REDD carbon benefits" were considered in the light of PES. Afterwards, Amazonas has been very active and it plays key role on influencing the whole process of the REDD agenda in the UNFCCC negotiations, and the actual promising development of REDD activities in the voluntary markets (Viana, 2006; Viana et al., 2005).

## CARBON CALCULATION AND CLIMATE IMPACT

The carbon calculation rationale is based on the proposed National REDD+ System strategy for sharing and allocating emission reductions from the Brazilian Amazon following its 2006 to 2020 deforestation reduction. This approach estimates the emission reduction potential for the Brazilian Government to the Brazilian Amazon States. The carbon stocks within the project area were defined following the National Policy on Climate Change (NPCC) that states the general emission factor for the Amazon Biome of 132.3 tC per hectare (485.1 tCO<sub>2</sub>e/ha).

All carbon figures were estimated following (i) the proposed National REDD+ System strategy, (ii) a **stock-flow approach**<sup>3</sup>, and (iii) deforestation projection following FAS, Institute for the Conservation and Sustainable Development of Amazonas (Idesam) and Amazonas (2012)<sup>4</sup>. According to this proposal, the project area expects to prevent the deforestation of about **16,548.97 hectares** of tropical forests that would release over **4.2 million tons of CO<sub>2</sub>e from 2009 to 2020** (Table 1).

The project has already been able to reduce deforestation rate from 0.55%/yr (1997<sup>5</sup>-2005) to 0.02%/yr (2006-2014).

TABLE 2. SUMMARY OF GHG EMISSION REDUCTION AND REMOVALS, BUFFER CREDITS AND VERS.<sup>6</sup>

PROJECT YEAR		UREDD16 (tCO <sub>2</sub> e)		BUFFER (tCO <sub>2</sub> e)		VERS (tCO <sub>2</sub> e)	
NR	YR	ANNUAL	ACCUMULATED	ANNUAL	ACCUMULATED	ANNUAL	ACCUMULATED
1	2006	282,193	282,193	282,193	282,193	0	0
2	2007	282,193	564,386	282,193	564,386	0	0
3	2008	282,193	846,578	282,193	846,578	0	0
4	2009	282,193	1,128,771	282,193	1,128,771	0	0
5	2010	282,193	1,410,964	0	0	282,193	282,193
6	2011	282,193	1,693,157	0	0	282,193	564,386
7	2012	282,193	1,975,349	0	0	282,193	846,578
8	2013	282,193	2,257,542	0	0	282,193	1,128,771
9	2014	282,193	2,539,735	0	0	282,193	1,410,964
10	2015	282,193	2,821,928	0	0	282,193	1,693,157
11	2016	282,193	3,104,120	0	0	282,193	1,975,349
12	2017	282,193	3,386,313	0	0	282,193	2,257,542
13	2018	282,193	3,668,506	0	0	282,193	2,539,735
14	2019	282,193	3,950,699	0	0	282,193	2,821,928
15	2020	282,193	4,232,891	0	0	282,193	3,104,120
<b>TOTAL</b>	<b>15</b>		<b>4,232,891</b>		<b>1,128,771</b>		<b>3,104,120</b>

TABLE 3. NET COMMUNITY IMPACTS BENEFITS.

AREA	SITUATION WITHOUT THE PROJECT	PROGRAM/ACTIVITY	NET BENEFITS
<b>Education</b>	The majority of schools covers only from the 1 <sup>st</sup> to the 4 <sup>th</sup> grades	<b>Health and Education Program</b> Construction and improvements of schools according to the communities' needs, development of pedagogic materials, and support for teachers	Access to more advanced schooling (5 <sup>th</sup> to 8 <sup>th</sup> grade), computers and pedagogic materials
<b>Housing</b>	Precarious houses	<b>Bolsa Floresta Program</b> The families will have more resources to invest in their houses	Good houses made with local and external materials and an indoor bathroom
<b>Health</b>	Limited access to basic health treatment	<b>Health and Education Program</b> Medical support, capacity building and support for health agents	Access to hospitals and specialized health treatment
<b>Energy</b>	Precarious access to energy	<b>Health and Education Program</b> Investment in solar energy system technology in the new schools	Access to clean energy
<b>Water</b>	No water treatment	<b>Health and Education Program</b> Infrastructure for rain water storage and treatment	Well with chlorine treatment
<b>Personal Documentation</b>	The minority of people have complete personal documentation	<b>Support Program</b> The Bolsa Floresta Program supports actions to provide the lacking personal documentation	People have complete documentation
<b>Social Organization</b>	Informal groups and community organizations	<b>Bolsa Floresta Program</b> The Program stimulates social organization	Empowered and formal community organization
<b>Communication</b>	Isolated	<b>Support Program</b> Creation of Communication Bases	Radio Communication System
<b>Networking</b>	Inter-communities networking	<b>Bolsa Floresta Program</b> Strengthening of grassroots organizations and cooperatives	Networking within the municipality
<b>Lake Management</b>	Lack of lake management rules	<b>Management Plan</b> Investment in community development, as well as biodiversity monitoring in lakes	Lake management rules formalized and monitored
<b>Aquiculture</b>	Practically inexistent aquiculture	<b>Bolsa Floresta Program</b> Fish farming kits	Aquiculture based on local products and linked with efficient production chains
<b>Family-based Agriculture</b>	Subsistence/Harvest surplus done with low level technologies	<b>Bolsa Floresta Program</b> Increase of productivity by developing new techniques, through technical assistance. Improve market access	Production with high level technology and access to market

The accumulated deforestation (1997–2014) has reached 11,653 hectares. From the total forest loss, 97% of the deforestation occurred before the creation of the Reserve (1997–2005), while the remaining 2.8% occurred from 2006–2014 (INPE, 2015).

### COMMUNITY AND BIODIVERSITY IMPACT BENEFITS

In addition to the climate change mitigation benefits associated, the project also expects to generate a variety of social and environmental benefits in the project area.

*Total cost per hectare (2005-2030):*

*USD 78.52/ha*

*Annual cost per hectare (2005-2030):*

*USD 3.93/ha per yr*

*Cost (2015-2030) per VER (buffer preserved):*

*USD 6.38/tCO<sub>2</sub>*

*Cost (2015-2030) per VER (buffer released):*

*USD 4.68/tCO<sub>2</sub>*

### RIVERINE ENTREPRENEURSHIP

As part of a broader partnership with Sebrae-AM, FAS mapped entrepreneurship initiatives in 9 PAs during 2015, including the Madeira Reserve, where 4 productive chains of agroforestry products were elected as the most promising for expansion: (i) cocoa nuts; (ii) manioc flour; (iii) banana and; (iv) watermelon; in addition to local commerce initiatives.

These initiatives involves 81/84 local entrepreneurs and the calculated value of annual production and commercialization was estimated to be BRL 187,759 (USD 54,450), representing an important source of income for families within the Madeira Reserve (FAS, 2015).

### SHARE OF THE TOP 4 PRODUCTIVE CHAINS (2015' ANNUAL INCOME)

FIGURE 11. SHARE OF THE TOTAL ANNUAL INCOME OF THE TOP 4 PRODUCTIVE CHAINS IN THE MADEIRA RESERVE.

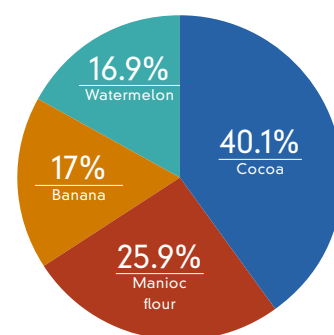


TABLE 4. TOP 4 PRODUCTIVE CHAINS WITHIN THE MADEIRA RESERVE.

PRODUCT	PRODUCERS	ANNUAL PRODUCTION (KG)	AVERAGE ANNUAL PRODUCTION PER PRODUCER (KG)	TOTAL INCOME PER YEAR (2015) (BRL)	TOTAL INCOME PER YEAR (2015) (USD)	AVERAGE INCOME PER PRODUCER (BRL)	AVERAGE INCOME PER PRODUCER (USD)
Cocoa	39	14,481	371	R\$71,084	\$20,614	R\$1,823	\$529
Manioc flour	12	23,000	1,917	R\$45,910	\$13,314	R\$3,826	\$1,109
Banana	21	7,200	343	R\$30,065	\$8,719	R\$1,432	\$415
Watermelon	7	82,500	11,786	R\$30,000	\$8,700	R\$4,286	\$1,243
<b>TOTAL</b>	<b>79</b>	<b>127,181</b>	<b>3,604</b>	<b>R\$ 177,059</b>	<b>\$51,347</b>	<b>R\$ 2,241</b>	<b>\$650</b>

TABLE 10. VALUE OF PRODUCTION OF THE TOP 4 PRODUCTIVE CHAINS WITHIN THE MADEIRA RESERVE.

PRODUCT	2015 (BRL)	2015 (USD)	ACCUMULATED VALUE OF PRODUCTION 2015-2030 (BRL)	ACCUMULATED VALUE OF PRODUCTION 2015-2030 (USD)
Cocoa	R\$71,084	\$20,614	R\$2,155,577	\$625,117
Manioc flour	R\$45,910	\$13,314	R\$1,392,188	\$403,734
Banana	R\$30,065	\$8,719	R\$911,700	\$264,393
Watermelon	R\$30,000	\$8,700	R\$909,728	\$263,821
<b>TOTAL</b>	<b>R\$177,059</b>	<b>\$51,347</b>	<b>R\$5,369,193</b>	<b>\$1,557,066</b>

The top 4 agroforestry productions involves 79/84 local entrepreneurs, with an annual production of 127,181 kg -- an average of 3,604 kg per producer (Table 3; Figure 3). The annual income generated by these activities in 2014–2015 is BRL 177,059 (USD 51,437) (98.7% of total agroforestry products), an average of BRL 2,241 (USD 650) per producer.

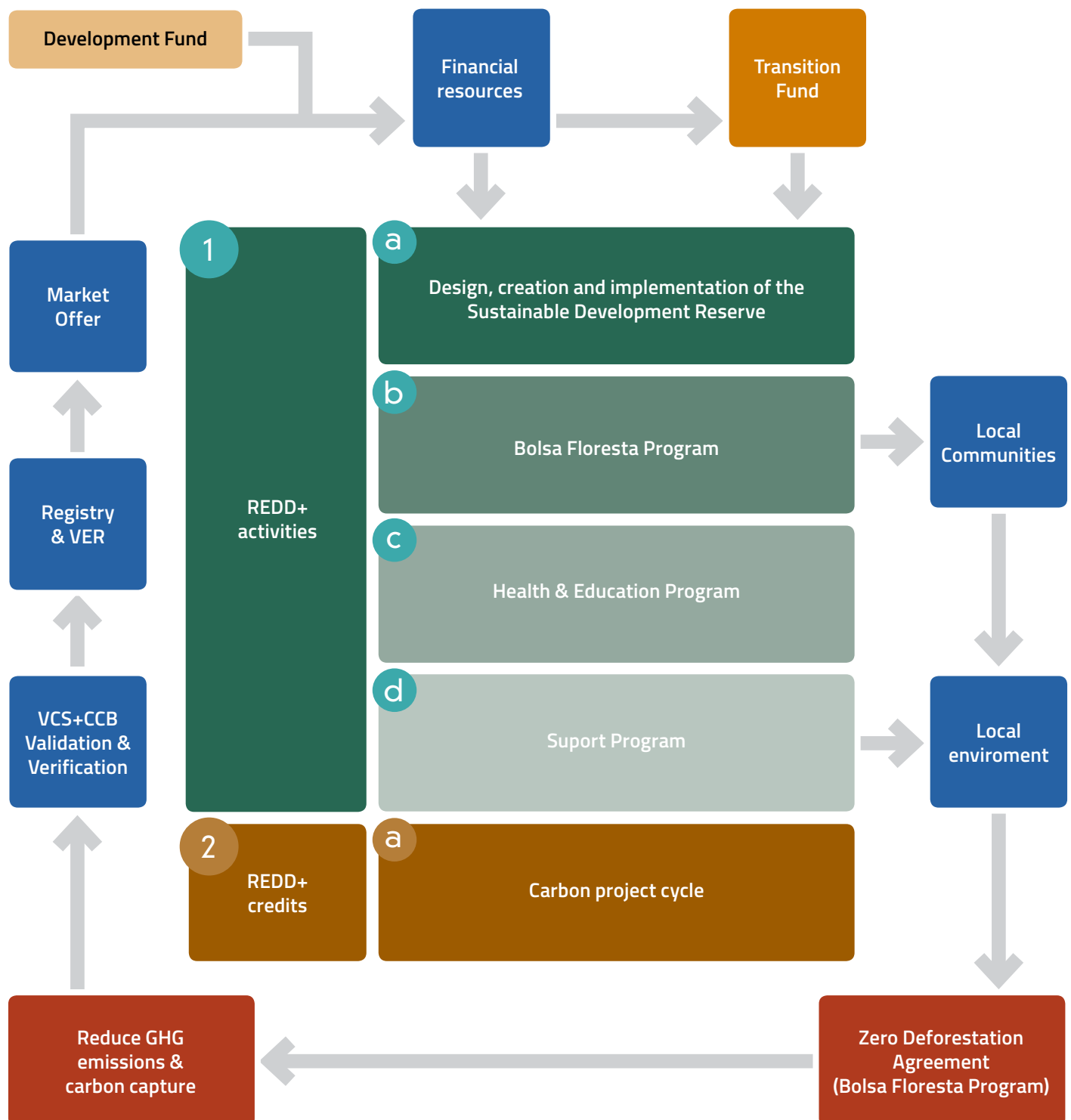
There are many bottlenecks to be diminished in order to improve the production and commercialization processes, such as: (i) access to market; (ii) transportation; (iii) lack of infrastructure; (iv) lack of electricity; (v) lack of management capabilities;

(vi) access to credit; (vii) unfair price paid by buyers; (viii) high operational costs; (ix) distance from consumer market and; (x) complexity of working with several stakeholders/producers.

The project investments in sustainable production through the Bolsa Floresta Program Income Generation component and the Support Program Sustainable Business component are expected to increase the production and commercialization by 8 to 10% per year.

Considering that the production will growth 8% per year, the total value of the top 4 productive chains can reach BRL

FIGURE 3. FINANCIAL MECHANISM ADOPTED BY THE MADEIRA RESERVE REDD+ PROJECT.





5.37 million (USD 1.56 million) up to 2030 -- BRL 2.54 million (USD 0.82 million) of gross income of when comparing the without project scenario (growth of 90%) based on the 2015 projections without applying the annual growth rate (Table 4).

## PROJECT DESIGN

Since 2010, FAS has designed this project in partnership with SEMA and Idesam. It is worth to mention inputs from specialists<sup>7</sup> of different institutions such as University of São Paulo, *Instituto do Homem e do Meio Ambiente da Amazônia*, National Institute for Amazon Research, Amazon Research Institute, State University of Campinas, Federal University of Minas Gerais, Biofílica, Carbon Decisions, Idesam, Pinheiro Neto Advogados, FAS and SEMA. The consultation process included 8 local workshops and public presentations between 2012 and 2014.

## PROJECT FINANCING

FAS, Amazonas Government and other partners have already committed structural investments to the Madeira Reserve REDD+ Project. From 2005 to 2014, it was invested over **BRL 8.3 million (USD 2.4 million)**. The financial mechanism designed by the Madeira Reserve REDD+ Project, using a PES-scheme and a Transition Fund, there is a considerable potential for financial project sustainability after the selected conservative crediting period (Figure 3).

FAS' administrative board approves all strategic investment, and its sources, in the project – which drives the portfolio decisions and insures contracts with partners.

## PROJECT COST

It was considered project investments and expenses from 2005 to 2030 within the five core areas: (i) Design, creation and implementation of the Madeira Sustainable Development Reserve; (ii) Bolsa Floresta Program; (iii) Health & Education Program; (iv) Support Program; and (v) Carbon project cycle.

The total project cost estimated is **BRL 76.65 million (USD 22.23 million)** and the funding gap from 2015 to 2030 is **BRL 68.33 million (USD 19.81 million)** (Figure 4; Table 5).

It was considered a 2%-rate to adjust the growth rate of families benefited by the project. The annual cost per family was adjusted using the expected inflation of 6.0%. The conversion factor between Brazilian Reais and US dollars was 0.29 (conversion rate of August, 2015).

## PROJECT REVENUES

Considering that buffer credits will be preserved and a carbon price of **USD 6.5/tCO<sub>2</sub>**, the total project revenue estimated is **BRL 94.49 million (USD 27.40 million)**. The revenues from the commercialization of 3.1 million tons of VERs represents 73.6% (**BRL 69.58 million; USD 20.18 million**) (Table 6), and interests from the Transition Fund other **26.4% (BRL 24.92 million; USD 7.23 million)**.

## TRANSITION FUND

The Transition Fund (Figure 5) has the main role of providing financial sustainability after the end of the crediting period.

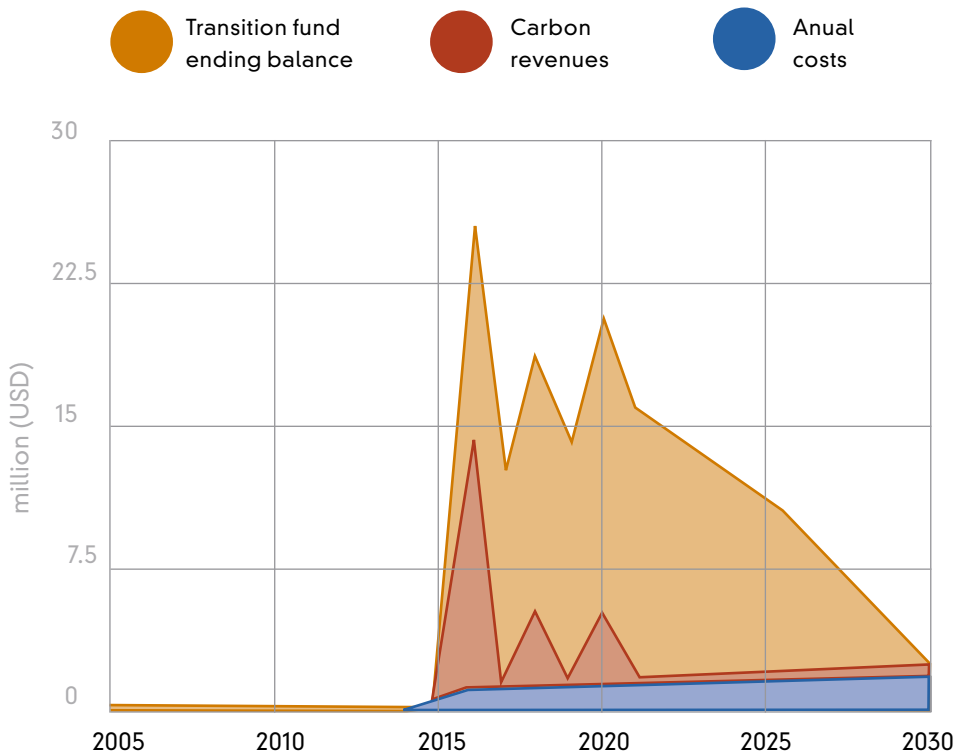
TABLE 5. PROJECT COSTS FROM 2005 TO 2030 AND FUNDING GAP FROM 2015 TO 2030.

AREAS	ACTIVITIES	TOTAL PROJECT COST		FUNDING GAP	
		2005-2030 (BRL)	2005-2030 (USD)	2015-2030 (BRL)	2015-2030 (USD)
1 REDD+ activities	a Design, creation and implementation of the Madeira Sustainable Development Reserve	R\$3,581,168	\$1,038,539	R\$2,567,253	\$744,503
	b Bolsa Floresta Program	R\$60,712,319	\$17,606,572	R\$53,405,107	\$15,487,481
	c Health & Education Program	R\$5,710,983	\$1,656,185	R\$5,710,983	\$1,656,185
	d Support Program	R\$5,017,276	\$1,455,010	R\$5,017,276	\$1,455,010
2 REDD+ credits	a Carbon project cycle	R\$1,634,690	\$474,060	R\$1,634,690	\$474,060
TOTAL		R\$ 76,656,435	\$ 22,230,366	R\$ 68,335,308	\$ 19,817,239

**TABLE 6. EXPECTED REVENUES FROM THE COMMERCIALIZATION OF VERS AND INTEREST FROM THE TRANSITION FUND, CONSIDERING AN INTEREST RATE OF 5% PER YEAR AND AN AVERAGE CARBON PRICE OF USD 6.50 PER tCO<sub>2</sub>e.**

PROJECT YEAR		REVENUES (@USD 6.50/ tCO <sub>2</sub> e)		TRANSITION FUND INTEREST (@5%/YR)		TOTAL
NR	YR	ANNUAL	ACCUMULATED	ANNUAL	ACCUMULATED	
1	2006	\$0	\$0	\$0	\$0	
2	2007	\$0	\$0	\$0	\$0	
3	2008	\$0	\$0	\$0	\$0	
4	2009	\$0	\$0	\$0	\$0	
5	2010	\$0	\$0	\$0	\$0	
6	2011	\$0	\$0	\$0	\$0	
7	2012	\$0	\$0	\$0	\$0	
8	2013	\$0	\$0	\$0	\$0	
9	2014	\$0	\$0	\$0	\$0	
10	2015	\$0	\$0	\$0	\$0	
11	2016	\$12,839,770	\$12,839,770	\$553,365	\$553,365	
12	2017	\$0	\$12,839,770	\$532,042	\$1,085,406	
13	2018	\$3,668,506	\$16,508,276	\$670,921	\$1,756,327	
14	2019	\$0	\$16,508,276	\$626,736	\$2,383,063	
15	2020	\$3,668,506	\$20,176,782	\$759,287	\$3,142,350	
16	2021	\$0	\$0	\$708,682	\$3,851,032	
17	2022	\$0	\$0	\$654,003	\$4,505,035	
18	2023	\$0	\$0	\$595,663	\$5,100,698	
19	2024	\$0	\$0	\$533,014	\$5,633,712	
20	2025	\$0	\$0	\$465,294	\$6,099,006	
21	2026	\$0	\$0	\$393,030	\$6,492,036	
22	2027	\$0	\$0	\$315,409	\$6,807,445	
23	2028	\$0	\$0	\$231,473	\$7,038,918	
24	2029	\$0	\$0	\$141,892	\$7,180,810	
25	2030	\$0	\$0	\$45,645	\$7,226,455	
<b>TOTAL</b>	25		\$20,176,782		\$7,226,455	<b>\$27,403,237</b>

**FIGURE 4. MADEIRA RESERVE REDD+ PROJECT'S FINANCIAL BALANCE FROM 2005 TO 2030.**



Total expected revenues:

USD 27.40 million

Expected revenues

from VERs:

USD 20.18 million

Expected revenues

from interest:

USD 7.23 million

Contributions to the Transition

Fund (2016-2020):

USD 16.5 million

Interest @5% (2016-2030):

USD 7.2 million

Fund balance at the

end of 2030:

USD 958,552

## REFERENCES

- 1 Increasing from 7.4 million hectares (2003) to 17 million hectares in 2007.
- 2 This proposal was crafted during a workshop held in Manaus – organized by the state government and Institute for the Conservation and Sustainable Development of Amazonas (Idesam) – with the presence of several governmental institutions, scientists, and NGOs.
- 3 This approach considers emission reductions from the historic deforestation pressure (“flow”) and the carbon stocks (“stock”) within each Amazon State, and follows Cattaneo (2008) and from IPAM (2011).
- 4 For this study, it was adopted a 50-50 division for stock and flow.
- 5 The methodology used by PRODES consider the accumulated deforestation values from 1988 to 1997.
- 6 Emission reduction allocations from the proposed Brazilian National REDD+ System.
- 7 The views expressed by the specialist do not necessarily represent their institutions

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# PROJECT PROPONENT

## FUNDAÇÃO AMAZONAS SUSTENTÁVEL

The Fundação Amazonas Sustentável was created in 2008 through a partnership of Bradesco and the State Government of Amazonas with the mission to promote sustainable development within State Protected Areas of the Amazonas state, focusing on environmental conservation and in improving the life quality of traditional populations. Through the mechanisms of Payment for Environmental Services (PES) and REDD+, FAS focus its actions on reducing deforestation, eradicating poverty, supporting social organizations, improving social indicators, generating income based on sustainable activities and implementing social-environmental monitoring. Its core program is the Bolsa Floresta Program, which serve as the basic structure for the Juma Reserve REDD+ Project (Borner et al., 2013; Nhantumbo, 2012; Viana, 2010; Viana et al., 2010; Viana et al., 2008).

FAS has developed innovative partnerships with private companies non governmental organizations and governmental institutions that are interested in collaborating on sustainable development and management of protected areas in Amazonas, offering different opportunities to support socio-environmental responsibility actions within protected areas. FAS also works to develop a market for environmental services and products, applying the resources acquired for implementing its programs. FAS has a strong focus on participatory planning and action as well as transparency. All financial statements have been audited by PwC. Strategic planning is supported by Bain & Co and management supported by SAP – all on a pro-bono basis.

The Madeira Reserve REDD+ Project provides investors and donors with a guarantee that the execution and completion of the project is done in a manner that complies with all of the relevant legal, governmental and regulatory structures. The project was designed through a transparent process involving participatory workshops and political consultations in order to guarantee the involvement and commitment of all the local stakeholders. Its implementation is based on co-creation of local solutions and participatory processes.

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