

INDICATORS FOR AN REDD AMAZON PROJECT

DOCUMENT REVISION HISTORY

Version	Description of the main adjustments	Review Date
01	First version.	24/09/2013
1.1	Post-Public Consultation	08/11/2013

- 1. Identifying the Project
- 2. List of potential social, economic and environmental impacts
- 3. List significant risks for the project
- 4. List of stakeholders affected by the project
- 5. Benchmarking
- 6. Indicators

1. Identifying the Project

Project name:Indicators for an Amazon REDD Project Authorized Developer: Sustainable Carbon - ProjetosAmbientaisLtda. Country: Brazil Contact responsible for indicators: David Swallow, <u>david@sustainablecarbon.com</u>/ Larissa Tega de Fonseca, <u>larissa@sustainablecarbon.com</u>/ Marcelo Haddad,

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2. List of potential social, economic and environmental impacts

The description of social, environmental and economic impacts does not demand new research but must be based on other existent sources of information, for example: reports, results of consultation with stakeholders, similar projects or opinions of experts. If required by the national competent authorities, documents about the analysis of the environmental impacts and mitigation programs must be presented.

Activity	Aspect	Impact	Effect		Comments/ Observation	
Activity	Азресс	inipact	Beneficial	Adverse	Comments/ Observation	
					 Monitored by the Carbon resource: Project performance 	
REDD: Carbon credit project	Conservation of Amazon Rainforest	Greenhouse Gas Emissions Reductions	X		 Monitored by the Natural resource: Efficiency of project in countering agents of deforestation/degradation 	
REDD: Carbon credit project	Conservation of Amazon Rainforest	Monitoring and supervision to avoid deforestation of forest within the project area.	Х		 Monitored by the Biodiversity resource: Biodiversity conservation Monitored by the Natural resource: Monitoring Methods 	
REDD: Carbon credit project	Conservation of Amazon Rainforest	Conflict management with communities in the project area,due to banning of timber product extraction.		Х	 Monitored by the Carbon resource: Stakeholder consultation and support for the project 	



REDD: Carbon credit project	Empowerment	Increased independence of the communities in the project area.	X	 Monitored by the Social resource: Associations and cooperatives Alternative income sources Extent of alternative income generation sources and further programs Monitored by the Human resource: Community education and training Monitored by the Financial resource:
REDD: Carbon credit project	Application of the Social Carbon methodology	Encouragement and investment in research on social, economic and environmental aspects in	х	 Monitored by the Social resource: Social research Monitored by the Human



the project region.	resource:
	- Health
	- Leisure, culture and sport
	- Equipment and infrastructure
	Monitored by the Financial
	resource:
	- Securing of funds
	- Carbon credit Investments
	Monitored by the Biodiversity
	resource:
	- Biodiversity research

List of references when applicable:

- SUSTAINABLE CARBON. "V-C-S PDECOMAPUÁ AMAZON REDD PROJECT GHG EMISSION REDUCTIONS FROM AVOIDED UNPLANNED DEFORESTATION". March, 2013.

- CCBA. The Climate, Community & Biodiversity Alliance. Social and biodiversity impact assessment (SBIA) Manual for REDD+ Projects. September, 2011.



3. List of significant risks for the project

Activity	Aspect	Risk	Comments/observation
REDD: Carbon credit project	Uncertainties relating to standing forest in the future.	Non permanence of carbon: Time which carbon will remain stocked in live biomass, without being emitted into the atmosphere. Due to the uncertainties relating to what will happen to the forest in future, there is a risk of non-permanence of forest carbon.	 Monitored by the Carbon resource: Buffer reduction

4. List of stakeholders affected by the project

Stakeholder	Brief description of how the project affects the stakeholders mentioned
Communities living inside the project area	Potential improvement of living conditions, including food production and gathering, water availability, employment, energy availability and education. Potential limiting/ prohibition of access to timber, firewood, Non Timber Forest Products (NTFPs), extraction of food products and limiting/ prohibition of further deforestation for agriculture or living areas.
Communities in areas surrounding the project area	Potential limiting of access to timber, firewood, NTFPs and extraction of food products.
Project area Municipalities	Involvement in legal issues involving: opposition of community to prohibition of timber or firewood harvesting; questions of land tenure involving residents.
Environmental Agency(ies) of Project Municipality(ies)	Collaboration with project proponents in terms of communication and logistics, for example providing space for stakeholder consultations, keeping of minutes of meeting.
Agriculture Agency(ies) of	Potential collaboration with environmental/ agronomy programs.



ProjectMunicipality(ies)	
Educational Agency(ies) of ProjectMunicipality(ies)	Potential collaboration with educational programs.
The Chico Mendes Institute for Biodiversity Conservation (ICMBio)	Collaboration between project and protectedareas, leading to synergies between the Project and ICMbio projects and/or conservation areas.

5. Benchmarking

A benchmarking analysis is an optional step for the elaboration of SOCIALCARBON indicators and includes research about best practices for project activity or existing sustainability indicators for the sector.

- CCBA. The Climate, Community & Biodiversity Alliance. Social and biodiversity impact assessment (SBIA) Manual for REDD+ Projects. September, 2011.

- FADESP. Fundação de Amparo e Desenvolvimento da Pesquisa. "Comunidades Agroextrativistas do Rio Mapuá - Breves/Pa: Diagnóstico Socio-Econômico".2002.g

- NFS.Natural Forest Standard.**Natural Forest Standard Requirements**. April, 2013. Available at: <u>http://www.naturalforeststandard.com/nfs-</u>standard/downloads/

- SUSTAINABLE CARBON. "V-C-S PDECOMAPUÁ AMAZON REDD PROJECT GHG EMISSION REDUCTIONS FROM AVOIDED UNPLANNED DEFORESTATION". March, 2013.



6. Indicators

Social Resource: The networks, social duties, social relationships, relationships of trust, affiliations, and associations.

Indicator	Description	Evaluation Methods
Extent of community education/training and alternative income sources	Evaluates whether the community education/training and alternative income sources implemented by the carbon project extend to the entire project area and, preferably, covering the leakage management area as well.	Questionnaires, interviews with communities, documents.
Social research	 Examines level of research into social, demographic and economic aspects of communities in the project. Relevant research for the project includes: Community satisfaction survey: gauging opinions of the all projects affecting them; Education levels among the youth and the community; Economic research such as levels of income, means of subsistence; Communities' views of their own needs; Demographic research: numbers of people and profiles. 	Site visits, surveys, questionnaires with communities, research documents.
Associations and cooperatives	Evaluates whether communities residing in the project area are involved in associations or cooperatives. Association: Group of two or more people who organise themselves to defend their common interests, without financial ends and existing as a legal entity. Cooperative: Organization consisting of at least twenty private individuals acting cooperatively and mutually assisting each other, with democratic, participatory management, with common economic and social goals, of which the legal and doctrinal aspects are independent of those of other organizations and societies.	Questionnaires; interviews with communities; meeting minutes; attendance lists; association records.
Social satisfaction	Evaluates the communities' satisfaction relating to the carbon project. Also evaluates the existence of some kind of community satisfaction survey, which can be conducted through local research, or stakeholders' consultation, among other means.	Questionnaires, meeting minutes, interviews, among other records.



Indicator	1	2	3	4	5	6
Extent of community education/training and alternative income sources	Community education/training and/or alternative income generation sources benefit up to 20% of the populated region within the project area.	Community education/training and/or alternative income generation sources benefit up to 40% of the populated region within the project area.	Community education/training and/or alternative income generation sources benefit up to 60% of the populated region within the project area.	Community education/training and/or alternative income generation sources benefit up to 80% of the populated region within the project area.	Community education/training and/or alternative income generation sources benefit the total project area.	As well as the previous scenario, people from neighbouring communities benefit from community education/training and/or alternative income generation projects.
Social research	No research was conducted involving communities in the project area.	Social research involving communities in the project area, but it has not been updated for over 5 years.	Social research involving communities in the project area has been conducted in the last 5 years, but it only covers up to two relevant aspects.	Social research involving communities conducted in the last 5 years, and covers up to four relevant aspects.	Social research involving communities conducted in the last 5 years, and covers all relevant aspects.	As well as the previous scenario, there is a partnership with an institution involving social research on communities in the project area.
Associations and cooperatives	Absence of associations and cooperatives; individual action predominates.	Attempts to form associations or cooperatives have been made, meetings are informal.	An association or cooperative is regularly attended and formally registered, however there are no recognised leaders	An association or cooperative is regularly attended and formally registered, and there are recognised leaders	As well as the previous scenario, there is a formally registered, regularly attended association or cooperative which	As well as scenario 4, there is a formally registered, regularly attended association or cooperative which is generating



			within the community.	from the community.	is not yet generating results for the community (e.g. none of the stated objectives have been achieved).	positive results for the community.
Social satisfaction	No information on community satisfaction in relation to the carbon project is available for the analysed period.	Community protests relating to the carbon project occurred during the analysed period.	A community satisfaction survey in relation to the carbon project was conducted in the analysed period, however the majority were shown to be against the project.	A community satisfaction survey in relation to the carbon project was conducted in the analysed period, however the majority were shown to be indifferent to the project.	A community satisfaction survey in relation to the carbon project was conducted in the analysed period, and the majority were shown to be in favour of the project.	As well as the previous scenario, the opinion of the local community will be taken into consideration to determine the initiatives to be undertaken in the project area.

Human Resource: The skills, knowledge, capacities for work and good health that people have. Taken together, these become fundamental for the successful pursuit of different strategies.

Indicator	Description	Evaluation Methods		
Community education	Evaluates the relevant education and training programs related to the project,	Contact, meetings with project		
and training	including additional programs to the stakeholders and broader community. The	proponent and project area supervisors,		
	following major areas are considered:	questionnaires, interviews with		
	- Training: technical; IT and digital; courses, etc.	communities, site visits.		
	- Education: basic and supplementary, environmental awareness-raising, etc.			



Health	Evaluates the presence of initiatives and campaigns relating to community health, as well as access and communication with hospitals in neighbouring cities.	Site visits, surveys, questionnaires with communities and supervisors.
Leisure, culture and sport	Evaluates the presence of projects involving leisure, health and sport within the carbon project area, which benefit the community.	Site visits, surveys; questionnaires with communities, project proponent and supervisors.
Equipment and infrastructure	Evaluates the project proponent's investment and encouragement relating to equipment and infrastructure (sanitation, household, electricity, transport, among others) for the community's benefit.	Communication with project proponent and partners, questionnaires, interviews with communities and program teachers.

Indicator	1	2	3	4	5	6
Community education and training	The project does not offer any education and training activities.	The project offers only one education or training activity.	The project offers two education or training activities.	The project offers three education or training activities.	The project offers four education or training activities.	The project offers more than four education or training activities.
Health	No activities relating to community health are being undertaken.	There are isolated initiatives, which have little impact, in the health area, for example: distribution of informative pamphlets.	Project area has ONE of the following: (i) There are active health campaigns; (ii) There are active clinics and/or health centres with a doctor present available to the	Project area has TWO of the following: (i) There are active health campaigns; (ii) There are active clinics and/or health centres with a doctor present available to the	Project area has ALL of the following: (i) There are active health campaigns; (ii) There are active clinics and/or health centres with a doctor present available to the	As well as the previous scenarios, in case of emergency, means of communication and access to the nearest hospital to the community are available.



Leisure, culture	There are no	There are isolated	community; (iii) basic medicines are available to the community. There are	community; (iii) basic medicines are available to the community. There are	community; (iii) basic medicines are available to the community. There are	As well as the
and sport	initiatives relating to leisure, culture and sport in the community.	initiatives, which have little impact, in either leisure, culture or sport, for example: availability of sporting facilities or areas.	significant initiatives in one of the following areas: leisure, culture or sport. For example: organization of sports championships.	significant initiatives in two of the following areas: leisure, culture or sport.	significant initiatives in all three areas: leisure, culture and sport.	As well as the previous scenario, there are premises, available to the community for leisure, culture and sport purposes.
Equipment and infrastructure	The project proponent has not provided equipment and does not promote/ invest in infrastructural improvements for the benefit of communities in the project area.	The project proponent has provided the community with equipment relating to monitoring the project area (e.g. GPS).	The project proponent has provided the community with equipment relating to monitoring the project area (e.g. GPS) and also provides equipment for other purposes.	The project proponent promotes/ invests in infrastructural improvements for the benefit of communities in the project area, but the initiatives are not yet implemented.	The project proponent promotes/ invests in infrastructural improvements for the benefit of communities in the project area, but the initiatives benefit few community members (e.g. building a house).	The project proponent promotes/ invests in infrastructural improvements for the benefit of communities in the project area, and the initiatives benefit a significant proportion of the community (e.g. access to transport).

Financial Resource: Basic capital in the form of cash, credit/debt and other economic goods which are or may become available.



Indicator	Description	Evaluation Methods
Alternative income sources	Evaluates whether the project created alternative sources of income generation for the communities living within the project area.	Questionnaires, interviews with communities and program trainers/teachers, registers of employed individuals, site visits, communication with project proponent.
Employment opportunities	Direct employment offered by the project: number of people employed in activities related to project (e.g. supervisors and trainers) and provision of official documentation employment (informal and formally documented).	Contact, meetings with project proponent and project area supervisors, interviews with communities and program teachers/trainers.
Securing of funds	Evaluates the project proponent' participation in requests for proposals/ programs for securing funds. Also monitors whether project participants were successful, and whether the funds raised are creating activities for communities resident in the project area.	Questionnaire, requests for proposals, meetings with project proponent and project area supervisors; interviews with communities and program teachers/ trainers.
Carbon credit Investments	Evaluates whether proceeds from the sale of carbon credits was invested in the carbon project improvements or activities that benefit the local community.	Questionnaire and/or control spreadsheets.

Indicator	1	2	3	4	5	6
Alternative income sources	The Project does not generate any alternative income sources for the local communities.	The project generates one alternative income source for the local communities.	The project generates two alternative income sources for the local communities.	The project generates three alternative income sources for the local communities.	The project generates up to four alternative income sources for the local communities.	The project generates more than five alternative income sources for the local communities.
Employment opportunities	No employment opportunities.	Employment opportunities available, however	One to ten employment opportunities	One to ten employment opportunities	More than eleven employment opportunities	More than eleven employment opportunities



		all are informal.	available, the majority of which are informal.	available, the majority are formally documented.	available, the majority of which are informal.	available, all of which are formally documented.
Securing of funds	The project proponent does not take any action to secure funds.	The project proponent participates in programs/ requests for proposal; however no funding has been secured so far.	The project proponent participates in programs/ requests for proposal, and has secured funding, and initiatives have been put into practice. However, the latter were inactive or non- existent in the period analysed.	The project proponent participates in programs/ requests for proposal, and has secured funding, and initiatives have been put into practice. In the period analysed at least one initiative is operating.	The project proponent participates in programs/ requests for proposal, and has secured funding, and initiatives have been put into practice. In the period analysed, more than one initiative is operating, however the latter are not self-sustaining (they require funding to continue).	As well as the previous scenario, at least one of the initiatives undertaken is financially self- sufficient, not requiring any further funding to continue.
Carbon credit Investments	The income generated by carbon credit sales was not invested in the carbon project or in the community, or there are no organized controls	Less than 20% of the income generated by carbon credit sales was invested in the carbon project or in the community development.	Between 20 and 40% of the income generated by carbon credit sales was invested in the carbon project or in the community development.	Between 40 and 60% of the income generated by carbon credit sales was invested in the carbon project or in the community development.	Between 60 and 80% of the income generated by carbon credit sales was invested in the carbon project or in the community development.	Between 80 and 100% of the income generated by carbon credit sales was invested in the carbon project or in the community development.



of the allocation of			
proceeds.			

Natural Resource: The stock of natural resources (soil, water, air and environmental services (soil protection, maintenance of hydrological cycles, pollution sinks, pest control, pollination, etc.), from which resources for livelihoods are derived.

Indicator	Description	Method of evaluation
Monitoring Methods	Measures the progression of project's monitoring methods, including for example: high-resolution GIS capable of detecting degradation; employment of guards/ supervisors; presence of guard towers or supervision centre within project area.	Site visits, Communication with supervisors.
Efficiency of project in countering agents of deforestation/ degradation	Measures the project's ability to reduce deforestation and degradation within the project area over the monitoring period corresponding to this SOCIALCARBON Report.	GIS monitoring, questionnaires with supervisors, site visits, questionnaires/ interviews with communities.
Non-timber forest products (NTFPs)	 Evaluates the sustainable use of natural resources by communities in the project areafor income generation. "NTFPs are biological resources or products from flora- which are not wood - obtained from forests for subsistence or for trade. They can come from native, primary or secondary forest, planted forest or agro-forestry systems. NTFPs include a wide range of products including medicinal plants, fibres, resins, latex varieties, oils, rubbers, fruits, nuts, seasonings, dyes, rattan, bamboo, etc." (Brazilian Forest Service, 2013). Sustainable practices are taken to include the following: Low-impact practices; Exploitation/ collection practices of each NTFP which are compatible with their productivity levels without affecting their regeneration and/or conservation of each utilized species. 	Communication with project proponent/ environmental bodies working in the area.



Indicators	1	2	3	4	5	6
Monitoring Methods	Project currently has no monitoring methods in place.	Project has one monitoring method but with significant issues leading to continued deforestation.	Project has one monitoring method in place.	Project has two monitoring methods in place.	Project has three monitoring methods in place including at least one on site.	Project has three monitoring methods in place including at least one on site, with excellent results in reducing deforestation.
Efficiency of project in countering agents of deforestation/ degradation	Actual deforestation levels over monitoring period were worse than baseline predictions for the period.	Actual deforestation levels over monitoring period were between $100\% \le x <$ 75% of baseline predictions for the period.	Actual deforestation levels over monitoring period were between $75\% \le x <$ 50% of baseline predictions for the period.	Actual deforestation levels over monitoring period were between $50\% \le x <$ 25% of baseline predictions for the period.	Actual deforestation levels over monitoring period were between $25\% \le x$ < 0% of baselinepredictions for the period.	Actual deforestation levels are 0, and/or forest areas increased.
Non-timber forest products (NTFPs)	Non-timber forest products are used exclusively for subsistence purposes.	Non-timber forest products are traded within the project area, however without sustainable practices.	Non-timber forest products are traded within the project area, with sustainable practices in use.	As well as the previous scenario, there are studies and plans with the community in order to determine the available volumes, use, distribution, regeneration and conservation of non-timber forest products.	As well as the previous scenario, there are partnerships to exploit the business potential of non- timber forest products in the project area.	As well as the previous scenario: There is equitable distribution of the benefits of non- timber forest products. Or There are facilities to add value to non-timber forest products in the project area.



Biodiversity Resource: The combination of species, ecosystems and genes which form the biological diversity. Relevant aspects of this component are: the integrity of natural communities, the way people use and interact with biodiversity, the degree of conservation, pressures and threats imposed on native species and the existence of high priority areas for conservation

Indicator	Description	Method of Evaluation
Biodiversity research	Evaluates the existence of partnerships with universities and environmental bodies, among others, which contribute to/encourage research on biodiversity in the project area.	Communication with project proponent and partners.
Biodiversity conservation	Evaluates the existence of biodiversity conservation activities in the project area. E.g.: recovery of degraded areas, planting of native trees, environmental education, partnerships, among others.	Communication with project proponent/ environmental bodies working in the area.
Tree nursery and maintenance of planted trees.	Evaluates the presence of a tree nursery, used for tree production in the project area.	Questionnaires/interviews with program trainers/teachers, Communication with supervisors, site visits.

Indicator	1	2	3	4	5	6
Biodiversity research	No scientific studies of the project area are available, and the project proponent has no partnerships with research bodies relating to biodiversity.	Scientific studies on biodiversity are available; however the project proponent has no partnerships with research bodies relating to biodiversity.	Project proponent has formal partnerships with research bodies relating to biodiversity; however no studies of the fauna and flora in the project area are currently available.	Project proponent has formal partnerships with research bodies relating to biodiversity, and studies of fauna OR flora in the project area have been conducted	Project proponent has formal partnerships with research bodies relating to biodiversity, and studies of fauna AND flora in the project area have been conducted.	As well as the previous scenario, there is constant monitoring in order to update the list of species present in the project area.



Biodiversity conservation	Anthropogenic activity having a significant negative impact on biodiversity occurred in the project area, for example introduction of invasive species or use of genetically- modified organisms.	No anthropogenic activity having a significant negative impact on biodiversity occurred in the project area, but no biodiversity conservation activity is being undertaken.	Biodiversity conservation activity is being undertaken; however there is no community involvement.	Biodiversity conservation activity is being undertaken; and the community is involved.	As well as the previous scenario, initiatives relating to threatened fauna and flora species are in operation.	As well as the previous scenario, there is a partnership with a public body OR non- governmental for biodiversity conservation.
Tree nursery and maintenance of planted trees.	There is nonursery for production of trees for the project area.	An active nursery for production of trees is present, but there is no control over numbers of trees produced/ planted.	There is control over numbers of trees produced/ planted, however adequate maintenance of planted trees is lacking.	There is control over numbers of trees produced/ planted, and adequate maintenance of planted trees.	As well as the previous scenario, more trees were produced/ planted in the current monitoring period than during the previous SCR period.	As well as the previous scenario, the planting is carried out in degraded or recovery areas where it is needed.

Carbon Resource: The type of carbon project developed, encompassing the project performance and methodologies utilized.

Indicator	Description	Method of evaluation
Project	Evaluates project performance in relation to verified emissions reductions.	VCS PD and Monitoring Report.
Performance	Project performance = Units verified in the Monitoring Report corresponding to the SCR period/ Estimate of emissions reductions in the VCS PD.	
Buffer reduction	Measures the progression of the buffer in the current monitoring period compared to	VCS PD and Monitoring Report.



	the previous monitoring period, or compared to the VCS PD if current SCR period is Point 0.	
Stakeholder consultation methodology	Evaluates the methodology used for the stakeholder consultation.	Public consultations, information letters, satisfaction questionnaires, stakeholder feedback book, etc.

Indicator	1	2	3	4	5	6
Project Performance	Not successful: 0% of carbon credits predicted for the period were generated.	Very Low: 1% to 25% of carbon credits predicted for the period were generated.	Low: 26% to 50% of carbon credits predicted for the period were generated.	Reasonable: 51% to 75% of carbon credits predicted for the period were generated.	Good: 76% to 95% of carbon credits predicted for the period were generated.	Excellent: More than 95% of carbon credits predicted for the period were generated.
Buffer reduction	The buffer is higher in the current monitoring than in any other monitoring period (or compared to the PD).	The buffer reduced by 0 to 5% compared to the previous monitoring period (or compared to the PD).	The buffer reduced by up to 10% compared to the previous monitoring period (or compared to the PD).	The buffer reduced by up to 15% compared to the previous monitoring period (or compared to the PD).	The buffer reduced by up to 20% compared to the previous monitoring period (or compared to the PD).	The buffer reduced by more than 20% compared to the previous monitoring period (or compared to the PD). Or The buffer is currently at the minimum V-C-S requirement.
Stakeholder	No stakeholder	A stakeholder	At least one of the	At least two of the	All of the following	As well as the
consultation	consultation was	consultation was	following	following	requirements were	previous scenario,
methodology	carried out during the period	conducted but it did not meet any of	requirements was met:	requirements were met:	met: - Frequency: Once a	the project developer



analyzed.	the following	- Frequency: Once a	- Frequency: Once a	year;	maintains open
	requirements:	year;	year;	- Invitations: All	channels of
	- Frequency: Once a	- Invitations: All	- Invitations: All	stakeholder groups	communication
	year;	stakeholder groups	stakeholder groups	were invited;	with stakeholders.
	- Invitations: All	were invited;	were invited;	- Record:	
	stakeholder groups	- Record:	- Record:	Comments were	
	were invited;	Comments were	Comments were	recorded.	
	- Record:	recorded.	recorded.		
	Comments were				
	recorded.				