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| Project Title |
| Vichada Climate Reforestation Project |
| Registry ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input type="checkbox"/> New Area Certification <input type="checkbox"/> Annual Reporting |

For each item listed below, please provide a general description in the corresponding box. In total, this document shall not exceed 4 pages. Be aware that carbon market specific terms may not be appropriate for the readers of this summary. The formatting requirements provided in chapter 7.4 must be followed.

Key Project Information

(a) Project activities

Reforestation

The project offers investors worldwide the opportunity to own a forest that yields a high amount of timber and is ecologically and socially sustainable at the same time. The project model is based on combining timber production (reforestation) with biodiversity protection and ecosystem restoration. These forests offer a natural habitat for native animals and plants, protect and enrich the soil, save and filter water and contribute to the mitigation of the greenhouse effect.

(b) Organisations that are involved in the project (project participants)

Forest Finance, Inverbosques, Reforestaodora La Paz, Aldea Forestal

See the following links:

<http://www.forestfinestconsulting.com/>

<http://www.forestfinance.de/en/>

<http://www.inverbosques.com/>

(c) Communities involved in the project

No communitarian areas are involved in the project. All the project area is legally registered under the national authorities and poses a legal land tenure title. Further the project is part of the regional association AGAF to enhance potential areas that can be added to the project

<http://www.agrovichada.org/agaf.html>

PAZ15-DNH9

(d) Location of the project area and the planting area

Country: Colombia (South America)

Department: Vichada Department (La Primavera, Puerto Carreño, Cumarribo)

Closest City: Puerto Carreño

See shape files for exact location

(e) Size of the project area and the planting area

Project area: 76,356 hectares

(e) Size of the project area and the planting area

Applicable planting area: 13,205 hectares
Forest conservation area: 8,089 hectares

(f) Risk of change to the project area (during the crediting period)

Low risk due to a previously analysis before acquiring and including the area to the project. An efficient sustainable management combined with the actively participation of important national and international stakeholders; mainly part of the Forest Finance Group are a key element to demonstrate transparency and permanence of the project activities during a 30 years crediting period.

<http://www.forestfinance.de/en/faq/#c6245>

(g) Risk of change to the project activities (during the crediting period)

Low risk due to a previously analysis before acquiring and including the area to the project. An efficient sustainable management combined with the actively participation of important national and international stakeholders; mainly part of the Forest Finance Group are a key element to demonstrate transparency and permanence of the project activities during the crediting period.

<http://www.forestfinance.de/en/>

(h) Timeframe for the project activities

The crediting period is from 2006 until 2036.
PAZ15-FIX1, Summary

(i) Number of (predicted) CO₂-certificates

Total carbon credits in 30 years = 1,532,898
Total verified credits until 2015= 325,487
PAZ15-FIX1, Template: Summary

(j) Land-use history and current situation of the project area

Current situation: Before the project activity started, the baseline of the project area was a savannah. All this areas were evaluated and classified as applicable planting areas for A/R activities. Other small patches of native vegetation left were classified and nowadays managed as conservation areas. Other areas (previously planted or due to the project activity) located in the border of a river or other watershed are also classified as conservation areas.

PAZ15-MAP1, PAZ15-APP1

Further cattle ranging was an activity identified during the additionality assessment.

By mid-80s Colombia completed the process of territorial occupation of the Caribbean and Andean regions, and to a lesser extent the Orinoco. However regions in the Orinoco classified as savannah (19% from the country area) were occupied to implement cattle farming systems¹. Further, on 2013 the Colombian Cattle Federation known as FEDEGAN celebrated 50 years of contributing to this economic activity. During the history of FEDEGAN, it has been the main national federation to obtain financial and technical cooperation of the government². FEDEGAN has an important historical influence in the project region and through the National Fund for cattle activities; they are currently implementing different initiatives. Technical and economic initiatives support this activity:

See template AR-CDM Additionality Tool

(k) Socio-economic history and current situation

Current situation: due to a marginal and of difficult access location, no previous activities were reported. There was lack of investment and know how to create a business model. The previous owner decides to sell the land and migrate to the city, to invest the money in different benevolence activities; such as education, among others. Forest Finance experience during more than 15 years had reveal how reforestation and agroforestry activities, that are established in different rural areas can be an effective support to alleviate regional poverty, promote regional know how, increment capacity building and be a key element for a socio economic development , by providing directly and indirectly jobs.

PAZ15-APP1

<http://www.forestfinance.de/en/about-us/social-aspects/working-conditions/>

Further cattle ranging was an activity identified during the additionality assessment.

By mid-80s Colombia completed the process of territorial occupation of the Caribbean and Andean regions, and to a lesser extent the Orinoco. However regions in the Orinoco classified as savannah (19% from the country area) were occupied to implement cattle farming systems¹. Further, on 2013 the Colombian Cattle Federation known as FEDEGAN celebrated 50 years of contributing to this economic activity. During the history of FEDEGAN, it has been the main national federation to obtain financial and technical cooperation of the government². FEDEGAN has an important historical influence in the project region and through the National Fund for cattle activities; they are currently implementing different initiatives. Technical and economic initiatives support this activity:

See template AR-CDM Additionality Tool

(l) Forest management applied (past and future)

It is a Climate A/R concept using well adapted tree species to create sustainable management concept with the use of high quality hardwoods and the creation of an additional income from carbon credits. These carbon offset credits can be traded on international carbon markets will be certified according high quality carbon standards.

Overall, the project objectives are the establishment of profitable production- and conservation systems, enabling the enterprise to work in a beneficial way through the creation of investment opportunities, which are economically, ecologically and socially sound.

Creating year round work opportunities in our areas of activity that allow the development of a stable work environment for men and women, will support the development of these regions

PAZ15-SFM1, PAZ1- LSC1

<http://www.forestfinance.de/en/about-us/social-aspects/working-conditions/>

(m) Forest characteristics (including main tree species planted)

The main species that are planted are:

Acacia Mangium

Pinus sp.

Eucalyptus sp.

PAZ15-FIX1, scientific data

See shapefiles

(n) Main social impacts (risks and benefits)

The main social benefits of the project are:

Poverty alleviation: many persons in rural areas are obligated to migrate to the cities due to the lack of regional job opportunities.

Equal rights: the company has a multicultural team and a mix of people with equal rights without gender discrimination.

Capacity building: the employees and also neighbours are continuously learning about the importance of and

(n) Main social impacts (risks and benefits)

significance of sustainable activities and the importance of climate change mitigation.

Some low risks of the project are:

Poverty alleviation: the increase of income in rural areas might lead to the use of unsustainable resources, therefore the company is investing also in capacity building including topics to encourage a sustainable life style.

Equal rights: a multicultural team requires also the need of having a comprehensive and tolerant perception. The company encourage the team work of the employees investing in yearly external activities
<http://www.forestfinance.de/en/about-us/social-aspects/>

(o) Main environmental impacts (risks and benefits)

The main environmental benefits of the project are:

Building new forests: a mix A/R is a key element to obtain an important synergy between the different natural resources existing in the area, and increase the protection of those basic elements: retaining water in the trees and soil to prevent flooding, prevent soil erosion protecting the nutrients and soil microelements, provide shelter to migratory and native animals and insects.

Forest Conservation: through this activity the project ensures native ecosystems connectivity; creating small corridors that impact positively the interconnectivity of different regional natural ecosystems.

Climate change: it is a climate project focus in mitigation strategies with the aim of fighting global warming.

Some low risks of the project are:

Climate impact: due to climate change strong winds, fires and/ or floorings can occur. Even though the project is aware of these situations and prepare to react, different animals and insect's species that form part of this ecosystem can be affected.

Project implementation: during the planting year, soil has to be prepared manually and with small machinery. In this sense the previous soil habitat can be affected. However after this activity the soil is protected during the rotation period and the creation and conservation of organic soil compensates such impact.

Thinning: there is a risk of affecting existing understory vegetation. However the main impact is in small bushes that recover really fast.

<http://www.forestfinance.de/en/our-forests/ecological-aspects/>

(p) Financial structure

The project has the support of the main investors that are part of the group, with a legal contract allowing them to clearly identify the part and percentage of their share inside the project. This includes a transparent process to provide land tenure titles, specify the owners of the resources inside the project (wood, CO2 and other resources). Further the group cooperates directly with different organization that area also part of the group (Colombia, Panama and Germany). The management expertise of this cooperation is a must to administrate the funds effectively, chose wisely the technical team for operational management and guarantee the permanence of the project and therefore guaranty the predicted revenue from the project.
<http://www.forestfinance.de/en/returns/calculation-of-returns/>

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| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input type="checkbox"/> New Area Certification |
| Guidelines applied for this certification |
| <input type="checkbox"/> A/R Guidelines - Mangroves These guidelines alter the 'A/R Requirements' and thus have an effect on this documentation. |

Please outline how your project meets each of the following requirements, referring to any *supporting documentation* where necessary. The formatting requirements provided in chapter 7.4 must be followed.

Social

Indigenous People and Local Communities

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|---|
| 1. Sites with legal and <u>customary rights</u> of <i>indigenous people and local communities</i> shall be identified, known and respected by the <u>workers</u> . |
| <input type="checkbox"/> Relevant <input checked="" type="checkbox"/> Not relevant |
| No indigenous areas or any cultural, ecological, religious or with spiritual significance is part of the project area. PAZ15-DNH1 http://geoactivismo.org/2011/06/07/territorios-indigenas-en-colombia-actualizacion-mapas/ |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

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| 2. Sites for special cultural, ecological, economic, religious or spiritual significance to the <i>indigenous people and local communities</i> shall be identified, known and respected by the <u>workers</u> . |
| <input type="checkbox"/> Relevant <input checked="" type="checkbox"/> Not relevant |
| No indigenous areas or any cultural, ecological, religious or with spiritual significance is part of the project area. PAZ15-DNH1 http://geoactivismo.org/2011/06/07/territorios-indigenas-en-colombia-actualizacion-mapas/ |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

3. The transfer of control of any activities from *indigenous people and local communities* to the project owner shall be documented.

Relevant Not relevant

No indigenous areas or any cultural, ecological, religious or with spiritual significance is part of the project area.

PAZ15-DNH1

<http://geoactivismo.org/2011/06/07/territorios-indigenas-en-colombia-actualizacion-mapas/>

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

4. The project shall not involve and shall not be complicit in the involuntary relocation of people.

Relevant Not relevant

No relocation of people occurred. See LSC information. Further the project respect indigenous areas (PAZ15 DNH7-page7)

<http://www.forestfinance.de/en/about-us/social-aspects/land-use/>

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

5. On sites with significant disputes, all operations should be stopped until the disputes are resolved.

Relevant Not relevant

Result from LSC proves that no disputes due to project implementation exist. *If theres any dispute, the project will follow the Input and Grievance mechanism*

<http://www.forestfinance.de/en/about-us/social-aspects/land-use/>

See also the LSC template

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'

Working Conditions

6. Workers shall be able to establish and join labour organisations.

Relevant Not relevant

The workers have a free consent with the employees to form a join labour organisation.

PAZ15-LEG2, page 22, Art 99, point 7

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring

6. Workers shall be able to establish and join labour organisations.

Plan'.

7. Workers and labour organisations shall be generally satisfied with their working agreements.

Relevant Not relevant

All the workers have a legal contract and all duties are specified to guaranty that the employees are satisfy with the working conditions. Every Monday all tasks are review by the team to analyse the possible challenges and also to clarify possible uncertainties. Capacity building is program based on the needs of the employees
PAZ15-DNH6

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

8. Working agreements with all individual workers shall be documented and implemented.

Relevant Not relevant

All the workers have a legal contract and all duties are specified to guaranty that the employees are satisfy with the working conditions. See list of employees. Based on the ID number they are register in Colpensiones: <http://www.colpensiones.gov.co/Default.aspx>
PAZ15-DHH5

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

9. There shall not be forced labour, as defined by the *ILO Forced Labour Convention*¹.

Relevant Not relevant

No forced labour exists in the company. All employees are well informed of their duties and responsibilities before writing and signing a contract. Further the company management is aligned with the Millennium Development Goals (MDG) and the enhancement of woman empowerment.

<http://www.forestfinance.de/en/about-us/social-aspects/>

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

10. There shall not be child labour, as defined by the *ILO Minimum Age Convention*².

Relevant Not relevant

There are no children working in the company. It is a policy of the company to stop child labour and instead

¹ ILO Forced Labour Convention [Link](#)

² ILO Minimum Age Convention [Link](#)

| |
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| 10. There shall not be child labour, as defined by the <i>ILO Minimum Age Convention</i> ² . |
| promote education. Therefore the company every year helps different schools from the project area enhancing the achievement of elementary education for all children. PAZ15-DNH7-page 3 |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

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| 11. If the host country did not ratify one or more of the 8 <i>ILO Fundamental Conventions</i> ¹ , the <u>project owner</u> shall provide a written affirmation to uphold them. |
| <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| Colombia ratify the ILO Fundamental Convention http://www.ilo.org/dyn/natlex/natlex_browse.country?p_lang=en&p_country=COL |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

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| 12. Copies of the 8 <i>ILO Fundamental Conventions</i> shall be available for <u>workers</u> . |
| <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| ILO principles are included in the management policies of the companies. The workers are aware of the principles. The following document was distributed: PAZ15-DNH2 |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

No Discrimination

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| 13. The <u>project owner</u> shall not be involved, and shall not be complicit, in any form of: (a) sexual harassment, AND (b) discrimination based on gender, race, religion, sexual orientation or any other basis. |
| (a) <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| Any attend of sexual harassment is forbidden and didn't happen until now. http://www.forestfinance.de/en/about-us/social-aspects/ |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

¹ ILO Fundamental Conventions [Link](#)

| | |
|---|--|
| 13. The <u>project owner</u> shall not be involved, and shall not be complicit, in any form of: | |
| (a) sexual harassment, AND | |
| (b) discrimination based on gender, race, religion, sexual orientation or any other basis. | |
| (b) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| The company select their employees based on their qualifications and professionalism. No discrimination is done due to gender, race religion or other. PAZ15-DNH7, page 3 | |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High | |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. | |

Anti-Corruption

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| 14. The <u>project owner</u> shall not be involved and shall not be complicit in corruption. The <u>project owner</u> shall publicise a commitment not to offer or receive bribes in money or any other form of corruption. The <u>project owner</u> shall comply with anti-corruption legislation where this exists. | |
| <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant | |
| See the anti-corruption declaration : PAZ15-DNH3 | |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High | |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. | |

Occupational Health & Safety

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| 15. There shall be a 'Health & Safety Policy' that is documented, implemented and regularly updated. This policy shall include at a minimum: | |
| (a) provisions for first aid, AND | |
| (b) provisions for the safe transport of <u>workers</u> , AND | |
| (c) provisions for timely evacuation of <u>workers</u> to an adequately equipped medical facility in case of serious accident, AND | |
| (d) a health insurance scheme for <u>workers</u> who are impacted by workplace accidents AND | |
| (e) if <u>workers</u> stay in camps for a longer period of time, measures shall to provided to ensure that conditions for accommodation and nutrition comply at least with those specified in the <i>ILO Code of Practice on Safety & Health in Forestry</i> ¹ . | |
| (a) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| One kit for every team according to the location of the MU and type of work that is required. The field kit contains antihistamines in case of snake bits. PAZ15-SFM1-pag 16, point 4 | |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High | |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. | |

¹ ILO Safety & Health in Forestry [Link](#) - criteria 226 to 229

15. There shall be a 'Health & Safety Policy' that is documented, implemented and regularly updated. This policy shall include at a minimum:

- (a) provisions for first aid, AND
- (b) provisions for the safe transport of workers, AND
- (c) provisions for timely evacuation of workers to an adequately equipped medical facility in case of serious accident, AND
- (d) a health insurance scheme for workers who are impacted by workplace accidents AND
- (e) if workers stay in camps for a longer period of time, measures shall be provided to ensure that conditions for accommodation and nutrition comply at least with those specified in the *ILO Code of Practice on Safety & Health in Forestry*¹.

(b) Relevant Not relevant

Regional employment is a priority for the company. Therefore most of the employees have a residence close to working place. In case that employees are coming from a further residence location. There is a house or camp that is used by the personal. In this sense risks of transit accident are reduced. The company manage their own transport vehicles to take and bring back the workers from the plantations. All vehicles such as trucks and autos have the legal permits to circulate and a maintenance plan.
PAZ15-SFM1-page16, point 4- page 114, ficha 3

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(c) Relevant Not relevant

There is a plan considered in case an accident occurs. The employees are qualified to provide basic first aids. Further the closest Nurseries and hospitals are located.
PAZ15-SFM1-page16, point 4- page 114, ficha 3

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(d) Relevant Not relevant

All the employees have a social insurance to cover the expenses. The number of ID is the same as the code used in the insurance.
PAZ15-SFM1-pag 16, point 4.

All employees are affiliated to the governmental insurance, called Colpensiones:
<http://www.colpensiones.gov.co/Default.aspx>
PAZ15-DHN5

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(e) Relevant Not relevant

ILO Code of Practice of Safety and Health in Forestry is part of the policies of the project and information to aware the employees is summited during capacity building and also is provided in the farms as information
PAZ 15-SFM1 , page 17, point 4, PAZ15-DNH2
As a harmonization process the project agree to create some term and conditions and principle and criteria

15. There shall be a 'Health & Safety Policy' that is documented, implemented and regularly updated. This policy shall include at a minimum:

- (a) provisions for first aid, AND
- (b) provisions for the safe transport of workers, AND
- (c) provisions for timely evacuation of workers to an adequately equipped medical facility in case of serious accident, AND
- (d) a health insurance scheme for workers who are impacted by workplace accidents AND
- (e) if workers stay in camps for a longer period of time, measures shall be provided to ensure that conditions for accommodation and nutrition comply at least with those specified in the *ILO Code of Practice on Safety & Health in Forestry*¹.

that will be respected to integrate and harmonize all the processes (PAZ15-LEG4)

For detail also see document PAZ15-LEG4, page 4, point 2.6- were all companies have the compromise to have the camps respecting health conditions of the employees. Further in point 2.5 it is possible to see that there is a person that will have a role of supervising, monitoring and keeping best practice in the camps.

See also PAZ15-DNH13, were all 3 companies provide a manual with all norms to maintain the safety and health of the camps.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

16. An individual shall be appointed to have overall responsibility for 'Health & Safety' at the worksite.

Relevant Not relevant

See PAZ 15-DNH10

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

17. Workers shall have job-specific training and supervision to safely implement the project.

Relevant Not relevant

With regularly capacity building from the team

PAZ 15-DNH6

PAZ 15-SFM1-page 141, ficha 3.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

18. Workers shall have safe protective equipment, tools and machinery appropriate for their work.

Relevant Not relevant

Based in the capacity building for health and safety and company policies

PAZ 15-SFM1-page 141, ficha 3.

18. Workers shall have safe protective equipment, tools and machinery appropriate for their work.

See document PAZ15-SFM5 to SFM9, were all information regarding capacity building to employees for the correct management of equipment, instructions for specific work activities, steps to follow in emergency cases due to fires, use of equipment for personal protection is provided.

See document PAZ15-SFM9, page 9 and 10 to see the correct procedure regarding noise of tractors

Capacity building is planed every year and corrective actions to prevent that employees have the knowledge to follow the safety procedures in their working positions. See as example PAZ 15-SFM8

Further see document PAZ15-SFM12, a risk analysis was performed for the project in 2015.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

Environmental

Tree species

19. The genotypes of the tree species planted shall be well-adapted to the site.

Relevant Not relevant

All species are monitor and planted according to soil and regional conditions. The project has their own Nursery to guaranty the adaptability of the species.

PAZ15-SFM1-page 30, point 7.2

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

20. *Exotic tree species*¹ shall not be used, unless direct experience, or scientific research, demonstrate that there is, or can be, no invasiveness and no adverse impacts.

Relevant Not relevant

The project selected species that were previously used in the Vichada region. The specie are well adapted to the country. A previous analysis of the soil conditions and other elements was done before taking this initiative in consideration

PAZ15-SFM1-page 30, point 7.2

See the proposal to control possible impacts of the species planted.(PAZ15-SFM3)

¹ Exotic tree species (Source: FSC) A species, subspecies or lower taxon, introduced outside its natural past or present distribution; includes any part, gametes, seeds, eggs, or propagules of such species that might survive and subsequently reproduce.

20. *Exotic tree species*¹ shall not be used, unless direct experience, or scientific research, demonstrate that there is, or can be, no invasiveness and no adverse impacts.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

Habitat connectivity

21. Through a smart mosaic of the planting areas, buffer zones and infrastructure habitat connectivity for flora and fauna should be enhanced.

Relevant Not relevant

A study was conducted to determinate the positive ecological and environmental impact of the project in different areas. Further there are small patches of native vegetation and areas along the watersheds and streams that are used as corridors for different species.

PAZ15-SFM1-page 102,point 9.2.2.2: planting areas act like temporary habitats for migratory species. There are indicators of vulnerable species, especially in the conservation areas. The protection of these zones enhances connectivity of certain species with other national natural corridors.

Currently the project is planting 5 types of tree species. However the project has also sampling fields with other tree species. If the species selected are able to adapt to the region, they will be planted also for commercial purposes. A wider variety of species part of the project, will allowed also the project to reduce the plot area planted with one tree species and reduce the risks mentioned by the auditor.

Further, the project has a plan to prevent and control fire (PAZ15-SFM1, page 46). One preventive action are fire brakes: every 12 hectares there are roads of 20 meters and fire breaks of 40 meters close to conservation areas of other of relevance (PAZ15-SFM1, page 40)

Against Plagues, a phytosanitary plan is in place with focus in biological methods to reduce the chemicals that can be used(PAZ15-SFM1, page 42-43)

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

GMOs

22. *Genetically Modified Organisms (GMOs)*¹ as defined by FSC shall not be used.

Relevant Not relevant

Not applicable. There are no GMOs used in the project.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

¹ GMO

(Source: FSC) An organism in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination. See 'FSC Interpretation on GMO - FSC-POL-30-602': <https://ic.fsc.org/policies.338.htm>

Biodiversity

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|---|
| 23. Minimum 10% of the project area shall be <i>identified and managed</i> to protect or enhance the <i>biological diversity</i> ¹ of <i>native ecosystems</i> ² . For this, the <i>HCV</i> ³ approach should be followed. |
| <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| At least 10 % of the project area is classified as conservation area PAZ15-MAP1 |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

| |
|--|
| 24. (a) Existing patches of trees or single solitary stems of <i>native tree species</i> ⁴ , AND (b) habitats of <i>endangered species</i> ⁵ shall always be <i>identified and managed</i> to protect or enhance the <i>biological diversity</i> ³ |
| (a) <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| Small patches of native vegetation and areas along the watersheds area classified as natural conservation areas. Further the conservation areas are managed to enhance natural habitat rehabilitation. PAZ15-SFM1-page 94, point 9.2.1.1 |
| Native disperse trees remain untouched in the field. An inventory of the remaining trees will be established as monitoring strategy |
| See PAZ15-DNH14 with some pictures how vegetation is respected. The management plan (PAZ15-SFM1), which is also available to all employees, contains different aspects regarding flora and fauna commitment and monitoring (see pages 101 to 113) of the project, so as a reporting system (see page 192-SMB1 Seguimiento de la Flora Endemica and page 195-SMS2 Seguimiento de del area plantada sobre el area de conservación) |
| Further more information will be provided to the employees regarding conservation activities and other of relevance. PAZ15-SM10 page 1 and 2 - presents some updated actions already done to improve this topic PAZ15-DNH15- posters that will be distributed in the camps |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring |

¹ Biological diversity (Source: FSC) The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems.

² Native ecosystem (Adapted from FSC) Sites to favour or restore native species and associations of native species that are typical of the locality, and for managing these associations and other environmental values so that they form ecosystems typical of the locality.

³ HCV High Conservation Value - www.HCVnetwork.org

⁴ Native tree species (Source: FSC) Species, subspecies, or lower taxon, occurring within its natural range (past or present) and dispersal potential (that is, within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).

⁵ Endangered species All *endangered* and *critically endangered* species as defined by the IUCN Red List - www.IUCNredlist.org

24. (a) Existing patches of trees or single solitary stems of *native tree species*⁴, AND
(b) habitats of *endangered species*⁵
shall always be *identified* and *managed* to protect or enhance the *biological diversity*³

Plan'.

(b) Relevant Not relevant

PAZ15-SFM1-page 94, point 9.2.1.1

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

Erosion

25. To ensure healthy soils the following aspects shall be identified and appropriate measures shall be put in place to protect them:
(a) soil types, AND
(b) biota, AND
(c) erosion, AND
(d) compaction.

(a) Relevant Not relevant

A soil analysis is done before planting to choose the best tree species that will adapt to these soil specific conditions.

PAZ15-SFM1-Page 84,85 point 9.1.4.

The soil sampling test and the implementation of other PPMs will allowed the project to elaborate a soil map and keep a monitoring system of the increase of organic soils.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(b) Relevant Not relevant

To prevent possible soil compaction, erosion and protect the biota from the MUs, the forest model that is use protects the biomass that grows under the canopy. This allows the plantation to keep soil nutrients. Further the native species root systems are adapted to the soil type to prevent erosion. Thinning and pruning is done manually and mechanical to prevent possible soil compaction.

PAZ15-SFM1-Page 84,85 point 9.1.4.

After initial soil preparation it is planned a sustainable soil management to increase organic soil formation and decrease the existence of poor compacted soils in the region. See Paz15-DNH14, pictures 7,8,9

Please see the description of the machinery used during ploughing activities for soil preparation. The project invested in high technology machinery to reduce the impact of using this methodology (PAZ15-SFM1-page 39, point 7.5, Manejo del suelo y preparación del terreno)

Future risk of non-compliance: Low Medium High

25. To ensure healthy soils the following aspects shall be identified and appropriate measures shall be put in place to protect them:

- (a) soil types, AND
- (b) biota, AND
- (c) erosion, AND
- (d) compaction.

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

...

(c) Relevant Not relevant

PAZ15-SFM1-Page 84,85 point 9.1.4.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(d) Relevant Not relevant

PAZ15-SFM1-Page 84,85 point 9.1.4.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

26. Ploughing on slopes with a gradient greater than 10% (5°) shall follow the land contour.

Relevant Not relevant

Not applicable due to geographical location (savannah)

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

Fertilizers

27. Fertilizers shall be avoided, or their use shall be minimised and justified.

Relevant Not relevant

PAZ15-SFM1-Page 50, point 7.6

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

28. If the aerial application of fertilizer is used, then measures shall be put in place to prevent drift.

| |
|--|
| 28. If the aerial application of fertilizer is used, then measures shall be put in place to prevent drift. |
| <input type="checkbox"/> Relevant <input checked="" type="checkbox"/> Not relevant |
| Not applied |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

Chemical pesticides

| |
|--|
| 29. Chemical pesticides shall be avoided, or their use shall be minimised and justified. |
| <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| The project follows the principle of FSC for the use of fertilizers and chemical pesticides PAZ15-SFM1-Page 50, point 7.6 |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

| |
|--|
| 30. Chemical pesticides shall be used in accordance with the <i>FSC Pesticides Policy</i> ¹ . |
| <input type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| The project follows the principle of FSC for the use of fertilizers and chemical pesticides PAZ15-SFM1-Page 17, point 4 |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. |

| |
|---|
| 31. There shall be a 'Chemical Pesticides Policy' that is documented, implemented and regularly updated. This policy shall include at a minimum: (a) provisions for safe transport, storage, handling and application, AND (b) provisions for emergency situations. |
| (a) <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| The project follows a chemical pesticides policy. Capacity building is constantly being done to guaranty the health and safety of the employees. PAZ15-SFM1-Page 17, point 4 For formal corporate policy : See document PAZ15-LEG4, page 4, point 2.6- the project will follow the FSC principle to reduce the use of pesticides and when it is necessary they will use pesticides that cause the less impact and will be use in minimum proportions. For accidents see the risk analysis PAZ15-SFM12 Further see as complement document PAZ15-SFM13, with the detailed policies and procedures to handle with pesticides. |

¹ FSC Pesticides Policy See guideline FSC-GUI-30-001 on www.pesticides.fsc.org

| | |
|---|--|
| 31. There shall be a 'Chemical Pesticides Policy' that is documented, implemented and regularly updated. This policy shall include at a minimum: (a) provisions for safe transport, storage, handling and application, AND (b) provisions for emergency situations. | |
| Last places identify by auditors will be closed or pesticides will be move to another safer place. | |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High | |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. | |
| | |
| (b) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| The project follows a chemical pesticides policy. Capacity building is constantly being done to guaranty the health and safety of the employees. PAZ15-SFM1-Page 17, point 4 | |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High | |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. | |
| | |

| | |
|--|--|
| 32. In the case that chemical pesticides are used and two or more different chemical pesticides are equally effective, the least hazardous chemical pesticide shall be used. | |
| <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant | |
| The project applies the FSC least hazardous chemical pesticide use approach. The company use only pesticides which are permitted by FSC due to its "least hazardous chemical " approach, PAZ15-SFM1-Page 51, point 7.6 | |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High | |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. | |
| | |

Biological control agents

| | |
|--|--|
| 33. <i>Biological control agents</i> ¹ shall be avoided, or their use shall be minimised and justified. | |
| <input type="checkbox"/> Relevant <input type="checkbox"/> Not relevant | |
| Not applied | |
| Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High | |
| If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'. | |
| | |

Water resources

¹ Biological control agents (Source: FSC) Organisms used to eliminate or regulate the population of other organisms.

| | |
|---|--|
| <p>34. On both sides of permanent or temporary <i>water bodies</i> (lakes, streams, rivers, wetlands, etc.) riparian buffer zones of 15 meters shall be implemented on each site. In these riparian buffer zones:</p> <p>(a) only <i>native tree species</i>¹ may be <u>planted</u>, AND</p> <p>(b) <i>invasive species</i>² shall be removed, AND</p> <p>(c) all existing vegetation shall be kept, AND</p> <p>(d) no timber harvesting activities shall take place, AND</p> <p>(e) no use of fertilizer or chemical pesticides.</p> | |
| (a) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| <p>Native vegetation is protected in the conservation areas. This includes areas close to rivers, so as gallery native vegetation. PAZ15-SFM1-Page 92, point 9.2.</p> | |
| <p>Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High</p> | |
| <p>If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'.</p> | |
| (b) | <input type="checkbox"/> Relevant <input checked="" type="checkbox"/> Not relevant |
| <p>No invasive tree species have been detected in the project area. All possible invasive bushes are cleaned for planting purposes. Any invasive bush is eliminated once the farm has mature trees. PAZ15-SFM1-Page 92, point 9.2.</p> | |
| <p>Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High</p> | |
| <p>If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'.</p> | |
| (c) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| <p>All patches of native shrubland and forest are classified as conservation zones PAZ15-SFM1-Page 92, point 9.2.</p> | |
| <p>Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High</p> | |
| <p>If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'.</p> | |
| (d) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| <p>A 15 meter buffer is designated as riparian buffer zone and classified as protection area. PAZ15-SFM1-Page 92, point 9.2.</p> | |
| <p>Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High</p> | |
| <p>If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'.</p> | |
| (e) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| <p>Watersheds are by law protected and shall not be polluted. The areas designated for conservation are part of successful system permitting natural regeneration and therefore there is no need to use pesticides. PAZ15-SFM1-Page 63, point 8.2</p> | |

¹ Native tree species (Source: FSC) Species, subspecies, or lower taxon, occurring within its natural range (past or present) and dispersal potential (that is, within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).

² Invasive species (Source: FSC) Species that are rapidly expanding outside of their native range. Invasive species can alter ecological relationships among native species and can affect ecosystem function and human health.

34. On both sides of permanent or temporary *water bodies* (lakes, streams, rivers, wetlands, etc.) riparian buffer zones of 15 meters shall be implemented on each site. In these riparian buffer zones:

- (a) only *native tree species*¹ may be planted, AND
- (b) *invasive species*² shall be removed, AND
- (c) all existing vegetation shall be kept, AND
- (d) no timber harvesting activities shall take place, AND
- (e) no use of fertilizer or chemical pesticides.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

35. The flows of *water bodies* shall not be blocked.

Relevant Not relevant

Water bodies are not blocked or drained, but managed as protection areas. The plan was approved by the respective DNA. PAZ15-SFM1-Page 56, point 8.1.1.

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

36. The groundwater in and around the planting area shall not be negatively affected by the project.

Relevant Not relevant

Ground water eyes are classified as protection areas. Further the protection of vegetation that grows under the canopy allows the farms to keep soil moisture and also to retain all soil nutrients that can be percolated to possible ground water bodies. PAZ15-SFM1-Page 63, point 8.2

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

Waste

37. All sources of waste and *waste products* shall be identified and classified. *Waste products* include amongst others:

- (a) chemical wastes, AND
- (b) containers, AND
- (c) fuels and oils, AND
- (d) human waste, AND
- (e) rubbish (including metals, plastics, organic and paper products), AND
- (f) abandoned buildings, machinery or equipment.

(a) Relevant Not relevant

The employees have received capacity building to treat chemical waste safety and in accordance with the law. PAZ15-DNH6

Future risk of non-compliance: Low Medium High

37. All sources of waste and *waste products* shall be identified and classified. *Waste products* include amongst others:

- (a) chemical wastes, AND
- (b) containers, AND
- (c) fuels and oils, AND
- (d) human waste, AND
- (e) rubbish (including metals, plastics, organic and paper products), AND
- (f) abandoned buildings, machinery or equipment.

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(b) Relevant Not relevant

Chemical residues are kept in safety containers. The containers are properly tagged and store in safe places. PAZ15-SFM1, page 70

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(c) Relevant Not relevant

Fuels and oils are kept in safety containers. The containers are properly tagged and store in safe places. PAZ15-SFM1, page 70

(d) Relevant Not relevant

Human waste is treated following national laws and procedures. No waste is through to any watersheds. PAZ15-DNH7

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(e) Relevant Not relevant

Organic waste is treated directly inside the planting area to reduce possible waste. Inorganic waste is collected every week and managed by the regional competence. PAZ15-SFM1, page 70

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(f) Relevant Not relevant

No machinery, building or equipment had been until the moment classified as waste. PAZ15-SFM1, page 70

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

| | |
|---|--|
| <p>38. Measures for waste products and their spillage shall be put in place for safe and environmentally appropriate:</p> <p>(a) collection, AND (b) transport, AND (c) storage, AND (d) handling, AND (e) disposal.</p> | |
| (a) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| <p>The company follows all the national regulations from the DNA related with disposal management and also applies the regional regulations</p> <p>Further the company follows also the ecological principle from FSC regarding waste, pesticides and chemical products management.</p> <p>Both solid and liquid organic and inorganic wastes are collected and stored using Good Management Practices (GMP). The company protects the environment and assures that the waste is transported on a safe way and that is delivered to the respective regional or national institution that is responsible of the management of waste and disposals.</p> <p>PAZ15-SFM1, page 70, point 8.3</p> | |
| <p>Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High</p> | |
| <p>If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'.</p> | |
| (b) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| <p>PAZ15-SFM1, page 70, point 8.3</p> | |
| <p>Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High</p> | |
| <p>If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'.</p> | |
| (c) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| <p>PAZ15-SFM1, page 70, point 8.3</p> | |
| <p>Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High</p> | |
| <p>If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'.</p> | |
| (c) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |
| <p>PAZ15-SFM1, page 70, point 8.3</p> | |
| <p>Future risk of non-compliance: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High</p> | |
| <p>If the risk is 'medium' or 'high' describe the mitigation measure and add it to the 'Sustainability Monitoring Plan'.</p> | |
| (d) | <input checked="" type="checkbox"/> Relevant <input type="checkbox"/> Not relevant |

38. Measures for waste products and their spillage shall be put in place for safe and environmentally appropriate:

- (a) collection, AND
- (b) transport, AND
- (c) storage, AND
- (d) handling, AND
- (e) disposal.

PAZ15-SFM1, page 70, point 8.3

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

(e) Relevant Not relevant

PAZ15-SFM1, page 70, point 8.3

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

Mangroves

1. 90% of the planting area shall be planted with *mangrove species*¹.

Applicable, as the 'A/R Guidelines – Mangroves' will be followed.

Not applied

Future risk of non-compliance: Low Medium High

If the risk is 'medium' or 'high' describe the **mitigation measure** and add it to the 'Sustainability Monitoring Plan'.

¹ Mangrove species Mangrove species are defined by the "World Atlas of Mangroves" - [Link](#)

| |
|---|
| Project Title |
| Vichada Climate Reforestation Project |
| Gold Standard ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> New Area Certification |
| Dual Certification |
| <input type="checkbox"/> FSC - Dual certification |
| If the project is certified according the Forest Stewardship Council (FSC), the certification status replaces the completion of this template. Please provide the 'FSC Audit Report' in the <i>supporting documents</i> of section '3. Sustainability' and provide a reference to this <i>supporting document</i> in this template: |

Design of physical meeting(s)

| |
|--|
| Agenda |
| <p>A face to face meeting was performed by the project at a regional level to explain the project activities and receive the opinion and feedback from key stakeholders. The agenda included the following topics:</p> <ul style="list-style-type: none"> - Opening of the meeting: - Explanation of the project; based on the content of the 'Key Project Information' - Discussion of continuous input and grievance mechanism - Questions for clarification about the project - Blind 'SD Matrix' exercise - Discussion on monitoring the mitigation measures - Closure of the meeting <p>Luisa Azabache was the responsible contact to perform the meetings</p> |

Invitation tracking table

| Category code | Organisation (if relevant) | Name of invitee | Way of invitation | Date of invitation | Confirmation received? Y/N |
|---------------|----------------------------|-------------------|-------------------|--------------------|----------------------------|
| A | neighbours | Different Members | Personal | April 2015 | Y |
| B | Municipality | Different members | Personal | April 2015 | Y |
| F | CO2less, FOFI Group | Different members | Email | April 2015 | Y |
| E | GS | Technical Panel | email | April 2015 | Y |

| |
|---|
| Describe your selection |
| The project has an important international cooperation with the Forest Finance Group. Therefore |

Describe your selection

international stakeholders are already aware of the project and the future plans. This is of relevance for future international and national cooperation. For example, the project is already working in cooperation with WWF for a conservation initiative. Further GS secretariat and other stakeholders were invited to participate of the online (printed in case of limited internet access) survey to evaluate the project and provide their feedback. This will be a constant method to receive feedback from the different parts.

The project has also a strong regional connection with the municipality and the neighbours. They were key stakeholders to complement the survey. Both surveys are available in

English: <https://de.surveymonkey.com/s/78GBHJ5>

and Spanish: <https://de.surveymonkey.com/s/98BD5N2>

Text of individual invitations

Forest Finest Colombia is implementing a reforestation project with the aim of contributing to the mitigation of climate change.

If you are part of an organization or a private person that cooperates with the project, we will like to invite you to participate of this survey that is part of our Project Stakeholder Consultation (PSC)

Your feedback is vital to plan future actions, improve our monitoring work and prevent and solve possible grievances.

Our team and the climate appreciate your support

Kind regards

Forest Finest Team

Description of other consultation methods used

The online survey will be available during the crediting period to obtain a constant feedback of the stakeholders. Further the Forest Finest Magazine also includes a section were questions can be answer about the project:

Link: <http://www.forestfinance.de/ueber-uns/infomaterial/magazin/>

Participants' in physical meeting(s)

Reference ID to the original participants' list

PAZ15-LSC2

Additional comments:

Participants list

| | |
|----------------------|-------------------------|
| Date and time | May 2015 |
| Location | Puerto Carreño, Vichada |

| Category Code | Name of participant, job/ position in the community | Male/Female | Signature | Organisation (if relevant) Category Code |
|---------------|---|-------------|------------|--|
| A | Independent agrarian professional | M | PAZ15-LSC2 | Neighbour |
| A | CORPORINOQUIA | F | PAZ15-LSC2 | Neighbour |
| B | Vichada Government representant | F | PAZ15-LSC2 | Municipality |
| B | Vichada Government representant | M | PAZ15-LSC2 | Municipality |
| A | Farmer-La Libertad | F | PAZ15-LSC2 | Neighbour |
| F | Project cooperation | F | PAZ15-LSC2 | Vichada Group |
| A | Independent | F | PAZ15-LSC2 | Vichada Group |

Evaluation forms

Reference ID to the original 'evaluation forms'

PAZ15-LSC2

Additional comments:

Summarise the main comments in the table below (please translate into English if necessary). Provide references to the individual 'evaluation forms'.

What is your impression of the meeting?

Helps to understand better the objectives and goals from the project and how the project is aligned with mitigation to climate change strategies

| | |
|--|--|
| <p>What do you like about the project?</p> | <p>The project is positive for the region. It provides directly employment in this marginal area to regional people. It was important to understand that the project is not only planting different trees, but also doing something for climate change. The project is protecting the last patches of forest that are left. This will help to protect flora and fauna (biodiversity) on the coming years. The school "Nueva el Carajo" with more than 30 students receives the economic support of the project, to educate the children, future of the country. We understand that the employees receive a fair salary in accordance to law and social security affiliation is a guaranty of this.</p> |
| <p>What do you not like about the project?</p> | <p>Something to improve-recommendation-The project should begin campaigns to increase the awareness for doing something against climate change</p> |

Pictures from physical meeting(s)

PAZ15-LSC2

Outcome of consultation process

Minutes of physical meeting(s)

Forest Finest Colombia is implementing a reforestation project with the aim of contributing to the mitigation of climate change. The project is located in the Orinoquia region, Colombia. In the project framework mixed tree species in marginal, non-forest areas are planted. Reforestation will increase biomass of the planting areas and sequester carbon dioxide (CO₂), which is one of the main Greenhouse Gases (GHG); and according to the Intergovernmental Panel on Climate Change (IPCC), one of the responsible gases causing global warming.

Stakeholders are aware of the project objective and think is positive to work with the 3 pillars of sustainability. They like that the project protects also the native areas. They believe that is important to collaborate with the municipality and enhance strategies for conservation.

Employment is a common topic and they think is positive that the project hires regional people for the work. Technology transfer is of great importance. The area is isolated from the main cities

Assessment of all comments

| Stakeholder comment | Was comment taken into account (Y/N) | Explanation (Why? How?) |
|---------------------|--------------------------------------|-------------------------|
|---------------------|--------------------------------------|-------------------------|

| | | |
|---------------------------------|-----|---|
| Improve conservation strategies | YES | The project is working in cooperation with the WWF (PAZ15, page 14) |
| Increase regional work | YES | The project provides work to regional people (PAZ15-DNH5) |
| Technology know how transfer | YES | The project is working with international stakeholders to increase know how transfer. Part of the FOFI Group. |

Summary of alterations based on comments

The main aspects mentioned by the stakeholders were already taken into consideration (improve conservation strategies, increase regional work, technology transfer)

Sustainable Development Assessment

Sustainable Development Assessment of the project owner:

| Indicator | Description and Score | Mitigation measure |
|-------------------------------|-----------------------------------|--|
| Environment | Category score: 0/+1/-1 | |
| 1. Air quality | Indicator score:+1 | As baseline scenario, savannah was identify. In this scenario it was also possible to detect the presence of cattle which are emitters of methane. Climate Project-GS certification: The project is a climate project, sequestering carbon dioxide. Indirectly contributes to the improvement of air quality worldwide. Also avoids the emissions generated by methane. |
| 2. Water quality and quantity | Indicator score: +1 | Forestry and Water-Conservation areas: The project protects all areas close to rivers and lakes as conservation areas. This enhances the conservation of aquifers ecosystems. |
| 3. Soil condition | Indicator score: +1 | Soil baseline was classified as degraded soils. With a Sustainable Management, the project pretend to improve soil conditions, increase nutrients and long term soil conservation |
| 4. Other pollutants | Indicator score: 0 | Baseline: it is common that in the region due to lack of professional knowledge different types of fertilizers are sold and buy. Within this list, different substances which are toxic can be used without regulation. Fertilizers and Pesticides- As mitigation action, to avoid the use of strong pollutants and fertilizers, the company follows the FSC List of allowed pesticides. This helps the company to avoiding strong and dangerous pesticides and fertilizers; existing in the market |
| 5. Biodiversity | Indicator score: +1 | Protection of Flora and Fauna: as mitigation measure the company buys also areas to protect them as "Conservation areas" and protect biodiversity. The goal is to enhance the creation of corridors between other natural regions. This mitigation measure |

| Sustainable Development Assessment of the <u>project owner</u> : | | |
|--|----------------------------|--|
| Indicator | Description and Score | Mitigation measure |
| | | creates interconnectivity between endemic natural areas. It is not allowed to hunt or cut trees or vegetation inside these areas. (PAZ15-LSC1, page14) |
| Social Development | | |
| 6. Quality of employment | Indicator score: +1 | Baseline: little was done before the company arrive to the region and create new fix employment. The creation of new positions was not only the main purpose, but instead to select a team of people that can stay there on a long term. Sustainable environment: The company provides every year different capacity buildings in diverse technical topics related with sustainable management |
| 7. Livelihood of the poor | Indicator score: +1 | Baseline: little was done before the company arrive to the region and create new fix employment. The creation of new positions was not only the main purpose, but instead to select a team of people that can stay there on a long term was conformed. Creation of employment: The company not only provides direct employment but also cooperates with the municipality, contributing with initiatives to cover basic needs. |
| 8. Access to affordable and clean energy services | Indicator score: 0 | Baseline: some parts of the areas were the project was/ is implemented didn't have access to energy. There was no road, or the road didn't have a proper maintenance. There was no grid to provide electricity or if there was problem with the grid, the company was not coming due to road conditions Improvement of Infrastructure: The company provides all basic services to all the offices and camps part of the project. Further, the maintenance of roads allows the authorities to also give a faster maintenance to the basic needs installations: water pipelines, energy grids, etc. |
| 9. Human and institutional capacity | Indicator score: +1 | Baseline: most of the regions have education to achieve basic education. In some cases families don't have enough money to educate their children. Not even basic education is achieved. Part of the Millennium development goals is to achieve basic education http://www.un.org/millenniumgoals/ Capacity Building: Employees are encouraged to be part of technical and management capacity building programs to improve their working skills. |
| Economic & Technical Development | | |
| 10. Quantitative employment and income generation | Indicator score: +1 | Baseline: low salaries, under the law, without contact and any health or accident insurance for the employees Diversification of work positions: as mitigation to this scenario, the company has policies and also clear statutes aligned with fair conditions .The company has a sustainable growth and new work positions are available. Salary and health insurance are in accordance with the law from the country |
| 11. Access to investment | Indicator score: 0 | Baseline: no alternatives to invest in land use / forestry projects. The project provides loans to the employees working at project level so it can be invested in different purposes: education, house |

| Sustainable Development Assessment of the <u>project owner</u> : | | |
|--|----------------------------|--|
| Indicator | Description and Score | Mitigation measure |
| | | building, etc. There's also a fund in case of prolonged injuries or a family member is sick and requires special equipment, which I not cover by the insurance. |
| 12. Technology transfer and technological self-reliance | Indicator score: +1 | Baseline: lack of know how in forestry in new and innovative forestry concepts. Use of mix species, recognize certification schemes (GS), or implement a bee project in plantations International stakeholders participation: International cooperation between Germany and Colombia allows to transfer technology and the know how between professionals from both sides http://www.forestfinance.de/en/our-forests/research/ |

| Justification choices, data source and provision of references | |
|--|--|
| Environment | |
| 1. Air quality | Aligned with mitigation to climate change strategies: CO2OL and CO2less contributes with strategies to reduce carbon footprint from relevant companies that trust the compensation measurements taken in the project http://co2less.org/ http://co2less.org/ |
| 2. Water quality and quantity | Forests act like sponges preventing of flooding during rainy periods and providing water through percolation in dry seasons See conservation areas location in PAZ15-MAP1 |
| 3. Soil condition | The baseline soil conditions present low fertility and high acidity. (PAZ15-SFM1, page26). The Sustainable Management Plan will improve the long term conditions. Impact is expected during the first years due to implementation, but an improvement during the life cycle of the project (PAZ15-SFM1, page 7, 129), |
| 4. Other pollutants | Follow the WHO and FSC-policy to avoid the use of Highly Hazardous Pesticides (PAZ15-SFMI, page 145) |
| 5. Biodiversity | Work with international initiatives to protect areas of biological importance (PAZ15-LSC1,page14) |
| Social Development | |
| 6. Quality of employment | Goal: provide a safe working conditions, pay salaries following national laws and provide capacity building (PAZ15-SFM1, page 139) |
| 7. Livelihood of the poor | Goal: Generate a communication system with the communities and avoid and solve possible conflicts.(PAZ15-SFM1,page 193), generate regional employment and provide capacity building (PAZ15-SFM1, page 139) |
| 8. Access to affordable and clean energy services | The company provides all basic services to all the offices and camps part of the project. Further, the maintenance of roads allows the authorities to also give a faster maintenance to the basic needs installations: water pipelines, energy grids, etc (PAZ15-SFM1, page 175). |
| 9. Human and institutional capacity | Employees are encouraged to be part of technical and management capacity building programs to improve their working skills (PAZ15-SFM1, page 193). |
| Economic & | |

| Justification choices, data source and provision of references | |
|--|---|
| Technical Development | |
| 10. Quantitative employment and income generation | The company has a sustainable growth and new work positions are available. Salary and health insurance are in accordance with the law from the country https://www.forestfinance.de/en/about-us/social-aspects/working-conditions/ |
| 11. Access to investment | Special Fund for employees. Information confidential and available upon auditor site visit request. |
| 12. Technology transfer and technological self-reliance | International cooperation between Germany and Colombia allows to transfer technology and the know how between professionals from both sides http://www.forestfinance.de/en/our-forests/research/ |

| Summary of Sustainable Development Assessment of the stakeholders - BLIND exercise: | | |
|---|--|--|
| Indicator | Description and Score | Mitigation measure |
| Environment | Category score: 0 (neutral)/+1 (positive)/-1 (negative) | |
| 13. Air quality | Climate Project Indicator score: +1 | “Clean Air” air quality improvement worldwide with the absorption of CO2 |
| 14. Water quality and quantity | Forestry and Water Indicator score: 0 | Forests absorb water preventing from landslides and floodings |
| 15. Soil condition | Soil restoration and protection Indicator score: 0 | Creation of an organic layer from the falling of leaves preventing rain drop erosion |
| 16. Other pollutants | Fertilizers and Pesticides Indicator score: 0 | “Provide protection to employees and also reduce the amount needed. Avoid dangerous substances” |
| 17. Biodiversity | Flora and Fauna Indicator score: +1 | The project protects areas with native vegetation and endemic species, giving shelter to native flora and fauna “ |
| Social Development | | |
| 18. Quality of employment | Sustainable environment Indicator score: +1 | All employees receive a salary in accordance to the laws from the country. They have a health insurance affiliation. No children work in the plantations |
| 19. Livelihood of the poor | Creation of employment Indicator score: +1 | Regional employment, maintenance of roads, support to regional institutions and communitarian events |
| 20. Access to | Improvement of Infrastructure | Indirect impact: maintenance of roads |

| Summary of Sustainable Development Assessment of the stakeholders - BLIND exercise: | | |
|---|--|--|
| Indicator | Description and Score | Mitigation measure |
| affordable and clean energy services | Indicator score: 0 | for easy access to installations (energy grid, potable water, etc.) |
| 21. Human and institutional capacity | Capacity Building Indicator score: +1 | For employees and also private voluntary persons from the region: teaching them new methodologies and tools to improve their knowledge and work experience |
| Economic & Technical Development | | |
| 22. Quantitative employment and income generation | Diversification of work positions Indicator score: +1 | The company is growing and new work positions are available. |
| 23. Access to investment | Investment and supporting Fund Indicator score: 0 | Product investment and also fund for special employee circumstances (confidential). |
| 24. Technology transfer and technological self-reliance | International stakeholders participation Indicator score: +1 | The company had send expertise from all around the world (specially Germany) to transmit technology know how and also learn regional technics |

| Comments accompanying the BLIND exercise |
|---|
| The stakeholders will like that project work in close cooperation with the regional governmental institution to increase the importance of conservation. The project is already doing this. |

| Main differences |
|--|
| <p>A ponderation of the values was done to obtain a final result that is illustrated below in the consolidated matrix (PAZ15-LSC2)</p> <p>Some stakeholders used the digital document. All documents, printed and digital versions were added at the end for the analysis.</p> <p>A ponderation was always done. The value with the highest percentage was taken:</p> <p>BLIND MATRIX</p> <ul style="list-style-type: none"> A. Improve air quality (+1) with 87,50%Template B. Water (neutral) with 62.50% C. Improve soil (neutral) 62.50% D. Pesticides (neutral) 87,50% E. Biodiversity (+1) with 62.50% <p>See page 8 (PAZ15-LSC2)</p> <p>Following the GS Guideliness a ponderation was done to obtain the final score.</p> <p>Answer of the project owner and stakeholders were combined and the highest percentage was used. For topics A, D, E opinion is the same opinion. For topic B, C the project change to (+1) with the highest</p> |

Main differences

percentage. None (-1) were score in average; neither LSC nor project owner.

- A. Improve air quality (+1) with 93,75%
- B. Water (+1) with 65,25%
- C. Improve soil (+1) 68.75%
- D. Pesticides (neutral) 93,75%
- E. Biodiversity (+1) with 81.25%

See page 12 (PAZ15-LSC2)

Consolidated Sustainable Development Assessment - with final scores

| Indicator | Description and Score | Mitigation measure |
|--------------------------------|---|--|
| Environment | Category score: 0/+1/-1 | |
| 25. Air quality | Climate Project Indicator score: +1 | PAZ15-SFM1, page13: Decreto 02 de 1982. Calidad del aire y emisiones contaminantes a la atmosfera. |
| 26. Water quality and quantity | Forestry and Water Indicator score: +1 | PAZ15-SFM1, page13: Ley 373 de 1997. Ahorro y Uso Eficiente de Agua. |
| 27. Soil condition | Soil management Indicator score: +1 | PAZ15-SFM1, page13: Decreto 1753 de 1994. Licencias Ambientales. |
| 28. Other pollutants | Fertilizers and Pesticides Indicator score: 0 | WHO and GS-FSC policy http://pesticides.fsc.org/about |
| 29. Biodiversity | Flora and Fauna Indicator score: +1 | PAZ15-SFM1, page13: Decreto 1753 de 1994. Licencias Ambientales. PAZ15-LSC1,page 14 |
| Social Development | | |
| 30. Quality of employment | Sustainable environment Indicator score: +1 | Aligned with ILO strategic objectives http://climatefinanceoptions.org/cfo/node/50 |
| 31. Livelihood of the poor | Creation of employment | Following the MDG http://www.undp.org/content/undp/en/home/ourwork/get_involved/Action2015/ |

| Consolidated Sustainable Development Assessment - with final scores | | |
|---|---|---|
| Indicator | Description and Score | Mitigation measure |
| | Indicator score: +1 | |
| 32. Access to affordable and clean energy services | Improvement of Infrastructure Indicator score: 0 | PAZ15-SFM1, page13: Ley 373 de 1997. Ahorro y Uso Eficiente de Agua.. |
| 33. Human and institutional capacity | Capacity Building Indicator score: +1 | PAZ15-SFM1, page 193 |
| Economic & Technical Development | | |
| 34. Quantitative employment and income generation | Diversification of work positions Indicator score: +1 | https://www.forestfinance.de/en/about-us/social-aspects/working-conditions/ |
| 35. Access to investment | Investment and Special Fund Indicator score: 0 | |
| 36. Technology transfer and technological self-reliance | International stakeholders participation Indicator score: +1 | http://www.forestfinance.de/en/our-forests/research/ |

Sustainability Monitoring Plan

Discussion on Sustainability Monitoring Plan

Different stakeholders are part of different meetings, workshops and events that are organized by the company during the year. During these meetings different topics are treated and in case of that grievances are found, the company will solve the inconvenience in the most optimal way that is possible.

The Blind Matrix gave some ideas for a Sustainable Monitoring Plan, however it was complemented also with other previous meetings and comments of other local and national stakeholders, with specific expertise to be able to work on a Sustainable Monitoring System. Different stakeholders are already collaborating directly with the project as employees, during meetings in the Vichada Cooperation, as independent consultants providing smart solutions, etc.

Discussion on Sustainability Monitoring Plan

The main topics collected are Summarized and discussed below:

1. Local Participation: local population will like to be part of the monitoring (SMP). The project is giving already regional employment; therefore the employees are working directly in project implementation and solutions regarding SMP.
2. Consider laws and regulations: The project has all the necessary documentation for operation. As an example: all information from the Environmental Plan that is compulsory for all projects, was also combined with Social aspects to obtain a Sustainable Monitoring Plan (PAZ15-SFM1). This document will be review every 2 years and include respective updates.
3. Cooperation with specialists: stakeholders believe that the project should make alliances with specialists for monitoring biodiversity. Take into account that the project is already part of an important national initiative and is cooperating with and important biodiversity initiative

Discussion on continuous Input and Grievance Mechanism

Discussion on Sustainability Monitoring Plan

| | Method chosen (include all known details e.g. location of book, phone, number, identity of mediator) | Justification |
|---|---|--|
| Continuous Input and Grievance Expression Process Book | See email and telephone below | Possible grievances can be receipt from all the country |
| Telephone access | (+507) 317-1251 | Fast to get in contact on a national scale |
| Internet/email access | <fcordoba@co2less.org> | Best way to get in contact on an international scale |
| Nominated Independent Mediator (optional) | Federico Cordova | Project Manager |

Stakeholder feedback round

Description of the design of the stakeholder feedback round

Online survey is available
English: <https://de.surveymonkey.com/s/78GBHJ5>
and Spanish: <https://de.surveymonkey.com/s/98BD5N2>

[Considering the limitation to access internet, part of the LSC was also done with the printed version document. The information was at the end added and ponderated with the digital documentation](#)

[Printed surveys](#)

| |
|--|
| Project Title |
| Vichada Climate Reforestation Project |
| Registry ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input type="checkbox"/> New Area Certification |

Copy the table for each

- mitigation measure identified in the chapter '3.1 Do-No-Harm Assessment' with the risk rating of 'medium' or 'high', AND
- indicator identified by the Sustainable Development Assessment in the chapter '3.2 Local Stakeholder Consultation' rated as positive (+1) or negative (-1) , AND
- mitigation measure identified by the Sustainable Development Assessment in the chapter '3.2 Local Stakeholder Consultation' that will neutralize the negative indicators

3.5 Sustainability Monitoring Plan

| | | |
|---|---|--|
| Sustainability Monitoring ID | Air Quality | |
| Indicator for | Mitigation Climate change | |
| Mitigation measure | Based on results. PAZ15-FIX1 | |
| Chosen parameter | Amount of carbon sequestration | |
| Current situation of parameter | Under implementation | |
| Estimation of baseline situation of parameter | See Template "Baseline" | |
| Target for parameter | Carbon sequestration-mitigation on climate change-improve air quality | |
| Monitoring | PAZ15-FIX1 | WWF and UNDP cooperation (PAZ15-LSC1, page 13,14) |
| | ForestFinest Consulting | Federico Cordova, Luiza Azabache |
| | Every two years during crediting period | Every two years during crediting period |

| | | |
|---|---|--|
| Sustainability Monitoring ID | Water quality and quantity | |
| Indicator for | Forestry and Water protection | |
| Mitigation measure | Based on results. PAZ15-SFM1, page 185 | |
| Chosen parameter | Measurement of sedimentation | |
| Current situation of parameter | Under implementation | |
| Estimation of baseline situation of parameter | Under control (PAZ15-SFM1, page 69) | |
| Target for parameter | Contribution to water management and protection | |
| Monitoring | Protocols and Reports, | WWF and UNDP cooperation (PAZ15-LSC1, page 13,14) |

| | | |
|--|---|---|
| | Sustainable Management Plan | |
| | Federico Cordova, Luisa Azabache | Federico Cordova, Luiza Azabache |
| | Every two years during crediting period | Every two years during crediting period |

| | | |
|---|--|---|
| Sustainability Monitoring ID | | Soil Conditions |
| Indicator for | | Sustainable soil management |
| Mitigation measure | | Based on results. PAZ15-SFM1 |
| Chosen parameter | | Increase organic soils |
| Current situation of parameter | | MRV under implementation |
| Estimation of baseline situation of parameter | | Under control (PAZ15-SFM1) |
| Target for parameter | | Increase organic soil and prevent erosion |
| Monitoring | Protocols and Reports, Sustainable Management Plan | Using PAZ15-SFM1 |
| | Federico Cordova, Luisa Azabache | Federico Cordova, Luiza Azabache |
| | Every two years during crediting period | Every two years during crediting period |

| | | |
|---|--|---|
| Sustainability Monitoring ID | | Biodiversity |
| Indicator for | | Flora and Fauna protection |
| Mitigation measure | | Monitoring biodiversity (PAZ15-LSC1, page 13,14) |
| Chosen parameter | | Endangered endemic species. IUCN Red List |
| Current situation of parameter | | Under implementation WWF-UNDP (PAZ15-LSC1, page 13,14) |
| Estimation of baseline situation of parameter | | Important species in the area (Birdlife International) |
| Target for parameter | | Endemic Flora and Fauna |
| Monitoring | How will it be monitored and documented? | WWF and UNDP cooperation (PAZ15-LSC1, page 13,14) |
| | Who is responsible for monitoring and documentation? | Federico Cordova, Luiza Azabache |
| | When will it be monitored (duration and frequency)? | Every two years during crediting period |

| | | |
|-------------------------------------|--|--|
| Sustainability Monitoring ID | | Quality of employment / Human and institutional capacity |
| Indicator for | | Health and Industrial Security and capacity building |
| Mitigation measure | | The company provides every year different capacity buildings in diverse technical topics related with sustainable management Employees are encouraged to be part of technical and |

| | | |
|---|--|--|
| | | management capacity building programs to improve their working skills. PAZ 15-SFM1, page 165 to 178 |
| Chosen parameter | | Capacity building |
| Current situation of parameter | | implemented |
| Estimation of baseline situation of parameter | | (PAZ15-SFM1, page 155) |
| Target for parameter | | Improve know how and prevent accidents |
| Monitoring | How will it be monitored and documented? | Protocols and Reports |
| | Who is responsible for monitoring and documentation? | Federico Cordova, Luisa Azabache |
| | When will it be monitored (duration and frequency)? | Every two years during crediting period |

| | | |
|---|---|---|
| Sustainability Monitoring ID | Livelihood of the poor | |
| Indicator for | Education and capacity building | |
| Mitigation measure | The project collaborates with the main schools to increase regional education and reduce illiteracy PAZ 15-SFM4 Further employees are encouraged to be part of technical and management capacity building programs to improve their working skills. PAZ 15-SFM1, page 165 to 178 | |
| Chosen parameter | Reduce illiteracy | |
| Current situation of parameter | Under implementation | |
| Estimation of baseline situation of parameter | PAZ 15-SFM4 | |
| Target for parameter | Improve regional knowledge of children- education | |
| Monitoring | How will it be monitored and documented? | Protocols and Reports |
| | Who is responsible for monitoring and documentation? | Federico Cordova, Luisa Azabache |
| | When will it be monitored (duration and frequency)? | Every two years during crediting period |

| | |
|-------------------------------------|-------------------------|
| Sustainability Monitoring ID | Green investment |
| Indicator for | Access to investment |

| | | |
|---|---|---|
| Mitigation measure | Forest Finance provides different sustainable alternatives to invest in forests: http://www.forestfinance.de/en/products/treesavingsplan/ | |
| Chosen parameter | Product development | |
| Current situation of parameter | Under implementation | |
| Estimation of baseline situation of parameter | From lonely a large scale investment option to a mix also for small scale investors | |
| Target for parameter | Small, medium and large investors, national and international | |
| Monitoring | How will it be monitored and documented? | Protocols and Reports |
| | Who is responsible for monitoring and documentation? | Forest Finance group |
| | When will it be monitored (duration and frequency)? | Every two years during crediting period |

| | | |
|---|---|---|
| Sustainability Monitoring ID | Technology transfer and know how | |
| Indicator for | International Cooperation- | |
| Mitigation measure | International cooperation between Germany and Colombia allows to transfer technology and the know how between professionals from both sides. http://www.forestfinance.de/en/our-forests/research/ Further the project receives feedback from the main regional, national and international actors (LSC Template and PAZ15-LSC1 page 18, 19) | |
| Chosen parameter | Know how transfer | |
| Current situation of parameter | Under implementation | |
| Estimation of baseline situation of parameter | From local know how to global know how | |
| Target for parameter | Forest Finance Group employees | |
| Monitoring | How will it be monitored and documented? | Protocols and Reports |
| | Who is responsible for monitoring and documentation? | Forest Finance group |
| | When will it be monitored (duration and frequency)? | Every two years during crediting period |

| | |
|---|--|
| Sustainability Monitoring ID | Ground Water (DNH36) |
| Indicator for | Ground water protection |
| Mitigation measure | Sample ground water levels to prevent any medium-high impact from planting trees |
| Chosen parameter | Ground water level |
| Current situation of parameter | Under implementation |
| Estimation of baseline situation of parameter | |

| | | |
|----------------------|--|--|
| Target for parameter | | Maintain the ground water level |
| Monitoring | How will it be monitored and documented? | This topic has been classified as: relevant with a medium risk. Therefore included inside the SMP Template as a mitigation strategy. A monitoring system is under development to cover this topic. Some sampling information was already done that can be use as baseline scenario. See PAZ15-SMP1, page 49, 50, table # VII-7 and 8 |
| | Who is responsible for monitoring and documentation? | Federico Cordova, Luiza Azabache |
| | When will it be monitored (duration and frequency)? | Every two years during crediting period |

| |
|--|
| Project Title |
| Vichada Climate Reforestation Project |
| Registry ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input type="checkbox"/> New Area Certification <input type="checkbox"/> Annual Reporting |

Fill-in this template, referring to any *supporting documentation* where necessary. The formatting requirements provided in chapter 7.4 must be followed.

Project Participants & Secured Titles

| |
|---|
| Project owner |
| <p>Legal entity: Name of the organization: Forest Finest Colombia Street: Kr42 #75-125. Piso tres. Autopista sur. Itagui, Antioquia, Colombia. City: Antioquia, Colombia Country: Colombia</p> <p>Contact person: Andres Cadavid Phone : +507-317-1251 andres.cadavid@forestfinance.com</p> |
| Provide the entity's legal registration number below and attach any documentation by the governing jurisdiction that proves that the entity is in good standing. |
| Operation number: 02C530313033 PAZ15-LEG3,page 1 |
| Define the rights of this entity: |
| <input checked="" type="checkbox"/> Authority to instruct The <u>Gold Standard Secretariat</u> . Forest Finest Consulting, PAZ15-LEG1 |
| <input checked="" type="checkbox"/> Authority to request or communicate the addition or edits of project participants (e.g. voluntary withdrawal of project participants, updates of contact details, etc.). Forest Finest Consulting, PAZ15-LEG1 |
| <input checked="" type="checkbox"/> Authority to receive all information from The <u>Gold Standard Secretariat</u> on matters related to the <u>project</u> Forest Finest Consulting, PAZ15-LEG1 |

(a) Entity that owns the CO2 user rights or carbon sequestration rights

N/A, this entity is also the project owner. Forest Finest Colombia: PAZ15-LEG1

If (a) is not the project owner, the persons or legal entities that is (a) shall endorse the expected project being undertaken by the project owner through an agreement that aligns with the duration of the crediting period.

(b) Entity that holds an uncontested legal land title for the project area

(b) Entity that holds an uncontested legal land title for the project area

N/A, this entity is also the project owner. Forest Finest Colombia: PAZ15-LEG1

If (b) is not the project owner, the persons or legal entities that is (b) shall endorse the expected project being undertaken by the project owner through an agreement that aligns with the duration of the crediting period.

(c) Entity that owns the rights for timber and non-timber forest products for the project area

N/A, this entity is also the project owner. Forest Finest Colombia PAZ15-LEG1

If (c) is not the project owner, the persons or legal entities that is (c) shall endorse the expected project being undertaken by the project owner through an agreement that aligns with the duration of the crediting period.

(d) Entity that holds all necessary permits to implement the project (planting permits, infrastructure permits, harvesting permits, etc.)

N/A, this entity is also the project owner. Forest Finest Colombia PAZ15-LEG1

If (d) is not the project owner, the persons or legal entities that is (d) shall endorse the expected project being undertaken by the project owner through an agreement that aligns with the duration of the crediting period.

(e) Entity that participates in the financing of the project.

N/A, this entity is also the project owner. Forest Finest Colombia PAZ15-LEG1

If (e) is not the project owner, the persons or legal entities that is (e) shall endorse the expected project being undertaken by the project owner through an agreement that aligns with the duration of the crediting period.

Other project participant

Legal entity:

Forest Finest Consulting
Eifelstrasse 20
53119, Bonn
Germany

Contact person:

Marco Guerrero
Consultant Carbon Forestry and Certification
+49-(0) 228796911913
guerrero@forestfinest-consulting.com

Role of this project participant

Carbon Project Management: technical and investment advisor

Define the rights of this entity:

- Authority to instruct The Gold Standard Secretariat.
- Authority to request or communicate the addition or edits of project participants (e.g. voluntary withdrawal of project participants, updates of contact details, etc.).
- Authority to receive all information from The Gold Standard Secretariat on matters related to the project.

| |
|--|
| Project Title |
| Vichada Climate Reforestation Project |
| Registry ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input type="checkbox"/> New Area Certification |

For each item listed below, please provide in the corresponding box a description of the **expected impacts on the project**. The formatting requirements provided in chapter 7.4 must be followed.

Risk Register

| Risk Topics | Risk score, based on likelihood and impact on the project | Mitigation measure |
|--|---|---|
| | high (+) medium (0) low (-) not relevant (/) | If the rating is 'medium (0)' or 'high (+)' the mitigation measure shall be described and implemented. |
| Management qualifications in forestry, operations, finance, legal | Score: (-) | <p>The expertise of the professional international and national team involved in Forest Finance Group guaranties a Good Management Practices (GMP) and Corporate Social Responsibility (CSR). The management team has more than 18 years of experience in the sector</p> <p>As indicators of management qualifications see the following references: Team Involved: http://www.forestfinance.de/en/about-us/team/team-germany/?no_cache=1 Example of Management certification: http://www.co2ol.de/presse/pressemitteilungen/pressemitteilung-vom-24-januar-2013/</p> |
| Workers qualifications in the technical implementation | Score: (-) | <p>The expertise of the professional team involved in Forest Finance Group guaranties a technical quality control during the crediting period. The technical team from Forest Finance is since 2014 part of Forest Finest Consulting. The team is involve since the beginning of the project implementation and is working in cooperation with the Team in Colombia every year in new improvements and ideas for the project; to guaranty a consistent and robust management (GMP)</p> <p>As indicators of technical qualifications see the following references: Team involved: http://www.forestfinestconsulting.com/company/team/Some areas of expertise/ innovation direct related with the project. See References in the following link: http://www.forestfinestconsulting.com/our-services/agroforestry/</p> |
| Technical equipment | Score: (-) | <p>The group receives annually different technical capacity building and the transfer of technical know- how to different team members to assures a low risk due to the use of technical equipment. The technology used is designed in Germany and later with discussions with the team of</p> |

| | | |
|---|--------------------------|--|
| | | <p>Latinamerica well adapted to a regional scale. Some achievement in the last years of the project include: As indicators of technical equipment and technology see the following references: Design and Implementation of a post harvesting system for cacao: http://www.forestfinestconsulting.com/references/design-and-installation-of-a-post-harvest-facility-for-high-quality-organic-cacao/ A high technology saw mill to process FSC wood: https://www.facebook.com/ForestFinance/photos/a.196478693697199.69655.181175275227541/877253978952997/?type=1&relevant_count=1 A project with bees in the plantations: https://www.facebook.com/ForestFinance/posts/869788113032917 In all areas new employees are higher and receive the best capacity building to perform the position</p> |
| <p>Financial means: complete and realistic income streams (investment, funding, co-funding, sales, etc.) and expenditure (administration, infrastructure, machines, labour, audits, unexpected expenditures, etc.)</p> | <p>Score: (-)</p> | <p>There are indicators (see links a,b,c) that shows how the investment in FOFI products bring well founded returns, showing transparency and permanence during the crediting period. See the following links: a. Well founded return calculations:http://www.forestfinance.de/en/returns/calculation-of-returns/ b. Transparency: http://www.forestfinance.de/en/returns/calculation-of-returns/transparency/ c. Future prospect: http://www.forestfinance.de/en/returns/calculation-of-returns/future-prospects/</p> |
| <p>Water: drought, flood, hail, snow, heavy rains</p> | <p>Score: (0)</p> | <p>The species planted are well adapted to the region The main risk can be due to heavy rains or droughts; however this risk will still be low to impact negatively in the plantations. The use of adequate species and management of the creeks is an important mechanism to prevent possible damage due to heavy rain or droughts. (PAZ15-SFM1, Page 153, Ficha 9)</p> |
| <p>Wind: heavy wind, hurricanes</p> | <p>Score: (0)</p> | <p>The species planted are well adapted to the region. The main risk can be due to heavy wind. This risk has usually a low to medium impact. Small areas can be affected and the damage of a few trees can be part of such incident. Due to a corrective management strategies for this incidents, the project group guaranties that the tress can recover again. (PAZ15-SFM1, Page 153, Ficha 9)</p> |
| <p>Animals: domestic, wild</p> | <p>Score: (0)</p> | <p>All the farms have fences to prevent that domestic animals, like cows go inside and damage the tress. (PAZ15-SFM1, Page 30) Sporadically animals go inside the plantations. Usually without causing damage to the trees. There´s daily a designated worker patrolling the plantation and report the owner if an animal is found inside the plantation. Even do all the plantations have new fences, the risk of occurring such event</p> |

| | | |
|---|-------------------|--|
| | | is medium, but the risk of damage is low. The project has also a mitigation action for such incidents. |
| Fire: natural fires, fire management | Score: (0) | The risk of natural fires or fires done by neighbours are detected in different regions were the project is located. The highest risk occurs in summer when fire can be uncontrolled and extend to our plantations. Since no events had been documented regarding this topic, it is categorize as medium. The project has implemented preventive actions reported in the management plan. http://www.forestfinance.de/en/safety/safety/#c4156 (PAZ15-SFM1, Page 155, Ficha 10) |
| Diseases: insects, bacteria, viruses | Score: (+) | The risk of diseases, insects, bacteria and viruses is medium-high. However the project knows about some diseases and uses preventive concepts. For example letting conservation patches enhances that the ants move to the conservation area searching for leaves, instead of extending the search to the planting area (PAZ15-SFM1, page 30). Further the project is well prepare to combat such problems (mitigations actions) as documented by the controlling system (PAZ15-SFM1,page 43).Prevention and mitigation actions are the key to neutralize the medium-high risk from natural conditions from a tropical region Until now, no big and/or extensive events regarding diseases or viruses have been detected. |
| Temperatures: frost, heat | Score: (-) | The temperatures in Colombia can reach 24 degrees, but the tree species used are well adapted to tropical weather patterns .The final harvest and management plan takes into account this parameters to obtain a realistic number of the amount of tress that will be alive at the end of the rotation period (PAZ15-SFM1, page 88). |
| Irregular resettlement or illicit crop production | Score: (-) | The project is located in save areas. Fences are regularly control and monitor to anticipate possible events. Further, due to a local stakeholder approach, the company is well known around the area and has good reputation, reducing the risk on a significative way. |
| Exploitation of underground resources: mining, water, etc. | Score:(0) | The project is the owner of the land and resources. The project was approved to implement forestry activities, and “no underground activities” are considered. Further the project region selected “savannah” has no mining or oil activities. Open sources from SIMEC are listed to demonstrate that no minerals,oil, etc are part of the Vichada department. Therefore, theres no risk that the applicable planting area will be affected –neither is at risk. Mining activities-NON: http://sig.simec.gov.co/UPME_MI_minas/ Oil refineries in Vichada department- NON: http://www.simec.gov.co/Portals/0/serv_sic/Hidrocarburos/UPME_HI_Produccion%20de%20Crudo%20y%20Carga%20a%20Refinerias_2013.pdf Inside Production and explotation oil areas-NON: http://sig.simec.gov.co/UPME_HI_tierras_ANH/ |

| |
|---|
| Project Title |
| Vichada Climate Reforestation Project |
| Registry ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> New Area Certification |

Please outline how your project meets each of the following requirements, referring to any *supporting documentation* where necessary. The formatting requirements provided in chapter 7.4 must be followed.

Additionality

| |
|---|
| Option of Additionality |
| <input checked="" type="checkbox"/> Option 1 – A/R CDM Tool <input type="checkbox"/> Option 2 – Positive List |
| For option 1, the format of the <i>A/R CDM Additionality Tool</i> ¹ shall be followed and attached as <u>supporting document</u> . The requirements for retroactive submission and no deforestation (see boxes 3 and 4 below) shall also be fulfilled. |
| For option 2, the requirements shall be filled in using the format provided by this template. |

Option 1 – A/R CDM Tool

| | |
|-------------------------|---|
| Supporting document ID: | 4.1. PAZ15 Template AR-CDM-Additionality Tool |
|-------------------------|---|

Retroactive submission

| | |
|-----|--|
| 2. | If the submission to the <u>Pre-Feasibility Assessment</u> was after the <u>planting start</u> , the <u>project proponent</u> shall demonstrate that |
| (a) | the revenues from <u>CO2-certificates</u> were seriously considered in the decision to implement the <u>project</u> , AND |
| (b) | there was continuous interest in <u>CO2-certificates</u> for the <u>project</u> in parallel with its implementation. |
| (a) | The Forest Finance group and CO2OL are specialists in marketing emission reductions. Since the beginning, every farm that is included to the project enters under the same concept: Every farm is seriously taken into account for the sequestration of CO2 and enhancement of mitigation strategies against global warming. The sale of carbon credits is the key element of investment PAZ15-ADD2 |
| (b) | The project has three main goals: 1. Rainforest protection The availability of <u>certified, ecological timber</u> reduces the pressure on the few still existing rainforest areas. Rainforest protection is not possible without the sustainable production of tropical timber. However, the availability of timber from sustainably managed forests in world |

¹ A/R CDM Additionality Tool

<http://cdm.unfccc.int/methodologies/ARmethodologies/tools/>

| | |
|--|--|
| | <p>trade renders the destructive depletion of primary forests redundant.</p> <p>2. Species protection</p> <p>More than 15 per cent of our areas become conservation areas. Forest remnants within the farms are preserved and integrated in these areas. Together with the reforested areas, these conservation areas form stepping stones for many rare animal and plant species.</p> <p>3. Climate protection</p> <p>The greenhouse gas CO₂ has a global impact, no matter where on earth it was produced or emitted into the atmosphere. A CO₂ emission which is produced in Europe can be compensated by a climate protection project on the other side of the earth. 2.5 ha of Forest Finance forest off-sets the lifetime carbon emissions of an average American.</p> <p>Further information: http://www.forestfinance.de/en/our-forests/ecological-aspects/#c4105</p> <p>PAZ15-ADD2</p> |
|--|--|

No deforestation

| |
|--|
| <p>3. The <u>planting area</u> shall not have been <i>forest</i>¹ for at least 10 years prior to the <u>planting start</u>, OR</p> <p>In case the <u>planting area</u> was deforested in the 10 years prior to the <u>planting start</u>, evidence shall be provided which demonstrates that the deforestation was caused by force majeure.</p> |
| <p>All the applicable areas were savanna at the beginning of the project and have therefore not been a forest before the company developed a plan to conserve, improve and increment the biomass with reforestation activities. Land sat images were used from 1996 and 2006 to demonstrated the vegetation existing before planting begin in comparison with 10 years previous the date. Further, a formal interview and questionnaire was perform to demonstrate that the company was not involved or is related with the deforestation and degradation of the applicable area, before the project started.</p> <p>PAZ15-MAP1 PAZ15-FIX4</p> |

¹ Forest

A forest is defined by the Designated National Authority (DNA) of the project's host-country: <http://cdm.unfccc.int/DNA>

| |
|---|
| Project Title |
| Vichada Climate Reforestation Project |
| Registry ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input checked="" type="checkbox"/> New Area Certification |
| Guidelines applied for this certification |
| <input type="checkbox"/> A/R Guidelines - Mangroves |
| These guidelines alter the 'A/R Requirements' and thus have an effect on this documentation. |

Please outline how your project meets each of the following requirements, referring to any *supporting documentation* where necessary. The formatting requirements provided in chapter 7.4 must be followed.

Applicability

1. Areas shall not be on *wetlands*¹.

Not applicable, as the 'A/R Guidelines - Mangroves' will be followed.

The project is located in the Savanna region. No wetlands were identified.
See PAZ15-MAP1

2. Areas with *organic soils* shall not be drained or irrigated (except for irrigation for planting).

Areas with a high percentage of organic soils are classified as conservation areas. Therefore this point not applies for the project
Classified as conservation areas: shapefiles

3. Soil disturbance (through ploughing, digging of pits, stump removals, infrastructure, etc.) on *organic soils*² shall be in less than 10% of the area that is submitted to certification (not 10% of the entire project area).

Traditional ploughing and mechanical technics can be used mainly for preparing the field before tree planting. Manual and mechanical ploughing with shovels is used. The mentioned technic will prevent soil compaction. Ploughing will have a main impact in top soils. The areas selected for planting have a low content of organic matter. Areas of conservation are not disturbed. Dry savannah contain in semiarid and arid climates less than 10 t/ha biomass compared to 300 to 600 t/ha from a rainforest. Further organic soils located in top soils are less than 1% (Young, 1976-page 42)
For further detail see PAZ15-SFM1, page 40, point 7.5

¹ Wetland Definition of wetland according to the IPCC: 'This category includes land that is covered or saturated by water for all or part of the year (e.g. peatland) and that does not fall into the forest land, cropland, grassland or settlements categories.' Source: IPCC - Good Practice Guidance - Wetlands.

² Organic soils Organic soils fulfil one of the following requirements:

1. If the soil is never saturated with water for more than a few days, and contains >20% (by weight) of organic carbon (35% organic matter)
2. If the soil is subject to water saturation episodes and has either:
 - >12% (by weight) organic carbon (20% organic matter) if it has no clay
 - >18% (by weight) organic carbon (30% organic matter) if it has >60% clay
 - a proportional lower limit of organic carbon content between 12 and 18% if the clay content of the mineral fraction is between 0 and 60%

3. Soil disturbance (through ploughing, digging of pits, stump removals, infrastructure, etc.) on *organic soils*² shall be in less than 10% of the area that is submitted to certification (not 10% of the entire project area).

<https://books.google.de/books?id=IQ44AAAAIAAJ&pg=PA42&lpg=PA42&dq=percentage+organic+soil+savanna+and+rainforest&source=bl&ots=PDm0ZhnhdH&sig=c9vS6S7OwvBoD13XjH8JL5fDrtw&hl=de&sa=X&ei=x6lrVebxEIvpaPXggPgF&ved=OCYQ6AEwAg#v=onepage&q=percentage%20organic%20soil%20savanna%20and%20rainforest&f=false>

4. The most likely scenario without the project (baseline scenario) shall be defined for the project area. This scenario shall not show any *significant*¹ increase of the Baseline biomass ('tree' and 'non-tree').

The project area is part of 250 million hectares of savanna that are part of South America-Venezuela and Brazil are also part of this tropical savanna (PAZ15-APP1)

The barrier analysis in the additionality Assessment (see Template additionality) determined that the only feasible activity will be cattle ranching. Such activity will not increase the biomass in the selected planting area.

Further using the kml files (see folder PAZ15-Shapefiles) and with the use of google earth satellites images, it will be possible to see that the project area was always the same.

¹ Significant Significant is defined to be more than 5% of the 'long-term CO₂-Fixation' - see chapter '5.7 CO₂-Fixation'.

| |
|---|
| Project Title |
| Vichada Climate Reforestation Project |
| Registry ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input checked="" type="checkbox"/> New Area Certification |

Please outline how your project meets each of the following requirements, referring to any *supporting documentation* where necessary. The formatting requirements provided in chapter 7.4 must be followed.

Other Emissions

Site preparation

1. Where existing 'tree' and 'non-tree' biomass of the Baseline is burned for the purpose of land preparation, an additional 10% of the Baseline shall be deducted. This is to account for the non-CO₂ green-house-gas emissions (N₂O and CH₄) that are released during the burning process.

Relevant Not relevant

Slash and burn can be use under minimal circumstances due to security reasons. See PAZ15-SFM1, page 164, Ficha 18

Fertilizer

2. 0.005 tCO₂ per kg of nitrogen (N) fertilizer shall be deducted. No differentiation is made between synthetic and organic fertilizer.

Relevant Not relevant

The project uses different fertilizers (organic and synthetic) . All of the components are allowed by the FSC. Further the use of fertilizers is not use in an intensive way. Usually during the planting period and sporadically and selectively during the three to five years. A maximum of 0,617 tCO₂ p/ha coming from the use of organic fertilizers during the first five years of the certification period. See table above.

| | | |
|--|------------|------------|
| Amount of N in 100 kg | 12g N | 100kg NPK |
| Total amount of N per hectare used during the certification period | 123.4 kg N | 800kg NPK |
| GS equivalence | 1kg N | 0.005tCo2 |
| Total Emissions per hectare | 123.4kg N | 0.617 tCo2 |

According to the management plan it is projected a maximum use of 800kg/ha of fertilizer during the certification period. Only during the first five years fertilizer might be necessary in selective areas.

This is due to the need of improving soil conditions before the planting begins. After the planting period it is important to monitor soil conditions. Run off, from direct rain fall impact and also a faster nutrient absorption from the tress in the first years are some of the reasons for the use of fertilizer. In the applicable planting area it is planned to use 123.4kg N coming from the fertilizers. Assuming the GS tCO₂ equivalence from kg N to tCo₂, the project will generate maximum 0.62 tCO₂ per hectare that is planted.

To see calculation -Ref.PAZ15-FIX5

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| Project Title |
| Vichada Climate Reforestation Project |
| Gold Standard ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input type="checkbox"/> New Area Certification |

Please outline how your project meets each of the following requirements, referring to any *supporting documentation* where necessary. The formatting requirements provided in chapter 7.4 must be followed.

Baseline

| | | |
|--|---|---|
| 1. To determine the <u>Baseline</u> of the <u>eligible planting area</u> the land shall be (a) stratified according to its vegetation types (grassland, bushland, etc.) | | |
| <table border="1"> <tr> <td style="width: 30px; vertical-align: top;">(a)</td> <td> <p>According to GS if non monitoring field data from the area exists; it is possible to select a regional or international default value coming from a scientific study to determinate baseline. In the case of this project for determination of baseline it was selected a regional scientific study from Colombia.</p> <p>All the planting applicable area is located in the region of Orinoquia. The applicable area is classified as savannah .</p> <p>The value is used in the carbon model calculation-See PAZ15-FIX1</p> <p>Total Biomass: 3.2 (Scientific study: PAZ15-FIX3, page 4, table 1)</p> <p>tCO₂/ha: Total Biomass * C Factor * tCO₂ Factor</p> <p>tCO₂/ha= 3.2*0.5*3.66</p> <p>tCO₂/ha= 5.86</p> </td> </tr> </table> | (a) | <p>According to GS if non monitoring field data from the area exists; it is possible to select a regional or international default value coming from a scientific study to determinate baseline. In the case of this project for determination of baseline it was selected a regional scientific study from Colombia.</p> <p>All the planting applicable area is located in the region of Orinoquia. The applicable area is classified as savannah .</p> <p>The value is used in the carbon model calculation-See PAZ15-FIX1</p> <p>Total Biomass: 3.2 (Scientific study: PAZ15-FIX3, page 4, table 1)</p> <p>tCO₂/ha: Total Biomass * C Factor * tCO₂ Factor</p> <p>tCO₂/ha= 3.2*0.5*3.66</p> <p>tCO₂/ha= 5.86</p> |
| (a) | <p>According to GS if non monitoring field data from the area exists; it is possible to select a regional or international default value coming from a scientific study to determinate baseline. In the case of this project for determination of baseline it was selected a regional scientific study from Colombia.</p> <p>All the planting applicable area is located in the region of Orinoquia. The applicable area is classified as savannah .</p> <p>The value is used in the carbon model calculation-See PAZ15-FIX1</p> <p>Total Biomass: 3.2 (Scientific study: PAZ15-FIX3, page 4, table 1)</p> <p>tCO₂/ha: Total Biomass * C Factor * tCO₂ Factor</p> <p>tCO₂/ha= 3.2*0.5*3.66</p> <p>tCO₂/ha= 5.86</p> | |

2. To determine the Baseline of the eligible planting area the land shall be
 (b) for each of these strata, scientifically based *local*¹, regional or national *default values* shall be found which state the biomass of these vegetation types.

*International default values*² from the IPCC shall only be used if no other values are available.

- (b) Overview of the different baseline strata and the results of the baseline determination. The individual calculation of each stratum is in the boxes below.

| | Stratum ID | Baseline tree-non tree biomass |
|--------------|-----------------|--------------------------------|
| Stratum | MU1-MU13 | 5.86 tCO ₂ /ha |
| Total | 3276 ha | 5.86 tCO₂/ha |
| | Baseline | 5.86 tCO₂/ha |

¹ Local default values

Local *default values* are project area specific value generated through a 'tree' and 'non-tree' inventory on the project area.

² International default values

International *default values* are found e.g. in the *IPCC Guidelines for National GHG Inventories*: http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_04_Ch4_Forest_Land.pdf

Conversion Procedure

Aboveground tree biomass = Stem volume * Biomass Expansion Factor * Wood density * Carbon fraction * C to CO₂ factor
Belowground tree biomass = Aboveground tree biomass * Root-to-Shoot ratio

Baseline tree biomass-non tree biomass

| | | |
|---|--|--|
| Stratum ID | Savanaah | |
| Baseline tree –non tree biomass | Value: | 3.2 <input type="checkbox"/> m ³ /ha <input checked="" type="checkbox"/> tdm/ha |
| | Default value: | <input type="checkbox"/> Project-specific <input checked="" type="checkbox"/> Regional <input type="checkbox"/> National <input type="checkbox"/> International <input type="checkbox"/> Gold Standard |
| | Reference: | PAZ15-FIX3, page 4, table 1 |
| Justification of value: | The study provides the coordinates from the sampling area. It belongs to the applicable area. PAZ15-FIX3, page 3, Figure 1 | |
| BEF | Value: | Not apply |
| | Default value: | <input type="checkbox"/> Project-specific <input type="checkbox"/> Regional <input type="checkbox"/> National <input type="checkbox"/> International <input type="checkbox"/> Gold Standard |
| | Reference: | ... |
| Justification of value: | | |
| Wood density | Value: | Not apply |
| | Default value: | <input type="checkbox"/> Project-specific <input type="checkbox"/> Regional <input type="checkbox"/> National <input type="checkbox"/> International <input type="checkbox"/> Gold Standard |
| | Reference: | ... |
| Justification of value: | | |
| Root-to-Shoot ratio | Value: | Included in value |
| | Default value: | <input type="checkbox"/> Project-specific <input type="checkbox"/> Regional <input type="checkbox"/> National <input type="checkbox"/> International <input type="checkbox"/> Gold Standard |
| | Reference: | ... |
| Justification of value: | Included in value | |
| Baseline tree biomass [tCO₂/ha] | 5.86 tCO ₂ /ha | |

| |
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| Project Title |
| Vichada Climate Reforestation Project |
| Registry ID |
| GS 4221 |
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input type="checkbox"/> New Area Certification |

Please outline how your project meets each of the following requirements, referring to any *supporting documentation* where necessary. The formatting requirements provided in chapter 7.4 must be followed.

Leakage

| Describe the selection of your categories. | |
|--|--------------------------------------|
| (a) collection of wood (for firewood, charcoal, etc.) | Not applied |
| (b) timber harvesting | No leakage. See reference PAZ15-FIX4 |
| (c) agriculture (crop cultivation, shrimp cultivation, etc.) | No leakage. See reference PAZ15-FIX4 |
| (d) livestock | No leakage. See reference PAZ15-FIX4 |

Overview of the different leakage strata and the results of the baseline determination. The individual calculation of each stratum is in the boxes below.

| | Stratum ID | Leakage tree biomass (aboveground) |
|--------------|------------------------|---------------------------------------|
| Stratum | MU1 to MU13 | 0 tCO ₂ |
| Total | | 0 tCO₂ |
| | Eligible planting area | 13,197 ha |
| | Leakage | 0 tCO ₂ /ha |

| |
|--|
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Please outline how your project meets each of the following requirements, referring to any *supporting documentation* where necessary. The formatting requirements provided in chapter 7.4 must be followed.

Long-term CO₂-Fixation

4. Existing 'tree biomass' from the carbon stock of the Baseline that is not removed shall be reflected in the growth-model.

Relevant Not relevant

Relevant tree biomass, like small patches of forest that were found inside each MU are classified as protected natural areas. They are not part of the CO₂ Fixation model.
See the CO₂ Fixation model: Ref PAZ15-FIX1
See the stratification of the MUs: shape files

5. A realistic survival-rate shall be reflected in the growth-model.

The projection of CO₂ sequestration during the crediting period is based in scientific documentation. A realistic survival rate is considered to determinate the total steam volume (m³) of a rotation period. Further with the monitoring data obtained from the project it is possible to compare and determinate the accuracy of the CO₂ Fixation model. A comparison between the MRV and the scientific data was performed to adapt the amount of tCO₂ that each MU will fix during the crediting period
See Ref PAZ15-FIX1-sheet: Description
See Ref APZ15-FIX1.sheet: Sources to read the data coming from the scientific studies

Conversion Procedure

Aboveground tree biomass = Stem volume * Biomass Expansion Factor * Wood density * Carbon fraction * C to CO₂ factor
Belowground tree biomass = Aboveground tree biomass * Root-to-Shoot ratio

Long-term CO₂-Fixation tree biomass

| | | |
|---|---|--|
| Growth-model ID | PAZ15-FIX1 | |
| Applied for MUs | MUs Initial CERT | |
| Calculation model | <input type="checkbox"/> Option 1 - Selective harvesting <input type="checkbox"/> Option 1 - Conservation forest <input checked="" type="checkbox"/> Option 2 - Rotation forestry | |
| Time period | 30 years crediting period | |
| Long-term CO₂-Fixation tree biomass | Long-term value: | 4.6 (MRV 2014) <input checked="" type="checkbox"/> m ³ /ha <input type="checkbox"/> tdm/ha |
| | Growth-model: | <input checked="" type="checkbox"/> Project-specific <input type="checkbox"/> Regional <input type="checkbox"/> National <input type="checkbox"/> International |
| | Reference: | PAZ15-FIX1 |
| Justification of growth-model: | MRV specific data is provided from each MU and it is compared to the original scientific data basis. | |
| BEF | Value: | 1.42 (average value) |
| | Default value: | <input type="checkbox"/> Project-specific <input type="checkbox"/> Regional <input type="checkbox"/> National <input checked="" type="checkbox"/> International <input type="checkbox"/> Gold Standard |
| | Reference: | PAZ15-FIX1 |
| Justification of value: | Scientific data is used to fulfil the GS requirements | |
| Wood density | Value: | 0.52(average value) |
| | Default value: | <input type="checkbox"/> Project-specific <input type="checkbox"/> Regional <input type="checkbox"/> National <input type="checkbox"/> International <input type="checkbox"/> Gold Standard |
| | Reference: | PAZ15-FIX1 |
| Justification of value: | Scientific data is used to fulfil the GS requirements | |
| Root-to-Shoot ratio | Value: | 0.18 (average value) |
| | Default value: | <input type="checkbox"/> Project-specific <input type="checkbox"/> Regional <input type="checkbox"/> National <input type="checkbox"/> International <input type="checkbox"/> Gold Standard |
| | Reference: | PAZ15-FIX1 |
| Justification of value: | Scientific data is used to fulfil the GS requirements | |
| Long-term CO₂-Fixation | 194 tCO₂/ha (For detail of each MU see PAZ15-FIX1) | |

Long-term CO₂-Fixation tree biomass

Conversion Procedure

Aboveground tree biomass = Stem volume * Biomass Expansion Factor * Wood density * Carbon fraction * C to CO₂ factor
Belowground tree biomass = Aboveground tree biomass * Root-to-Shoot ratio

Present CO₂-Fixation

6. The number of sample plots of a *forest inventory* shall be sufficient to meet a MU precision with a maximum error of $\pm 20\%$ at a 90% confidence interval. Where the error is above 20%, the additional difference shall be deducted.

Carbon Model: The following carbon model was developed by Forest Finest Consulting (03.2015), part of the technical team from the project. The following model aim is to quantified the amount of tones carbon dioxide (tCO₂) existing in the project eligible area in accordance to the requirements of GS- Land Use and forestry methodology.

MODEL STEPS

Step 1: collecting data from different scientific studies for each tree species existing inside the project eligible area. The table provides information to estimate the Mean Annual Increment (MAI) and Total Steam Volume (m³) for each specie. With this information it was possible to estimate the amount of tCO₂ that will be sequestered during the crediting period. A linear projection based in the MAI was used for such estimation.

Step 2: the Model also includes the data coming from the Monitoring, Verification and Reporting (MRV) system from the first planted Modelling Units (MUs). This information was correlated for each MU and the most conservative value was used. This is approach will be used until the MRV Data collected from the first rotation period is recorded.. The software Mirasilv was used to collect all the current existing information from the MUs. A simulation with the software gave the following values:

Sample Plots:

sample intensity: 3,4%;
confidence interval: 95%,
Heterogeneity: 50%,
maximum error: 12%

For further details see Ref PAZ15-FIX1

Present CO₂-fixation

Summary of a forest inventory

| | | |
|---|--|---|
| Forest inventory ID | FFC Carbon Model (Ref.PAZ15-FIX1) | |
| This inventory is for the Modelling Unit (MU) | All MUs from the project | |
| Size of the MU | 30 ha | Responsible for the inventory Federico Cordova Project Manager |
| Date of inventory | 12/2014 | |
| Shape of sample plots | <input checked="" type="checkbox"/> Circular <input type="checkbox"/> Rectangular <input type="checkbox"/> Other, ... | |
| Size of sample plots | 500 m ² | |
| Number of sample plots | 10 | |
| Precision level | 95 % | |
| Sample plots with slopes >10% | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Name of reference document | Ref.PAZ15-FIX1, SFM1-Anex1 | |
| Result of the inventory | 27 m³ stem volume per ha | |
| Inventory was executed in order to adapt the growth-model | Ref.PAZ15-FIX1 | |
| How does the inventory adapt / confirm the growth-model | This inventory leads to a <input type="checkbox"/> confirmation <input checked="" type="checkbox"/> adaptation of the existing growth-model. Ref.PAZ15-FIX1 | |
| Present CO₂-fixation | 42.6 tCO₂/ha | |

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|---------------------------------------|
| Project Title |
| Vichada Climate Reforestation Project |
| Registry ID |
| GS 4221 |

| |
|--|
| Type of Certification |
| <input checked="" type="checkbox"/> Initial Certification <input type="checkbox"/> Performance Certification <input type="checkbox"/> New Area Certification <input type="checkbox"/> Incident |

Please outline how your project meets each of the following requirements, referring to any *supporting documentation* where necessary. The formatting requirements provided in chapter 7.4 must be followed.

Carbon Performance

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| Describe the shortfalls of the project: |
| <p>An overview of the natural risks</p> <p>The primary risks during the first one to five years are infestations with pests/vermin, extended droughts and fire. For ForestFinance products with an investment period of 25 years, a fire insurance and a replanting guarantee offer additional protection during these first five years. From year five on, the trees are sufficiently resistant to any natural risks</p> <p>Risks? And tips for dealing with risks!</p> <p>Yes, an investment in forest carries risks, just like any investment; risks that could even lead to complete loss. Our products are direct investments in a natural resource (growing trees). For this reason, the final economic result is not yet known and can only be forecast by us. There is no guarantee for the payback of invested capital or for the forecast returns.</p> <p>Our products are not recommended to investors who have to be able to sell an investment at short notice. Since there is no stock market for our products, an individual sale of the direct investment prior to maturity cannot be guaranteed and may result in financial losses.</p> <p>However, an investment in timber is by nature a rather conservative investment insofar as it is linked to real values such as real estate. Ultimately you are investing in the production of agricultural goods (timber) and, thus, in a renewable resource that is much in demand.</p> <p>http://www.forestfinance.de/en/safety/risk-information/</p> |

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| Describe how you propose to make the project compliant again, latest in 5 years: |
| <p>For nearly 20 years ForestFinance has successfully been on the market as a provider of forest investments. The company has been free of any debts since its foundation. Today, more than 15,000 customers trust in the products of ForestFinance.</p> <p>http://www.forestfinance.de/en/safety/safety/#c4164</p> <p>The project has a Sustainable Management Plan that is every year reviewed and updated to keep a robust process and be able to guaranty project compliance of the main GS criteria. Further an international team works in close cooperation with the national team for all topics related with carbon calculations and carbon credits management (Forest Finest Consulting and CO2OL) PAZ15-SFM1</p> |

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