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Validation **Assessment** Report for:

ForestFinance Service GmbH Tropical Mix Reforestation in Panama

2nd Report Finalized:	2 March 2011
2nd Draft Final Report:	25 January 2011
2nd Audit Dates:	01-25 January 2011
1st Report Finalized:	18 October 2010
1st Audit Dates:	01-05 March 2010
Audit Team:	Adam Gibbon
	William Arreaga
Type of Validation:	CCBA
Validation Code:	RA-VAL-CCB-013680
Validation Issued:	2 March 2011

Report based on Standard(s): CCBS 2nd edition

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1 INTRODUCTION

The purpose of this report is to document conformance with the requirements of The Climate, Community and Biodiversity Alliance (CCBA) project design validation standards by ForestFinance, who are the Project Proponents, hereafter referred to as "Company". The report presents the findings of SmartWood auditors who have evaluated company systems and performance against the applicable standard(s). Section 2 below provides the audit conclusions and any necessary follow-up actions by the company through corrective action requests.

This evaluation follows Climate, Community and Biodiversity Project Design Standards, Second Edition, December 2008. These were not developed by Rainforest Alliance, but by the CCBA. SmartWood CCBA evaluation reports are kept confidential in the draft stage. When finalized and successfully approved, the report is posted on SmartWood's website and that of the CCBA.

The Rainforest Alliance's certification program, SmartWood, was founded in 1989 to certify responsible forestry practices and now focuses on providing a variety of certification and auditing services. In 2005, Rainforest Alliance extended our role as a forest assessor/auditor to standards and services that included verification of forest carbon projects. Rainforest Alliance has the following status with the listed climate related standards and systems:

- CarbonFix – we are a verifier.
- Chicago Climate Exchange - we are an *associate member* and an approved *verifier.*
- Climate Action Reserve – our accreditation is pending.
- Climate, Community & Biodiversity Alliance – we are a *member* and an approved *verifier.*
- Plan Vivo – we are a *verifier.*
- Voluntary Carbon Standard – we are an accredited *validator & verifier.*

The CCBA Standards are primarily project design standards and demonstrated conformance to the standard in this audit related to the planning, development, and design of the project in the inception or start-up phase. Conformance related to systems, design, and proposed activities in the process of development by the project. The standards were not used to measure project implementation, thus conformance to the standard was not meant to evaluate any delivery of emissions reductions, community or biodiversity benefits, or other results hoped to be achieved through future performance of the project. The CCBA Standards were designed to be a tool to demonstrate high-quality project design that should lead to multiple-benefits in addition to carbon sequestration and emissions reductions. Use of the standards may increase confidence in land based carbon projects.

Dispute resolution: If SmartWood clients encounter organizations or individuals having concerns or comments about Rainforest Alliance / SmartWood and our services, these parties are strongly encouraged to contact SmartWood Headquarters directly. Formal complaints or concerns should be sent in writing.

2 AUDIT CONCLUSIONS

2.1 Summary of Conformance to CCBA Standards

In general terms, ForestFinance has made a significant effort to meet the CCBA Standard 2nd Version. However, gaps within the project documents prevented the project from fully meeting the criteria of the CCBS. ForestFinance demonstrated compliance to all CCBS criteria prior to the validation, on December 23, 2010. ForestFinance did not attempt to document conformance with the Gold Level Section, and as such the project did not obtain Gold Level conformance.

General Section	Conformance:		
G1. Original Conditions in the Project Area	Yes ☒	No ☐	Required
G2. Baseline Projections	Yes ☒	No ☐	Required
G3. Project Design & Goals	Yes ☒	No ☐	Required
G4. Management Capacity and Best Practices	Yes ☒	No ☐	Required
G5. Legal Status and Property Rights	Yes ☒	No ☐	Required

Climate Section	Conformance:		
CL1. Net Positive Climate Impacts	Yes ☒	No ☐	Required
CL2. Offsite Climate Impacts ("Leakage")	Yes ☒	No ☐	Required
CL3. Climate Impact Monitoring	Yes ☒	No ☐	Required

Community Section	Conformance:		
CM1. Net Positive Community Impacts	Yes ☒	No ☐	Required
CM2. Offsite Stakeholder Impacts	Yes ☒	No ☐	Required
CM3. Community Impact Monitoring	Yes ☒	No ☐	Required

Biodiversity Section	Conformance:		
B1. Net Positive Biodiversity Impacts	Yes ☒	No ☐	Required
B2. Offsite Biodiversity Impacts	Yes ☒	No ☐	Required
B3. Biodiversity Impact Monitoring	Yes ☒	No ☐	Required

Gold Level Section	Conformance:		
GL1. Climate Change Adaptation Benefits	Yes ☐	No ☒	Required
GL2. Exceptional Community Benefits	Yes ☐	No ☒	Required
GL3. Exceptional Biodiversity Benefits	Yes ☐	No ☒	Required

CCBA Validation Level Attained:		
Approved	Yes ☒	No ☐
Gold	Yes ☐	No ☒

2.2 Auditor Recommendation

	Based on Company's conformance with CCBA requirements, the auditor makes the following recommendation:
☒	*Validation approved:* CAR(s) closed
☐	*Validation not approved:* -----
Additional comments:	None

2.3 Corrective Action Requests

2.3.1 Corrective Action Requests (CARs)

Note: CARs describe required actions or improvements that address COMPANY non-conformances identified during audits. CARs include defined timelines for completion. CARs issued during assessments /reassessments shall be closed prior to issuance of Validation. CARs issued during audits shall be closed within timeline or result in suspension.

CAR 01/10	Reference Standard & Requirement: G1.5.
Non-conformance:	The project documentation provided does not contain a description of communities located in the project zone, nor describes any community characteristics.
Corrective Action Request: ForestFinance shall provide a description of communities located in the project zone, including basic socio-economic and cultural information that describes the social, economic and cultural diversity within communities, identifies specific groups such as Indigenous Peoples and describes any community characteristics.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	A description of communities located in the project area and near de project zone is now described in exhibits. See detailed findings in G1.5. Community Information.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 02/10	Reference Standard & Requirement: G1.7.
Non-conformance:	There is not a discussion of the diversity of species and ecosystems within the project zone.
Corrective Action Request: ForestFinance shall provide a description of current biodiversity within the project zone (beyond just the project area) and threats to that biodiversity, using appropriate methodologies, substantiated where possible with appropriate reference material.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	In the CFS Environmental Aspects document, proponents explain that the region (not only the project zone) "*where the project is situated, is characterized by many residues of its original rainforest vegetation in form of patches from 5 to 20 hectares size, that have not been converted to grasslands by the farmer because of their topography or because they consist of wetlands. In these patches, much of the original biodiversity «…» that existed in the region is still preserved.*" Other topics like the description of biodiversity, and a list of flora and fauna, are considered in the documents EIA, and HCV assessment.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 03/10	Reference Standard & Requirement: G1.8.1 - 1.8.6, G3.6, CM1.2, CM3.2, B1.2, B3.2
Non-conformance:	No high conservation values evaluation is documented by the PDD provided. This identification was not done for the project zone, as required by CCBA. As such, there is no assessment to determine any negative impacts on HCVs and no plan for how such HCVs will be monitored.
Corrective Action Request: ForestFinance shall evaluate the *project zone* for High Conservation Values,	

and then assess and monitor them, as required by the CCBA standards.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	A HCV study was done, the results were shown to audit team. As a conclusion, there were no high conservation values . See detailed findings at G1.8.1
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 04/10	Reference Standard & Requirement: G2.1.
Non-conformance:	Teak plantations were not considered in the additionality and baseline assessments.
Corrective Action Request: ForestFinance shall consider teak plantations in their additionality and baseline assessments.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	Teak plantations are now recognised as a possible baseline scenarios in step 1. The PDD concludes that teak plantations are relatively likely and a probability of 10% is attached to this scenario. Teak plantations are not the most likely scenario, which remains the continuation of pasture.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 05/10	Reference Standard & Requirement: G2.2.
Non-conformance:	During calculation of additionality, the project did not consider that only some of the areas planted are eligible for carbon credits.
Corrective Action Request: ForestFinance shall, when calculating the additionality of the project, transparently consider that only some of the areas planted are eligible for carbon credits.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	The calculation now correctly assumes that only part of the planted area is eligible for crediting.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 06/10	Reference Standard & Requirement: G2.2.
Non-conformance:	The additionality assessment does not include a sensitivity analysis or documented evidence of the barriers in the barrier analysis.
Corrective Action Request: ForestFinance shall document the sensitivity analysis and provide evidence for barriers in the barrier analysis.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	Changes made in the additionality assessment have altered the requirements of the assessment. For example, a sensitivity analysis should not have been conducted given the new outcome of sub-step 2c in the revised additionality argument. However, one may be needed in future depending on the path taken through the additionality tool. It is important to note that changes within the application of the additionality tool may result in varying requirements, as outlined within the additionality tool. Whilst the PDD does present a sensitivity analysis, it was found not to meet the requirements of the tool. Rather it summarizes a qualitative argument about additionality. The qualitative assessment was not found to provide

	sufficient evidence to support the additionality argument. The Proponents also submitted a spreadsheet called, "Sensitivity Analysis" (not uploaded to the website). This also fails to perform the tests required by this step. The sensitivity analysis needs to demonstrate that in the without-crediting case, even when assumptions are varied, that it still remains unattractive relative to alternative investments. The spreadsheet presented assesses the sensitivity of the increase in IRR with carbon credit costs amongst other things. Regarding the barrier analysis; the PDD does not follow Step 3 or 4 of the tool. If the investment analysis fails, the project must demonstrate additionality through barrier analysis. Given the integrated nature of these issues it was decided to close this CAR and replace it with **CAR 15/10**.
CAR Status:	Closed
Follow-up Actions (if any):	N/A

CAR 07/10	Reference Standard & Requirement: G2.4.
Non-conformance:	How the impacts could affect communities in the project zone is not well described.
Corrective Action Request: ForestFinance shall clearly describe how the impacts on water and soil, could affect the communities in the project zone. References shall be given to support the argument.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	Forest Finance has now a document called "Impact of ecosystem services on local stakeholders and population". This document is basically a review of literature where it is widely discussed the impacts of degradation and remarks the importance of a plantation project and the management needed to achieve positive ecological impacts and to reduce the negative impacts. Based on these facts, project proponent offers a list of four technical elements that were used to establish the plantation projects, then it is discussed the principal consequences of implementing those elements in a positive and negative way. Forest Finance included references to changes in water, and soil and in a indirect way, how those changes can affect the communities.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 08/10	Reference Standard & Requirement: G3.8.
Non-conformance:	Documentation of stakeholders consultation was not provided.
Corrective Action Request: ForestFinance shall provide documentation of consultation processes with stakeholders potentially affected by the project activities.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	Based on BARCA documents, proponents explain that multiple tools have been used to interact with neighbours and employees, for example training sessions, interviews, social diagnostics, among others. BARCA has addressed this issue to meet FSC standard, specifically criteria 4.4.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 09/10	Reference Standard & Requirement: G3.10.
Non-conformance:	A process for resolving stakeholders grievances and conflicts has not been designed yet.
Corrective Action Request: ForestFinance shall design a process for hearing, responding, and resolving community and other stakeholder grievances withing a reasonable time period. Proponents shall be sure that all the feedback and resolution is public within 30 days and everything is documented.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	Forest Finance submitted a document named "Documentación y solución de conflictos y quejas en proyectos de ForestFinance / Barca". BARCA as the forest service provider was also involved in designing this procedure since the majority of the workers are hired by them, in agreement with Forest Finance. A communication between Barca and Forest Finance formalizes the commitment of them to implement the procedure, even in all the plantation projects not only those considering in the scope of CCBA project. The procedure was updated basically with two principal topics, one it is expected that the document is shared with local stakeholders and with third parties which could serve as a mediator to solve problems; and two, the implementation of a record book to archive the whole process of hearing and resolving conflicts.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 10/10	Reference Standard & Requirement: G5.2.
Non-conformance:	Proper authorization for project is not documented.
Corrective Action Request: ForestFinance shall document that the project has approval from the appropriate authorities.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	There is a letter (dated 2001) where ANAM recognizes that Futuro Forestal (a company bought by ForestFinance) is in charge of plantation projects searching for carbon credits negotiations. ANAM recognizes also that "the projects will also help to promote sustainable development in our country…(signed by Madeleine K. Albright, focal point UNFCCC)".
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 11/10	Reference Standard & Requirement: CL1.1.
Non-conformance:	BEF for Teak was not generated correctly.
Corrective Action Request: ForestFinance shall revise the biomass expansion factor for teak.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	The biomass expansion factor is now correctly derived from the literature. This can be seen in cell G18 of "06-12 - CO2_scientifc_growthmodel_COI".
CAR Status:	Closed
Follow-up Actions (if any):	Pending.

CAR 12/10	Reference Standard & Requirement: CL1.1.
Non-conformance:	Data on the percentages of different tree species planted is not presented consistently in the project documentation.

Corrective Action Request: ForestFinance shall present the percentage of tree species planted data consistently and correctly in their project documentation and maps.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	In the revised documentation, maps of the planted strata have been provided (see eligibility document). This allows comparison with the data in the spreadsheet, '06-12 - CO2_scientifc_growthmodel_COI'. Comparisons confirmed that the data (including the percentage of tree species planted) had been correctly transferred from the maps into the spreadsheet
CAR Status:	Closed
Follow-up Actions (if any):	N/A

CAR 13/10	Reference Standard & Requirement: CM1.1, CM2.1, CM2.2, CM2.3, CM3.1, CM3.3.
Non-conformance:	Community impacts and its monitoring studies have not been developed yet.
Corrective Action Request: ForestFinance shall use appropriate methodologies to estimate the impacts on communities. A credible estimate of impacts must include changes in community well-being due to project activities and an evaluation of the impacts by the affected groups. Assumptions shall be clearly documented.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	ForestFinance has decided to implement the methodology of FAO found in "A Handbook for Trainers on Participatory Local Development". This methodology is approved by CCBA Second Edition Standard, therefore ForestFinance will have the information required by applicable indicadors. The methodology considers a list of indicators which seem to be adecuate to measure periodically changes or impacts on communities. In the mean time, the project proponent already has designed and implemented some basic indicators to determine what the impact could be in terms of socioeconomic and environmental topics.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 14/10	Reference Standard & Requirement: B1.1, B2.1, B2.2, B2.3, B3.1, B3.2, B3.3.
Non-conformance:	Biodiversity impacts and its monitoring studies have not been developed yet.
Corrective Action Request: ForestFinance shall use appropriate methodologies to estimate changes in biodiversity as a result of the project in the project zone and in the project lifetime. Assumptions shall be clearly documented.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	A document called "Plan de Monitoreo de Flora y Fauna en fincas de reforestación" (Abel Batista/Consultant/June 2010) was sent to SW. This document consists of the monitoring plan that ForestFinance will implement after validation. Considering the capacity of the project proponent and the service provider (Barca), audit team considers the plan objectives and goals, adecuate to meet B1.1. and related indicators.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

CAR 15/10	Reference Standard & Requirement: G2.2.
Non-conformance:	The additionality tool has not been followed fully and correctly.

Corrective Action Request: ForestFinance shall follow the additionality tool fully and correctly.	
Timeline for conformance:	Prior to validation.
Evidence to close CAR:	As performed, the investment test was not passed, because, at the time of investment a 'realistic scenario' without-crediting was more financially attractive than the bond chosen as a comparative investment. The barrier analysis resulted in four barriers being identified. Of these four, the difficulty in securing debt funding and the long term payback schedule of an investment in a mixed species forestry plantation were found to be the most defensible barriers. These barriers are overcome by credits through an increased IRR and early return on some of the investment.
CAR Status:	Closed.
Follow-up Actions (if any):	N/A.

2.3.2 Observations

Note: Observations are issued for areas that the auditor sees the potential for improvement in implementing standard requirements or in the quality system; observations may lead to direct non-conformances if not addressed.

OBS 01/10	Reference Standard & Requirement: G2.5.
No references are provided for the studies and the methodology used.	
Observation: ForestFinance should provide references of the studies and the methodology used to demonstrate that biodiversity can be rich in the plantations.	

OBS 02/10	Reference Standard & Requirement: G4.1.
Organization chart of the project is missing.	
Observation: ForestFinance should include an organization chart of the project staff within the PDD.	

OBS 03/10	Reference Standard & Requirement: G2.2.
See findings for CAR 15/10. Additionality has been demonstrated, but the tool has not been followed fully, and elements presented in the PDD require revision (for example the investment analysis).	
Observation: Forest Finance should follow the additionality tool fully and correctly.	

2.4 Actions Taken by Company Prior to Report Finalization

ForestFinance submitted new documentation as evidence to close CARs such as the new version of PDD for the CCBA project, and also updated documents of CFS project e.g. environmental aspects, forest management, leakage, baseline; all of them were posted in CFS website. Additional clarifications and discussions with Forest Finance staff were necessary after audit team reviewed these documents.

The first audit consisted of two assessments, a field assessment, and a desk based assessment of revised material. After the first assessment (5 July 2010), 16 CARs were issued, then ForestFinance submitted the new information, and as a result, one CAR (06/10) was closed, and three remained open (CAR CAR 07/10, CAR 09/10, and CAR 15/10). The first two CARs were reviewed and audit team determined to let them open since not all of the requeriment had been addressed. On the other hand, the original CAR 15/10 issued during the first assessment was deleted, and instead another CAR 15/10 was issued regarding another topic.

Forest Finance submitted adequate exhibits to close the three remaining CARs for the second desk based audit, and after several interactions with Andreas Schnall and Martin Bolte, the

auditors determined that the project was ready to be validated against CCBA Standard 2nd. Edition (approved level); only one new OBS (03/10) was raised as a result of the last audit.

3 AUDIT PROCESS

3.1 Audit Overview

Note: The table below provides an overview of the audit scope. See standard checklist appendix for specific details on auditor qualifications, staff interviewed, and audit findings per facility audited.

Location/Facility	Date(s)	Length of Audit	Auditor(s)
Barca S.A. Office, Darién, Panama	March 1st, 2010	4 hours	Adam Gibbon, William Arreaga
Darien, Panama. Management Units 1-9	March 2nd, 2010 – March 4th, 2010	3 days	Adam Gibbon, William Arreaga
Forest Finance Main Office, Panama City, Panama	March 5th, 2010	1 day	Adam Gibbon, William Arreaga

3.2 Description of Audit Process

The validation audit for ForestFinance carbon project initiated with a pre-validation which was in general terms a desk review. With the results of the pre-validation auditors spent a week visiting the project site, where the audit was conducted through documentation review, interviews with stakeholders and evaluation of the carbon projects.

3.3 Documents reviewed

Title, Author(s), Version, Date	Electronic Filename
Main PDD Documents	
Secured Land Tenure, 08/05/2009	CFS_v20_-_Template_-_Secured_Land_Tenure.pdf
Additionality, 26/01/2010	CFS_v21_-_Template_-_Additionality.pdf
Eligibility, 25/02/2010	CFS_v21_-_Template_-_Eligibility.pdf
Environmental Aspects, 12/11/2009	CFS_v21_-_Template_-_Environmental_Aspects.pdf
Financial Capacity, 26/01/2010	CFS_v21_-_Template_-_Financial_Capacity.pdf
Forest Management, 25/02/2010	CFS_v21_-_Template_-_Forest_Management.pdf
Management Capacity, 25/02/2010	CFS_v21_-_Template_-_Management_Capacity.pdf
Protective Capacity, 25/02/2010	CFS_v21_-_Template_-_Protective_Capacity.pdf
Socio-economic aspects, 12/11/2009	CFS_v21_-_Template_-_Socioeconomic_Aspects.pdf
Technical Capacity, 25/02/2010	CFS_v21_-_Template_-_Technical_Capacity.pdf
Baseline, 30/11/2009	CFS-v21-Template-Baseline2-Template-Baseline.pdf

Future CO2 Fixation, 26/11/2009	CFS-v21-Template-Future-CO2-fixation-2.pdf
Leakage, 30/11/2009	CFS-v21-Template-Leakage.pdf
Additionality Supplemental Documents	
SGS FM Audit Report, Feb 2007	02-01
Forest Finance Terms and Conditions V1/2009	02-02
Futuro Forestal Promotional Document	02-03
Wood Stock Invest Promotional Document 27/11/08	02-04_WSI_kurz_engl_25.000_1108Print
Cashflow per Hectare Co2ol Tropical Mix	02-05
Cashflow per Hectare Co2ol Tropical Mix	Cashflow per Hectare Co2ol Tropical Mix
Magazine Article	02-06_Finanztest 10_2009
Environmental Aspects Supplemental Documents	
Panama Temperatures	05-01.3 tempreture-panama.pdf
Pesticidas En El Manejo De Plantaciones Forestales, Barca	05-01.1 Plaguicidas en el manejo de las plantaciones forestales
Rain Maps	05-01.2 rain-year
Temperature Maps	05-01.3 tempreture-panama
Environmental Aspects Supplemental Documents	
Report of Educational Activities For Employees of Forest Finance 2008	04-02-Fortbildungen-FoFi-08-09-1
CO2 Fixation Supplemental Documents	
Wood density information	06-01 - Terminalia amazonia en Costa Rica.pdf
Wood density information	06-02 - C storage of harvest-age T. grandis Panama.pdf
Wood density information	06-03 - Hyeronima alchorneoides.pdf
Wood density information	06-04 - Terminalia amazonia.pdf
Wood density information	06-05.1 - Anacardium excelsum - wooddensity.pdf
Wood density information	06-05.2 - Astronium graveolens - wooddensity.pdf
Wood density information	06-05.3 - Bombacopsis quinata - wooddensity.pdf
Wood density information	06-05.4 - Cedrela odorata - wooddensity.pdf
Wood density information	06-05.5. - Dalbergia retusa - wooddensity.pdf
Wood density information	06-05.6 - Hyeronima alchorneoides - wooddensity.pdf
Wood density information	06-05.7 - Swietenia macrophylla - wooddensity.pdf
Wood density information	06-05.8 - Tabebuia guayacan - wooddensity.pdf
Wood density information	06-05.9 - Tabebuia rosea - wooddensity.pdf

Wood density information	06-05.10 - Tectona grandis - wooddensity.pdf
Wood density information	06-05.11 - Terminalia amazonia - wooddensity.pdf
Wood density information	06-05.12. - Enterolobium cyclocarpum - wooddensity. - Enterolobium cyclocarpum - wooddensity.pdf
Wood density information	06-05.13. - Inga spp - wooddensity. - Inga spp - wooddensity.pdf
Wood density information	06-05.14. - Vochysia ferruginea - wooddensity. - Vochysia ferruginea - wooddensity.pdf
Wood density information	06-05.15 - Vochysia guatemalensis - wooddensity.pdf
Journal Article	06-06 - Stand growth scenarios B. quinata CR.pdf
Journal Article	06-07 - dipteryx panamensis-1.pdf
Journal Article	06-08 - Stand growth scenarios T. grandis CR.pdf
Journal Article	06-09 - dalbergia retusa.pdf
IPCC Data	06-10 - ipcc_Anx_3A_1_Data_Tables.pdf
CarbonFix Standard	06-11 - CFS_v21_-_Criteria_Methodology.pdf
Growth Model	06-12 - CO2_scientifc_growthmodel_COI.xls
Journal Article	06-14 - co2_Secondary forests as temporary carbon sinks - The economic impacts of accounting methods on reforestation projects in the tropics.pdf
Journal Article	06-15 - Ecuador's Choco under siege, but hope remains - map of choco darien region.pdf
Journal Article	06-16 - WWF - Choco-Darien Moist Forest - A Global Ecoregion.pdf
CO2OL Biodiversity plantings - Additional Information	06-17 - COI-CO2OL Biodiversity - Additional Information_2009-11-26_SA.17 - COI-CO2OL Biodiversity - Additional Information_2009-11-26_SA.pdf
Wood density source	06.13 - wood density source.xls
Cashflow per Hectare Co2ol Tropical Mix	Cashflow per Hectare Co2ol Tropical Mix.xls
Leakage Supplemental Documents	
Leakage determination, October 2009	Leakage-Determination-Carbon-Project-2007-2008-Panama
Capacity Supplemental Documents	
Plan de prevención y control de incendios forestales, 2008	12-01 - Plan de prevención y control de incendios forestales de FoFi-2008 _2_ _2_.pdf
Plan de prevención y control de plagas y enfermedades FoFi -2008	12-02 - Plan de prevención y control de plagas y enfermedades FoFi -2008.pdf
Accounts 2006	10-01 - COI - Jahresabschluss zum 31.12.2006
Accounts 2007	10-02 - COI - Jahresabschluss zum 31.12.2006
Accounts 2008	10-03 - COI - Jahresabschluss zum 31.12.2006

Land and CO2 Tenure Supplemental Documents	
Letter from landowner confirming that Forest Finance have right to trade carbon generated on their land.	Fr. Pracht.pdf
As above	Lau Anai S.A.pdf
As above	Mr. Adapa.pdf
As above	Mr. Perez.pdf
As above	Mr. Pontini.pdf
As above	Mr. Vos.pdf
secured land tenure owners overview table	secured land tenure owners overview table.xls
Secured Land Tenure Summary	13-01 COI CFS_-_Attachment_-_Secured_Land_Tenure.pdf
Sales Database and Screen Shots	
Spreadsheet of Credit Sales	CO2Bilanzkartei_2
Spreadsheet of Credit Sales	DBscreen_CO2-33489_2010
Spreadsheet of Credit Sales	DBscreen_COB-32478_2009
Spreadsheet of Credit Sales	DBscreen_COB-32557_2009
Spreadsheet of Credit Sales	DBscreen_COB-33299_2010
Other Documents Seen	
CarbonFix info on Management units and carbon	Management-Units_COI_CFS
JPGs of maps generated from GIS software.	various names
Documents submitted for second assessment:	
PDD new version July 2010	PDD_COI_CCBS.pdf
brands & values GmbH Zertifikat, others	Attachment_G2.1_Tropical_Mix.zip
Internal email communications	Attachment_G3.10_2_Tropical_Mix.zip
Maps of the fincas	Attachment_G3.6_Tropical_Mix.zip
Terms and Conditions of the ForestFinance Group	Attachment_G3.7_Tropical_Mix.zip
Conflict Resolution with land owners or land neighbors, and other documents	Attachment_G3.8_Tropical_Mix.zip
Ocupational Safety documents	Attachment_G4.3_Tropical_Mix.zip
Annual accounts, English and German	Attachment_G4.7_Tropical_Mix.zip
Letters from and to ANAM	Attachment_G5.2_Tropical_Mix.zip
Plan de monitoreo de flora y fauna en proyectos de reforestación.	Attachment_B1.1_Tropical_Mix.pdf
Plan de monitoreo comunitario	Attachment_CM1.1_Tropical_Mix.pdf

Características de la población de Darién	Attachment_G1.5_Tropical_Mix.pdf
Estudio de impacto ambiental	Attachment_G1.7_Tropical_Mix.pdf
Evaluación BAVC	Attachment_G1.8_Tropical_Mix.pdf
Defense of expected carbon price	Attachment_G2.1_Tropical_Mix.pdf
Solución de conflictos con los dueños de terrenos o sus vecinos	Attachment_G3.10_1_Tropical_Mix.pdf
Conflict Resolution with land owners or land neighbors	Attachment_G3.10_Tropical_Mix.pdf
Resumen del proyecto	Attachment_G3.9_Tropical_Mix.pdf
Induccion general a trabajadores de BARCA, s.a.	Attachment_G4.5_1_Tropical_Mix.pdf
Código de Trabajo	Attachment_G4.5_Tropical_Mix.pdf
List of relevant laws	Attachment_G5.1_Tropical_Mix.pdf
Promesa de compraventa	Attachment_G5.3_1_Tropical_Mix.pdf
Procedimiento para la compra de fincas	Attachment_G5.3_Tropical_Mix.pdf
Documents reviewed during third assessment (December 2010)	
CAR 07/10: Ex-ante impacts of implementing the plantation project.	- attachment_G2.4_Tropical_Mix.pdf - facc_technicalreport.pdf - panama-eng.pdf - panama-summary-eng.pdf - PNUMA-Cuencas.pdf - SP-LStock-n.pdf
CAR 09/10: Documents related with the process for archiving grievances or conflicts.	- Documentacion de registro y solución de conflictos y quejas de ForestFinance projects.pdf - Documentation for results hearing and resolving conflicts within ForestFinance projects.pdf - Email_BARCA_FOFI_implemention of the process.pdf
CAR 15/10: Documents related with additionality issues.	- 02-04-2_cash flow model_2007_processed_timber.xls - 02-04_WSI_kurz_engl_25.000_1108Print.pdf - Additionality_COI_CFS.pdf
All CarbonFix documents can be found uploaded on the CFS website.	

3.4 Stakeholder consultation process (if applicable)

The audit involved a wide range of stakeholders, some of them were proposed by the project proponent, and others were chosen by the audit team. Interviews were conducted during and after the field visit in order to obtain the stakeholders' inputs, and to identify strengths and weaknesses of the project. In some cases, stakeholder comments were compared with direct observations from the field visit, and also some topics were

discussed with other stakeholders. When applicable, some inputs were used to support findings and non conformances, but also to close corrective action requests.

3.5 Public Comments Received

No public comments were received as part of the CCBS public notification process.

Appendix A: COMPANY DETAILS

1 CONTACTS

1.1 Primary Contact for Coordination with SmartWood

Primary Contact, Position:	Andreas Schnall, Project Manager
Address:	Eifelstraße 20, Bonn, Nordrhein-Westfalen, Germany
Tel/Fax/Email:	0228 943778/ andreas.schnall@forestfinance.de

1.2 Billing Contact

Contact, Position:	Andreas Schnall, Project Manager
Address:	Eifelstraße 20, Bonn, Nordrhein-Westfalen, Germany
Tel/Fax/Email:	0228 943778/ andreas.schnall@forestfinance.de

2 SmartWood Website Customer Fact Sheet

Note: upon Validation, the SmartWood website posts and maintains Customer Fact Sheets for companies with the information in the table below at http://www.ra-smartwood.org/

Field	Text for Customer Fact Sheet	Has this Info Changed?
Contact, Title: (Sales & Marketing)	Andreas Schnall, Project Manager	Yes ☐ No ☒
Address:	Eifelstraße 20, Bonn, Nordrhein-Westfalen, Germany	Yes ☐ No ☒
Tel/Fax/Email/Website:	0228 943778/ andreas.schnall@forestfinance.de	Yes ☐ No ☒
Products/Descriptions:		Yes ☐ No ☒

3 Validation Scope

3.1 Scope Definition:

The scope of the validation is defined as the project area which is a 398.9 hectares of native and teak species planted and conservacion areas, in Darien, Panama. Approximately 80% of the total project area consists of plantations and the other 20% consists of conservation areas. The project is developed on private property. The project estimates that emissions reductions or removals around 45,000 t CO2e during the project period of 25 years (reforestation) and 50 years (conservation).

3.2 Type of Legal Entity: Panama -based Conservation Organization

3.3 Jurisdiction: Head office in Panama City, Panama

Appendix B: STANDARD CHECKLIST CCBA STANDARDS

1 Evaluation of Project

Project Name:	Tropical Mix Reforestation
Contact for Validation:	Andreas Schnall, Project Manager
Address:	Eifelstraße 20, Bonn, Nordrhein-Westfalen, Germany
Tel/Fax/Email:	0228 943778/ andreas.schnall@forestfinance.de

2 Evaluation Details

Auditor(s), Qualifications:	**Adam Gibbon**: Adam has led the technical carbon evaluation in ten CCBA validations, one VCS validation, six VCS methodology reviews, one CCX verification, and one Plan Vivo verification. Adam is a qualified lead auditor for the Climate Action Reserve and was a CCX forestry verifier committee participant. Adam has trained over 60 people in Spain, Bali and Vietnam in AFOLU project auditing and project development. Recipients of the training included Rainforest Alliance auditors, government officials, private consultants and NGO representatives. Adam was lead author of recent Rainforest Alliance publication entitled, "Guidance on coffee carbon project development using the (CDM) simplified agroforestry methodology" as well as two scientific articles currently in press. Before joining Rainforest Alliance Adam worked at Oxford University as a researcher. His research emphasized the potential of carbon markets to finance sustainable management of forest resources. He led a team conducting a landscape scale assessment of carbon stocks in the Peruvian Andes' cloud forests and montane grasslands. Adam earned a distinction on the Environmental Change and Management MSc. Program at Oxford University, winning prizes for his dissertation and overall performance. He was awarded the Sir Walter Raleigh Scholarship at Oriel College, Oxford. He graduated with a first class degree from Durham University, with a BSc in Natural Sciences, specializing in Geology, Chemistry & Geography. **William Arreaga**: Guatemalan forester from San Carlos de Guatemala University, and M.Sc. from CATIE, Turrialba, Costa Rica. William serves as a lead auditor for FSC Forest Management, and Chain-of-Custody. Moreover, William had received formal training in Environmental Services, including Carbon issues; as well as he had developed a great experience with Carbon issues by his participation in the field for two CCB validations in Nicaragua and Costa Rica, VCS validation in Honduras, and CCB validation and Carbon Fix verification in Panama.
Sites Visited:	Management Units 1-9 in Darién, Panama Main office of Forest Finance in Panama City, Panama Main Office of BARCA S.A. in Panama City, Panama Technical Office of BARCA S.A. in Darién, Panama Stakeholder office: Defensoría del Pueblo

People Interviewed, Titles:	Andreas Schnall, Project Manager Forest Finance Dirk Walterspacher, Forest Finance Martin Bolte, Environmental consultant for Forest Finance Staff Forest Finance: administrative, legal and technical Diego Dipieri, General Director BARCA S.A. Clementino Herrera, General Manager BARCA S.A. Ariel Chávez, Regional Manager, BARCA S.A. Carlos Castro, former owner Elasio Cubilla, Neighbour Finca Meteti Ezequiel Ramírez, Neighbour Finca Meteti Ruben Quinteros, Defensoría del Pueblo René López, Unidad de Cambio Climático Employees of BARCA S.A.

3 Standard Checklist

Climate, Community and Biodiversity Project Design Standards Second Edition, December 2008

GENERAL SECTION

G1. Original Conditions at Project Site - Required

Concept
The original conditions at the project area[1] and the surrounding project zone[2] before the project commences must be described. This description, along with baseline projections (G2), will help to determine the likely impacts of the project.

Indicators
The Project Proponents must provide a description of the project zone, containing all the following information:

General Information

1) The location of the project and basic physical parameters (e.g. soil, geology, climate).

Findings from 1st assessment: 05 JULY 2010	The soil, and climate and water characteristics are well described in the Environmental Aspects CarbonFix document (12/11/2009). The location of the Project is clearly shown on the CarbonFix website: http://www.carbonfix.info/Project/Projectslist.html?itemid=54&ipage=0.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

2) The types and condition of vegetation within the project area.

Findings from 1st assessment: 05 JULY 2010	In the Eligibility CarbonFix document (21/01/2010) (18/12/2009) a remote sensing procedure carried out by a specialist remote sensing and GIS company, Spatial Solutions is described. Landsat 30m resolution and Aerial imagery was used to determine the landcover in 1997. The low resolution of the Landsat images makes them difficult to interpret visually, but the methodology followed is sound. Of the

[1] The 'project area' is defined as the land within the carbon project boundary and under the control of the Project Proponent.
[2] The 'project zone' is defined as the project area and the land within the boundaries of the adjacent communities potentially affected by the project.

	defined, 'eligible planting areas' the land covers were found to be 95.2 ha grassland, 10.1 ha sparse grassland, and 61 ha shrubland. It is stated that no shrubland would be cleared for planting. In the Environmental Aspects of the CarbonFix documentation the four ecosystem types found in the project area are described. There are grassland, sparse grassland, shrubland and forest are described. Photos are included.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

3) The boundaries of the project area and the project zone.

Findings from 1st assessment: 05 JULY 2010	In the Forest Management CarbonFix document (30/11/2009) it is stated that the project has an area of 395.7 ha, 318.3 ha has been planted (up to 2008), 77 ha will be used as a conservation area. These areas are clearly mapped. In the Additional Information document (April 2010), the Project Proponent defines the project zone as the nearest cities and small villages that surround management units (MU). The geographical location is shown in maps and names of the main cities and villages are listed with the correspondent number of inhabitants: Meteti, Punoloso, Mundito, El Tirao, Buenos Aires, and Agua Fria.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

Climate Information

4) Current carbon stocks within the project area(s), using stratification by land-use or vegetation type and methods of carbon calculation (such as biomass plots, formulae, default values) from the Intergovernmental Panel on Climate Change's 2006 Guidelines for National GHG Inventories for Agriculture, Forestry and Other Land Use[3] (IPCC 2006 GL for AFOLU) or a more robust and detailed methodology.[4]

Findings from 1st assessment: 05 JULY 2010	The current carbon stocks are calculated according to the CarbonFix Methodology and Criteria (Section 3.5, Baseline). This involves quantifying the woody and non-woody biomass on the project area (note: a later dated version was presented for the pre-validation). The Baseline CarbonFix document (30/11/2009) shows the results of this process. International default biomass values for grasslands and root:shoot ratios were used to determine that the current carbon stock of the project areas which were eligible for planting was 29 t CO2 ha-1. The shrubland and forest biomasses were not calculated because these areas were not eligible for CarbonFix crediting and they do not remove shrubs or trees in these areas anyway; during the field visit auditors validated this. The method used was found to be appropriate for the scale of the project. The baseline state, of low carbon stock grassland was seen in most of the fields surrounding the project areas.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

Community Information

5) A description of communities[5] located in the project zone, including basic socio-economic and cultural information that describes the social, economic and cultural diversity within communities (wealth,

[3] Volume 4 Agriculture, Forestry and Other Land Use http://www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.html

[4] In cases where a published methodology is used, the full reference must be given and any variations from the published methodology must be explained.

[5] 'Communities' are defined as all groups of people—including Indigenous Peoples, mobile peoples and other local communities—who live within or adjacent to the project area as well as any groups that regularly visit the area and derive income, livelihood or cultural values from the area. (See Appendix B: Glossary for more information.)

gender, age, ethnicity, etc.), identifies specific groups such as Indigenous Peoples[6] and describes any community characteristics.[7]

Findings from 1st assessment: 05 JULY 2010	According to the "Additional Information" document (April 2010), the Project Proponents are still working on this topic.		
Findings from 2nd assessment: 16 September 2010	The PDD was updated, this document explains by sections all the requirements for every indicator. Based on a separate study done by PNUD/Ministery of Economy of Panama, and named "Características de la Población Darién, 2006" the project proponent analyzes the community complexity within the Darien area, from a general to a specific context. There is also a map that shows the geographical location of MUs and all the Comarcas and the Indigenous Groups. According to this, there are two Comarcas near the projects, Kuna and Emberá. All the socio-economic and cultural descriptions are explained about these two groups in detail. However, according to the project area and project zone definitions (defined as 1km buffer around the MUs), it is explained that none of these groups can be considered neighbours of the MUs since people who live, or employees of ForestFinance do not belong necessarily to those groups. During the field visit, audit team noticed that small communities are located near the MUs, and that none of them can be legitimally considered as Kuna or Embera. The updated version of PDD also explains that some of the neighbors and employees can be considered as "ladinos", those who do not belong to an indigenous community according to CCB definition. This closes CAR 01/10.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 01/10 (Closed)**		

6) A description of current land use and customary and legal property rights including community property[8] in the project zone, identifying any ongoing or unresolved conflicts or disputes and identifying and describing any disputes over land tenure that were resolved during the last ten years (see also **G5**).

Findings from 1st assessment: 05 JULY 2010	The current landuse in the project area and surrounding areas is assessed in the Additionality CarbonFix document (21/12/2009). Some details are given in the Additional Information document (April 2010) about the two possibilities to own and manage a land in Panama: Right of use or "Derechos posesorios", and property rights. Besides, in the case of communities there is another way, the Customary Rights stablished by Estate of Panama to offer to "comarcas (communities)" the right of owning a land. "ForestFinance does not operate in these areas up to the moment" anyway. Moreover, Tropical Mix Project is developed within areas previously negotiated (with assistance of lawyers), purchased and registered in the Registro Publico in Panama. Then, the area is offered to the proponent´s clients (investors) in different ways, but assuring them that everything was done before, according to national law. During the field visit, auditors received few comments about this from former owners saying that no conflicts or disputes are pending, and that the negotiation was done in a voluntary scheme.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

[6] 'Indigenous Peoples' are defined as distinct, vulnerable, social and cultural groups whose members identify themselves as belonging to an indigenous cultural group. (See Appendix B: Glossary for more information.)
[7] Community characteristics may include shared history, culture, livelihood systems, relationships with one or more natural resources, or the customary institutions and rules governing the use of resources.
[8] Including lands that communities have traditionally owned, occupied or otherwise used or acquired.

Biodiversity Information

7) A description of current biodiversity within the project zone (diversity of species and ecosystems[9]) and threats to that biodiversity, using appropriate methodologies, substantiated where possible with appropriate reference material.

Findings from 1st assessment: 05 JULY 2010	In the Environmental Aspects CarbonFix (12/11/2009) document a description of the four ecosystem types within the project area is given. The Project Proponent describes in very general terms the ecosystems found in the project site prior to implement the reforestation project. There is not yet a discussion about specific biodiversity within the project zone; moreover, in the Additional Information document (April 2010) there is a description of biodiversity only for project area. There shall be at least a list of flora and fauna in the project zone, not only to mention that there was grass and trees. In addition, proponent shall identify the main threats to the biodiversity.		
Findings from 2nd assessment: 16 September 2010	At the new version of the PDD, the project proponent lists four kinds of ecosystems found in the project zone: grassland, shrublands, sparse grass, and forests. Each ecosystem is explained in the updated PDD, and more information about biodiversity is detailed in two different documents: the Environmental Impact Assessment for 190 ha, and the HCVs assessment. During the field visit, the audit team observed that most of the surrounding area was grassland and small patches of natural forests. The project proponent analyzed all the information based on this distribution and demonstrated with pictures the size of ecosystems. Another document (CFS Environmental Aspects) explains that the region (not only the project zone) "*where the project is situated, is charcterized by many residues of its original rainforest vegetation in form of patches from 5 to 20 hectares size, that have not been converted to grasslands by the farmer because of their topography or because they consist of wetlands. In these patches, much of the original biodiversity «…» that existed in the region is still preserved.*" Among these documents and the new version of PDD it is possible to have an adecuate description of the biodiversity. A list of flora and fauna is given, and also one threat (considered the only one) to that biodiversity.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 02/10 (Closed)**		

8) An evaluation of whether the project zone includes any of the following High Conservation Values (HCVs) and a description of the qualifying attributes:[10]

8.1. Globally, regionally or nationally significant concentrations of biodiversity values;

a. protected areas[11]
b. threatened species[12]
c. endemic species[13]

[9] Equates to habitat types, biotic communities, ecoregions, etc.

[10] These high conservation value criteria are based on those defined by the High Conservation Value (HCV) Resource Network http://hcvnetwork.org/. Practical help is available for using HCVs in each region, including generic guidance documents (Toolkits) and Country Pages.

[11] Legally protected areas equivalent to IUCN Protected Area Management Categories I-VI (see http://www.iucn.org/about/union/commissions/wcpa/wcpa_work/wcpa_strategic/wcpa_science/wcpa_categories/index.cfm for definitions) as well as areas that have been proposed for protected area status by the relevant statutory body but have not yet been officially declared, and including areas protected under international conventions (e.g., Ramsar sites, World Heritage Sites, UNESCO Man-and-Biosphere Reserves, etc.).

[12] Species that qualify for the IUCN Red List threat categories of Critically Endangered (CR), Endangered (EN) and Vulnerable (VU). (See www.iucnredlist.org and Appendix B: Glossary for more information.) Additional national or regional listings should also be used where these may differ from the IUCN Red List.

[13] Species for which the entire global range is restricted to the site, the region or the country (the level of endemicity must be defined).

d. areas that support significant concentrations of a species during any time in their lifecycle (e.g. migrations, feeding grounds, breeding areas).

Findings from 1st assessment: 05 JULY 2010	No high conservation values evaluation is documented by the PDD provided. However, BARCA Panama, the FSC certified resource manager who is in charge of managing the project area, had done a preliminary identification of HCVs within the management units. This identification was not done for the project zone, as required by CCBA. During field visit, auditors were told that the HCV study was on its final phase, but up to now the document had not been sent yet for review.		
Findings from 2nd assessment: 16 September 2010	On May 2010, BARCA, the service provider, finalized the HCVs evaluation based on the methodology of Proforest. The evaluation was done in the following communities: Meteti, Punoloso (including Buenos Aires), Mundito y El Tirao. Most of the information used was taken from Environmental Impact Assessment. The assessment was conducted in a proper way, considering the general steps of the Proforest methodology and what FSC requires, this is a) Preliminary identification based on own biological studies and stakeholder consultation; b) Definition of potencial HCVs, comparison with maps, other documents, and other stakeholder interviews; c) Final definition of HCVs, and if applicable, the definition of management and monitoring activities. BARCA determined that none of the HCV categories are represented at any of the communities. This closes CAR 03/10		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

8.2. Globally, regionally or nationally significant large landscape-level areas where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;

Findings from 1st assessment: 05 JULY 2010	There is no evidence for an HCV assessment having been conducted for the project zone.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

8.3. Threatened or rare ecosystems;

Findings from 1st assessment: 05 JULY 2010	There is no evidence for an HCV assessment having been conducted for the project zone.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

8.4. Areas that provide critical ecosystem services (e.g., hydrological services, erosion control, fire control);

Findings from 1st assessment: 05 JULY 2010	There is no evidence for an HCV assessment having been conducted for the project zone.
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.

Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

8.5. Areas that are fundamental for meeting the basic needs of local communities (e.g., for essential food, fuel, fodder, medicines or building materials without readily available alternatives); and

Findings from 1st assessment: 05 JULY 2010	There is no evidence for an HCV assessment having been conducted for the project zone.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

8.6. Areas that are critical for the traditional cultural identity of communities (e.g., areas of cultural, ecological, economic or religious significance identified in collaboration with the communities).

Findings from 1st assessment: 05 JULY 2010	In the Socioeconomic Aspects CarbonFix document there is a statement that there are no spiritual, religious, or other socially important places within the project area. However, there is no description of the process that led to this outcome.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

G2. Baseline Projections- **Required**

Concept
A baseline projection is a description of expected conditions in the project zone in the absence of project activities. The project impacts will be measured against this 'without-project' reference scenario.

Indicators
The Project Proponents must develop a defensible and well-documented "without-project" reference scenario that must:

1) Describe the most likely land-use scenario in the absence of the project following IPCC 2006 GL for AFOLU or a more robust and detailed methodology,[14] describing the range of potential land-use scenarios and the associated drivers of GHG emissions and justifying why the land-use scenario selected is most likely.

Findings from 1st assessment: 05 JULY 2010	The project uses the CarbonFix v2.1 baseline and additionality assessment tool. The version of the additionality template used for the audit was dated 26/01/10. The project attempts to demonstrate additionality by using option 2. <u>Background of the project, which helps understand baseline assessment</u> ForestFinance purchase pasture land (from sellers who are subject to leakage measurement) and plant two types of systems; (1) Conservation areas with no harvest From type (1) areas forest finance fund activities 100% through high priced ex-ante carbon credit sales. Additionality is clear here, since the only revenues received from this landuse are carbon credits. They are not discussed further here. (Management

[14] In cases where a published methodology is used, the full reference must be given and any variations from the published methodology must be explained.

	units (001-006). (2) Mixed species native and teak stands -Type (2) areas have an average of 40% teak and are planted in blocks of no more than 3 ha of one species types. (Management units 007, 008 and 009). Type (2) areas are financed by investors who invest EUR 23,000 to receive: Land title 25 years forest management Profits from the sales of; ex-ante carbon credits (equal to average carbon stock on land over 1 year rotation), thinning timber, final harvest timber. At the end of the 25 year rotation they have the option to pay extra for another rotation, or have the forest planted as a conservation forest. They are contractually obliged to keep the land under forest cover, which helps assure permanence of reductions. ForestFinance assesses additionality using the CarbonFix additionality tool, which is an edited version of the CDM's, 'Tool for the demonstration and assessment of additionality in A/R CDM project activities.' The baseline options are said to be; (a) continuing pasture, (b) abandonment – leading to pasture use, (c) hotels/buildings, (d) agriculture. The most likely is said to be (a) or (b). The auditors agree with this assessment based on observations in the field. 90% of surrounding land is pasture. However, a number of pure teak plantations were seen in the area. A Swedish company called Forwood had prominent signage for its teak plantation. The auditors found that it was incorrect not to consider teak plantations as a possible baseline scenario.		
Findings from 2nd assessment: 16 September 2010	Teak plantations are now recognised as a possible baseline scenario in step 1. The PDD concludes that teak plantations are relatively likely and a probability of 10% is attached to this scenario. Teak plantations are not the most likely scenario, which remains the continuation of pasture.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 04/10 (Closed)**		

2) Document that project benefits would not have occurred in the absence of the project, explaining how existing laws or regulations would likely affect land use and justifying that the benefits being claimed by the project are truly 'additional' and would be unlikely to occur without the project.[15]

Findings from 1st assessment: 05 JULY 2010	ForestFinance assessed additionality using the CarbonFix additionality tool, which is an edited version of the CDM's, 'Tool for the demonstration and assessment of additionality in A/R CDM project activities.' Below is a summary of ForestFinance's additionality arguments and the auditors assessment of them. <u>Argument 1</u>: *The baseline options are; (a) continuing pasture, (b) abandonment – leading to pasture use, (c) hotels/buildings, (d) agriculture. The most likely is said to be (a) or (b).* The auditors agree with this assessment based on observations in the field. Around

[15] Project Proponents must demonstrate that project activities would not have been implemented under business as usual due to significant financial, technological, institutional or capacity barriers. Actions implemented by the project must not be required by law, or Project Proponents must demonstrate that the pertinent laws are not being enforced. Project Proponents must provide credible and well-documented analyses (e.g., poverty assessments, farming knowledge assessments, or remote sensing analysis) to demonstrate that the 'without project' reference scenario reflects land-use practices that are likely to continue or that otherwise differ from the land-use practices expected as a result of project activities.

	90% of surrounding land is pasture. However, a number of pure teak plantations were seen in the area. A Sweedish company called Forwood had prominent signage for its teak plantation. We found that it was incorrect not to consider teak plantations as a possible baseline scenario. Argument 2: *Technical capacity for the project did not exist in the area, evidenced by plantations in the area which are poorly managed.* The auditors agree that the capacity for mixed native species planting was not available in the area. However BARCA, who ForestFinance use to manage their plantations, do have the technical experience to manage teak successfully, but not native species, as was confirmed by interviews with managers. No evidence of poor management of teak plantatations in the area was presented. Argument 3: *Additionality is demonstrated because the carbon credit sale revenue is a determining factor in attracting investors for two reasons; (a) it increases the internal rate of return from c.8% to c.9% (b) the early return of some money attracts people otherwise put off by the long (25 year) investment period, that will not yield returns from wood sales until year 10.* During the audit, the team found an error in the financial calculations that appears to result in the expected carbon credit revenue being overestimated by a factor of two. This error was in the spreadsheet called, "Cashflow per Hectare Co2ol Tropical Mix" and was discussed with the project proponents. The calculation assumed 100% of the area planted was eligible for carbon credits, when the actual proportion is less. When this is corrected the increase in IRR due to carbon credits would be less. The project documentation states that, "official legal and corporate documents clearly demonstrate that the additional revenues provided by the sale of GHG emissions were a determinant factor in triggering a decision favorable to the financing of the project activity." The potential accounting error weakens the argument around increase in IRR and an early return of a proportion of the investment. Sub step 2d of the CarbonFix additionality tool, "sensitivity analysis" is not documented in the additionality document. Sub-step 3a.5 requires that "transparent and documented evidence" is provided to support the barrier analysis, but this has not been provided.
Findings from 2nd assessment: 16 September 2010	The calculation now correctly assumes that only part of the planted area is eligible for crediting. This closes **CAR 05/10**. The additionality demonstration has been expanded in response to the CFS CARs issued. The PDD roughly follows the CFS Additionality tool (note that it must follow it exactly). Below each step of tools application is assessed: Step 0 and Step 1 are not required by the CFS tool. However, the Proponent has executed these steps. Therefore, a detailed assessment is not presented here. Teak plantations are now recognised as a possible baseline scenario in step 1. The PDD concludes that teak plantations are relatively likely and a probability of 10% is attached to this scenario. Teak plantations are not the most likely scenario, which remains the continuation of pasture.

	Step 2 – Investment Analysis 1. The Proponents decided to use the investment analysis as a stand alone approach; however, they do attempt to also do a barrier analysis after. *Sub-step 2a. Determine appropriate analysis method* 2. The Proponents decided to use the investment comparison analysis (Option II), this is acceptable. *Sub-step 2b. – Option II. Apply investment comparison analysis* 4. The Proponents select IRR as the investment financial indicator, such most suitable for the project type and decision-making context. This was found to be appropriate indicator given that it is easy to compare to rates available to investors from other investments. *Sub-step 2c. Calculation and comparison of financial indicators (only applicable to options II and III):* 6. The Proponents calculate the without -crediting IRR in the spreadsheet 02-05. However, the numbers presented in this spreadsheet for IRR do not match those in the PDD. The alternative investment provided is that of a German Government Bond. Given the significant difference in risk between these two investment options, it is not clear why German Bonds were chosen. 7. The without-crediting IRR was not found to be calculated transparently. As mentioned above, the spreadsheet and PDD values do not line up. In addition, it is not clear how the species mixes were gathered from the plantation data spreadsheet (06-12). The IRR calculation does not appear to include any costs such as overheads. The cashflow values are just numbers in excel, they are not calculated via any formulas, so it is not possible to see how they are derived. No explanation is given. Risk is not included in the analysis. The calculation now correctly assumes that only part of the planted area is eligible for crediting. 8. Given the nature of the comparison being made (to Government Bonds), there is no requirement to calculate the IRR the same way (since IRR is simply stated, not calculated for the Bonds). This step was executed successfully. 9. The PDD does present a comparison between the without-crediting IRR and the alternative (Government Bonds). However, what this shows is that the without-crediting scenario is more attractive that Government Bonds. As such the investment test has failed, since it is still more attractive to invest in the project without crediting than to invest in the alternative. The PDD comes to the wrong conclusion when doing this assessment and proceeds to the sensitivity analysis. *Sub-step 2d. Sensitivity analysis* 10. A sensitivity analysis should not have been conducted given the outcome of sub-step 2c. Whilst the PDD does present one anyway, it was found not to meet the requirements of the tool. Rather, it just summarises a qualitative argument about additionality. The Proponents also submitted a spreadsheet called, “Sensitivity Analysis” (not uploaded to the website). This also fails to perform the tests required by this step. The sensitivity analysis needs to demonstrate that in the without-crediting case, even when assumptions are varied, that it still remains *unattractive* relative to alternative investments. The spreadsheet presented assesses the sensitivity of the increase in IRR with carbon credit costs amongst other things. **CAR 06/10** has been closed and replaced by a more general **CAR 20/10** due to the integrated issues related to the additionality argument. *Step 3. Barrier analysis and Step 4. Impact of CDM registration*

	The PDD does not follow Step 3 or 4 of the tool. If the investment analysis fails, the project must demonstrate additionality through barrier analysis. **CAR 15/10** The Proponents calculate the without -crediting IRR in the spreadsheet 02-05. However, the numbers presented in this spreadsheet for IRR do not match those in the PDD. The alternative investment provided is that of a German Government Bond. Given the significant difference in risk between these two investment options, it is not clear why German Bonds were chosen.
Findings from 3rd assessment: 25 January 2011	*Step 2 – Investment Analysis* 1. The Proponents decided to use the investment analysis as a standalone approach; however, they do attempt to also do a barrier analysis after. This is acceptable to build a full picture of the additionality argument. *Sub-step 2a. Determine appropriate analysis method* 2. The Proponents decided to use the investment comparison analysis Option II), "*an equity based benchmark analysis*". This is acceptable, however, the heading, "*Sub-step 2c. Option II. Apply investment comparison analysis*" used in the PDD is not accurate as this analysis was not used. *Sub-step 2b. – Option III. Apply benchmark analysis* 5. The Proponents select IRR as the investment financial indicator most suitable for the project type and decision-making context. This was found to be appropriate indicator given that it is easy to compare to rates available to investors from other investments. The Proponents are then required to select an appropriate benchmark, based on the following criteria, "*The benchmark is to represent standard returns in the market, considering the specific risk of the project type, but not linked to the subjective profitability expectation or risk profile of a particular project developer. Benchmarks can be derived from:* - *Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert;* - *Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on bankers views and private equity investors/funds' required return on comparable projects;* - *A company internal benchmark (weighted average capital cost of the company) if there is only one potential project developer (e.g. when the project activity upgrades an existing activity). The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark." (CarbonFix Additionality Guidelines)* A Government bond rate from Panama was used[16]. The bond was selected to be representative as an alternative investment option at the time when investors invested in the project. It is considered to be representative because; - It is issued by the Government of Panama, and so encompasses similar country risks to investing the projects. - It was issued in 2006, and investments were made in the project in early 2007 and 2006. - The bond matures in 30 years, which is analogous to the project length of 25 years.

[16] http://www.baadermarkets.de/DEU/anleihen/bondboard/US698299AW45/;http://www.cbonds.info/em/eng/emissions/emission.phtml/params/id/10513

Other bonds were issued in the years before and after by the Panamanian Government, but all have higher rates of interest, and as such this represents a conservative choice, as well as being a logical one.

The bond has a value of 6.7% over 30 years, which is a similar length of time to the project length of 25 years. An adjustment was made based on the bonds increase in value at the time when it would have been purchased so the rate used for comparison was 6.38%.

The Project Proponents did not choose to include a a 'suitable risk premium to reflect private investment'. This step is optional and not required. The decision not to make the adjustment was justified by comparing the risk in an emerging economy to the natural risks that timber plantations face. This argument was found to be reasonable, and it is unlikely that investors would view the bond as more risky than a forest plantation, and in many situations the plantation would be viewed as a more risky investment.

Sub-step 2c. Calculation and comparison of financial indicators (only applicable to options II and III):

6. The Proponents calculate the without-crediting IRR in the spreadsheet 02-05. All assumptions are transparently presented.
7. The without-crediting IRR was found to be calculated transparently. The spreadsheet, "02-05-1 cash flow model_v3" shows detailed cost and revenue assumptions/calculations. The PD explains that risk included in the analysis, through the cost of the fire insurance premium. The calculation correctly assumes that only part of the planted area is eligible for crediting.
8. This step was conducted the same way as during the second assessment of the additionality argument which was found to be acceptable. The calculations of the with- and without-credits scenario IRR are calculated in exactly the same way as evidenced in the spreadsheet.
9. The PDD does present a comparison between the without-crediting IRR and the alternative (Panamanian Government Bonds). The without crediting scenario is shown to be less attractive than a government bond. The IRR of the project without crediting is 5.88%, whilst the bond is 6.38%.

   The auditors also reviewed marketing material from the between 2007 and 2008 when investors made their decision (02-04_WSI_kurz_engl_25.000_1108Print). There were three scenarios; 'worst', 'realistic' and 'best' advertised as having IRRs of "up to" 5%, 8% and 11% respectively. These estimated returns were based on a spreadsheet that investors who wanted to know the breakdown of costs and revenues could have accessed. These IRRs were inclusive of profits from carbon credit sales. The audit team evaluated the realistic scenario with an 8% IRR and a credit price of EUR3.79 (US$5) and by using the underlying 2007 spreadsheet, we calculated that the contribution to the IRR from carbon credits would be 0.43 percentage points. We then subtracted this amount from the 8% in the realistic scenario to arrive at a 'without credit' case, which resulted in an IRR of 7.56%. We concluded that at the time investors made their decision the realistic scenario without crediting IRR of 7.56% was more than the IRR from a government bond.

As calculated by the proponents, and without performing a risk correction, this step of the additionality test was not passed, because investing in the project without-crediting had a slightly higher rate of return than the alternative chosen for comparison.

Sub-step 2d. Sensitivity analysis

10. A sensitivity analysis was conducted. The sensitivity analysis considers potential variation in management cost increases, log prices, certificate

process and non-timber forest products revenues. In all cases, the conclusion is that even in the best case scenario the IRR from the without-project case does not exceed the Government Bond benchmark. The management costs, when considered not to rise in price (vs 2% in the original model) only increase IRR to 6.18%. The starting log prices are varied plus or minus 5% based on an assumption that log prices are relatively stable. This was supported by evidence from the World Bank (02-11-2-2_Global commodity price prospects appendix2 and 02-11-2-4_sfm). It was not found necessary to vary the certificate price, because this has no impact on the without project scenario. The assumptions related to the potential revenues from non-timber forest products were found to be acceptable.

Step 3. Barrier analysis

Sub-step 3a. Identify barriers that would prevent the implementation of type of the proposed project activity:

The aim of the barrier analysis is to,

"determine whether the proposed project activity faces barriers that:
Prevent the implementation of this type of proposed project activity; and
Do not prevent the implementation of at least one of the alternatives." (Point 1)

The tool does not require an explanation, at this stage, of how the crediting of the project overcomes the barriers identified, this is required at step 4. However, the PD does present an explanation here of how the barriers are overcome.

The PDD identifies two investment barriers. Firstly, the long time taken to receive a payback on investment (barrier 1), and secondly lack of access to capital for long term investments such as plantations (2). Two technical barriers are identified. Firstly the site conditions (3), and secondly the lack of technical expertise for executing the project (4). None of these barriers apply to the baseline scenario of continues pasture. Thus point 1 of substep 3a is satisfied.

Investment barrier 1 is supported by a presentation from McKinsey which shows long return intervals to dissuade forestry (02-09 McKinsey AR_Slides). No evidence is provided to explain investment barrier 2, although observations around the project area suggest that farmers who have land in pasture are not converting to forestry.

Regarding technical barrier 3, evidence is provided (Summary soil conditions Darien.pdf) of the high clay content of the soil, which makes teak monocultures undesirable. Regarding barrier 4, it is agreed that it is unlikely that there exists the local expertise to conduct a carbon project, as no other projects are known to exist in the area.

Step 4. Impact of CDM registration

Barrier 1: Considering the information available to investors when they made their decision (02-04-2_cash flow model_2007_processed_timber), the cash flows presented to investors do show earlier returns from carbon credit generation. Therefore, it can be concluded that investors were aware of realistic early returns from the project based on a realistic scenario of credit generation, and thus it will have impacted their decision to some extent.

Barrier 2 The project's registration as a CarbonFix project increases the ability to source debt funding because the IRR of the project is increased and investors will received earlier returns (see Barrier 1).

	Barrier 3: The text related to barrier 3 in the PDD does not explain how CarbonFix registration will overcome the barriers the project would face in the absence of crediting. Instead, it compares the project scenario to a baseline scenario of pure teak plantations which is not what the tool requires. Barrier 4: The text related to barrier 4 states, *"Most of the stakeholders in the region do not have the knowledge and access to institutions providing support for carbon projects. For this reason it is unlikely that there would emerge carbon oriented projects spontaneously out of the region."* It is not clear how this demonstrates that crediting overcomes lack of technical experience. The project is bringing in technical expertise (at additional cost) that overcomes this issue. Conclusion: As performed, the investment test was not passed, because, at the time of investment a 'realistic scenario' without-crediting was more financially attractive than the bond chosen as a comparative investment. The barrier analysis resulted in four barriers being identified. Of these four, the difficulty in securing debt funding and the long term payback schedule of an investment in a mixed species forestry plantation were found to be the most defensible barriers. These barriers are overcome by credits through an increased IRR and early return on some of the investment.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 06/10 (Closed)** **CAR 15/10 (New) (Closed)** **OBS 03/10 (New)**		

3) Calculate the estimated carbon stock changes associated with the 'without project' reference scenario described above. This requires estimation of carbon stocks for each of the land-use classes of concern and a definition of the carbon pools included, among the classes defined in the IPCC 2006 GL for AFOLU.[17] The timeframe for this analysis can be either the project lifetime (see **G3**) or the project GHG accounting period, whichever is more appropriate.[18] Estimate the net change in the emissions of non-CO_2 GHG emissions such as CH_4 and N_2O in the 'without project' scenario. Non-CO_2 gases must be included if they are likely to account for more than 5% (in terms of CO_2-equivalent) of the project's overall GHG impact over each monitoring period.[19]
Projects whose activities are designed to avoid GHG emissions (such as those reducing emissions from deforestation and forest degradation (REDD), avoiding conversion of non-forest land, or certain improved forest management projects) must include an analysis of the relevant drivers and rates of deforestation and/or degradation and a description and justification of the approaches, assumptions and data used to perform this analysis.[20] Regional-level estimates can be used at the project's planning stage as long as there is a commitment to evaluate locally-specific carbon stocks and to develop a project-specific spatial analysis of deforestation and/or degradation using an appropriately robust and detailed carbon accounting methodology before the start of the project.[21]

Findings from 1st assessment: 05 JULY 2010	The Baseline CarbonFix document (30/11/2009) states that the baseline is for no change in carbon stocks and calculates the carbon stocks based on international default values for grassland in accordance with CarbonFix guidelines. The methods are transparent and well presented. The calculations were found to be correct.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

[17] Above-ground biomass, below-ground biomass, deadwood, litter, soils.
[18] In some cases, the project lifetime and the project GHG accounting period may be different.
[19] The following CDM Executive Board tool can be used to test the significance of emissions sources: http://cdm.unfccc.int/EB/031/eb31_repan16.pdf.
[20] The analysis may use a model that is based on historical rates and patterns of deforestation and degradation or predict the expected increases or decreases in deforestation and degradation.
[21] The 'start of the project' is defined as the start of implementation of activities that will directly cause the project's expected GHG emissions reductions or removals.

4) Describe how the 'without project' reference scenario would affect communities in the project zone, including the impact of likely changes in water, soil and other locally important ecosystem services.

Findings from 1st assessment: 05 JULY 2010	In the Environmental Aspects CarbonFix document (12/11/2009), the with-project scenario is compared to the without-project scenario for soil, water and biodiversity within the project area. The impacts are said to be positive, although there is little detail and no references given to support the argument. It is stated in the Additional Information document (April 2010) that the most probable scenario without project will be "marginal agro-pastorolist activities". Then, a general description of the most probable impacts on water (changes), and soil (compactation and erosion) is provided. It is not well described how these impacts could affect communities in the project zone.		
Findings from 2nd assessment: 16 September 2010	According to the CFS document Environmental Aspects, it is expected that the implementation of the project could avoid some negative impacts on soil (erosion and nutrients), water (quantity and quality), and biodiversity. In an indirect way, proponents mention that the communities could be affected negativelly if the use of the land persists as cattle or grassland. However, this is only a description of the most probable impacts, it is not a result of some kind of analysis based on field data or previous studies; references shall be given to support the arguments regarding negative and positive impacts.		
Findings from 3rd assessment: 25 January 2011	Forest Finance has now a document called "Impact of ecosystem services on local stakeholders and population". This document is basically a review of literature where it is widely discussed the impacts of degradation and remarks the importance of a plantation project and the management needed to achieve positive ecological impacts and to reduce the negative impacts. Based on these facts, project proponent offers a list of four technical elements that were used to establish the plantation projects, then it is discussed the principal consequences of implementing those elements in a positive and negative way. Forest Finance included references to changes in water, and soil and in a indirect way, how those changes can affect the communities.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 07/10 (Closed)**		

5) Describe how the 'without project' reference scenario would affect biodiversity in the project zone (e.g., habitat availability, landscape connectivity and threatened species).

Findings from 1st assessment: 05 JULY 2010	In the Environmental Aspects CarbonFix document (12/11/2009), it is mentioned that without the plantations forest connectivity is low. There is evidence cited from other plantations managed by the ForestFinance that biodiversity can be rich in the plantations. The biodiversity assessment carried out on other plantations was done in collaboration with the National University of Panama; however, no references are provided for the studies and the methodology used is not given.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**OBS 01/10**		

G3. Project Design & Goals - **Required**

Concept
The project must be described in sufficient detail so that a third-party can adequately evaluate it.

Projects must be designed to minimize risks to the expected climate, community and biodiversity benefits and to maintain those benefits beyond the life of the project. Effective local participation in project design and implementation is key to optimizing multiple benefits, equitably and sustainably.

Projects that operate in a transparent manner build confidence with stakeholders and outside parties and enable them to contribute more effectively to the project.

Indicators
The Project Proponents must:

1) Provide a summary of the project's major climate, community and biodiversity objectives.

Findings from 1st assessment: 05 JULY 2010	In the Forest Management CarbonFix document (30/11/2009) it is stated that the objectives of the project are; - "Reforestation with mixed Forests with native species and 25 - 40% non native species like Teak - Sustainable long term sequestration of CO2 with the trees - The production of precious wood for the national and international markets - Creation of jobs and improving the economical situation of the surrounding villages - Natural amelioration of depredated soils and increasing of the biodiversity - Creation of functioning ecosystems" During the field visit, auditors reviewed that in fact, these objectives are achievable.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

2) Describe each project activity with expected climate, community and biodiversity impacts and its relevance to achieving the project's objectives.

Findings from 1st assessment: 05 JULY 2010	The main project activity is tree planting and management. However, the project also maintains patches of natural forests for conservation purposes, enhancing the biodiversity of the area. The direct community impacts are for the families of workers, people from the area employed by the Project Proponents. Although not documented, it was mentioned by the Project Proponents that they had helped local organizations, as schools, by donating some resources for specific activities.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

3) Provide a map identifying the project location and boundaries of the project area(s), where the project activities will occur, of the project zone and of additional surrounding locations that are predicted to be impacted by project activities (e.g. through leakage).

Findings from 1st assessment: 05 JULY 2010	On the CarbonFix projects page (http://www.carbonfix.info/Project/Projectslist.html?itemid=54&ipage=0), a Google map is used to locate the management units (project areas). The Eligibility CarbonFix document (21/01/2010) has georeferenced maps of the project areas. In the Additional Information document (April 2010), proponents show a map with the location of the project and the communities within the project zone. Although not very well documented, it is understandable that these communities could be affected (positive or negatively) by project activities.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

4) Define the project lifetime and GHG accounting period and explain and justify any differences between them. Define an implementation schedule, indicating key dates and milestones in the project's development.

Findings from 1st assessment: 05 JULY 2010	The carbon calculations are done over a 25 year rotation for the harvested areas and a 50 year period for the conservation areas. The project length however is permanent in that the terms and conditions signed by investors demand that the land always remains under forest cover (following the first rotation).

Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

5) Identify likely natural and human-induced risks to the expected climate, community and biodiversity benefits during the project lifetime and outline measures adopted to mitigate these risks.

Findings from 1st assessment: 05 JULY 2010	The CarbonFix methodology has a Protective Capacity section (Section 4.4) which demands the Proponent identify risks to the carbon stocks (trees). Within this structure the Proponents identify pests, wind blow, fire and grazing animals as the main risks. Plans to mitigate these are presented. The plans include two separate documents, "12-01 - Plan de prevención y control de incendios forestales de FoFi-2008 _2_ _2_.pdf" and "12-02 - Plan de prevención y control de plagas y enfermedades FoFi -2008.pdf" which are management plans produce by BARCA for ForestFinance which specifically give management plans for fire and pests. In the Aditional Information document (April 2010), proponets list as the main risks the following: a) Intensive management on our relatively complex plantations require considerable workforce and create alternative labour options for local peasants. b) The establishment of most of the native species is a benefit as much in biodiversity as socio-economically. c) Teak is an exotic species that can be critical to biodiversity when propagating throughout the area of the plantation. Moreover, the principal risk could be a "scenario in which the trees planted under the project scheme do not exist permanently". It is stated that planting trees after harvesting and replacing trees after looses, it is considered the way for mitigation.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

6) Demonstrate that the project design includes specific measures to ensure the maintenance or enhancement of the high conservation value attributes identified in **G1** consistent with the precautionary principle.[22]

Findings from 1st assessment: 05 JULY 2010	There is no evidence for a HCV assessment having been conducted for the project zone.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

7) Describe the measures that will be taken to maintain and enhance the climate, community and biodiversity benefits beyond the project lifetime.

Findings from 1st assessment: 05 JULY 2010	The project life time is considered to be 25 years and 50 years, depending on which type of project, reforestation or conservation. Investors and proponents signed a paper in which the conditions and terms demand that the land always remains under forest cover, even after the commercial rotation.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

[22] The 'precautionary principle' is defined in the Preamble to the *Convention on Biological Diversity* (1992): '[W]here there is a threat of **significant reduction** or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat.'

8) Document and defend how communities and other stakeholders[23] potentially affected by the project activities have been identified and have been involved in project design through effective consultation,[24] particularly with a view to optimizing community and stakeholder benefits, respecting local customs and values and maintaining high conservation values. Project developers must document stakeholder dialogues and indicate if and how the project proposal was revised based on such input.[25] A plan must be developed to continue communication and consultation between project managers and all community groups about the project and its impacts to facilitate adaptive management throughout the life of the project.

Findings from 1st assessment: 05 JULY 2010	In the Socioeconomic Aspects CarbonFix document (12/11/2009) it is stated that neighbors to the project have a mechanism, via contact with workers to express any concerns. It is not clear that the project was sought the input of communities and other stakeholders in the project design. It is stated that, "Important decisions concerning the neighbors will be communicated directly to the involved persons. Our responsible staff will clarify the situations as fast as can." However, the exact mechanism for this dialogue is not clear. No documentation of consultation processes has been provided. Whilst the CarbonFix documentation focuses on the ongoing dialogue with stakeholders, the engagement of stakeholders during the project design is not clear.		
Findings from 2nd assessment: 16 September 2010	Some evidence was found in the following document: "Seguimiento Evaluación de Impacto Social PA 2009-07-10.pdf (Attachment G3.8 Tropical Mix.zip)". This evidence explains in detail how BARCA (the forest service provider) uses an interview template to interact with stakeholders: Indigenous people, employees, neighbours and community members, and local institutions. Since this template was designed specifically to meet a FSC indicator, the questions are not focused on finding out how the HCV are maintained, but this topic was addressed thorugh the HCV assessment in a separate excercise. This time the template was used by a consultant (Felipe Montoya, June 2009), next years BARCA (and ForestFinance) will continue using it to monitor socioeconomic impacts. This closes CAR 08/10		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 08/10 (Closed)**		

9) Describe what specific steps have been taken, and communications methods used, to publicize the CCBA public comment period[26] to communities and other stakeholders and to facilitate their submission of comments to CCBA. Project Proponents must play an active role in distributing key project documents to affected communities and stakeholders and hold widely publicized information meetings in relevant local or regional languages.

Findings from 1st	The CarbonFix documentation does not include any information about how the public

[23] 'Other stakeholders' are defined as the main groups potentially affected by the project activities that are not living on or adjacent to the project site.

[24] Effective consultation requires Project Proponents to inform and engage broadly with all community groups and other stakeholders using socially and culturally appropriate methods. Consultations must be gender and inter-generationally inclusive and must be conducted at mutually agreed locations and through representatives who are designated by the communities themselves in accordance with their own procedures. Stakeholders affected by the project must have an opportunity to evaluate impacts and raise concerns about potential negative impacts, express desired outcomes and provide input on the project design, both before the project design is finalized and during implementation.

[25] In cases where it is unclear whether a project will be implemented or not, it is acceptable to start with a preliminary community consultation, provided there are plans for appropriate full engagement before the start of the project. Where conformance with the Standards is being applied to a project already under implementation, Project Proponents must either provide documentation of appropriate consultation during the project design phase or demonstrate how more recent consultations have been effective in evaluating community benefits and adapting project design and implementation to optimize community and stakeholder benefits and respect local customs.

[26] 'The CCBA public comment period' is the process whereby CCBA posts project documents that are under evaluation by an auditor for conformance with the Standards on www.climate-standards.org for at least 30 days with an invitation and link for public comments to which the auditor must respond in the audit report.

assessment: 05 JULY 2010	comment period will be publicized. However, it should be noted that as a registered CarbonFix project, the project features prominently on the CarbonFix website: http://www.carbonfix.info/Project/Projectslist.html?itemid=54&ipage=0 During the field visit, auditor interviewed several workers to know how they deal with conflicts, doubts, and queries about their responsabilities and duties, and in general terms if they had received any training/workshop where Project Proponent (ForestFinance) or the service provider (Barca S.A.) had explained them the objectives of carbon project. A Spanish publication is also available in the forest service provider office (Barca S.A.), named "CO2OL Tropical Mix Reforestación, Panamá – Créditos de carbono de alta calidad de bosques nuevos". In general terms, this document outlines the project description, benefits, and numbers such as trees planted, species, project area, tons of carbon per hectare.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

10) Formalize a clear process for handling unresolved conflicts and grievances that arise during project planning and implementation. The project design must include a process for hearing, responding to and resolving community and other stakeholder grievances within a reasonable time period. This grievance process must be publicized to communities and other stakeholders and must be managed by a third party or mediator to prevent any conflict of interest. Project management must attempt to resolve all reasonable grievances raised, and provide a written response to grievances within 30 days. Grievances and project responses must be documented.

Findings from 1st assessment: 05 JULY 2010	In the Socioeconomic Aspects CarbonFix document (12/11/2009) it is explained that neighbors can take grievances directly to project staff, through 'liaison workers'. While field visit, proponents presented a document named "Conflict resolution with land owners or land neighbors". Here, it is stated that the common conflicts that can come up with a land owner would be a lien in the land to purchase. It is explained also the general procedure to aquire and purchase land, voluntary and necessarily shall sign a contract after be sure the land is free of any conflicts. The Proponents have their own legal department and so far, according to the interview with their Counsel, they had not have any conflict like these, or any invasion. There is a general procedure to implement if this happens in the future: "In solving a conflict the first step is always to file a petition in front of the Corregidor of the jurisdiction, if the problem goes beyond this subject matter, then he will turn the file to a higher authority". In spite of the fact that, no conflicts were identified during field visit, auditors criteria is that proponents are not considered the actual objective of avoiding conflicts and grievances, and therefore design a process for hearing, responding and resolving all the stakeholders grievances, and finally to make public the responses in order to meet CCBA standard.
Findings from 2nd assessment: 16 September 2010	The following document is referenced in the new PDD: Attachment_G3.10_1_Tropical_Mix.pdf; but it does not contain the information required by CCBA of designing a process to solve conflicts/grievances. Instead, this document explains how ForestFinance deals with problems at negotiating and buying new lands. However, there is another document (referenced as CCBA PD Junio 2010) in which proponents explain in general terms a logical process to handle grievances: meetings with employees or neighbors, if this fails then the "Corregidor" could act as an independent party to solve the problem. BARCA also plays an important role at registering and solving the problems. The PDD does not mention the way Forest Finance will document the results of hearing and resolving conflicts.
Findings from 3rd	Forest Finance submitted a document named "Documentación y solución de conflictos

assessment: 25 January 2011	y quejas en proyectos de ForestFinance / Barca". BARCA as the forest service provider was also involved in designing this procedure since the majority of the workers are hired by them, in agreement with Forest Finance. A communication between Barca and Forest Finance formalizes the commitment of them to implement the procedure, even in all the plantation projects not only those considering in the scope of CCBA project. The procedure was updated basically with two principal topics, one it is expected that the document is shared with local stakeholders and with third parties which could serve as a mediator to solve problems; and two, the implementation of a record book to archive the whole process of hearing and resolving conflicts.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 09/10 (Closed)**		

11) Demonstrate that financial mechanisms adopted, including projected revenues from emissions reductions and other sources, are likely to provide an adequate flow of funds for project implementation and to achieve the anticipated climate, community and biodiversity benefits.

Findings from 1st assessment: 05 JULY 2010	In the Additionality CarbonFix document (21/12/2009) and the associated appendixes the project is shown to be profitable, however issues were found in the calculations that led to the final number (See **CAR 05/10**). Statements of ForestFinance´s accountants that have been produced are from 2007 and 2008 in German and in English. Documents show cashflow per hectare of Tropical Mix project considering inflation rate of 3%, 13.8 euros as price per t CO2. Results seem to reflect financial health: a total return of around 140000 and 4000 euros discounted for the 25 and 50 years of project life time.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

G4. Management Capacity and Best Practices - **Required**

Concept
The success of a project depends upon the competence of the implementing management team. Projects that include a significant capacity-building (training, skill building, etc.) component are more likely to sustain the positive outcomes generated by the project and have them replicated elsewhere.

Best practices for project management include: local stakeholder employment, worker rights, worker safety and a clear process for handling grievances.

Indicators
The Project Proponents must:

1) Identify a single Project Proponent which is responsible for the project's design and implementation. If multiple organizations or individuals are involved in the project's development and implementation the governance structure, roles and responsibilities of each of the organizations or individuals involved must also be described.

Findings from 1st assessment: 05 JULY 2010	In the Management Capacity CarbonFix document Andreas Schnall is identified as the project manager, the project is managed by the Company ForestFinance. The skills and roles of all management staff are provided. Organisation charts for ForestFinance, and ForestFinance Panama have been provided. There is no organisation chart for the project.

	A company called BARCA S.A, is the forest service provider. The company is managing all the fincas in the Darien region. BARCA is the resource manager, a subcontracted company to be in charge of the day-to-day management activities on behalf of ForestFinance (the owner of the projects). BARCA is the company holding the FSC/SW group certification, and ForestFinance is one of its certified group members in Panama.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**OBS 02/10**		

2) Document key technical skills that will be required to implement the project successfully, including community engagement, biodiversity assessment and carbon measurement and monitoring skills. Document the management team's expertise and prior experience implementing land management projects at the scale of this project. If relevant experience is lacking, the proponents must either demonstrate how other organizations will be partnered with to support the project or have a recruitment strategy to fill the gaps.

Findings from 1st assessment: 05 JULY 2010	The CarbonFix documentation does explicitly document the keys skills for all the project elements listed in the criteria. It is clear from the documentation that ForestFinance has the experience and technical skills to manage the tree planting and maintenance (See Technical Capacity CarbonFix document). ForestFinance and Barca skills with respect to community engagement, biodiversity assessment and carbon measurement and monitoring skills have been documented in the Additional Information document (April 2010). Auditors doble checked these skills during field visit through interviews with neighbours and employees. Auditors also received evidence of goals accomplished in topics like biodiversity, carbon measurements and monitoring. In the Management Capacity CarbonFix document (12/03/2009), the management staffs experience is listed. There is a wealth of expertise within the company.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

3) Include a plan to provide orientation and training for the project's employees and relevant people from the communities with an objective of building locally useful skills and knowledge to increase local participation in project implementation. These capacity building efforts should target a wide range of people in the communities, including minority and underrepresented groups. Identify how training will be passed on to new workers when there is staff turnover, so that local capacity will not be lost.

Findings from 1st assessment: 05 JULY 2010	The socioeconomic aspects CarbonFix document describes the training provided to staff on the reforestation project. Training topics include, forest management (pruning, thinning, harvesting), site preparation, management (e.g. nursery, marketing, etc.) and nature protection. The following document was referenced, "04-02 Report of Educational Activities For Employees of ForestFinance 2008/2009". An initial review of this document suggested that training is focused on ForestFinance staff, but during field visit auditors received exhibit (a list of tranining sessions dates and participants) about BARCA´s contractual workers. The socioeconomic aspects CarbonFix document describes the structure for workers to report back on health and safety matters. It is stated that, "BARCA has organized as a part of their Occupational Health & Safety Program, an structure that allows workers to express and share their concerns or suggestions about safety or other work related issues. The structure considers monthly meetings at a regional level with representatives of the workers (by farms) and the company, all minutes of these

	meetings are then analyzed by the Central Committee (formed by the regional supervisors, Occupational health and safety officers and the BARCA management) to follow up on recommendations." Finally, it is important to highlight that most of the BARCA's employees belong to a near community, so by training them the company assures that underrepresented groups are represented in training schedule.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

4) Show that people from the communities will be given an equal opportunity to fill all employment positions (including management) if the job requirements are met. Project Proponents must explain how employees will be selected for positions and where relevant, must indicate how local community members, including women and other potentially underrepresented groups, will be given a fair chance to fill positions for which they can be trained.

Findings from 1st assessment: 05 JULY 2010	In the Socioeconomic Aspects CarbonFix document it is stated that 60% of the project workforce belong to the Ngobe-Bugle or Embera indigenous group, the most impoverished indigenous group of Panama. This was confirmed by interview with BARCA S.A. staff. During the field visit, auditors interviewed employees from far away of the projects in Darien. BARCA S.A. is in charge of hiring people and to do that they mostly consider previous experience or how an employee shows interest in learning instructions for new duties and responsabilities. According to Barca and other also interviewed by auditors such as neigbours and other stakeholders, young people in Darien do not meet these required qualifications, then proponents agree with Barca to hire people already trained, but from far away (Chiriqui, David). Auditors noticed in the nursery and in the camp, two women working for Barca S.A., one of them is in charge of the camp administration. ForestFinance also implements procedures to assure its employees equal opportunity job options for women or men at any job.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

5) Submit a list of all relevant laws and regulations covering worker's rights in the host country. Describe how the project will inform workers about their rights. Provide assurance that the project meets or exceeds all applicable laws and/or regulations covering worker rights[27] and, where relevant, demonstrate how compliance is achieved.

Findings from 1st assessment: 05 JULY 2010	A list of all relevant laws and regulations were shown at the BARCA´s office. The list fully meets FSC certification requirement, because contains environmental, socioeconomical and technical regulations, and even international agreement that Panama had signed and ratified. According to traning schedule exhibits, Barca had shared documents and training sessions to explain in a better way how a law or regulation actually affect the project and employees interests. During the field visit, auditors reviewed files of workers to assure they were working based on national regulations. Papers reviewed were labor contracts, social security payments, insurance payments, salary payment bill, and payment of all the extra benefits. This is a typical procedure for Barca since they were certified as group manager.

[27] 'Workers' are defined as people directly working on project activities in return for compensation (financial or otherwise), including employees, contracted workers, sub-contracted workers and community members that are paid to carry out project-related work.

	ForestFinance workers also know the national regulation frame; they are trained if necessary, but each employee is expected to handle the law or to ask about punctual topics. Counselor of the company and Human Resources department play an important role on this.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

6) Comprehensively assess situations and occupations that pose a substantial risk to worker safety. A plan must be in place to inform workers of risks and to explain how to minimize such risks. Where worker safety cannot be guaranteed, Project Proponents must show how the risks will be minimized using best work practices.

Findings from 1st assessment: 05 JULY 2010	In the Socioeconomic Aspects CarbonFix (12/11/2009) document it is stated that all workers are paid to attend training on safety and efficiency. The Socioeconomic Aspects CarbonFix document (12/11/2009) describes the structure for workers to report back on health and safety matters. It is stated that, "BARCA has organized as a part of their Occupational Health & Safety Program, an structure that allows workers to express and share their concerns or suggestions about safety or other work related issues. The structure considers monthly meetings at a regional level with representatives of the workers (by farms) and the company, all minutes of these meetings are then analyzed by the Central Committee (formed by the regional supervisors, Occupational health and safety officers and the BARCA management) to follow up on recommendations."		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

7) Document the financial health of the implementing organization(s) to demonstrate that financial resources budgeted will be adequate to implement the project.

Findings from 1st assessment: 05 JULY 2010	The CarbonFix Financial Capacity document was shown to auditors. It consisted of annual accounts at 2007 and 2008 (balance sheet, income statement) of ForestFinance Service GmbH, these are not specifically financial statements of ForestFinance Panama. Statements of ForestFinance's accounts that have been produced are from 2007 and 2008 in German and in English. Aside documents show cashflow per hectare of Tropical Mix project considering inflation rate of 3%, 13.8 euros as price per t CO2. Results seem to reflect financial health: a total return of around 140,000 and 4,000 euros discounted for the 25 and 50 years of project life time.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

G5. Legal Status and Property Rights - Required

Concept
The project must be based on a solid legal framework (e.g., appropriate contracts are in place) and the project must satisfy applicable planning and regulatory requirements.

During the project design phase, the Project Proponents should communicate early on with relevant local, regional and national authorities in order to allow adequate time to earn necessary approvals. The project design should be sufficiently flexible to accommodate potential modifications that may arise as a result of this process.

In the event of unresolved disputes over tenure or use rights to land or resources in the project zone, the project should demonstrate how it will help to bring them to resolution so that there are no unresolved disputes by the start of the project.

Indicators
Based on information about current property rights provided in **G1**, the Project Proponents must:

1) Submit a list of all relevant national and local laws[28] and regulations in the host country and all applicable international treaties and agreements. Provide assurance that the project will comply with these and, where relevant, demonstrate how compliance is achieved.

Findings from 1st assessment: 05 JULY 2010	A complete list of relevant national and local laws and regulations in Panama was provided. ForestFinance has its own legal department and Barca (service provider) has developed experience at implementing them in the field. As a result, projects had been based on legal framework, national and internationally. FSC certification also requires fully compliment of these aspects.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

2) Document that the project has approval from the appropriate authorities, including the established formal and/or traditional authorities customarily required by the communities.

Findings from 1st assessment: 05 JULY 2010	Within the documentation provided there is no evidence of approval from the appropriate authorities.		
Findings from 2nd assessment: 16 September 2010	There is no clear approval evidence from ANAM within the documents referenced in the PDD. There is one document named ANAM - official document.pdf, but with this document ANAM only certifies that ForestFinance manages forest projects in Darien, and that some of the documents were submitted to ANAM. This document is not evidence of approval from ANAM. There is also other letters (dated 2001) where ANAM recognizes that Futuro Forestal (a company bought by ForestFinance) is in charge of plantation projects searching for carbon credits negotiations. ANAM recognizes also that "the projects will also help to promote sustainable development in our country…(signed by Madeleine K. Albright, focal point UNFCCC)". This closes CAR 10/10.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

3) Demonstrate with documented consultations and agreements that the project will not encroach uninvited on private property, community property,[29] or government property and has obtained the free, prior, and informed consent of those whose rights will be affected by the project.[30]

Findings from 1st assessment: 05 JULY 2010	In the Socioeconomic Aspects CarbonFix document it is stated that no displacement of people has occurred. Auditors interviewed former owners and current neighbours to make sure that the negotiation of purchasing the land was a voluntary process. Some of the neighbours answered that the former owners offered the land to ForestFinance because they were considering to emigrate to another place or the retirement time was close.

[28] Local laws include all legal norms given by organisms of government whose jurisdiction is less than the national level, such as departmental, municipal and customary norms.
[29] Including lands that communities have traditionally owned, occupied or otherwise used or acquired.
[30] In conformance with the United Nations Declaration on the Rights of Indigenous Peoples.

	During the field visit, auditors noticed that any community property was purchased by ForestFinance. In spite of no documentation, proponents meet the criteria in the field.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

4) Demonstrate that the project does not require the involuntary relocation of people or of the activities important for the livelihoods and culture of the communities.[31] If any relocation of habitation or activities is undertaken within the terms of an agreement, the Project Proponents must demonstrate that the agreement was made with the free, prior, and informed consent of those concerned and includes provisions for just and fair compensation.[32]

Findings from 1st assessment: 05 JULY 2010	During the field visit, auditors interviewed current neighbours and former owners. There was not any involuntary relocation of habitation or activities, former owners wanted to sell the land to ForestFinance so they can invest the money in other business or take it as retirement salary. Proponents documented the general procedure to purchase the land: negotiation, verification of the information, field visit, signature of a contract. All the online consultation paper was shown to auditors to assure the land is not under any conflict.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

5) Identify any illegal activities that could affect the project's climate, community or biodiversity impacts (e.g., logging) taking place in the project zone and describe how the project will help to reduce these activities so that project benefits are not derived from illegal activities.

Findings from 1st assessment: 05 JULY 2010	As part of FSC certification, BARCA S.A. is in charge of taking care of limits, fences, rotulation, and permanent vigilancy of the projects to prevent illegal activities. As per employees described, the most common illegal activities can be extraction of firewood for domestic porposes. Invasion of local population is also another risk, but there is always employees of Barca around to take care of the integrity of the projects.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

6) Demonstrate that the Project Proponents have clear, uncontested title to the carbon rights, or provide legal documentation demonstrating that the project is undertaken on behalf of the carbon owners with their full consent. Where local or national conditions preclude clear title to the carbon rights at the time of validation against the Standards, the Project Proponents must provide evidence that their ownership of carbon rights is likely to be established before they enter into any transactions concerning the project's carbon assets.

Findings from 1st assessment: 05 JULY 2010	In the Secured Land Tenure CarbonFix document it is stated that the project occurs wholly on private land owned by ForestFinance. An attachment named, "13-01 COI CFS_-_Attachment_-_Secured_Land_Tenure" demonstrates the license details for the land parcels. A spreadsheet named, "secured land tenure owners overview table.xls" was provided. There are also a number of signed sales orders. What these show is unclear, but they seem to relate to sales orders for some parcels in the management area 0004. It is not

[31] Restricting the evaluation to activities that comply with statutory laws or conform with customary rights. 'Customary rights' to lands and resources refers to patterns of long-standing community land and resource usage in accordance with Indigenous Peoples' and local communities' customary laws, values, customs, and traditions, including seasonal or cyclical use, rather than formal legal title to land and resources issued by the State.

[32] In conformance with the United Nations Declaration on the Rights of Indigenous Peoples.

	clear how this relates to ownerships. No evidence is provided that having the land license means the owner is entitle to the carbon rights from a carbon project in Panama. It was explained that the Panamainian law did not yet have provisions for carbon rights ownership, but the company was actively helping in drafting legislation.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

CLIMATE SECTION

CL1. Net Positive Climate Impacts - Required

Concept
The project must generate net positive impacts on atmospheric concentrations of greenhouse gases (GHGs) over the project lifetime from land use changes within the project boundaries.

Indicators
The Project Proponents must:

1) Estimate the net change in carbon stocks due to the project activities using the methods of calculation, formulae and default values of the IPCC 2006 GL for AFOLU or using a more robust and detailed methodology.[33] The net change is equal to carbon stock changes *with* the project minus carbon stock changes *without* the project (the latter having been estimated in **G2**). This estimate must be based on clearly defined and defendable assumptions about how project activities will alter GHG emissions or carbon stocks over the duration of the project or the project GHG accounting period.

Findings from 1st assessment: 05 JULY 2010	The project uses the CarbonFix system to calculate the estimated gross CO_2 sequestration due to tree growth. Two different approaches are used. One for the rotation forestry areas (25 year rotation), whereby the average carbon stock is calculated over the rotation length according to the species planted in each management unit. The results are between 257 and 310 t CO_2 ha^{-1} being the average carbon stock on the management areas over a 25 year rotation. For the conservation areas, the final carbon stock is calculated based on an equation from secondary forest regrowth in Ecuador with the wood density increased by 20%. The final carbon stock in the conservation areas is stated as being 518.14 t CO_2 ha^{-1} after 50 years. The calculations are performed in a spreadsheet called; "06-12 - CO2_scientifc_growthmodel_COI" and the results (and assumptions) are summarized in the CO_2-Fixation CarbonFix Document. The referencing and presentation of sources is transparent. The CarbonFix system involves calculating net CO_2 sequestration by subtracting emissions from project activities, the baseline, and leakage. (See the CO_2-Fixation CarbonFix document). In most cases the data selections the Project Proponents had made from the literature values were correct and conservative. However, an error was found in the way a biomass expansion factor was derived from the reference for Teak and requires revising.

[33] In cases where a published methodology is used, the full reference must be given and any variations from the published methodology must be explained.

	The spreadsheet, "06-12 - CO2_scientifc_growthmodel_COI.xls" shows the percentages of tree species planted in each management unit. However, this information can also be gathered from looking at the GIS maps of the planted stands. When a sample of the two were compared some discrepancies were found in management units 3 and 6.		
Findings from 2nd assessment: 16 September 2010	The biomass expansion factor is now correctly derived from the literature. This can be seen in cell G18 of "06-12 - CO2_scientifc_growthmodel_COI". This closes **CAR 11/10**. The estimated net (after subtraction of baseline, management emissions and leakage) CO_2 sequestration due to tree growth is between 235 t CO_2 ha^{-1} and 261 t CO_2 ha^{-1}. The final carbon stock in the conservation areas is stated as being between 377 t CO_2 ha^{-1} and 486 t CO_2 ha^{-1} on average after 50 years. Please see the CarbonFix website for full accounting details. In the revised documentation, maps of the planted strata have been provided (see eligibility document). This allows comparison with the data in the spreadsheet., '06-12 - CO2_scientifc_growthmodel_COI'. Comparisons confirmed that the data had been correctly brought from the maps into the spreadsheet. This closes **CAR 12/10**.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 11/10 (Closed)** **CAR 12/10 (Closed)**		

2) Estimate the net change in the emissions of non-CO_2 GHG emissions such as CH_4 and N_2O in the *with* and *without* project scenarios if those gases are likely to account for more than a 5% increase or decrease (in terms of CO_2-equivalent) of the project's overall GHG emissions reductions or removals over each monitoring period.

Findings from 1st assessment: 05 JULY 2010	According to the CarbonFix Criteria and Methodology (section 3.4) project emissions must be accounted for. In the case of fertilizer use, 0.4 tCO2 per kg of N must be deducted from emissions. However, it is stated that there is no intention to fertilise, but if it does occur they will make the necessary adjustments. No fertilizer was seen during the field audit. Fertilising was not in the management plan.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

3) Estimate any other GHG emissions resulting from project activities. Emissions sources include, but are not limited to, emissions from biomass burning during site preparation, emissions from fossil fuel combustion,[34] direct emissions from the use of synthetic fertilizers,[35] and emissions from the decomposition of N-fixing species.

Findings from 1st assessment: 05 JULY 2010	According to the CarbonFix Criteria and Methodology (section 3.4) project emissions must be accounted for, in order to do this a deduction of 0.5% of the carbon credits (VERfutures) occurs within the system.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

4) Demonstrate that the net climate impact of the project is positive. The net climate impact of the project is the net change in carbon stocks plus net change in non-CO_2 GHGs where appropriate minus any other GHG emissions resulting from project activities minus any likely project-related unmitigated negative offsite climate impacts (see CL2.3)

[34] The following CDM Executive Board tool can be used to quantify these emissions: http://cdm.unfccc.int/EB/033/eb33_repan14.pdf

[35] The following CDM Executive Board tool can be used to quantify these emissions: http://cdm.unfccc.int/EB/033/eb33_repan16.pdf

Findings from 1st assessment: 05 JULY 2010	The CarbonFix system results in a calculation of the net carbon benefits of the project. They were found to be positive.
Updated Findings from 3rd Assessment 25 JANUARY 2011	The following tables, were taken from the Certifictes and Management Units document posted on CarbonFix's climateprojects.info website (http://www.climateprojects.info/chameleon/outbox//9049b4a5500376f5c8fd54113b5a857a/Management-Units_COI_CFS.pdf), and show the quantitative assertions that have been assessed. The CarbonFix methods and software had been used correctly to derive these ex-ante estimates.

All units	Certificates			
Year	VERs (ex-post)	Σ	VERs (ex-ante)	Σ
2007	0	0	0 (-1 509)	0 (-1 509)
2008	0	0	0 (-1 506)	0 (-3 015)
2009	0	0	2 103	0 (-912)
2010	0	0	2 103	1 191
2011	0	0	2 103	3 293
2012	0	0	2 103	5 396
2013	0	0	2 103	7 499
2014	0	0	2 103	9 602
2015	0	0	2 103	11 704
2016	0	0	2 103	13 807
2017	0	0	2 103	15 910
2018	0	0	2 103	18 013
2019	0	0	2 103	20 115
2020	0	0	1 862	21 977
2021	0	0	1 133	23 110
2022	0	0	253	23 363
2023	0	0	253	23 616
2024	0	0	253	23 869
2025	0	0	253	24 122
2026	0	0	253	24 374
2027	0	0	253	24 627
2028	0	0	253	24 880
2029	0	0	253	25 133
2030	0	0	253	25 386
2031	0	0	253	25 639
2032	0	0	253	25 891
2033	0	0	253	26 144
2034	0	0	253	26 397
2035	0	0	253	26 650
2036	0	0	253	26 903
2037	0	0	253	27 156

2038	0	0	253	27 408
2039	0	0	253	27 661
2040	0	0	253	27 914
2041	0	0	253	28 167
2042	0	0	253	28 420
2043	0	0	253	28 673
2044	0	0	253	28 925
2045	0	0	253	29 178
2046	0	0	253	29 431
2047	0	0	253	29 684
2048	0	0	253	29 937
2049	0	0	253	30 189
2050	0	0	253	30 442
2051	0	0	253	30 695
2052	0	0	253	30 948
2053	0	0	253	31 201
2054	0	0	253	31 454
2055	0	0	204	31 658
2056	0	0	18	31 676

Management Units

ID	Name of Unit	Planting time	Subunit	Biomass burned	Eligible Area	Net CO2 reduction per MU	
						ex-post	ex-ante
001	COI-0001	Oct 2008	1111 trees per ha	No	22 ha	0 t CO_2	5 207 t CO_2
002	COI-0002	Oct 2008	1111 trees per ha	No	11 ha	0 t CO_2	2 592 t CO_2
003	COI-0003	Oct 2007	1111 trees per ha	No	23 ha	0 t CO_2	5 398 t CO_2
004	COI-0004	Oct 2007	1111 trees per ha	No	18 ha	0 t CO_2	4 439 t CO_2
005	COI-0005	Oct 2008	1111 trees per ha	No	38 ha	0 t CO_2	9 901 t CO_2
006	COI-0006	Oct 2008	1111 trees per ha	No	10 ha	0 t CO_2	2 426 t CO_2
007	COI-0007	Oct 2008	600 trees per ha	No	11 ha	0 t CO_2	5 351 t CO_2
008	COI-0008	Oct 2008	600 trees per ha	No	15 ha	0 t CO_2	7 296 t CO_2
009	COI-0009	Oct 2007	600 trees per ha	No	7 ha	0 t CO_2	2 642 t CO_2
					Sum total	0 t CO_2	45 251 t CO_2

Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

5) Specify how double counting of GHG emissions reductions or removals will be avoided, particularly for offsets sold on the voluntary market and generated in a country with an emissions cap.

Findings from 1st assessment: 05 JULY 2010	The CarbonFix registry will avoid double counting or selling of the carbon credits generated by the project. Panama has no national or regional level carbon trading schemes that affect the project. Advance sales of credits have already occurred and the auditors interegated the database (Via spreadsheet print-out; 'CO2Bilanzkartei_2') to determine that they were being correctly accounted for. This data will require migration into the CarbonFix system following verification.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

CL2. Offsite Climate Impacts ("Leakage") - Required

Concept
The Project Proponents must quantify and mitigate increased GHG emissions that occur beyond the project area and are caused by project activities (commonly referred to as 'leakage').

Indicators
The Project Proponents must:

1) Determine the types of leakage[36] that are expected and estimate potential offsite increases in GHGs (increases in emissions or decreases in sequestration) due to project activities. Where relevant, define and justify where leakage is most likely to take place.

Findings from 1st assessment: 05 JULY 2010	In the Leakage CarbonFix document it is stated that the following potential leakage causing activities are not occurring in the project area; fuelwood use, charcoal burning, timber harvesting, agricultural farming or settlements. This was found to be reasonable since the land was previously pasture. The Proponents use the CarbonFix methodology for quantifying the emissions from leakage due to cattle displacements. The Leakage CarbonFix document states that representative surveys were conducted to determine the number of cattle previously being grazed in the management areas and what has happened to them due to the project. The results of the survey are reported in a document called "08-01 Leakage-Determination- Carbon-Project-2007-2008- Panama" which is signed by Martin Bolte, ForestFinance – Head of Forest Department. The auditors contacted former owners who explained that the objective of selling the land was to invest the money in other kind of business (to buy a taxi, to rent an apartment in the city) or just because the land was practically abandon before Forest Finace bought it. None of them answered they had bought more cows or another land for agriculture. They assured that for years, there was always grass and so many sparse trees in the property. No one received offers from buyers, other than ForestFinance´s. When ForestFinance accepted to buy the land, owners were informed about the objective of the new project. The methodology has been followed correctly. In all but one case there were either no cows grazing the area, or the cows were said to have been slaughtered. For management area 0009, there was leakage to a new area of 19 head of cattle and the calculations have been applied correctly. This resulted in 2255 t CO2 of leakage. The location of the leakage was known, but is not mapped.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

2) Document how any leakage will be mitigated and estimate the extent to which such impacts will be reduced by these mitigation activities.

Findings from 1st assessment: 05 JULY 2010	Leakage has been accounted for correctly. It is not possible for the project to mitigate the type of leakage experienced (how sellers use the money is beyond their control); however, it is in their interest to selected management units where leakage is likely to be low/none.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

3) Subtract any likely project-related unmitigated negative offsite climate impacts from the climate benefits being claimed by the project and demonstrate that this has been included in the evaluation of net climate impact of the project (as calculated in **CL1.4**).

[36] Offsite changes in GHG emissions can result from a variety of causes including:
- activity shifting or displacement;
- market effects (particularly when timber harvest volumes are reduced by the project);
- increased investment in the project zone;
- decreased investment in the project zone; and
- alternative livelihood programs or other leakage prevention activities.

Findings from 1st assessment: 05 JULY 2010	The CarbonFix system requires that the leakage emissions are deducted from any GHG benefits derived from the project.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

4) Non-CO_2 gases must be included if they are likely to account for more than a 5% increase or decrease (in terms of CO_2-equivalent) of the net change calculations (above) of the project's overall off-site GHG emissions reductions or removals over each monitoring period.

Findings from 1st assessment: 05 JULY 2010	The CarbonFix system does not include Non-CO2 gases other than emissions from nitrogen fertilizers and burning. Neither of these are relevant to this project.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

CL3. Climate Impact Monitoring - Required

Concept

Before a project begins, the Project Proponents must have an initial monitoring plan in place to quantify and document changes (within and outside the project boundaries) in project-related carbon pools, project emissions, and non-CO_2 GHG emissions if appropriate. The monitoring plan must identify the types of measurements, the sampling method, and the frequency of measurement.

Since developing a full monitoring plan can be costly, it is accepted that some of the plan details may not be fully defined at the design stage, when projects are being validated against the Standards. This is acceptable as long as there is an explicit commitment to develop and implement a monitoring plan.

Indicators

The Project Proponents must:

1) Develop an initial plan for selecting carbon pools and non-CO_2 GHGs to be monitored, and determine the frequency of monitoring. Potential pools include aboveground biomass, litter, dead wood, belowground biomass, wood products, soil carbon and peat. Pools to monitor must include any pools expected to decrease as a result of project activities, including those in the region outside the project boundaries resulting from all types of leakage identified in CL2. A plan must be in place to continue leakage monitoring for at least five years after all activity displacement or other leakage causing activity has taken place. Individual GHG sources may be considered 'insignificant' and do not have to be accounted for if *together* such omitted decreases in carbon pools and increases in GHG emissions amount to less than 5% of the total CO_2-equivalent benefits generated by the project.[37] Non-CO_2 gases must be included if they are likely to account for more than 5% (in terms of CO_2-equivalent) of the project's overall GHG impact over each monitoring period. Direct field measurements using scientifically robust sampling must be used to measure more significant elements of the project's carbon stocks. Other data must be suitable to the project site and specific forest type.

Findings from 1st assessment: 05 JULY 2010	The CarbonFix system requires regular monitoring of the carbon pools in the project area. Leakage monitoring will not be necessary as the project has already started and leakage has either occurred and been accounted for, or has not occurred and won't.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

[37] The following CDM Executive Board tool can be used to test the significance of emissions sources: http://cdm.unfccc.int/EB/031/eb31_repan16.pdf

2) Commit to developing a full monitoring plan within six months of the project start date or within twelve months of validation against the Standards and to disseminate this plan and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders.

Findings from 1st assessment: 05 JULY 2010	The results of the monitoring will be available through CarbonFix.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

COMMUNITY SECTION

CM1. Net Positive Community Impacts - Required

Concept
The project must generate net positive impacts on the social and economic well-being of communities and ensure that costs and benefits are equitably shared among community members and constituent groups during the project lifetime.
Projects must maintain or enhance the High Conservation Values (identified in G1) in the project zone that are of particular importance to the communities' well-being.

Indicators
The Project Proponents must:

1) Use appropriate methodologies[38] to estimate the impacts on communities, including all constituent socio-economic or cultural groups such as indigenous peoples (defined in **G1**), resulting from planned project activities. A credible estimate of impacts must include changes in community well-being due to project activities and an evaluation of the impacts by the affected groups. This estimate must be based on clearly defined and defendable assumptions about how project activities will alter social and economic well-being[39], including potential impacts of changes in natural resources and ecosystem services identified as important by the communities (including water and soil resources), over the duration of the project. The 'with project' scenario must then be compared with the 'without project' scenario of social and economic well-being in the absence of the project (completed in **G2**). The difference (i.e., the community benefit) must be positive for all community groups.

Findings from 1st assessment: 05 JULY 2010	In the socioeconomic aspects CarbonFix document it is stated that employment creation will bring community benefits. It states that up to 200 people are being employed at the current time and 60 long term roles will be created. All of the workers are said to be, "registered to the National social security system, which offers benefits such as: health care coverage for workers and their family, retirement fund, labor accident coverage, and pregnancy-leave coverage." However, other than a count of employment, the project documentation does not give a full estimate of impacts must include changes in community well-being due to project activities and an evaluation of the impacts by the affected groups. The with-project community benefits assessment does not take into account the impacts on those who sold their land. Although it could be assumed that since they sold voluntarily they perceived an improvement in their situation due to the project.
Findings from 2nd	ForestFinance is planning to implement the methodology of FAO found in "A Handbook

[38] See Appendix A of CCB Standard "Potential Tools and Strategies".
[39] Restricting the evaluation to well-being based on activities that comply with statutory laws or conform with customary rights.

assessment: 16 September 2010	for Trainers on Participatory Local Development". Note that this document is not available at: http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/006/AD346E/ad346e0e.htm, Instead, the document is available at: http://www.fao.org/docrep/006/ad346e/ad346e0e.htm This methodology is approved by CCBA Second Edition Standard, therefore ForestFinance will have the information required by CM1.1. The methodology considers a list of indicators which seem to be adecuate to measure periodically changes of impacts on communities. The company submitted a complementary document dated June 2010 where it is stated that apart from the inputs obtained with the methodology described before, the analysis of the impacts will be focused on for ways: 1. Socio economic beneficts – primarily through project employment 2. Infraestructure improvement through project installations 3. Environment awareness through professional training and occasional education offerings 4. Environment enhancement through conservation and habitat enhancement of the project. The audit team noticed during the field visit that there are not so many communities surrounded the project area (within the project zone), and a preliminary estimation made by the project proponent reveals that the most significant impacto (positive) is the employment (including social security access, and training in first aid) and the direct benefits to the biodiversity in an area which lands are used for cattle and pasture. The company expects that by implementing the methodology, these kind of impacts can be ratified among other indicators. Barca as the service provider is also involved in monitoring. A detailed list of activities was submitted during the validation process. Examples of activities already done are: Formation and Training for Health and Safety Committees; training program about the Social Insurance Fund for Occupational Health; statistics of local people hired per year and activity.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 13/10 (Closed)**		

2) Demonstrate that no High Conservation Values identified in **G1.8.4-6**[40] will be negatively affected by the project.

Findings from 1st assessment: 05 JULY 2010	There is no evidence for a HCV assessment having been conducted for the project zone.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.1.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

CM2. Offsite Community Impacts - Required

[40] **G1.8.4** Areas that provide critical ecosystem services (e.g., hydrological services, erosion control, fire control);
G1.8.5 Areas that are fundamental for the livelihoods of local communities (e.g., for essential food, fuel, fodder, medicines, or building materials without readily available alternatives); and,
G1.8.6 Areas that are critical for the traditional cultural identity of communities (e.g., areas of cultural, ecological, economic or religious significance identified in collaboration with the communities).
Note that High Conservation Values G1.8.1-3 that are more related to biodiversity conservation are covered in B1.

Concept
The Project Proponents must evaluate and mitigate any possible social and economic impacts that could result in the decreased social and economic well-being of the main stakeholders living outside the project zone resulting from project activities. Project activities should at least 'do no harm' to the well-being of offsite stakeholders[41].

Indicators
The Project Proponents must:

1) Identify any potential negative offsite stakeholder impacts that the project activities are likely to cause.

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present an evaluation of any potential negative offsite stakeholder impacts.		
Findings from 2nd assessment: 16 September 2010	The project proponent has not identified a list of actual negative impacts resulting from project activities outside the project zone. The use of the selected methodology will permit the project to be under a most accurate test of impacts. Some of the indicators to be monitored are: the percentage of farmers using soil conservation, the percentage of critical soil erosion sites rehabilitated, the area under forest plantation, and the capability of users' groups to plan and manage conservation programmes.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 13/10 (Closed)**		

2) Describe how the project plans to mitigate these negative offsite social and economic impacts.

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present a plan to mitigate negative offsite impacts.		
Findings from 2nd assessment: 16 September 2010	According to the selected methodology the project proponent will based their mitigation plan on the following three kind of indicators: group participation, gender issues and environmental issues.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 13/10 (Closed)**		

3) Demonstrate that the project is not likely to result in net negative impacts on the well-being of other stakeholder groups.

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present evidence that the project is not likely to result in net negative impacts.		
Findings from 2nd assessment: 16 September 2010	The selected methodology considers some technics to develop during the consultation to determine the possibility of the project to cause net negative impactics on the well-being of other stakeholder groups. Examples of the technics are: Hold group discussions among farmers and share common experiences; brainstorming methods: develop indicators for each activity designed to achieve specific objectives.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 13/10 (Closed)**		

CM3. Community Impact Monitoring - Required

Concept

[41] Restricting the evaluation to well-being based on activities that comply with statutory or conform with customary rights.

The Project Proponents must have an initial monitoring plan to quantify and document changes in social and economic well-being resulting from the project activities (for communities and other stakeholders). The monitoring plan must indicate which communities and other stakeholders will be monitored, and identify the types of measurements, the sampling method, and the frequency of measurement.

Since developing a full community monitoring plan can be costly, it is accepted that some of the plan details may not be fully defined at the design stage, when projects are being validated against the Standards. This is acceptable as long as there is an explicit commitment to develop and implement a monitoring plan.

Indicators
The Project Proponents must:

1) Develop an initial plan for selecting community variables to be monitored and the frequency of monitoring and reporting to ensure that monitoring variables are directly linked to the project's community development objectives and to anticipated impacts (positive and negative).[42]

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present an initial plan for monitoring.		
Findings from 2nd assessment: 16 September 2010	As it was mentioned in previous findings, the project proponent has a plan approved by CCBA which will be implemented as a complement of Barca regular job. Forest Finance has selected the communities within the project zone (not so many actually). The methodology already establishes the suggested frecuency of monitoring and the company will analyse and archive the results as it is done in a regular basis.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 13/10 (Closed)**		

2) Develop an initial plan for how they will assess the effectiveness of measures used to maintain or enhance High Conservation Values related to community well-being (G1.8.4-6) present in the project zone.

Findings from 1st assessment: 05 JULY 2010	There is no evidence for a HCV assessment having been conducted for the project zone.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.1.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

3) Commit to developing a full monitoring plan within six months of the project start date or within twelve months of validation against the Standards and to disseminate this plan and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders.

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present an initial plan for monitoring and the way to make the main results public.		
Findings from 2nd assessment: 16 September 2010	According to Andreas Schnall (Project Manager) the project proponent plans to initiate the monitoring during year 2011, right after the validation process finishes. Barca the service provider will be in charge of socializing the main results to interest parties such as local stakeholders.		
Conformance	Yes ☒	No ☐	N/A ☐

[42] Potential variables may include but are not limited to: income, employment generation, health, market access, schools, food security and education.

CAR/OBS	**CAR 13/10 (Closed)**

BIODIVERSITY SECTION

B1. Net Positive Biodiversity Impacts - Required

Concept
The project must generate net positive impacts on biodiversity within the project zone and within the project lifetime, measured against the baseline conditions.

The project should maintain or enhance any High Conservation Values (identified in G1) present in the project zone that are of importance in conserving globally, regionally or nationally significant biodiversity.

Invasive species populations[43] must not increase as a result of the project, either through direct use or indirectly as a result of project activities.

Projects may not use genetically modified organisms (GMOs)[44] to generate GHG emissions reductions or removals. GMOs raise unresolved ethical, scientific and socio-economic issues. For example, some GMO attributes may result in invasive genes or species.

Indicators
The Project Proponents must:

1) Use appropriate methodologies[45] to estimate changes in biodiversity as a result of the project in the project zone and in the project lifetime. This estimate must be based on clearly defined and defendable assumptions. The 'with project' scenario should then be compared with the baseline 'without project' biodiversity scenario completed in **G2**. The difference (i.e., the net biodiversity benefit) must be positive.

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present an initial plan for monitoring of biodiversity in the project zone.
Findings from 2nd assessment: 16 September 2010	A document called "Plan de Monitoreo de Flora y Fauna en fincas de reforestación" (Abel Batista/Consultant/June 2010) was sent to SW. This document consists of the monitoring plan that ForestFinance will implement after validation. Considering the capacity of the project proponent and the service provider (Barca), audit team considers the plan objectives and goals, adecuate to meet B1.1. and related indicators. Through the implementation of the monitoring plan, the project proponent will have a list of biological indicators (fauna, flora, and habitats), and the results from biodiversity inventory (transcepts and traps). The monitoring plan will be implemented no less than every five years, which is considered acceptable. It is considered also to have a list of key species of flora and fauna, so the project proponent can based the implementation of the methodology after the first five years. The monitoring plan also shows examples of templates to be used by consultants during field work.

[43] 'Invasive species' are defined as non-native species that threaten ecosystems, habitats or species in the project zone as identified in the Global Invasive Species Database: http://www.issg.org/database, from scientific literature, and from local knowledge.
[44] 'Genetically modified organisms' are defined as any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology and which is capable of transferring or replicating genetic material.
[45] See Appendix A of CCB Standard "Potential Tools and Strategies" for further guidance.

Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 14/10 (Closed)**		

2) Demonstrate that no High Conservation Values identified in **G1.8.1-3**[46] will be negatively affected by the project.

Findings from 1st assessment: 05 JULY 2010	There is no evidence for a HCV assessment having been conducted for the project zone.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.1.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

3) Identify all species to be used by the project and show that no known invasive species will be introduced into any area affected by the project and that the population of any invasive species will not increase as a result of the project.

Findings from 1st assessment: 05 JULY 2010	In the Environmental Aspects CarbonFix (12/11/2009) document it is stated that 40% Teak and 60% native tree species will be used. In the Forest Management CarbonFix document (30/11/2009) (30/11/2009) a list of the 15 species to be used is provided. Teak has been used in Panama for about 30 years in reforestation projects, and there is no evidence of it has been invasive. Neither is the case for the native tree species being used.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

4) Describe possible adverse effects of non-native species used by the project on the region's environment, including impacts on native species and disease introduction or facilitation. Project Proponents must justify any use of non-native species over native species.

Findings from 1st assessment: 05 JULY 2010	The 04_SFM CFS-v21_Template-Environmental Aspects document, page 9 of the PDD describes the proponents' justification for not using native tree species only. There is a consideration of potential environmental damages seen in conjunction with Teak as resulting from wrong forest management of this species (e.g., planting in inappropriate soils, steep slopes, not controlling propagation of the tree, etc.), not necessarily due to the species per see, but because of wrong management decision. Justification for using Teak among native species is because the existing markets and prices are very stable; so, many investors ask to include this species to invest.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	No CARs or OBS raised.		

5) Guarantee that no GMOs will be used to generate GHG emissions reductions or removals.

Findings from 1st assessment: 05 JULY 2010	In the Environmental Aspects CarbonFix (12/11/2009) document it is stated that no GMOs will be used.		
Conformance	Yes ☒	No ☐	N/A ☐

[46] **G1.8.1** Globally, regionally or nationally significant concentrations of biodiversity values, including protected areas, threatened species, endemic species and areas that support significant concentrations of a species during any time in their lifecycle(e.g., migrations, feeding grounds, breeding areas);
G1.8.2 Globally, regionally or nationally significant large landscape-level areas where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;
G1.8.3 Threatened or rare ecosystems.
Note that High Conservation Values G1.8.4-6 that are more related to community well-being are covered in CM1.

CAR/OBS	No CARs or OBS raised.

B2. Offsite Biodiversity Impacts - Required

Concept
The Project Proponents must evaluate and mitigate likely negative impacts on biodiversity outside the project zone resulting from project activities.

Indicators
The Project Proponents must:

1) Identify potential negative offsite biodiversity impacts that the project is likely to cause.

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present an evaluation of any potential negative offsite biodiversity impacts.		
Findings from 2nd assessment: 16 September 2010	See findings in B1.1.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 14/10 (Closed)**		

2) Describe how the project plans to mitigate these negative offsite biodiversity impacts.

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present a plan to mitigate negative offsite impacts.		
Findings from 2nd assessment: 16 September 2010	See findings in B1.1.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 14/10 (Closed)**		

3) Evaluate likely unmitigated negative offsite biodiversity impacts against the biodiversity benefits of the project within the project boundaries. Justify and demonstrate that the net effect of the project on biodiversity is positive.

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present evidence that the project is not likely to result in net negative impacts.		
Findings from 2nd assessment: 16 September 2010	See findings in B1.1.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 14/10 (Closed)**		

B3. Biodiversity Impact Monitoring - Required

Concept
The Project Proponents must have an initial monitoring plan to quantify and document the changes in biodiversity resulting from the project activities (within and outside the project boundaries). The

monitoring plan must identify the types of measurements, the sampling method, and the frequency of measurement.

Since developing a full biodiversity-monitoring plan can be costly, it is accepted that some of the plan details may not be fully defined at the design stage, when projects are being validated against the Standards. This is acceptable as long as there is an explicit commitment to develop and implement a monitoring plan.

Indicators
The Project Proponents must:

1) Develop an initial plan for selecting biodiversity variables to be monitored and the frequency of monitoring and reporting to ensure that monitoring variables are directly linked to the project's biodiversity objectives and to anticipated impacts (positive and negative).[47]

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present an initial plan for monitoring.		
Findings from 2nd assessment: 16 September 2010	See findings in B1.1.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 14/10 (Closed)**		

2) Develop an initial plan for assessing the effectiveness of measures used to maintain or enhance High Conservation Values related to globally, regionally or nationally significant biodiversity (**G1.8.1-3)** present in the project zone.

Findings from 1st assessment: 05 JULY 2010	There is no evidence for a HCV assessment having been conducted for the project zone.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.1.		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

3) Commit to developing a full monitoring plan within six months of the project start date or within twelve months of validation against the Standards and to disseminate this plan and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders.

Findings from 1st assessment: 05 JULY 2010	The documents provided do not present an initial plan for monitoring and the way to make the main results public.		
Findings from 2nd assessment: 16 September 2010	See findings in G1.8.1		
Conformance	Yes ☒	No ☐	N/A ☐
CAR/OBS	**CAR 03/10 (Closed)**		

[47] Potential variables may include but are not limited to: species abundance; population size, range, trends and diversity; habitat area, quality and diversity; landscape connectivity; and forest fragmentation.

GOLD LEVEL SECTION

GL1. Climate Change Adaptation Benefits - Optional

Concept

This Gold Level Climate Change Adaptation Benefits criterion identifies projects that will provide significant support to assist communities and/or biodiversity in adapting to the impacts of climate change. Anticipated local climate change and climate variability within the project zone could potentially affect communities and biodiversity during the life of the project and beyond. Communities and biodiversity in some areas of the world will be more vulnerable to the negative impacts of these changes due to: vulnerability of key crops or production systems to climatic changes; lack of diversity of livelihood resources and inadequate resources, institutions and capacity to develop new livelihood strategies; and high levels of threat to species survival from habitat fragmentation. Land-based carbon projects have the potential to help local communities and biodiversity adapt to climate change by: diversifying revenues and livelihood strategies; maintaining valuable ecosystem services such as hydrological regulation, pollination, pest control and soil fertility; and increasing habitat connectivity across a range of habitat and climate types.

Indicators

The Project Proponents must:

1) Identify likely regional climate change and climate variability scenarios and impacts, using available studies, and identify potential changes in the local land-use scenario due to these climate change scenarios in the absence of the project.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

2) Identify any risks to the project's climate, community and biodiversity benefits resulting from likely climate change and climate variability impacts and explain how these risks will be mitigated.[48]

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

[48] Examples of how risks from climate change can be mitigated include the choice of species (adapted to various temperatures, precipitation, seasonality, salinity of water table, diseases/pests, etc.), the methods used to implement GHG emissions reduction activities, certainty of water sources critical for project success and location of activities in relation to anticipated land cover changes (e.g. flooding) expected as a result of climate change.

3) Demonstrate that current or anticipated climate changes are having or are likely to have an impact on the well-being of communities[49] *and/or* the conservation status of biodiversity[50] in the project zone and surrounding regions.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

4) Demonstrate that the project activities will assist communities[51] *and/or* biodiversity[52] to adapt to the probable impacts of climate change.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

GL2. Exceptional Community Benefits – OPTIONAL

Concept

[49] Project Proponents can demonstrate, for example, evidence of decreased access to natural resources of importance for communities' livelihoods and overall well-being. Climate change models that detail the predicted effects on these natural resources, such as freshwater, and participatory evaluations can be used to demonstrate anticipated impacts on communities.

[50] Project Proponents can demonstrate evidence of a change in actual range, phenology or behavior of a species found within the project zone. For a range change, the Project Proponents should demonstrate that the change affects the entire range of the species and not just a subset of the range (which might be part of natural variation and offset by gains in other parts of the species range). Alternatively, the Project Proponents can demonstrate anticipated negative changes in the range of one or more species found in the project area using modeling techniques. The recommended modeling tool is Maxent because of its ease of implementation and performance (http://www.cs.princeton.edu/~schapire/maxent/). Recommended climatologies are IPCC4 A1 or A2 scenarios, Hadley or Japan high resolution GCM, downscaled to 1km (also available on the internet at http://www.worldclim.org). Best practice is to have this analysis conducted by a researcher who has published on climate and species distribution modeling using Maxent in the peer-review literature.

[51] Where communities are predicted to experience or are experiencing decreased access to natural resources because of climate change, Project Proponents must demonstrate that activities are likely to decrease communities' dependence on these natural resources. For example, where freshwater access is affected by climate change, a project can improve water management for maximum efficiency or provide alternative agricultural methods or products that require less water. Project activities may also help communities adapt to new planting and harvesting schedules to ensure maximum yields. Other climate change adaptation assistance can involve helping communities prepare for 'extreme events' such as floods, droughts and mudslides.

[52] Where an actual range or phenology change in a species is identified, Project Proponents must demonstrate that the project activities will make a significant contribution to mitigating this impact of climate change. Examples include: creating suitable habitat in an area that is becoming climatically suitable for a species that is losing climatically suitable habitats in other parts of its range; and providing a native food source for a species that is suffering population declines because of timing mismatches between its food needs and food availability linked to climate change (such as spring emergence of vegetation or insects). Where a modeled range impact is demonstrated, Project Proponents should demonstrate that the project significantly contributes to improving species' ability to occupy a new range or creates habitat in areas to which the species is migrating.

This Gold Level Exceptional Community Benefits criterion recognizes project approaches that are explicitly pro-poor in terms of targeting benefits to globally poorer communities and the poorer, more vulnerable households and individuals within them. In so doing, land-based carbon projects can make a significant contribution to reducing the poverty and enhancing the sustainable livelihoods of these groups. Given that poorer people typically have less access to land and other natural assets, this optional criterion requires innovative approaches that enable poorer households to participate effectively in land-based carbon activities. Furthermore, this criterion requires that the project will 'do no harm' to poorer and more vulnerable members of the communities, by establishing that no member of a poorer or more vulnerable social group will experience a net negative impact on their well-being or rights.

Indicators
Project Proponents must:

1) Demonstrate that the project zone is in a low human development country OR in an administrative area of a medium or high human development[53] country in which at least 50% of the population of that area is below the national poverty line.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

2) Demonstrate that at least 50% of households within the lowest category of well-being (e.g., poorest quartile) of the community are likely to benefit substantially from the project.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

3) Demonstrate that any barriers or risks that might prevent benefits going to poorer households have been identified and addressed in order to increase the probable flow of benefits to poorer households.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

[53] Low, Medium, and High Human Development Countries defined in the latest UNDP Human Development Report http://hdr.undp.org/en/media/hdr_20072008_en_complete.pdf

4) Demonstrate that measures have been taken to identify any poorer and more vulnerable households and individuals whose well-being or poverty may be negatively affected by the project, and that the project design includes measures to avoid any such impacts. Where negative impacts are unavoidable, demonstrate that they will be effectively mitigated.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

5) Demonstrate that community impact monitoring will be able to identify positive and negative impacts on poorer and more vulnerable groups. The social impact monitoring must take a differentiated approach that can identify positive and negative impacts on poorer households and individuals and other disadvantaged groups, including women.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

GL3. Exceptional Biodiversity Benefits – OPTIONAL

Concept

All projects conforming to the Standards must demonstrate net positive impacts on biodiversity within their project zone. This Gold Level Exceptional Biodiversity Benefits criterion identifies projects that conserve biodiversity at sites of global significance for biodiversity conservation. Sites meeting this optional criterion must be based on the Key Biodiversity Area (KBA) framework of vulnerability and irreplaceability.[54] These criteria are defined in terms of species and population threat levels, since these are the most clearly defined elements of biodiversity. These scientifically based criteria are drawn from existing best practices that have been used, to date, to identify important sites for biodiversity in over 173 countries.

Indicators

Project Proponents must demonstrate that the project zone includes a site of high biodiversity conservation priority by meeting either the vulnerability *or* irreplaceability criteria defined below:

1) Vulnerability

   a. Regular occurrence of a globally threatened species (according to the IUCN Red List) at the site:

   b. Critically Endangered (CR) and Endangered (EN) species - presence of at least a single individual; or

   c. Vulnerable species (VU) - presence of at least 30 individuals or 10 pairs.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

Or,

2) Irreplaceability

   a. A minimum proportion of a species' global population present at the site at any stage of the species' lifecycle according to the following thresholds:[55]

   b. Restricted-range species - species with a global range less than 50,000 km^2 *and* 5% of global population at the site; or

   c. Species with large but clumped distributions - 5% of the global population at the site; or

   d. Globally significant congregations - 1% of the global population seasonally at the site; or

   e. Globally significant source populations - 1% of the global population at the site;

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.
Findings from 2nd assessment: 16	Same as previous findings.

[54] See Appendix A of CCB Standard "Potential Tools and Strategies" for further guidance.

[55] While there is wide consensus on the need for a sub-criterion for bioregionally restricted assemblages, this sub-criterion has been excluded from the Standards until guidelines and thresholds have been agreed.

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Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

f. Demonstrate that the project zone is in a low human development country OR in an administrative area of a medium or high human development[56] country in which at least 50% of the population of that area is below the national poverty line.

Findings from 1st assessment: 05 JULY 2010	The project has not attempted to meet the Gold Standard for climate change adaptation benefits, exceptional community benefits, or exceptional biodiversity benefits.		
Findings from 2nd assessment: 16 September 2010	Same as previous findings.		
Conformance	Yes ☐	No ☒	N/A ☐
CAR/OBS	ForestFinance has not attempted to conform with this optional criterion.		

[56] Low, Medium, and High Human Development Countries defined in the latest UNDP Human Development Report http://hdr.undp.org/en/media/hdr_20072008_en_complete.pdf