



ENVIRONMENTAL SERVICES, INC.

Natural Forest Standard Forest Project Validation Report

TROCANO ARARETAMA CONSERVATION PROJECT

Report Date: 20 March 2013

Project Developer:

Celestial Green Ventures PLC

Validation Conducted by:

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Project Number: VO12068.00



ANSI ACCREDITED PROGRAM
GREENHOUSE GAS
VALIDATION AND VERIFICATION
0800



Table of Contents

1 EXECUTIVE SUMMARY	4
2 INTRODUCTION	5
2.1 Project Developer and Other Entities - Contact Information.....	5
2.2 Validation Team - Roles and Responsibilities and Contact Information	6
2.3 Project Description.....	6
3 VALIDATION DETAILS	7
3.1 Validation Objective	7
3.2 Validation Scope	7
3.3 Validation Criteria:	8
3.4 Validation Level of Assurance:	8
3.5 Validation Materiality Threshold:.....	8
4 VALIDATION PROCESS	8
4.1 Document Review.....	8
4.2 Resolution of Any Material Discrepancy	9
5.0 VALIDATION FINDINGS	9
5.1 Project Design and Project Type.....	9
5.2 Project Start Date	9
5.4 Project Activities.....	9
5.5 Project Location	10
5.6 Project Eligibility	11
5.6.1 Natural Forest.....	11
5.6.2 Additionality	11
5.6.3 Legal	12
5.7 Project Management	12
5.7.1 Free, prior, and Informed Consent.....	12
5.7.2 Benefit Distribution Mechanism.....	12
5.7.3 Process for Complaints and Disputes	13
5.7.4 Carbon Ownership	13
5.8 Biodiversity.....	14
5.8.1 Threats to Biodiversity.....	14
5.8.2 Invasive Species.....	14
5.8.3 Hunting and Bushmeat.....	14
5.8.4 Step-By-Step Biodiversity Assessment	15
5.9 Quantification of Project Benefits	15
5.9.1 Carbon.....	15
5.9.2 Mapping Project and Leakage Areas	16



5.9.3	Initial Carbon Stock	16
5.9.4	Tier 2 Maps	17
5.10	Baseline Assessment	17
5.10.1	The Outputs of Risk Assessment	18
5.11	Monitoring of Project and Leakage Areas	18
5.12	Permanence	19
6	VALIDATION CONCLUSION	20
	Appendix A – NCR/CL Summary	21
	Appendix B Documents Received / Reviewed	40



1 EXECUTIVE SUMMARY

Environmental Services, Inc., (ESI) was contracted by Celestial Green Ventures PLC (CGV) on 5 July 2012 to conduct the Natural Forest Standard (NFS) project validation of Trocano Araretama Conservation Project, Project Design Document (PDD) dated March 2013. Our validation process closely followed the NFS Standard Requirements (Version 1.0, June 2012), ISO14064-3:2006, and ISO 14065:2007.

The Trocano Araretama Conservation Project's primary objective is to mitigate GHG emissions; including the conservation of the natural forest ecosystem, the protection of endangered habitats of the Indigenous Tribes and other communities, and biodiversity protection of both plants and animals, which are reliant on this vulnerable habitat.

“The Trocano Araretama Conservation Project was conceived in order to generate reductions in deforestation in the project areas while preserving existing biomass in this region. This project presents a carbon stock baseline estimation of 65,708,138 tC at risk over the 20 year crediting period of the project, from the project start date of 10th June 2011, as calculated using the Natural Forest Standard AM001.0 methodology and the Geospatial Platform data layers. The project is located in the Municipality de Borba, Amazonia, Brazil. Nearest city is Manaus (150km). The project area is 1,346,541.26 hectares or 13,465.4126 km².”¹

The validation objective included an assessment of compliance with NFS Version 1.0, June 2012 and the likelihood that implementation of the planned Greenhouse Gas (GHG) project would result in the GHG emission removal enhancements as stated by the project developer (ISO 14064-3:2006).

The scope of the validation included the GHG project and baseline scenarios; physical infrastructure, activities, technologies and processes of the GHG project; GHG sources, sinks and/or reservoirs; types of GHGs; and time periods covered. The geographic validation scope was defined by the project boundary, the carbon reservoir types, management activities, growth and yield models, inventory program, and contract periods.

The validation criteria followed the guidance documents provided by NFS: NFS Standard Requirements (Version 1.0, June 2012), NFS Standard Requirements Inc. Brief Guidance Notes (Version 1.0, June 2012), NFS Definitions for Standard and Guidance (Version 1.0, June 2012), NFS Standard Guidance (Version 1.1, August 2012), and the Natural Forest Standard Approved Methodology NFS AM001.0 (January, 2013).

A summary of all validation findings is included in Appendix A.

ESI confirms to a limited-level of assurance all validation activities including objectives, scope, criteria, level of assurance, PDD completeness and adherence to the NFS (Version 1.0, June 2012) as documented in this report. ESI concludes to a limited-level of assurance that the PDD entitled *Trocano Araretama Conservation Project* (dated March 2013) meets the requirements of the Natural Forest Standard.

¹ *Trocano Araretama Conservation Project, Project Design Document, March 2013*



2 INTRODUCTION

This validation report is prepared in accordance with the requirements of the Natural Forest Standard (NFS) Version 1.0 (June 2012). Environmental Services, Inc., (ESI) presents project validation findings of the *Trocano Araretama Conservation Project* – prepared by Celestial Green Ventures PLC (CGV). The project validation was conducted as part of the NFS’s program requirements for GHG offset projects. ESI is accredited by the American National Standards Institute under ISO14065:2007 for greenhouse gas validation and verification bodies including ISO 14064-3:2006, ISO 14065:2007, and validation/verification of assertions at the project level for Land Use and Forestry (Group 3) and is approved to validate/verify for the NFS.

2.1 Project Developer and Other Entities - Contact Information

This project will be implemented by CGV. Information regarding the project proponent is included below:

Project Proponent	Point of contact	Roles/ Responsibility	Contact Details
Celestial Green Ventures PLC	Ciaran Kelly Chief Executive Officer	Project developer, implementer, manager	93 St Stephens Green, Dublin 2, Ireland Telephone: +353 1 428 3404 Email: info@celestialgreenventures.com Web: www.celestialgreenventures.com

In addition to the project proponents, there are other individuals and organizations that will play an operative role in the project. These entities are presented below:

Other Entities	Point of contact	Roles/ Responsibility	Contact Details
Municipality of Borba	José Maria da Silva Maia, Prefeito (Mayor) de Borba	Represents ownership and management of project lands.	Av May 13, 108 – Centro, Borba - Amazonas – Brazil, CEP: 69200-000 Tel: + 0055 92 35122065 Web: www.prefeituradeborba.am.gov.br
Instituto Amazon Livre (Institute Free Amazon)	Antônio José do Nascimento Fernandes, , General Secretary	Project technical consultant	Dr. Almino Street, 236 – Centro, Manaus - Amazonas – Brazil, CEP: 69005-200 Tel: +55 92 8143 8420 Email: antoniojnf@hotmail.com
Ecometrica	Karin Viergever, Head of Land Use and Spatial Analysis	Project technical consultant, Geospatial Platform Liaison	Top Floor, Unit 3B, Kittle Yards, Causewayside, Edinburgh, EH9 1PJ Telephone: +44 131 662 4342 Email: karin.viergever@ecometrica.com Web: www.ecometrica.com



2.2 Validation Team - Roles and Responsibilities and Contact Information

<p>Accredited Validation Entity:</p> <p>Environmental Services, Inc.</p>	<p>Environmental Services, Inc. Forestry, Carbon, and GHG Services Division 7220 Financial Way, Suite 100 Jacksonville, Florida 32256 Phone: 904-470-2200 www.esicarbon.com</p> <p>Lead Validator: Shawn McMahon Validation Team Members: Caitlin Sellers, Stewart McMorrow, Chris DeRolph and Rich Scharf Validation Trainees: Terese Walters and Jonathan Pomp QA/QC: Janice McMahon</p>
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2.3 Project Description

The Trocano Araretama Conservation Project’s primary objective is to mitigate GHG emissions through avoided deforestation; including the conservation of the natural forest ecosystem, the protection of endangered habitats of the Indigenous Tribes and other communities, and biodiversity protection of both plants and animals, which are reliant on this vulnerable habitat.

“The Trocano Araretama Conservation Project was conceived in order to generate reductions in deforestation in the project areas while preserving existing biomass in this region. This project presents a carbon stock baseline estimation of 65,708,138 tC at risk over the 20 year crediting period of the project, from the project start date of 10th June 2011, as calculated using the Natural Forest Standard AM001.0 methodology and the Geospatial Platform data layers.

The primary objectives of the project are as follows:

- Avoid deforestation within the project area for the duration of the project;
- Categorize the risk of deforestation to the project area, using the ACEU rule as per the NFS AM001.0 methodology;
- Identify the areas most at risk of deforestation and implement effective protection and monitoring;
- Conservation and preservation of the natural forest;
- Raising civic pride and appreciation of the natural forest;
- Strengthening of Local Forest Protection;
- Biodiversity protection of the plants, animals and the ecosystem as a whole;
- Socio-economic enhancements for the local communities, including healthcare, education, employment and infrastructure improvements; and
- Data collection, including inventorying biodiversity, forest, flora and fauna.”²

² Trocano Araretama Conservation Project, Project Design Document, March 2013



3 VALIDATION DETAILS

3.1 Validation Objective

The validation objective included an assessment of compliance with the Natural Forest Standard (NFS) and the likelihood that implementation of the planned Greenhouse Gas (GHG) project would result in the GHG emission removal enhancements as stated by the project developer (ISO 14064-3:2006).

3.2 Validation Scope

The scope of the validation included:

- the GHG project and baseline scenarios
- physical infrastructure, activities, technologies and processes of the GHG project
- GHG sources, sinks, and/or reservoirs
- types of GHGs
- time periods covered.

The geographic validation scope was defined by the project boundary (project area), which included three differentiated areas (West Zone, Central Zone, and South Zone), the carbon reservoir types, management activities, growth and yield models, inventory program, and contract periods. The scope of *Trocano Araretama Conservation Project* was outlined by the project developer prior to the validation initiation and is re-defined as follows:

Baseline Scenario	No increase in environmental services to the project area including the three main activities outlined below.
Activities/Technologies/Processes	The Trocano Conservation Project’s primary project activity over the 1,346,541.26 ha total project area is to reduce GHG emissions from avoiding deforestation and degradation within the project area. This will be achieved by implementing an effective monitoring and management plan, whilst encouraging more effective forest governance and providing additional co-benefits to the communities and biodiversity within the project area. These additional activities include the following: <ul style="list-style-type: none"> • Conservation and preservation of the natural forests; • Biodiversity protection of the plants, animals and the ecosystem as a whole; • Socio-economic enhancements for the local communities, including healthcare, education, employment and infrastructure improvements; and • Data collection, including inventorying biodiversity, forest, flora and fauna.
Sources/sinks/Reservoirs	Above-ground biomass, Below-ground biomass
GHG Type	CO2



Time Period	Start Date: 10 June 2011 Crediting Period: 20 years (10 June 2011 to 9 June 2030)
Project Boundary	Portion of the Municipality of Borba – total eligible project area is 1,346,541.26 hectares

3.3 Validation Criteria:

The validation criteria followed ISO 14064-3 and the guidance documents provided by NFS, which included the following:

- *NFS Standard Requirements (Version 1.0, June 2012)*
- *NFS Standard Requirements Inc. Brief Guidance Notes (Version 1.0, June 2012)*
- *NFS Definitions for Standard and Guidance (Version 1.0, June 2012)*
- *NFS Standard Guidance (Version 1.1, August 2012)*
- *Natural Forest Standard Approved Methodology NFS AM001.0 (January, 2013)*
- ISO14064-3 and ISO 14065
- ESI Management System and Management System Manual (v12), Section V.10

3.4 Validation Level of Assurance:

The level of assurance is used to determine the depth of detail that the validator places in the validation plan to determine if there are any errors, omissions, or misrepresentations (ISO 14064-3:2006). For NFS validations, ESI will review all data and information to be validated to provide a *limited-level assurance* and to meet the materiality requirements of the specific protocol (NFS). A limited-level of assurance means there was less emphasis on detailed testing of GHG data and information supplied to support the GHG assertions (ISO 14064-3:2006) and therefore, no validation field assessment was conducted.

3.5 Validation Materiality Threshold:

Materiality is a concept that errors, omissions and misrepresentations could affect the GHG reduction assertion and influence the intended users (ISO 14064-3:2006). As the NFS does not define a materiality threshold, ESI defined the materiality threshold as being 5%. As defined by the Natural Forest Standard, validators can identify major or minor discrepancies. Major discrepancies identified by the validator shall be addressed prior to credit issuance. Major discrepancies are defined as errors in quantification that exceed the 5% materiality threshold or are deemed to be out of compliance with the Guidance. Minor discrepancies include errors, omissions or other misstatements and clarifications that are raised by the validator.

4 VALIDATION PROCESS

The validation process closely followed ESI's procedures for NFS validations outlined within our Management System Manual. In addition, the validation process was detailed in a separate Validation and Sampling Plan, which was approved by the Project Proponent on 20 December 2012.

For this validation, the sample size for the desktop validation (limited-level of assurance) included a complete review of the PDD and supporting documents. No field review of the project was conducted.

4.1 Document Review

A detailed review of all project documentation, submitted to the validator, was conducted to ensure consistency with, and identify any deviation from, NFS program requirements. Initial review focused on



the PDD and included an examination of the project details, data and parameters, quantification of GHG emission reductions and removals, remote sensing analysis and supporting documents.

Please see Appendix B for a complete list of documents and files provided by the client during the validation process.

4.2 Resolution of Any Material Discrepancy

During the validation process, there was a risk that potential errors, omissions, and misrepresentations would be found. The actions taken when errors, omissions, and misrepresentations were found included: notifying the client of the issue(s) identified, and expanding our review to the extent that satisfied the Lead Validator's professional judgment.

During the course of the validation, thirty-three (33) Non-conformance Reports (NCRs) /Clarifications (CLs) were identified. All NCRs/CLs were satisfactorily addressed. The NCRs/CLs provided necessary clarity to ensure the project was in compliance with the requirements of the NFS.

For a complete list of all NCRs/CLs and their resolutions, please refer to Appendix A.

5.0 VALIDATION FINDINGS

5.1 Project Design and Project Type

The *Trocano Araretama Conservation Project* is a Reduced Emissions from Deforestation and Degradation project being designed, implemented, and validated under NFS requirements. The PDD was developed to serve as the Management Plan for the project and will be modified to show the progress and development of the project over time. The project is seeking certified natural Forest Credits (NFC's) for the emission reductions achieved by the development and implementation of this project.

5.2 Project Start Date

The project start date is 10 June 2011.

5.3 Project Crediting Period

The project crediting period for this project is 20 years, beginning on 10 June 2011 and ending on 09 June 2031.

Estimated net GHG emission reductions for *Trocano Araretama Conservation Project* are 8,059,638 tCO₂e per year. A risk buffer of between 15% and 20% is estimated; however, the risk buffer will be determined by the NFS Risk Panel. The Risk Panel will assess each project on an individual basis and set appropriate buffer levels of credits accordingly.

5.4 Project Activities

The PDD states that the “project exists to avoid deforestation within the project area and to provide additional related benefits to the project area. The implementation of the project is primarily by offering communities the opportunity to take an active role in protecting their habitat and surrounding area in its natural state, and also by offering alternative and/or sustainable activities which will in turn, generate employment and income to residents of the project area, combined with protecting the forest from deforestation. The project does not involve any commercial forestry activities nor does it currently include any natural forest restoration activities. The project activities will be developed, implemented and



executed by the Municipality of Borba and the Trocano Project Management Council, who will establish forest conservation and community development sub-teams from the project communities, bringing together members of the local business community, community associations and municipal departments.”³

The validation affirmed the following project activity assertions of the PDD:

- Conservation and preservation of the natural forests of the project area;
- Biodiversity protection of the plants, animals and the ecosystem as a whole;
- Socio-economic enhancements for the local communities, including healthcare, education, employment and infrastructure improvements; and
- Data collection, including inventorying biodiversity, forest, flora and fauna.

Project implementation focuses on activities that should mitigate deforestation and leakage. These project activities include the following:

- Development and implementation of effective management plan;
- Provide viable sustainable and economic alternative practices to project area inhabitants;
- Strengthening of Local Forest Protection;
- Incentivize local communities to adapt their current behavior;
- Incentivize and reward changes in behavior;
- Capacity-building and environmental awareness;
- Participation in project implementation, through monitoring, management, conservation and other activities;
- Participation in project-related training;
- Environmental Education Program;
- Raising civic pride of the natural forest.

Forest protection measures will be implemented to actively respond to any identified activity of deforestation in the project area via the monitoring system in place, and will close down any such activities as part of the project implementation measures.

5.5 Project Location

The project area is located in the Municipality of Borba, Amazonas, Brazil, which is situated on the banks of one of the main tributaries of the Amazon River, with the nearest city being Manaus (150km). The project area consists of three clearly differentiated areas (West Zone, Central Zone, and South Zone) within the Municipality of Borba, totaling 1,346,541.26 ha project area. The project area does not include indigenous land areas, urban areas, or areas of the RDs of Madeira or Matupiri that are within the Municipality of Borba.

Borba Geographical Coordinates:

Latitude: -4.38835, Longitude: -59.5945

4° 23' 18" South, 59° 35' 40" West

³ *Ibid.*



Validators conducted independent desktop reviews of this region in Brazil and confirmed to a limited level of assurance that this area exists. Project area delineation was also discussed during internet meetings with the clients that were aimed at reviewing the Geospatial Platform and associated data inputs and analysis.

5.6 Project Eligibility

5.6.1 Natural Forest

The first aspect of eligibility to test is whether the forest designated by the project to be protected or restored is a natural forest, as defined by the NFS (see definitions section). According to the PDD and supporting documentation, “The CGV Geospatial Platform identifies the vegetation types in the project areas. The predominant vegetation type in the total project area is Closed to Open (>15%) broadleaved evergreen or semi-deciduous forest (>5m), which is consistent with the definition of natural forest, having ~1,159,223 ha or 95.2% of this vegetation type. According to the Brazilian Forest Code, the existing natural forests in the project area are defined as primitive and natural forests mainly with large fragments of native primary and secondary native.”⁴

During the validation process the assertions regarding the natural forest requirement were assessed and confirmed to the extent possible, without a site visit, by reviewing the provided maps and reviewing/discussing the Geospatial Platform with the project developer.

5.6.2 Additionality

In general terms the additionality of the project is created by application of the Natural Forest Standard. The activities that are discussed in in the PDD (Section 2.4.1) are a result of implementing the requirements of the Natural Forest Standard and would not have been implemented had the requirements of the Standard not been in place. The NFS requirements have allowed the project to implement three (3) broad-based project activities that will result in additionality within the project area as a whole. The main activities that are to be considered additional are:

- Providing socio-economic enhancements by way of the benefits distribution mechanism requirement of the NFS;
- Providing biodiversity protection and quantification by way of the Normative Biodiversity Metric of the NFS;
- Providing reduced emissions through avoided deforestation and forest degradation by implementing effective Management and Monitoring Plans, plus the activities described above, as prescribed in the NFS.

Validation of additionality included the evaluation of the project’s ability to incentivize the local communities to adapt their current behaviours in a beneficial way with regards the environment, socio-economic enhancements and biodiversity protection. By providing an offset mechanism that will both incentivize and reward these changes in behaviour and the application of NFS requirements, the project appears to meet the additionality requirement. Evidence used to support this claim included maps, data on population growth, information of the protective status of the project area, and historical data on deforestation. To the knowledge of validators, this project is additional under the requirements of the NFS.

⁴ *Ibid.*



5.6.3 Legal

All relevant information on CGV's compliance with laws, statutes, and other regulatory frameworks can be found in the PDD (Section 2.2) and referenced supporting documents (Annex 14b).

A full legal review (dated 31 January 2013) of the project documentation was carried out by legal advisors, and a summary statement provided in PDD Annex 14a (original Portuguese) and Annex 14b (English translation) for the validator's to review. An outline of the conclusions drawn from the legal opinion is included in the PDD, section 2.2.

Compliance with these laws was confirmed (with limited assurance) during validation.

5.7 Project Management

As required by the NFS Guidance v1.1, the project is required to develop a management plan. The project developer has confirmed that the PDD serves as the management plan for this project and validators have confirmed that the PDD contains all the aspects required by the NFS Guidance. The NFS is designed for use by projects in publicly owned areas of natural forest ranging from municipalities to state-owned concessions. The PDD describes how the following items will be put into operation including the governance structure being constituted by the Project Management Council.

5.7.1 Free, prior, and Informed Consent

Section 4.3 of the PDD describes in detail how the project meets the NFS requirement of *Free, Prior, and Informed Consent* (FPIC). The project has described and provided evidence of many public information meetings, meetings with regional leaders and groups as well as gathering public comments and sentiments regarding the project. As stated in the PDD, "The communities within the Municipal land, and therefore the project area are included in the project, and have been party to information exchanges and have been and are encouraged to act in a participatory manner, including within the decision making process. It has been ensured that a cross-section of the communities and their population have been involved, including remote communities and women. Again, there will be no interruption or negative impact on their usual way of life, and will be the groups that will benefit from the activities of the project being implemented."⁵

The project appears to have been vetted by the communities, contained in a revision of the regional Master Plan for the Municipality regarding forest management, of which the Municipality is charged with conducting, and the therefore validators conclude that the project used FPIC in the planning and construction of the project design document. Further confirmation of this item will be included in a verification site visit.

5.7.2 Benefit Distribution Mechanism

The PDD describes the process and amounts for the allocation of benefits to the communities within the project area. The benefits mechanism that will be implemented by the project will take a number of forms.

In the context of the Trocano project, the term 'benefits' will include the following meanings:

- Monetary;
- Training and education;
- Employment; and

⁵ *Ibid.*



- Enhanced living conditions

The PDD indicates that \$4 million US will be annually allocated to the Municipality for them to develop projects and programs with the local communities. At the time of writing of the PDD, this amount is approximately 23.5% more than their current budget. The PDD indicates that this funding will be “determined in a transparent, fair and equitable manner for all project area inhabitants to be able to benefit.”⁶ The project will implement a Management Council who will oversee the distribution of these funds according to the objectives, parameters and appropriateness as outlined in the PDD. Validation of the benefits distribution system is found to be adequate and in keeping with the principles and guidelines of the NFS. The effectiveness of the benefits distribution mechanism will be subject to review to ensure its effectiveness and appropriateness.

5.7.3 Process for Complaints and Disputes

Section 3.6 of the PDD describes a grievance mechanism for dealing with any complaints or concerns from the community members or groups within the project area. The PDD indicates this process will be available to all parties involved in the project and within the project area. The PDD describes how the public will be made aware of this process. As stated in the PDD, “The grievance process will be mediated and governed by the Project Management Council, and will be based on fairness and transparency at all times. The objective of the grievance process is to reach agreement between the parties in the most informal and timely way possible.”⁷ Finally, the PDD describes the process and items that will be included in the annual reports. Validators have confirmed that at this stage of the project, the PDD adequately describes a process that appears to be in compliance with the NFS guidance.

5.7.4 Carbon Ownership

The lands contained within the project area are under the legal ownership and control of the Municipality of Borba. This municipality has updated their Master Plan which dictates management over the project area. This master plan amendment contains a transfer of carbon ownership rights to the Celestial Green Ventures Company for the duration of the project lifetime. The PDD describes the ownership pattern including historic and cultural ownership patterns. The transfer of carbon ownership was obtained with full consent of the Municipality of Borba. As the PDD states, “The agreement signed between the Municipality of Borba and Celestial Green Ventures PLC clearly grants the full legal and beneficial rights to all and any carbon credits that can be certified in relation to the land in question for the full term of the 30 year contract period (see Annex 13a-f). As the contract is directly held with the Municipality of Borba, the official partner in the project, this has the backing of the Municipal Governments legal approval, and confirmed as legal as per the official legal review (Annex 14).”⁸

Validations included a review of the carbon ownership agreement documents and according to a limited level of assurance, the documents and the agreement appear to be confirmed. This issue will be further addressed during verification of the project while on the site visit.

⁶ *Ibid.*

⁷ *Ibid.*

⁸ *Ibid.*



5.8 Biodiversity

5.8.1 Threats to Biodiversity

The project area is described as being very rich with plant and wildlife species. The PDD describes the project area as being “significant in terms of biodiversity value.” The PDD describes several studies that have been conducted in and around the project area that confirm the richness of the forests. The PDD describes the following items as being the main threats to biodiversity.

- Deforestation and reduction of natural habitats;
- Over-exploitation of plant and animal species;
- Hunting and fishing illegal and predatory;
- Bio-piracy;
- Pollution of soil and waste water and sewage of the city and communities;
- Construction projects of great impact;
- Habitat Loss.

Validators conducted an independent review of the area including a web search and concluded that the PDD is describing a plausible threat to the forest and resulting loss to biodiversity in the project area.

5.8.2 Invasive Species

The PDD indicates that there is only one non-native species, a bird, exists in the project area. The project does not plant or involve reforestation. However, the PDD does lay out a plan for preventing the spread and release of invasive species. According to the PDD (Section 9.2),

“The project will follow the three (3) management stages of the Global Invasive Species Programme, as identified in the Natural Forest Standard Guidance, which are:

- Prevent the release and spread of non-native animal and plant species into areas where they can cause damage to native species and habitats and to economic interests;
- Ensure rapid response to new populations will be undertaken;
- Ensure effective control and eradication measures will be carried out if/when problem situations arise.”⁹

Validation of this item assures that the project meets the NFS Guidance.

5.8.3 Hunting and Bushmeat

According to the PDD (Section 9.3), evidence of hunting was indicated during the initial surveys undertaken in the project area. The evidence indicates that there is non-conformance with the national laws and lack of monitoring for the hunting activities in isolated areas. This project does not propose to take away hunting areas, and in general the protection of the forest should not impact this activity at all, even though it appears to be against the law. The project does indicate that through its activities that it will embark on an educational campaign in schools, have meetings with the communities to raise awareness, monitor hunting activities, and implement a family gardening area in order to offer alternatives to hunting. Further the PDD states, “The project proposes to reduce hunting activities without changing the diet of the rural and riverine populations. With more green space available to plant, harvesting tends to be more robust. The project also aims to encourage the implementation of home

⁹ *Ibid.*



gardens within the project area, which will allow a larger food production in direct correlation to the maintenance of the natural forest.”¹⁰

The Hunting and Bushmeat description in the PDD are found to be in compliance with the NFS Guidance for the purposes of validation. Further review will occur at the verification site visit.

5.8.4 Step-By-Step Biodiversity Assessment

To quantify the biodiversity impacts of the project, as required in the Natural Forest Standard the Normative Biodiversity Metric (NBM) has been applied to the project area and a full desktop assessment has been carried out.

The steps carried out by the project team and outlined in the PDD include: Identifying the Eco-Floristic Zone, Defining the NBM scale, Classifying the Habitat zones, processing and analysis of satellite data, review of endangered Species Presence, and finalizing the NBM score. The steps taken and the entire process used was reviewed by validators and found to be in compliance with the NFS Guidance. Since this process was a desk exercise for the project, the validation focussed on the assessment of the assumptions made, metrics used and verification of endangered species presence and other related items.

A score of 5.3 has been calculated for the Trocano Araretama Conservation project.

To quote the PDD, “Following on from this desk-based analysis, during the duration of the project and its activities, ground-truthing exercises will be implemented and carried out whereby surveys of the areas which are identified as having a high degree of ecosystem intactness to establish whether there are any signs of hunting or resource harvesting in the area, which has fundamentally affected the ecosystem function. This will be carried out during the early stages of the project. See Step 6 for further information regarding monitoring and ground-truthing.”¹¹

Given that this validation was a desk review of the project and all associated references, this aspect is confirmed to have been performed correctly and in accordance with the NFS Guidelines.

5.9 Quantification of Project Benefits

Validation of the project confirms that approved methods are being utilized for the purpose of quantification of project benefits. Given that the project is only at the validation stage, this will be further reviewed and tested when the project is ready for verification. The project appears to maintain transparent accounting for all elements reviewed at this stage. This includes biodiversity information, source data, assumptions, maps, locations and identities of all involved parties. Validation of this aspect focussed on the methods used in quantification of carbon using the geospatial platform and all relevant input data. At all times, the project managers were willing to share their data sources, offered to hold personal meetings to discuss and offer sample data used in the project. The next logical step is at verification, where ground truthing of these data sources will be performed, interviews conducted with project participants and general observations of project work, landscape and threats will be evaluated.

5.9.1 Carbon

The project is using a risk based approach to quantify tons of CO₂ sequestered per year as a result of project activities. This is in accordance with the AM001.0 methodology and NFS Guidance.

¹⁰ *Ibid.*

¹¹ *Ibid.*



5.9.2 Mapping Project and Leakage Areas

The Geospatial Platform (GSP) is used to map the project area and spatial data on the project boundaries, carbon stocks, vegetation and risks. The platform automates the calculations of NFC's produced from the project area using the approved NFS AM001.0 methodology and associated supporting data and maps, and has been produced in line with the Standard requirements and guidelines of the Natural Forest Standard, where it states that Tier 2 Regional carbon data sets are to be used for the quantification of carbon stocks. Whilst other maps were available for the area, they were not suitable for a risk-based GHG baseline construction, and the maps provided in AM001.0 were approved as best available evidence. During review of the project and through testing the use of the GSP, it was noted by validators that there were small discrepancies in the land areas reported. When running an instantaneous query with the platform, the land area is estimated using vector based methods, however the GSP uses raster based methods which calculate the area based on pixels. Some pixels will be included or excluded based on how much of the pixel is drawn "in" when outlining an area.

The PDD explains in section 5.3. "The total actual project area is 1,346,541 ha; the mapping within the Geospatial Platform, when taking into consideration the explanations above, under-calculates the project areas and results in the total area submitted for project calculations, carbon calculations and baseline estimations being less than the total project area."¹²

Validation of this item included an online meeting with project proponents, consultants and staff from NFS where this situation was discussed and validators found that the more conservative numbers were being used for the carbon stocks analysis. Further this method is approved as a means for mapping the project area carbon and is considered applicable under the NFS Guidance and AM001.0 methodology.

5.9.3 Initial Carbon Stock

The basis for the analysis for carbon stocks in the project area is the use of the Geospatial platform (GSP). This GSP is a computer model that utilizes collated research resources from the NASA Jet Propulsion Laboratory and other approved sources. This platform illustrates the risk of deforestation using the ACEU analysis tool, and applies this rule to any given or drawn area within the Legal Amazon on a five-point intensity scale. The platform also demonstrates existing carbon stocks & biomass density, vegetation types, historic deforestation for the years 2006-2010 and past fire events for 2005-2010. The use of the GSP is approved for this purpose as part of the NFS AM001.0 methodology.

There are a number of layers that make up the GSP, with the carbon layer being derived from the NASA JPL, covering the Legal Amazon and surrounding areas. The input data was from Saatchi et al (2011) Benchmark map of forest carbon stocks. The application of this data is confirmed to be an applicable data source as per the NFS Guidance and approved AM001.0 methodology.

For the purposes of efficiency, the project areas were broken up into 3 project zones and split into 13 areas. The data analysis included Total and average Biomass and Carbon density, past deforestation and general vegetation. Also included are past fire events and the deforestation risk layers.

The platform allows a user to simply select a polygon of any shape and size and these information sources are presented automatically for the area. Therefore, initial carbon stocks for the area are a function of selecting the entire project area in the platform and the carbon stocks are automatically calculated.

¹² *ibid.*



As described previously, the GSP includes a small discrepancy in the accuracy of the carbon stocks and area details when running on the spot queries. This results in a land area that is slightly smaller than the actual project area, which further results in a smaller total carbon estimate. The total actual project area is 1,346,541 ha; however Section 5.6 of the PDD shows the final initial carbon stocks figures, which indicates a total land area of 1,208,777 ha. This smaller number is also taking into account areas that actually have available carbon, as opposed to areas of water, development or previously deforested areas. The PDD further indicates that when a discrepancy is discovered, the project will default to the more conservative figure.

Initial carbon stocks of the leakage buffer were established in accordance with the NFS AM001.0 methodology. The project identifies a leakage buffer of 10km around the boundaries of the project. This project happens to lie immediately adjacent to another developing avoided deforestation project, and therefore, in advance of that project being validated, it was deemed appropriate to extend the leakage buffer around the outside boundary of the adjacent project. This was considered conservative since the leakage buffer was made larger by this effort.

This leakage buffer zone is estimated to total approximately 1,800,000 ha. The NFS only requires an estimation of the Initial Carbon Stocks within the buffer area, and using the average carbon density from the initial carbon stocks estimate, the project has estimated the initial carbon stocks of the leakage buffer to be about 250,506,000 tC.

Validators have independently tested the GSP for its intended use as well as through an online meeting (Jan 04, 2013) with the project proponents and individuals with NFS. Further review of the AM001.0 methodology confirms this project is utilizing the GSP according to the requirements of NFS.

5.9.4 Tier 2 Maps

The project description indicates that the project is using the approved Tier 2 NASA JPL maps, as indicated in the NFS Guidance and methodology.

5.10 Baseline Assessment

In accordance with the Natural Forest Standard requirements, the AM001.0 methodology was used for the baseline calculations of the project. This approach uses risk values, rather than predictions and is based on the ACEU criteria, as approved in the NFS methodology. ACEU represents land that is Accessible, Cultivable, has Extractive value and is Unprotected.

The project has applied this approach in an appropriate manner. Various aspects of this approach are outlined in the PDD under Section 6. The project identified the presence of threats in the form of small family based degradation, and larger scale loggers, settlers and squatters.

The PDD explains, “The main consequence of the traditional practice of cultivating the land on the scope of the project is the clearing of hundreds of hectares of virgin forests which results in the issuance of hundreds of tons of carbon into the atmosphere, creating low productivity because soils are poor in nutrients. As local people are unaware of other forms of land use and natural resources of the place, the tendency is that the devastation continues to increase in Borba.”¹³

¹³ *ibid.*



The project has detailed its contributing factors to risk as being related to accessibility from roads, rails and water bodies and through access from previously deforested areas. The project assumes that most of the land in the project area is cultivable and has exploitable value since few areas are unsuitable for timber extraction or cattle grazing. Risk is therefore analysed based on accessibility and protection status. The risk maps generated are the main tools used for the calculation of carbon credits.

All risk mapping was performed using the GSP. All methods were found to be in accordance with the approved NFS methodology AM001.0. Risk values were reviewed and found to be correct.

5.10.1 The Outputs of Risk Assessment

The final outputs from applying the risk model to the project area are found in Section 6.4 of the PDD. This summation is the result of using the GSP and the associated ACEU risk maps. Five categories of risk were identified, as per the NFS Methodology. By using the ACEU deforestation Risk Map carbon figures, as these are the more conservative, Initial Carbon Stock figures that are generated from the Geospatial Platform, plus applying the risk indices that are provided in the methodology into the ACEU Deforestation Risk map, the baseline estimations of carbon loss without the project being implemented are 65,708,138 tC over the 20 year project span, starting on June 10, 2011.

5.11 Monitoring of Project and Leakage Areas

According to the PDD, “The monitoring of the Trocano Araretama Conservation Project consists of 3 areas of monitoring:

- Monitoring of emissions from deforestation
- Monitoring of carbon sequestration
- Monitoring of leakage zones

The monitoring of the project, covering all three areas will mainly be carried out by using a combination of remote-sensing and satellite images. There will also be a team of on-the ground rangers who will constantly be patrolling and monitoring the areas, making regular visits to the known high-risk areas, patrols of the project boundaries where possible, and along access points such as roads, rivers and existing forest paths. The teams will also have a schedule of visits for the accessible areas of the whole project area. Given the size, vastness and separation of the project areas, sole use of on-the-ground monitoring is not possible, effective or efficient use of resources.”¹⁴

Further, during the validation, the issue was raised in regards to monitoring. The project management commented on a related NCR, “Regarding the use of GOFC-GOLD; the approved NFS AM001.0 methodology complies with the NFS Guidance. Therefore by the Trocano project conforming to and applying this approved methodology to the project, it can be assumed that the recommended procedures will be used as part of the application of the approved methodology.” Review of the PDD and approved methodology, validators found this claim to be true and accurate. Further review of the annual monitoring will occur at the verification state.

The PDD outlines a monitoring plan that includes all needed aspects as outlined in the NFS Guidance and approved methodology AM001.0.

¹⁴ *ibid.*



5.12 Permanence

The assessment of non-permanence risk for the project will be ascertained by the NFS Risk Panel. There will be a full analysis of the project to assess its ability to provide permanent emission reductions through the effective implementation of the project, for the duration of the crediting period. As such, no further analysis of this topic was included at this stage of the validation; however the analysis of the elements of the permanence were reviewed.

As stated in the PDD, “The Trocano Araretama Conservation Project is designed to be implemented for the long-term benefit of the natural forests of the project area beyond the lifespan of the project and the signed agreement. It is the intention to provide permanent improvements and avoided emissions through robust implementation, conservation and governance. The project discusses the following measures it will include to ensure the emissions reductions will be permanent.

- The project attempts to understand the nature of the threats to deforestation and alleviate these by providing economically viable incentives and benefits as well as appropriate education on sustainable land use practices.
- Strengthening the legal frameworks that protect forests will be achieved through inclusion of the project in the Master Plan for the Municipality of Borba.
- Sustainable funding for the project is one of the most critical aspects of permanence. This will be reviewed regularly through annual reviews.
- Effective and durable governance structures are also a key element of this project’s longevity. The project will establish a Project Management Council. The Project Management Council will be responsible for ensuring that the governance structures outlined in this management plan and initially put in place will be adopted by all project participants.

Finally, the main premise behind protection of the forests where communities rely on resources extracted is through alignment of Conservation with Economic Development.”¹⁵



These measures were reviewed and discussed with the project management and will be further reviewed for appropriateness upon verification and during the site visit.

¹⁵ *ibid.*



6 VALIDATION CONCLUSION

Environmental Services, Inc. confirms all validation activities including objectives, scope, criteria, level of assurance, and PDD adherence to the NFS (Version 1.0, June 2012) as documented in this report are complete. ESI concludes that, based on our validation process conducted to a limited-level of assurance, nothing has come to our attention that causes us to believe that the Project Design Document does not conform to the NFS Standard.

Report Submitted to:	Natural Forest Standard Celestial Green Ventures PLC
Report Submitted by:	Environmental Services, Inc. Corporate Office 7220 Financial Way, Suite 100 Jacksonville, FL 32256
ESI Lead Validator Name and Signature:	 Shawn McMahon Lead Validator
ESI Division Regional Technical Manager Name and Signature:	 Janice McMahon Vice President and Forestry, Carbon and GHG Division Regional Technical Manager
Date:	20 March 2013

SPM/JPM/SMM/rmb/VO12068 Validation Report-Final.doc
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Appendix A – NCR/CL Summary

1. Non-Conformity Report

NFS Criteria: In cases where forest is not legally protected the following indicators in Figure 2 (page 18) may be used to demonstrate additionality, and the corresponding evidence should be provided to support each indicator.	
Evidence Used to Assess Conformance: Section 2.4 of PDD	
Findings: The project is using the Geospatial platform as a means to demonstrate the additionality of the project in terms of the future deforestation risk. Several maps have been submitted that clearly show the additional deforestation. The area is also clearly accessible and has extractable resources. The PDD does not however give a clear picture that the "Social and economic pressures on forest are high and/or increasing". The PDD does give some indications of the benefits to be gained by the community in this regard, but this section needs to address this issue a little more.	
Non-conformity report (NCR): Please include a more detailed description in this section that addresses the "Social and economic pressures on forest are high and/or increasing" as outlined in section 1.2 of the NFS Standard Guidance V1.1.	
Date issued:	17 January 2013
Project proponent response/actions and date: This description been added in section 2.4.5 of the PDD.	
Evidence used to close NCR: The PDD indicates that population pressure is steadily increasing as well as pressure for creating more grazing areas. The PDD shows evidence of the population growth. Issue is addressed.	
Date closed:	8 February 2013

2. Non-Conformity Report

NFS Criteria: 1.3 Legal - Does the project have a legal basis? The project proponents should be able to demonstrate they have the necessary rights to carbon and land use to implement the project, create and transact Natural Forest Certificates. Documents regarding the project area should be reviewed by legal advisors and a summary statement of this review should be presented in the project design document.	
Evidence Used to Assess Conformance: Section 2.2 of PDD	
Findings: The PDD describes the process that has been completed that includes the Borba Municipality (who has the legal authority to control land use and forest resources on public lands) where they have added this project to their amended Master Plan. This process concluded with the Borba M. granting the project full rights to the carbon offsets. The project has a 20 year crediting period but the agreement with Borba is for 30 years. The description given in the PDD offers a limited level of assurance that the project is in conformance with this item. No summary statement of any legal review was found in project documents.	
Non-conformity report (NCR): Please submit the summary statement resulting from the legal review conducted on the project area. "Documents regarding the project area should be reviewed by legal advisors and a summary statement of this review should be presented in the project design document."	



Date issued:	17 January 2013
Project proponent response/actions and date:	The legal review statement has been submitted and can be found as Annex 14 a&b – a is the original Portuguese version and b is the translated version into English. Reference to this document has been added in the PDD in section 2.2.
Evidence used to close NCR:	Legal review document reviewed and results found to be positive.
Date closed:	8 February 2013

3. Non-Conformity Report

NFS Criteria:	It is also important to note that the project proponents must hold the necessary legal rights to perform the project activities for the entire crediting period.
Evidence Used to Assess Conformance:	Section 2.2 of PDD
Findings:	The PDD describes the process that has been completed that includes the Borba Municipality (who has the legal authority to control land use and forest resources on public lands) where they have added this project to their amended Master Plan. This process concluded with the Borba M. granting the project full rights to the carbon offsets. The project has a 20 year crediting period but the agreement with Borba is for 30 years. The specific language defining the carbon ownership was not found. Perhaps this has not been sent over?
Non-conformity report (NCR):	Please confirm the location of the specific language in the supporting documents that explicitly gives CGV the carbon rights resulting from this project.
Date issued:	17 January 2013
Project proponent response/actions and date:	The signed agreement documentation between the Municipality and the project developers has been included as Annex 13a-f. These documents have been referenced in the PDD in section 2.3.
Evidence used to close NCR:	Contract documents received and reviewed. Carbon credits are clearly transferred to CGV. Issue is addressed.
Date closed:	11 February 2013

4. Non-Conformity Report

NFS Criteria:	The main activities that will be undertaken by the project (including locations and timing).
Evidence Used to Assess Conformance:	General project description Section 1
Findings:	Project is for a section of the Borba Municipality. Project life is 30 years. Project aim is avoided deforestation through increasing socio/economic conditions for the direct and indirect agents of deforestation. Start date is not found in the PDD.
Non-conformity report (NCR):	Please confirm the start date of the project and add to the PDD.
Date issued:	17 January 2013
Project proponent response/actions and date:	This information was submitted in the project documentation that was uploaded to the Climate Projects platform on 14 th January 2013, and could have been found in section 1 twice, section 3.4.2 and the last page of section 6.6 (pages 9, 11, 55 and 119 respectively). Therefore it is felt that this NCR was addressed sufficiently in the original documentation and no further action required.



(Please note: due to other PDD amendments being made, the section 3 reference has changed to 3.4.3 and the section reference for the last occurrence is now 6.5. Page numbers are likely to have changed also.)	
Evidence used to close NCR: Start date of 10th June 2011 was found in section 1. This NCR was issued on a previous version of the PDD. Multiple version of the PDD were issued while these NCR's were being prepared. It is agreed that this NCR was not needed relative to the current version of the PDD. Issue addressed.	
Date closed:	11 February 2013

5. Non-Conformity Report

NFS Criteria: The main functions and responsibilities of key staff.	
Evidence Used to Assess Conformance: PDD, Section 1	
Findings: The participants in this project are the company Celestial Green Ventures PLC (CGV), Instituto Amazônia Livre [Free Amazon Institute (IAL)] and the Municipality of Borba. PDD authors and collaborators are listed. No other staff is listed nor is there other responsibilities listed.	
Non-conformity report (NCR): Please expand on this section by describing the main functions and responsibilities of key staff.	
Date issued:	17 January 2013
Project proponent response/actions and date: This information has been added to the PDD in section 1.5.1.	
Evidence used to close NCR: This section has been updated to include responsibilities of involved staff. Issue is addressed.	
Date closed:	11 February 2013

6. Non-Conformity Report

NFS Criteria: The budgets for activities, and intended sources and recipients of project funds.	
Evidence Used to Assess Conformance: Section 3 of PDD	
Findings: No budget or estimation of project benefits was presented. Completed examples of the community survey were not submitted.	
Non-conformity report (NCR): Please expand on the amount of carbon sale proceeds that will be shared with the project area communities. Please submit a project budget that shows specific estimations of income and expenses. Please submit samples of completed community surveys. These would be sufficient to determine that the listed community benefits were identified from the surveys.	
Date issued:	17 January 2013
Project proponent response/actions and date: Details have been provided in sections 3.8.1 and 3.8.2 to address the NFS criteria outlined above. The sample community surveys were submitted with the original documentation and can be found in Annex 7.	
Evidence used to close NCR: Sample community surveys were provided and reviewed. Explanation of the amount of carbon sale proceeds to be shared with the community is explained, as are the intended users and approximate sizes of grants. Funding will go to both the Municipality and to	



private individuals or groups. Issue addressed.	
Date closed:	11 February 2013

7. Non-Conformity Report

NFS Criteria: The mechanism by which benefit distribution will operate.	
Evidence Used to Assess Conformance: Section 3 Of PDD	
Findings: PDD describes several programs that will benefit from the project sale of carbon credits. Project describes a project based funding application process that will be heard by the Management Council who will meet on a quarterly basis. Benefits will include increased employment in monitoring, increased funding for infrastructure, sanitation, and education. This will be managed by the Project Management Council.	
Non-conformity report (NCR): How will the project management council allocate funds to the many aspects of the benefit mechanism? The project description indicates an application process for individual grants, however the project description also makes it seem that many other aspects of the community will directly benefit. Please describe this allocation process further in the PDD so that the other elements of the mechanism are described.	
Date issued:	17 January 2013
Project proponent response/actions and date: This information has been added into sections 3.8.1 and 3.8.2 of the PDD.	
Evidence used to close NCR: The PDD has been updated to include a general description of the process used to allocate benefits. In its basic form, the interested parties can submit proposals to the Management council who will allocate funds with project size indicating the amount of agreement needed amongst the council members. This aspect is clear however a small clarification needs to be addressed. “All proposed projects or programs that are submitted must be in accordance with the objectives and parameters of the Trocano Project and will be evaluated by Trocano indication of the Management Council for appropriateness in accordance with the project objectives.”	
Date Issued:	11 February 2013
Non-conformity report (NCR): Please indicate monetary items in one consistent currency for clarity. R\$ would be preferable.	
Date Issued:	Feb 26 2013
Project proponent response/actions and date: Throughout the PDD, it is no problem to use R\$ as the consistent currency for monetary references, with the exception of the contractual obligation of US\$4 million. If this were to be changed in the PDD, there would be two documents stating two different payment amounts e.g. at today’s rate (26.02/2013) the PDD amount would be stated as R\$7,946,180.28 http://www.xe.com/currencyconverter/ , but regardless of currency fluctuations, the contractual payment amount is US\$4 million. This could cause unnecessary confusion and for this reason has been left demonstrated in US\$. A footnote has however been added to the PDD in section 3.8.1 for the illustrative purposes of showing today’s exchange rate.	
The monetary references in section 3.8.2 have been amended to R\$. Response date: 26.02.2013	
Evidence used to close NCR: Information added to PDD. This approach is reasonable. Issue is addressed.	



Date Closed:	27 February 2013
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8. Non-Conformity Report

NFS Criteria:	
The standard requires projects to take appropriate measures to protect existing biodiversity within the project zone.	
Evidence Used to Assess Conformance:	
Section 3.8 of PDD	
Findings:	
For the maintenance of areas with "attributes of high conservation value" shall have the following activities:	
<ul style="list-style-type: none"> • Training of technical staff to act as forest agents; • Conduct surveys about the eco-tourism capacity of the regions with these attributes. • Provide training and professional means for ecotourism. • Create opportunities for activities of regional fish species. • Provide infrastructure 	
To safeguard attributes of high conservation value (HCVA) in the project area, the planned activities will create a barrier of protection to identified areas as:	
a) permanent preservation areas (RDS's, TI's and Parest), and	
b) species of flora and fauna in danger, will take effect the following actions:	
i. Maintenance of adequate levels for species reproduction;	
ii. Facilitation of plantation with trees in various age classes and various native species;	
iii. Proper management of land use;	
iv. Appropriate management of vegetation and water resources.	
Non-conformity report (NCR):	
The project lists broad categories of actions that appear to be related to documenting species occurrence and training individuals, educating the community on forest biodiversity, and to act as forest agents. It is not clear what specific actions will be taken directly as a result of this project. (For instance "Maintenance of adequate levels for species reproduction").	
Please provide more specific actions and/or add to the current discussion by specifying or giving examples of how each action will contribute to the protection of existing biodiversity.	
Date issued:	17 January 2013
Project proponent response/actions and date:	
Upon review of this section in response to the NCR raised, it was identified that some of the information included was unnecessary and incorrect. This section has now been revised and corrected accordingly and can be found in the PDD in section 3.11.	
Evidence used to close NCR: The updated explanation in the PDD gives a reasonable and adequate listing of actions that will be taken to protect existing biodiversity.	
Date closed:	11 February 2013

9. Non-Conformity Report

NFS Criteria:	
With regards to invasive species, the project should follow the three management stages of the GISP:	
-Prevent the release and spread of non-native animal and plant species into areas where they can cause damage to native species and habitats and to economic interests;	
-Ensure a rapid response to new populations can be undertaken; and	
-Ensure effective control and eradication measures can be carried out when problem situations arise.	
Evidence Used to Assess Conformance:	
Not listed in PDD	



Findings: Although the project does not include planting, the PDD does not describe anything in relation to invasive species. Please add this discussion or please reference the location of this information.	
Non-conformity report (NCR): Please add this discussion to the PDD or please reference the location of this information.	
Date issued:	17 January 2013
Project proponent response/actions and date: This discussion has been added to section 9.2 in the PDD.	
Evidence used to close NCR: The project will follow the 3 management stages of the Global Invasive Species Programme, as identified in the Natural Forest Standard Guidance. Section 9.2 discusses the possibility of invasive species encroachment and also lists that monitoring will occur as part of the demonstration that existing biodiversity will be protected. Issue is addressed.	
Date closed:	11 February 2013

10. Non-Conformity Report

NFS Criteria: The diversification of income sources within local communities has been found to be the most successful way to reduce bushmeat trade and over-hunting. The hypothesis being that hunters will stop hunting only if a more lucrative activity is available; this has been applied in a number of different projects: Where the project seeks to enable alternative livelihood activities, this shall be with the Free, Prior and Informed Consent of the community involved in the project, and it should be ensured that there will not be any associated negative social effects on the community.	
Evidence Used to Assess Conformance: Not listed in PDD	
Findings: The PDD does not describe anything in relation to hunting.	
Non-conformity report (NCR): Please address this item in the PDD.	
Date issued:	17 January 2013
Project proponent response/actions and date: This item has been addressed in section 9.3 of the PDD.	
Evidence used to close NCR: This issue is thoroughly discussed in the PDD however a small clarification is needed. The PDD states: Our goal is to provide technical courses about environmental education to train <u>multipliers</u> who will be able to make a difference in communities where poor governance and activities of land grabbers and squatters are notorious.	
Date Issued:	11 February 2013
Non-conformity report (NCR): Please identify what a <u>multiplier</u> is in the PDD.	
Date issued:	26 February 2013
Project proponent response/actions and date: This item has been addressed in section 9.3 of the PDD, by way of a footnote definition. Response date: 26.02.2013	
Evidence used to close NCR: Information added to PDD. Issue is addressed.	
Date closed:	27 February 2013



11. Non-Conformity Report

NFS Criteria: Where there are development projects planned for local communities, or there is anticipated to be a large inflow of resources into the project area as a consequence of the project, the project shall assess what effects this will have on biodiversity within and around the project area. The project shall seek to ensure that the effect on biodiversity is minimized. Where a development project is expected to impact significantly on biodiversity a biodiversity impact assessment should be carried out.	
Evidence Used to Assess Conformance: Section 3.7 and f 3.8 of PDD	
Findings: The PDD describes several aspects of the benefits distribution system and describes all the possible ways that the communities will benefit from the sale of carbon credits. These benefits include education, health and sanitation projects, as well as open applications for other projects to be selected by the project management group. The PDD does not describe specifically how these projects will be evaluated when they are actually planned. Some of the benefits will not have any impacts on the forest or surrounding areas. Some of these projects may have some kind of impact and will likely need to be evaluated in some way.	
Non-conformity report (NCR): Please add a description of how the project management will evaluate the impacts from some of the possible improvements to the community, infrastructure, increased agriculture or other possible projects that will happen as a result of carbon credits sales and sharing of these benefits with the community.	
Date issued:	17 January 2013
Project proponent response/actions and date: This description has been added into section 3.10 of the PDD.	
Evidence used to close NCR: The PDD now includes a plan for minimizing any impacts due to increased activity resulting from the carbon credit revenues. The PDD also indicates that it will also monitor projects that are deemed to have a potential impact. Issue is addressed.	
Date closed:	11 February 2013

12. Non-Conformity Report

NFS Criteria: Leakage monitoring should be carried out annually throughout the project period.	
Evidence Used to Assess Conformance: Section 8 of PDD	
Findings: Section 8 of PDD outlines the leakage management and mapping activities. The PDD references annual reporting, but is not specific.	
Non-conformity report (NCR): Please confirm in the PDD that leakage monitoring will occur annually or confirm where this statement is located in the PDD.	
Date issued:	17 January 2013
Project proponent response/actions and date: This has been confirmed in the PDD in section 8.2.	
Evidence used to close NCR: Confirmed in the PDD. Issue is addressed.	
Date closed:	11 February 2013



13. Non-Conformity Report

NFS Criteria:	
The first stage in quantifying the carbon benefits of the project is to accurately map the areas where conservation and restoration activities will be applied. The vegetation types in each of these areas should be recorded, including the state of degradation.	
Evidence Used to Assess Conformance:	
Section 5 of PDD and Geospatial platform	
Findings:	
Geospatial Platform uses the NASA JPL maps that are an approved map base under the NFS. The project area is completely mapped and appears to be accurate for the purposes of validation. The state of degradation is not apparent in the maps.	
Non-conformity report (NCR):	
As per the NFS Guidance, please indicate how the state of degradation of the project forests has been mapped or recorded.	
Date issued:	17 January 2013
Project proponent response/actions and date:	
A discussion on the conformance to the NFS criteria has been added to the PDD in section 5.1.	
Evidence used to close NCR: PDD indicates that since restoration is not part of the project, then degradation is not required to be mapped as per the methodology. This has been confirmed by validators. Issue is addressed.	
Date closed:	11 February 2013

14. Non-Conformity Report

NFS Criteria:	
Leakage Mapping: Potential leakage zones should also be identified and mapped at this stage. Leakage zones should include any areas outside the project where activities of communities or individuals, including agriculture, livestock rearing, firewood collection, charcoal production, timber extraction or similar resource use activities may be displaced to as a result of any planned project activities.	
Evidence Used to Assess Conformance:	
Section 5 of PDD and Geospatial platform	
Findings:	
The Geospatial Platform clearly shows the project areas, boundaries and a 10km leakage zone around the project area. The Leakage belt does overlap another CGV carbon project. It is not clear from reading the PDD if the specific threats were incorporated into the establishment of a generalized leakage zone.	
Non-conformity report (NCR):	
It is not clear from reading the PDD if the specific threats were incorporated into the establishment of a generalized leakage zone. If the leakage zone has more specific high risk areas of concern and how they were analyzed.	
Please confirm the status of the adjacent carbon project area that borders this project and indicate the status of the protection level on that area.	
Please include this analysis in the PDD for further confirmation of the establishment of the leakage belt.	
Date issued:	17 January 2013
Project proponent response/actions and date:	
The information in response to this NCR has been included in the PDD in sections 5.8, 8.1 and 8.4.	
Evidence used to close NCR: Leakage belt is allowable as a simple 10km belt within the	



methodology. Further, the leakage belt encircles both the current project and a future conservation project on adjacent property. The leakage belt applies to both projects. Validators find this to be a reasonable application. Issue is addressed.	
Date closed:	11 February 2013

15. Non-Conformity Report

NFS Criteria: Maps of forest carbon may only be approved for use in NFS projects by the NFS Technical Panel.	
Evidence Used to Assess Conformance: Section 5 of PDD	
Findings: Using Tier 2 maps from NASA JPL.	
Non-conformity report (NCR): Please demonstrate that maps used were approved by NFS Technical Panel.	
Date issued:	17 January 2013
Project proponent response/actions and date: The ECO NFS Technical Panel approval documentation has been added as Annex documents 9a-c. This is referenced in section 5.0 and 5.1 of the PDD.	
Evidence used to close NCR: Page 12 of Annex 2 of the approved methodology indicates that the NASA JPL maps may be used. The annex 9 documents show the Technical Panel approval. Issue is addressed.	
Date closed:	11 February 2013

16. Non-Conformity Report

NFS Criteria: Emissions of CO2 from any human induced deforestation and degradation within the project area should be quantified annually for the duration of the project. It is recommended that the project should use a combination of remote sensing and ground based monitoring, as specified in the GOF-C-GOLD.	
Evidence Used to Assess Conformance: PDD Section 4	
Findings: Project is using remote sensing following the calculations and base layers that make up the Geospatial platform. Project claims ground truthing would be difficult given the scale of the project. Project will use ground team to identify deforestation. Ground teams will have appropriate technology. Ground patrol and aerial patrol are mentioned as possible approaches to collecting real time data. Project description describes the future possibility of installing monitoring plots and using local people to learn about and conduct the monitoring. Project indicates a yearly monitoring using remote sensing. Several items need to be clarified.	
Non-conformity report (NCR): Are the inputs into the GSP ground truthed? Please discuss the accuracy of the remote sensing applications. How will the GSP be updated with new map data? Section 4.5.4 - Please discuss quality control or internal auditing of the ground teams. Section 4.4 - This section suggests a direct intervention when deforestation is discovered. Please explain. Section 4.5.1 - Please demonstrate that this data source acceptable to the NFS technical board. Section 4.5.2 - Please define high and medium resolution. Please discuss the error associated with these data sources. Section 4.5.3 - Please demonstrate that the MODIS info is acceptable to the NFS Technical Board for	



use. Section 4.6.1 - Please describe what "measures to mitigate deforestation pressures" have been implemented. Please discuss the use of the recommended procedures in GOFC-GOLD, as indicated in the NFS Guidance.	
Date issued:	17 January 2013
Project proponent response/actions and date: These items have been addressed in the PDD in sections 4.4 through to 4.6.1 inclusive. Regarding the use of GOFC-GOLD; the approved NFS AM001.0 methodology complies with the NFS Guidance indicator outlined. Therefore by the Trocano project conforming to and applying this approved methodology to the project, it can be assumed that the recommended procedures will be used as part of the application of the approved methodology.	
Evidence used to close NCR: All of these issues have been reviewed in the appropriate sections of the PDD and found to have been addressed.	
Date closed:	11 February 2013

17. Non-Conformity Report

NFS Criteria: The project should also monitor its operational emissions using a standard operational emissions assessment for Scope 1 and 2 activities (Scope 3 optional), according to the WBCSD/WRI Greenhouse Gas Protocol.	
Evidence Used to Assess Conformance: PDD Section 4	
Findings: PDD does not mention this item.	
Non-conformity report (NCR): Please discuss operational emissions and if they will be monitored.	
Date issued:	17 January 2013
Project proponent response/actions and date: This discussion has been added to the PDD in section 4.6.3.	
Evidence used to close NCR: Project will use an accounting platform for monitoring of operational emissions. Issue is addressed.	
Date closed:	11 February 2013

18. Non-Conformity Report

NFS Criteria: When indicators of leakage are found they should be investigated and, if possible, a negotiation to reduce or minimize these activities should occur. The project managers should where possible reduce leakage through improved project management and the encouragement of economic activities within the project area. Any land use change and forest degradation that appears to result from displacement of activities from within the project area should be quantified using standard methods recommended in GOFC-GOLD Source Book, using the same methods for estimating carbon stocks within a project area.	
Evidence Used to Assess Conformance: PDD Section 4, section 8	
Findings: Project has identified a leakage monitoring effort. PDD also describes that leakage mitigations will	



occur thorough the activities of the project. Some of these activities are referenced in other parts of the PDD, however those items need to be better explained and reiterated clearly here.	
Non-conformity report (NCR): Please list and identify possible mitigation actions, with specifics as to how they will serve as mitigations. Page 132 of PDD, section 8 - please submit evidence of the survey mentioned. Please consider revising the paragraph to be more clear and concise. Please reference communication plans or conflict resolution under the leakage section. Leakage section indicates that agents of deforestation will be "involved in the programs and plans of actions described herein". Please expand upon how you will communicate with them, and attract them to participate in the project.	
Date issued:	17 January 2013
Project proponent response/actions and date: The appropriate discussions and references for the points raised above have been added and can be found in sections 8.2 through to 8.4 inclusive; the wording has been amended and is now deemed to be more clear and concise in these sections. The survey mentioned in section 8 was submitted with the original documentation and can be found in Annex 7.	
Evidence used to close NCR: Section 8 has been rewritten and now includes the requested information and references. Issue is addressed.	
Date closed:	11 February 2013

19. Non-Conformity Report

NFS Criteria: NFS projects should be designed and implemented to promote permanent conservation of carbon stocks and biodiversity. The aim is to build resilient conservation areas that are well governed, locally supported and aligned to economic development. The relevance and appropriateness of specific measures to deliver permanence varies between project locations, so the NFS is not prescriptive about the measures to be implemented. This section provides some general guidance on how permanence can be promoted and how verifiers and risk assessors may evaluate the adequacy of these measures. 1. Understanding the nature of the threats 2. Strengthening of legal frameworks protecting Natural Forests 3. Sustainable Financial Models for Implementation 4. Effective, Durable Governance Structures 5. Alignment of conservation with economic development See page 49 for more detail on each.
Evidence Used to Assess Conformance: The PDD and all project information
Findings: The permanence section describes the forest threats, communities, and social economic conditions in the project area, how the project will improve these conditions with the final goal of protecting the project area forests through economic vitalization while using local governance structures as the means for permanence by having local government adopt the project under their master plan. The project description covers many of these items, however more clarity is needed.
Non-conformity report (NCR): Please include a description in the PDD that shows that the project covers each of these items specifically. Please address each item under Section 8 of the PDD and briefly confirm how the project measures conform with each of these items. This will add clarity and confirmation within the PDD of these items.



Date issued:	17 January 2013
Project proponent response/actions and date:	These items have now been addressed and a description covering each of these items has been added to the PDD in section 8.7.
Evidence used to close NCR:	The expanded section 8.7 now addresses all of the above items. Issue is addressed.
Date closed:	11 February 2013

20. Non-Conformity Report

NFS Criteria:	Information on which threatened, endangered, critically endangered species are present in the area may already be available if the area has been subject to regular ecological surveys from other organizations; if this data is considered reliable, it may be used to complete the NBM endangered species assessment. If such information is not available, it is recommended that the project first uses the IUCN red list species distribution maps to get an initial impression of which endangered species are likely to be present within the project area. The project must then verify and evidence the presence of these endangered species within the project area. Where species which move over large areas are spotted within the project area, it can be assumed that they are present within all of the project area which is of a similar type of habitat.
Evidence Used to Assess Conformance:	Section 9.7
Findings:	Ateles Belzebuth and Saguinus bicolor do not appear to have a range that includes the project area. This assessment is made using the map available on the IUCN Redlist. Please confirm the source of data used to indicate this species as present. The project does not appear to have verified and evidenced the presence of these animals.
Non-conformity report (NCR):	Ateles Belzebuth and Saguinus bicolor do not appear to have a range that includes the project area. Please submit evidence of its presence or mapped home range that would show it within the project area. The project does not appear to have verified and evidenced the presence of these animals. Please provide verification and evidence that these endangered species actually occur in the project area, as per the NFS Guidelines.
Date issued:	17 January 2013
Project proponent response/actions and date:	Upon review of this section, it was found that the information included needed revising and correcting. These amendments have been applied and are addressed in section 9.8 of the PDD.
Evidence used to close NCR:	The PDD references a study by Rohe that recorded animal species in the project area. Other species corrections were made. Issue is addressed.
Date closed:	11 February 2013

21. Non-Conformity Report

NFS Criteria:	Step 5: Finalizing NBM score The project should finalize the NBM template document, generating a project NBM score on a scale of 0 – 10, combining the 0 - 5 pristineness score and the 0 - 5 endangered mammals score.
Evidence Used to Assess Conformance:	Section 9.8
Findings:	



The project calculates the NBM in the correct way, following the reference documentation listed in the NFS Guidance. This document was saved to the Protocols file on the K drive, for reference.	
Non-conformity report (NCR): Please confirm which calculation of NBM is being used. Please make it is very clear in the PDD.	
Date issued:	17 January 2013
Project proponent response/actions and date: This has been addressed in the PDD, and now stipulates the use of a singular calculation for the NBM score. This can be found in section 9.9.	
Evidence used to close NCR: NBM score has been calculated in the PDD correctly and uses the correct values. Adjustment made to pristine land meta-class. Validators find this to be reasonable given that an endangered species is most likely inhabiting the pristine lands. Issue is addressed.	
Date closed:	11 February 2013

22. Clarification

NFS Criteria: In cases where forests are officially protected or subject to protective regulations, additionality may be demonstrated by showing that forests are inadequately protected and at risk of deforestation and/or degradation. In cases where legal protections on forests exist, the following indicators and evidence may be used to demonstrate that the existing protection measures are not sufficient to address the threats to forests, in addition to those included in the previous figure (2). (See page 18 for Figure 3 items).	
Evidence Used to Assess Conformance: Section 2.2 of PDD	
Findings: The PDD lists the Federal and State Forest Management laws for Brazil. It appears that there is only one law that is most applicable to this project, Law 3.135/2007; This section lists and describes several laws that seem to be applicable to the project, however the PDD does not describe the applicability of these laws to the project.	
Clarification (CL): Please include more information in the PDD that helps to interpret the links between the Federal and State Forestry laws and how they relate to the project and how the project is in compliance with these laws. Further clarification is needed in terms of making the PDD more readable for a native English speaker. There are many sentences in this section that are not constructed properly and make reading and understanding them very difficult.	
Date issued:	17 January 2013
Project proponent response/actions and date: The links between the laws and how they relate to the project have been included in the Legal Review which is submitted as Annex 14 a&b. Further information and clarification has been added to section 2.2 of the PDD.	
Evidence used to close CL: A good amount of information has been added to the PDD that explains this issue in detail. Further legal opinion is submitted on the project. Issue is addressed.	
Date closed:	11 February 2013



23. Clarification

NFS Criteria:	
In addition to demonstrating current and future threats to forests, the project proponent should explain how the planned intervention of the project will mitigate the identified threats.	
Evidence Used to Assess Conformance:	
Sections 2.4, 3.1, 3.7 of PDD	
Findings:	
The PDD currently lists the benefits mechanisms that will be implemented in the project area. These benefits include money, training, education, employment and enhanced living conditions. The PDD explains how these benefits will be allocated and by whom. It is difficult to find a direct, linear connection between these benefits and the actual protection of the forest from what appears to be unchecked deforestation as described earlier in the PDD. From the PDD the following statement was found, "By using the requirements of the NFS, the Trocano project is able to incentivize the local communities to adapt their current behaviors in a beneficial way with regards the environment, socio-economic enhancements and biodiversity protection. By providing an offset mechanism that will both incentivize and reward these changes in behavior, the project is able to provide and prove additionality in all three of these sectors. Without the revenue that will be generated from the carbon offsets gained by the project through implementing the NFS within the Trocano project, the benefits that will be available to the project area would not be possible. The Trocano Conservation Project's primary project activity over the 1,346,541.26 ha total project area is to reduce GHG emissions from avoiding deforestation and degradation within the project area. This will be achieved by implementing an effective monitoring and management plan, whilst encouraging more effective forest governance and providing additional co-benefits to the communities and biodiversity within the project area.	
Clarification (CL):	
Please add a more expanded explanation of how the planned activities and benefits will directly reduce the possibility of deforestation in the project area. Please document specific activities. These activities should also be referenced under the leakage section in order to show the direct link between project activities, and mitigations aimed at reducing deforestation. Please submit samples from completed community surveys that would help to demonstrate that the benefits listed in the project were indicated by the community.	
Date issued:	17 January 2013
Project proponent response/actions and date:	
An expanded discussion of these points has been added in sections 2.1, 2.4.2 and 2.4.3 of the PDD. The appropriate references have also been made in section 8.3. The submitted sample surveys are included in Annex 7.	
Evidence used to close CL: This issue has been addressed in the sections indicated by the client. The PDD has been significantly updated as a result of the package of clarifications. As a result the project description is much more prescriptive and shows the deforestation mitigation actions that will benefit the community. Issue is addressed.	
Date closed:	11 February 2013

24. Clarification

NFS Criteria:	
2.0 Project Management - Project developers are required to develop a management plan. This should set out how the project will address the identified threats to forest carbon and biodiversity and, where appropriate, recover carbon stocks and biodiversity through restoration activities.	
Evidence Used to Assess Conformance:	
Project Description	
Findings:	



It appears that the PDD is intended to serve as the management plan but this is not directly stated.	
Clarification (CL): Please confirm in the PDD that the project description is assumed to serve as the Management Plan.	
Date issued:	17 January 2013
Project proponent response/actions and date: This has been confirmed in the PDD in sections 1.0 and 3.3.	
Evidence used to close CL: Confirmed. Issue is addressed.	
Date closed:	11 February 2013

25. Clarification

NFS Criteria: The management plan should be maintained as a living document, adapting and adjusting to developments over the course of the project.	
Evidence Used to Assess Conformance: General project description	
Findings: This aspect is not mentioned in the PDD.	
Clarification (CL): Please confirm within the PDD that the PDD serves as the Management Plan and shall be a living document as per the regulation.	
Date issued:	17 January 2013
Project proponent response/actions and date: This has been confirmed in the PDD in sections 1.0, 3.3 and 3.3.6	
Evidence used to close CL: Confirmed. Issue is addressed.	
Date closed:	11 February 2013

26. Clarification

NFS Criteria: The management plan is expected to be an internal document, maintained and agreed by the senior project staff.	
Evidence Used to Assess Conformance: Project Description	
Findings: This is not directly stated in the PDD or was simply not found.	
Clarification (CL): Please discuss how the PDD will be an internal document maintained and agreed by the senior project staff.	
Date issued:	17 January 2013
Project proponent response/actions and date: This discussion has been added to the PDD in sections 3.3 and 3.3.6.	
Evidence used to close CL: Confirmed. Issue is addressed.	
Date closed:	11 February 2013

27. Clarification

NFS Criteria: The benefit mechanism should be subject to periodic review and evaluation to assess the following: RELEVANCE - does it provide resources or inputs that are relevant to local needs and compatible	
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with the conservation and restoration objectives of the project? EFFECTIVENESS - did the deliverables arrive, were they satisfactory, did the benefits materialize? EFFICIENCY - is the benefit mechanism operating efficiently?	
Evidence Used to Assess Conformance: Section 3.7 of PDD	
Findings: The effectiveness of the benefits distribution mechanism described for the Trocano Project will be subject to periodic review to ensure its effectiveness, both in respects of implementation as well as appropriateness.	
Clarification (CL): Please add more detail regarding the periodic review with reference to being evaluated on the three principles as outlined in the NFS guidance.	
Date issued:	17 January 2013
Project proponent response/actions and date: This information was detailed in the project documentation that was uploaded to the Climate Projects Platform on 14 th January 2013, and could have been found in section 3.9. It is felt that this Clarification Request was addressed sufficiently in the original documentation and no further information has been included.	
Evidence used to close CL: A further review of section 3.9 as well as the combined results of the additional language in the PDD renders this issue addressed.	
Date closed:	11 February 2013

28. Clarification

NFS Criteria: Transparency of Evidence and Assumptions - To maintain a transparent account of the evidence and assumptions used throughout the quantification of carbon and biodiversity, methods, dates, locations and identities of people undertaking measurements and estimates should be recorded.	
Evidence Used to Assess Conformance: PDD	
Findings: This information was not found initially by validators.	
Clarification (CL): Please submit the relevant information regarding methods, dates, locations and identities of people undertaking measurements and estimates recorded.	
Date issued:	17 January 2013
Project proponent response/actions and date: This clarification has been addressed in section 7.0 of the PDD.	
Evidence used to close CL: The updated PDD and recently added methodology adds much clarity to the entire process used for quantification of carbon credits and monitoring processes. The PDD appears to offer all adequate information needed to address this issue. Throughout the PDD, efforts are clearly made to make all data sources and methods, dates and locations available. The relevant info regarding the individuals taking the field data were not found. Please indicate if this information is available.	
Date Issued:	11 February 2013
Clarification (CL): The relevant info regarding the individuals taking the field data were not found. Please indicate if this information is available or if this will be available at verification.	
Date issued:	26 February 2013
Project proponent response/actions and date:	



This information will be available at verification. Response date: 26.02.2013	
Evidence used to close CL: It is reasonable to not have this information at this time and will be reviewed at verification. Issue is addressed.	
Date closed:	27 February 2013

29. Clarification

NFS Criteria: Training and Equipment - The personnel involved in quantification of carbon and biodiversity metrics should have sufficient training and be properly equipped to carry out the tasks assigned to them.	
Evidence Used to Assess Conformance: PDD	
Findings: This information was not found initially by validators.	
Clarification (CL): Please submit the relevant information regarding methods, dates, locations and identities of people undertaking measurements and estimates recorded.	
Date issued:	17 January 2013
Project proponent response/actions and date: This clarification has been addressed in the PDD in sections 4.6, 7.0 9.4 and 9.7.	
Evidence used to close CL: The PDD mentions training of monitoring teams in the sections listed. This CL was not clearly written according to the criteria it was supposed to cover. However, the project does mention training of its crews, and mentions training of community members many times. These community members will be the ones conducting many of these monitoring tasks. As such this issue is addressed.	
Date closed:	11 February 2013

30. Clarification

NFS Criteria: Where more than one Tier 1 or 2 maps are available for a given area, the project should select the map that is most likely to accurately represent the carbon stocks in the project area and should provide evidence for this selection. Where approved Tier 1 or 2 maps are not available, projects may use Tier 3 inventory methods.	
Evidence Used to Assess Conformance: Section 5 of PDD	
Findings: Using Tier 2 maps from NASA JPL.	
Clarification (CL): Were more than one set of maps available for the area? Please confirm in the PDD.	
Date issued:	17 January 2013
Project proponent response/actions and date: This clarification has been addressed in section 5.1 of the PDD.	
Evidence used to close CL: Clarification reviewed and found to be reasonable. Newly approved methodology AM001.0 confirms. Issue addressed.	
Date closed:	11 February 2013



31. Clarification

NFS Criteria:	
The project's biodiversity impacts should be assessed using the Normative Biodiversity Metric, following the steps described in this Biodiversity Assessment section. This assessment process will be used to verify that the project is meeting the 'no net loss' biodiversity commitment of NFS projects.	
Evidence Used to Assess Conformance:	
Section 9.3 of PDD	
Findings:	
To quantify the biodiversity impacts of the project, as required in the Natural Forest Standard the Normative Biodiversity Metric (NBM) has been applied to the project area. The steps are outlined in section 9 of the PDD.	
Clarification (CL):	
Section 9 of the PDD makes reference to section 9.3.3 which does not exist. Please correct this reference in the PDD.	
Date issued:	17 January 2013
Project proponent response/actions and date:	
This reference should read 9.7 and has been amended in the PDD.	
Evidence used to close CL:	Clarification made in PDD. Issue is addressed.
Date closed:	11 February 2013

32. Clarification

NFS Criteria:	
Step 2: Defining the NBM scale - Having identified the habitats within the project area which are pristine within the eco-floristic zone, the NBM assessment scale should be produced. Using the generic descriptors of each category, the ecofloristic zone specific scale should be produced. Identifying the likely occurrences of habitats within the eco-floristic zone is important for simplifying the classification process. Must See Table on Page 52 and associated references for details.	
Evidence Used to Assess Conformance:	
Section 9.5 of the PDD	
Findings:	
The scale for habitat categories is defined in the PDD, with the scale following the suggested example in the NFS Guidance. The PDD does not define the parameters for each scale level as is suggested in the NFS Guidance.	
Clarification (CL):	
Please include the "Generic Descriptors and Likely Occurrences in Tropical Rainforest Eco-floristic Zone" as described in the NFS Guidance. This further definition will add clarity and confirmation to the scale used.	
Date issued:	17 January 2013
Project proponent response/actions and date:	
This has been included in section 9.6 of the PDD.	
Evidence used to close CL:	Items are included and are reasonable given the NFS standards document. Issue is addressed.
Date closed:	11 February 2013

33. Clarification

NFS Criteria:	
Step 3: Classifying habitat zones - The next step is to classify the habitat zones into the pristineness categories of the table above. Initially, remote sensed images will be used to identify the distinct	



<p>habitat zones within the project area. This should include all areas within the defined project boundaries. Artificial areas (0) and monoculture areas (1) will be straightforward to identify in most cases using the designed scale.</p>	
<p>Evidence Used to Assess Conformance: Section 9.6</p>	
<p>Findings: The first and third paragraph of this section does not make sense. Please redraft so it is clear and uses proper English tenses for clarity. Also, please expand on the discussion so that any specific elements are given context and reference.</p>	
<p>Clarification (CL): The first and third paragraphs of this section are difficult to understand. Please redraft so it is clear and uses proper English tenses and complete sentences for clarity. Also, please expand on the discussion so that any specific elements are given context and reference. It appears that the areas were classified into pristineness classes; however, it is not clear how this step was conducted. Please justify how the project areas were divided up amongst the classes.</p>	
<p>Date issued:</p>	<p>17 January 2013</p>
<p>Project proponent response/actions and date: Note: This information is now found in section 9.7. These paragraphs have been amended appropriately and discussion has been added in section 9.7 of the PDD.</p>	
<p>Evidence used to close CL: Section 9.7 is added to the PDD and fully describes in detail the process used for classification using remote sensing. Issue is addressed.</p>	
<p>Date closed:</p>	<p>11 February 2013</p>



Appendix B Documents Received / Reviewed

26 November 2012

- Social_and_Biodiversity_Impacts_NF1_NF S.pdf
- Eligibility_NF1_NFS.pdf
- Management-Units_NF1_NFS.pdf
- PDD_NF1_NFS.pdf
- Project_description_NF1_NFS.pdf

5 December 2012

- Supporting_Doc_NF1_NFS\Supporting Documents\Index of Annexes for Supporting Documentation.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8a Area 1 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8b Area 2 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8c Area 3 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8d Area 4 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8e Area 5 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8f Area 6 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8g Area 7 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8h Area 8 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8i Area 9 Query Report.pdf

- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8j Area 10 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8k Area 11 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8l Area 12 Query Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8m Area 13 Query Report.pdf
- Project_description_NF1_NFS.pdf
- Initial_Carbon_Stocks_NF1_NFS.pdf
- PDD_NF1_NFS.pdf

3 January 2013

- Social_and_Biodiversity_Impacts_NF1_NF S.pdf
- Baseline_NF1_NFS.pdf
- Eligibility_NF1_NFS.pdf
- Initial_Carbon_Stocks_NF1_NFS.pdf
- PDD_NF1_NFS.pdf
- PDD_NF1_NFS_WORKING DRAFT.pdf
- Project_description_NF1_NFS.pdf
- Quantification_of_Carbon_Benefits_NF1_NF S.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Index of Annexes for Supporting Documentation.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 1 - Economy of Borba.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 2 - Enlarged Figures 1-6.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 3 - Enlarged Maps 1-7.pdf



- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 4 - Laws relating to Trocano Araretama Project.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 5 - Plano Diretor Borba_Master Plan Full Portuguese Version.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 6 - Term Partnership Proposal for revision to Master Plan Bylaws Borba Portuguese and English.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 7 - Quantified Questionnaire Results.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 7a - Questionário Socioeconomico Borba 7 Samples.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 7b - Questionnaire IAL Blank Example English.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 7c - Questionnaire IAL Blank Example Portuguese.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8a - Area 1 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8b - Area 2 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8c - Area 3 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8d - Area 4 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8e - Area 5 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8f - Area 6 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8g - Area 7 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8h - Area 8 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8i - Area 9 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8j - Area 10 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8k - Area 11 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8l - Area 12 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8m - Area 13 Application Report.pdf
 - Supporting_Doc_NF1_NFS\Supporting Documents\Annex 9 - NFS Quantification Methodology.pdf
- 8 January 2013**
- NFS Quantification Methodology 201212.pdf
 - Difference in query sizes - explanation to ESI.pdf
- 14 January 2013**
- Social_and_Biodiversity_Impacts_NF1_NF S.pdf
 - Baseline_NF1_NFS.pdf
 - Eligibility_NF1_NFS.pdf
 - Initial_Carbon_Stocks_NF1_NFS.pdf
 - Leakage_and_Non-Permanence_NF1_NFS.pdf
 - Leakage_and_Non-Permanence_working draft.pdf



- Management_and_Monitoring_Plans_NF1_NFS.pdf
- PDD_NF1_NFS.pdf
- Project_description_NF1_NFS.pdf
- Quantification_of_Carbon_Benefits_NF1_NFS.pdf

15 January 2013

- Supporting_Doc_NF1_NFS\Supporting Documents\Index of Annexes for Supporting Documentation.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 1 - Economy of Borba.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 2 - Enlarged Figures 1-6.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 3 - Enlarged Maps 1-7.pdf
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- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 7 - Quantified Questionnaire Results.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 7a - Questionário Socioeconomico Borba 7 Samples.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 7b - Questionnaire IAL Blank Example English.pdf
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- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8c - Area 3 Application Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8d - Area 4 Application Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8e - Area 5 Application Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8f - Area 6 Application Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8g - Area 7 Application Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8h - Area 8 Application Report.pdf
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- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8j - Area 10 Application Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8k - Area 11 Application Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8l - Area 12 Application Report.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 8m - Area 13 Application Report.pdf



- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 9 - NFS Quantification Methodology.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 10 - Trocano Project Area Geographical Co-ordinates.pdf
- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 11 - Geospatial Platform Project Land Size Explanation.pdf
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7 February 2013

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- Supporting_Doc_NF1_NFS\Supporting Documents\Annex 5 - Plano Diretor Borba_Master Plan Full Portuguese Version.pdf
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12 February 2013

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27 February 2013

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1 March 2013

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13 March 2013

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