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DELIVERABLE 8: REVISED LITERATURE REVIEW AND GAP ANALYSIS FOR PHASE I

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Table of Contents

List of Acronyms	4
1. Introduction & Context	5
1.1 Summary of Major Climate Risks	5
1.2 Summary of Major Community Risks	5
1.3 Summary of Major Biodiversity Risks.....	6
1.4 Summary of CCB Version 3 Updates	6
2. Methods	8
3. PDD Section 1 Progress	10
3.1 Summary of Section 1 Risks	10
3.2 List of Section 1 Risks.....	10
4. PDD Section 2 Progress	23
4.1 Summary of Section 2 Risks	23
4.2 List of Section 2 Risks.....	25
5. PDD Section 3 Progress	33
5.1 Summary of Section 3 Risks	33
5.2 List of Section 3 Risks.....	33
6. PDD Section 4 Progress	37
6.1 Summary of Section 4 Risks	37
6.2 List of Section 4 Risks.....	37
7. PDD Section 5 Progress	41
7.1 Summary of Section 5 Risks	41
7.2 List of Section 5 Risks.....	41
8. PDD Section 6 Progress	51
8.1 Summary of Section 6 Risks	51
8.2 List of Section 6 Risks.....	51
9. PDD Section 7 Progress	54
9.1 Summary of Section 7 Risks	54
9.2 List of Section 7 Risks.....	55
10. PDD Section 8 Progress.....	59
10.1 Summary of Section 8 Risks.....	59
10.2 List of Section 8 Risks.....	59

List of Acronyms

AFOLU	Agriculture, Forestry and Other Land Use
ANR	Assisted Natural Regeneration
AUD	Avoided Unplanned Deforestation
CCBA	Climate, Community and Biodiversity Alliance
CONIF	Corporación Nacional de Investigación y Fomento Forestal, National Corporation on Forestry Promotion and Research
FPIC	Free Prior Informed Consent
GOC	Colombian Government
IDEAM	Instituto de Hidrología Meteorología y Estudios Ambientales, Institute of Hydrology, Meteorology and Environmental Studies
IFM	Improved Forest Management
INCODER	Instituto Colombiano de Desarrollo Rural
LIDAR	Laser Image Detention and Ranging
LtPF	Logged to Protected Forest
MRV	Monitoring Registry and Verification
NERs	Net Emissions Reductions
NTFP	Non-Timber Forest Product
PDD	Project Design Document
REDD	Emissions Reductions from avoided Deforestation and Degradation
SBIA	Social and Biodiversity Impact Assessment
tCO ₂ e	Ton of carbon dioxide equivalent
TGC	Terra Global Capital
USAID	United States Agency for International Development
US\$	United States Dollar
VCS:	Verified Carbon Standard
VCU:	Verified Carbon Unit
WRC	Wetlands Restoration and Conservation

I. Introduction & Context

In November 2013, Chemonics International retained ecoPartners to prepare Project Design Documents (PDDs) for four BIOREDD+ projects in Colombia for validation under the Verified Carbon Standard (VCS) and the Climate, Community and Biodiversity Standards (CCB). This report reflects the work completed in the first phase of ecoPartners development work. The four projects included in this report are: Bajo Mira – Frontera (Tumaco Node), Bahía Málaga – La Plata – Bajo Calima (Buenaventura Node), Siviru-Usaraga-Pizarro-Piliza (SUPP, Southern Chocó Node), and Chirigodo-Mutata (Darién-Urabá Node).

The first version of this document outlined the ecoPartners teams' initial literature review and gap analysis work in order to identify risks and gaps in project documentation. The current version of this report has been updated to include changes in project requirements contained in the recently released third edition of the CCB standards. ecoPartners has also updated the original gap analysis findings to reflect progress and documentation created since January 16, 2014.

For each section and sub-section of the PDDs, this report lists the associated findings, compliance risk ratings (high, medium, and low), and professional guidance to mitigate risks of noncompliance. Unless noted, all project findings apply to all four projects, as the PDDs are being created concurrently and many project design elements are similar. For a complete, detailed list of gaps including each project compliance checklist requirement, please see Annex A.

I.1 Summary of Major Climate Risks

To date, there are significant risks associated with the climate aspects of the four BioREDD+ projects. Although progress has been made in generating data for the historical LULC analysis, some of the data do not meet the requirements of VM0006 (see section 7 below). While the Plan REDD for Acapa-BMF contains project and reference area maps, the methods for delineating these maps have not been submitted to ecoPartners to ensure that they meet the requirements of VM0006. These data are essential to reducing risks to sections 4 and 5.

BioREDD+ should concisely demonstrate how project activities address the primary agents and drivers of deforestation in the project areas. To date, the analysis of the agents and drivers of deforestation has not been completed for all of the projects. The Plan REDD for Acapa-BMF is a good start in identifying drivers, project activities, and an implementation schedule, though it is incomplete. It is also important to finalize the project crediting period and implementation schedule to reduce validation risks.

I.2 Summary of Major Community Risks

Based on our analysis and observations during the site visits, there is a good foundation of socio-economic research and community consultation in the project areas. It is clear that there has been significant progress in mapping cultural HCVs and developing the relationship with FAAN as a fiduciary partner in the projects. Team members observed a socialization meeting in Tumaco and have provided direct feedback to BioREDD+ on how to improve these meetings, specifically in regards to how information is captured.

The primary risks revolve around the need to complete the theory of change model and finalize project activities with community input. The ecoPartners team provided guidance on completing this model in February. The Plan REDD for Acapa-BMF contains information about how communities will participate in the project, though this plan has not been completed. CCB version 3 places greater emphasis on demonstrating how women can participate and benefit from the project, and this presents a new community risk. After these parts of the projects are finalized, it is vital to demonstrate how the projects will affect communities—both positively and negatively, through a demonstrated theory of change and analysis of risks.

1.3 Summary of Major Biodiversity Risks

As noted above and described in detail below, the greatest risks related to the biodiversity elements of the projects stem from the need to finalize the project activities and demonstrate their net positive biodiversity impacts. The ecoPartners team has little doubt that the projects will provide a net benefit for biodiversity; however, focal biodiversity issues specific to each project still need to be identified, ideally with the support and input of the communities in the project areas, a cause and effect theory presented as to how threats to biodiversity will be reduced, and a monitoring plan developed.

It is not imperative that all biodiversity activities be fully implemented at project validation, so we suggest that some initiatives be fully explained in the PDDs, while others may be listed as under development. Note that the potential implications that future activities may have for GHG quantification and/or validation/verification risk should be considered if this approach is taken. As it will be difficult to identify and monitor all High Conservation Values (HCVs) at the species, landscape ecosystem dynamics levels, well-designed proxy indicators are needed. HCV's have been identified for the region, though project-specific HCV information including species lists is missing.

In addition to these gaps, we have identified other biodiversity risks related to offsite biodiversity impacts and the use of invasive or non-native species in the project area. Please see Section 9 below for more details on biodiversity risks and mitigation suggestions.

1.4 Summary of CCB Version 3 Updates

In December 2013, the Climate, Community & Biodiversity Alliance released the third edition of the CCB Standards. While use of the newest edition is optional at this time, projects submitted to CCBA for public comment (a part of the validation process) after June 30, 2014, are required to employ the third edition of the standards. Based on our review of the current timeline, all four projects will likely be submitted for public comment after this deadline. The updated compliance checklist (Annex A) contains all the new CCB requirements contained in the third edition, and each section below contains a short summary of relevant updates. Many of the requirements have changed very little, though the following are significant to the BioREDD+ projects:

- **Project Zone and Project Area** – The definitions of the Project Zone and Project Area have changed slightly. The Project Area is “The land area in which project activities aim to demonstrate net climate benefits,” and the Project Zone is “The area encompassing the Project Area in which project activities that directly affect land and associated resources, including activities such as those related to provision of alternate

- livelihoods and community development, are implemented.” The main change relates to the Project Zone definition; previously the Project Zone was defined according to adjacent communities affected by the project. Communities affected by the project may now be inside or outside the Project Zone.
- **“Without Project Scenario”** – CCB version 3 requires a greater depiction of the without project scenarios for community and biodiversity as well as for climate. For validation, project must show that they will have net positive climate, community, and biodiversity impacts in relation to these project baseline scenarios.
 - **Free, Prior and Informed Consent** – There are now more detailed and prescriptive requirements related to FPIC, see section 3.7 of the project compliance checklist (Annex A).
 - **Stakeholder Engagement** – There is a greater emphasis on stakeholder engagement and consultation, and there are more requirements for increasing stakeholder access to information and how communities can participate in the project.
 - **Gender** – Women and sub-groups of women should be identified as an independent Community Group if they have different livelihoods, cultures, or values derived from the project area.
 - **CCB Gold Requirements** – The bar is now higher for gold level projects in all categories: a theory of change model must be used for gold level climate, trigger species must be maintained for gold level biodiversity, and the project must ensure net positive impacts for women for gold level community.

Along with the updated version of the standards, CCBA also released a new set of *Rules for the Use of the CCB Standards*—a document with requirements related to validation/verification, project eligibility, and project implementation. The following are new, significant rules:

- **Waiver of CCB Climate Section** – If a project is undergoing concurrent validation under an approved GHG program, requirements contained in CLI-4 can be waived. VCS meets the requirements of an approved GHG program, thus BioREDD+ projects will not have to demonstrate conformance to these CCB requirements. ecoPartners intends to waive CLI-4 requirements using the VCS program and approved VCS methodology VM0006.
- **PDD Cover Page Requirements** – In order to be posted for public comment, a PDD must include a cover page with a long list of specific project details. The full list has been added to the project compliance checklist as Section 0 of Annex A. ecoPartners will ensure that the PDDs meet the cover page requirements.
- **PDD Summary** – Prior to validation, a summary of the PDD must be translated into “local or regional languages” and distributed to communities in the project zone and posted on the CCBA website. The rules document includes more details on summary requirements. Chemonics must generate these summaries for public comment.

2. Methods

The initial Gap Analysis and Progress Report was created as a result of the first phase of ecoPartners' work in developing four PDDs for Chemonics International. The team assembled to conduct this work includes experts in climate, community, and biodiversity from the following firms: ecoPartners LLC, Cleary Sky Climate Solutions, and Offsetters.

To begin work on this project, ecoPartners compiled a comprehensive project compliance checklist detailing each requirement the projects must fulfill in order to ensure successful validation under VCS and CCBA. ecoPartners has updated the project compliance checklist to reflect the new requirements contained the third edition of the CCB standards. The following documents were used to prepare the project compliance checklist:

- Verified Carbon Standard Version 3.4
- VCS Agriculture, Forestry, and Other Land Use (AFOLU) Requirements Version 3.4
- VCS Methodology VM0006 Version 2
- Climate, Community, and Biodiversity Standards Version 3
- Rules for the Use of the CCB Standards, December 2013
- ISO 14064-2: 2006

The checklist was organized into the PDD structure by grouping checklist requirements into similar groups using the joint VCS-CCB template. These groups or requirements were then sorted and labeled as sections. Team experts were identified for each section of the checklist based on their qualifications.

Using the project compliance checklist, the ecoPartners team performed an initial document review to identify preliminary findings and develop an agenda for the first site visit. From December 8 to December 15, team experts Kyle Holland (ecoPartners), Rob Friberg (Offsetters), and Matt Brewer (Clear Sky) visited the project areas to gather information necessary to complete the gap analysis and progress report. See Annex B for the agenda from the first site visit.

As a result of the site visit, the team members completed a set of initial findings and requested additional materials from Chemonics necessary to document the project activities. Using information obtained during the site visit and from materials received from Chemonics and its subcontractors, ecoPartners created a gap analysis worksheet to list the status of each project compliance checklist item, its risk to project compliance, and guidance on risk mitigation. EcoPartners updated these initial findings according to the revised project compliance checklist and new documentation.

Prior to revising this report, Matt Brewer and Cheri Sugal from Clear Sky provided supplemental in-country support to the BioREDD+ team. Information obtained during this visit has been included in this report.

Each gap or risk was given a rating of high, medium, or low based on professional experience. ecoPartners believes that items listed as high risk are instrumental in achieving a positive validation statement and should be corrected as soon as possible. Medium risk items are those that require further clarification or documentation but do not pose imminent threats to completing the PDDs. Sections listed as low risk require only minor updating or reflect optional

criteria. ecoPartners has provided mitigation guidance for each gap or risk identified, regardless of risk rating.

This report summarizes risks for each PDD section. Major risks and mitigation suggestions are provided below for each section and subsection of the PDD. For the complete worksheet detailing each finding and risk per compliance checklist item, please see Annex A.

3. PDD Section I Progress

3.1 Summary of Section I Risks

Section I of the PDD has made some important progress since the initial gap analysis. However, crucial gaps still remain, and new gaps have emerged due to the release of CCB version 3.0. Within section I, the most significant changes from the CCB version 3.0 relate to new community requirements. The most prominent changes involve more stringent requirements related to community characteristics. For more detail with these new subsections, please see the highlighted sections of the gap checklist, Annex A.

Project Location is another large component of Section I that has been improved upon but still requires more documentation. While some maps (such as land-cover maps, forest type maps and ecosystem) have been created since the initial gap analysis, there are still multiple maps that need to be made and land-based components that need to be defined. Important maps that have not yet been created include topographical and Choco region maps, as well as nearby national park maps demonstrating if they cross boundaries with project areas. To reference a complete list of maps (those that have been made and those that remain to be created), please see Annex C, List of Requested Maps. The Plan REDD for Acapa BMF contains project area, project zone, reference area, and forest type maps; however, the methods used to create these maps and the digital files (i.e. shapefiles) have not been given to ecoPartners to review. Maps and descriptions with UTM coordinates of their project areas and project zones as well as proof of ownership of these areas need to be established.

Regional and national HCV information is available, though project-specific HCV analyses and species lists have yet to be completed. The biodiversity baseline needs to be documented, and there is still limited information on community HCV areas. With the addition of new CCB requirements in this particular section, emphasis must be placed on defining cultural and communal HCV areas. Additionally project logistics such as roles and responsibilities of organizations involved as well as implementation plans and the project crediting period need to be clarified.

3.2 List of Section I Risks

PD Section	Finding/Information Status	Risk Rating	Suggested Mitigation
I General	N/A	N/A	N/A
I.1 Summary Description of the Project	Plan REDD Acapa BMF section 1.2 has helpful narrative about details of the region and general project aspects. Plan REDD provides some help but subsection is still lacking some requirements.	Medium	Provide more information such as an in depth (but over-arching) summary of project.

I.1.1 Project Description	Plan REDD Acapa BMF lists broad objectives, general project details and outlines the theory of change. Plan REDD Acapa provides details but still lacking requirements, notably a strong description of causal relationships in theory of change elements.	High	Information such as overview of objectives, purpose and project type is still needed. Explain how theory of change concepts will be used with project activities to accomplish project objectives.
I.1.2 Project Objectives	Plan REDD Acapa section I.1 lists project objectives. Information is largely sufficient.	Low	The objectives in Plan REDD Acapa are sufficient, though could be improved with project-specific details. Provide objectives for other projects.
I.1.3 Climate Objectives	Plan REDD Acapa contains climate objective. Information is largely sufficient.	Low	Plan REDD for Acapa BMF has a broad climate objective, suggest making this more specific when deforestation rate is determined.
I.1.4 Community Objectives	Plan REDD Acapa outlines specific community objectives. Information is largely sufficient.	Low	Plan REDD has detailed community objectives but lacking specific project activities showing how project will pursue objectives. Objectives for other project need to be created.
I.1.5 Biodiversity Objectives	Plan REDD Acapa states biodiversity objectives. Information is sufficient.	Low	Plan REDD Acapa includes biodiversity objective that is adequate. Biodiversity objectives should be specific to each site, depending on drivers of that area.
I.2 Project Location	General location	High	Need to finalize project

	<p>information provided for the four territories where the projects are occurring in PD. Topographical map needed at national scale showing general project locations and topographical map for Choco bioregion which includes rivers and project location.</p>		<p>areas and involved communities bearing in mind security and ease of implementation for each node. Create maps that are still needed. Provide information which further specify extent of each location (coordinates, proximity to other cities/ regions)</p>
1.2.1 Ownership and Control	<p>Most communities have their lands registered with INCODER, but some still need to clarify borders and include areas in the process of being added to territories. Need to resolve Ley 70 and Ley 99 interpretations.</p>	Medium	<p>Clarify communities' borders as they relate to project areas.</p>
1.2.2 Project's Geographic Boundaries	<p>Missing UTM grid points in order to describe project areas Plan REDD Acapa section 2 describes some geographic boundaries affecting project locations (still needs to be more detailed).</p>	Medium	<p>Create project location maps. Allocate for provisions of UTM grid points. Include detailed geographic information/restrictions affecting each area.</p>
1.2.3 Project Physical Parameters	<p>Waiting on some information that is forthcoming. Updated list of requested maps includes maps that are complete and those that still need to be created/obtained.</p>	Low	<p>Review updated list of needed maps to see which still need to be created/obtained and those that suffice. Create/obtain maps that are still missing.</p>
1.2.3.1 Soil Conditions	<p>State of Environment Report 2010 and Ecosistemas Continentales have sufficient documentation of soils. Updated list of requested maps includes soils maps (still needed).</p>	Low	<p>Create some project level soils descriptions with basic info from which to write general descriptions.</p>

I.2.3.2 Topography	Geologic information is missing. Updated list of requested maps includes topographic maps (some still needed - others no longer needed).	Low	General, non-detailed information may be sufficient. Review updated list of needed maps to see which still need to be created/obtained and those that suffice. Create/obtain maps that are still missing.
I.2.3.3 Climate	State of Environment Report 2010 and Ecosistemas Continentales and recent dropbox uploads appear to be sufficient.	Low	The next PDD drafting stage will confirm sufficiency of the existing info.
I.2.4 Project Zone	Plan REDD Acapa includes a map of the current project zone, although there is no description of how delineations were made. Project Zone still needs to be described. Project zones for other project locations still missing.	Medium	Finalize project areas to specify a complete project zone. Describe boundaries and specifications of project zone. Evaluate how map is made and whether it was created correctly under the VM0006 standard. Create maps for other project zones (of other project locations). Include parameters for each project zone.
I.2.4.1 Project Zone Map	Plan REDD Acapa includes a map of the current project zone, although there is no description of how delineations were made. Project zones for other projects are still missing.	Medium	Finalize project areas to specify a complete project zone. Create final project zone maps. Evaluate how map is made and whether it was created correctly under the VM0006 standard. Create maps for other project zones (of the other project locations). Include parameters for each project zone map

			created.
I.2.5 Project Area	Need to finalize project areas for each territory with clear demarcations. Unclear if project area boundaries exclude IFM areas.	Medium	Finalize project areas parameters so that they are conducive with VM0006 standards. Include parameters for each project area.
I.2.5.1 Project Area Map	Plan REDD Acapa includes current project area map, although there is no description of how delineations were made. Project areas for other projects are still missing.	Medium	Finalize project area parameters to create a complete project area map. Evaluate how map was made and whether it was created correctly under the VM0006 standard. Create maps for other project areas (of the other project locations). Include parameters for each project area map created.
I.2.5.2 Spatial Boundaries	Source of data is unclear. Some areas may have been converted to cropland and need to be excluded from the project area. Information is forthcoming. Unclear if project area boundaries exclude IFM areas.	High	Attain reference for data source and exclude areas converted to non-forest. Ensure project area boundaries exclude IFM areas. Provide maps of IFM areas to show they have been excluded.
I.2.5.3 Multiple Parcels	Projects contain multiple parcels. Information is forthcoming.	Low	Complete project area maps for each project area.
I.2.5.4 Project Area and Reference Region	Plan REDD Acapa includes map of reference region, although there is no description of how delineations were made. Reference regions for other project locations are still missing.	Medium	Complete any remaining reference region analyses and create final reference region map. Evaluate how map was made and whether it was created correctly

			under the VM0006 standard. Create maps for other reference regions (of the other project locations). Include parameters for each reference region map created.
I.2.5.5 Vector-based Files	Information is forthcoming.	Medium	Complete final maps. Prepare KML files.
I.2.6 Surrounding Area Map	Information is missing.	Medium	Create map of surrounding areas for each project area. Provide map of national parks that overlay with project locations. Create topographical map at national scale showing general project locations.
I.3 Conditions Prior to Project Initiation	Information is forthcoming.	High	Establish baseline.
I.3.1 Eligibility	Sufficient documentation.	None	N/A
I.3.2 Vegetation and Forest Type	Forest cover maps have been provided, although there is no description of how delineations were made/how data was gathered.	Medium	Provide details on how maps were created so ecoPartners can evaluate whether they were created correctly under the VM0006 standard. Include written descriptions of vegetation and forest types for each project location.
I.3.3 Carbon Stocks	Information on expected land use and carbon stocks is missing.	High	Define land use in the project zone with reference to accepted government or NGO created maps.
I.3.4 Land Use	Information is missing.	High	Provide existing

			government documents related to community disputes and land tenure. Land-use scenarios must be specific to each project site.
I.3.5 Property Rights	Plan REDD Acapa provides a general narrative on local land ownership as it has been formalized through INCODER (limited). Information is forthcoming.	High	Provide description of local and national regulations regarding property rights and define "communities" with reference to existing anthropological surveys.
I.3.6 Communities	Plan REDD Acapa provides some general regional information about communities. Information is forthcoming.	High	CCB version 3 has more stringent requirements for describing community characteristics, please see full Gap Worksheet for details on new requirements.
I.3.6.1 Main Settlements	Information is forthcoming.	Medium	Data are likely in socio-economic reports.
I.3.6.2 Current Land Use	Information has been provided.	Low	Information has been provided.
I.3.6.3 Economic Activity	What process was used to identify relevant stakeholder, e.g. are there indigenous groups that will be impacted by project activities within black communities? Are there non-indigenous groups that will be impacted by indigenous community projects? Information is forthcoming.	Medium	Economic activity of groups has been provided however a process of identifying distinct "community groups" (i.e. groups that are expected to incur distinctive risks or benefits from project activities) has not been undertaken. This is primarily relevant for section 6.
I.3.6.4 Ethnic Groups	Information is forthcoming.	Medium	Provide narrative

			related to ethnic groups in project zones.
I.3.6.6 Migration	Some information is provided in Plan REDD Acapa (very limited). PD also provides some limited information about migration related to illegal logging activities. Information is forthcoming.	Medium	Information related to the mobility of various groups - particularly community groups directly involved in harvesting/trade of timber, needs to be determined.
I.3.6.7 Social Diversity	Information is forthcoming.	Medium	Information related to demographic makeup has been provided however some additional work may be required to determine distinct community groups (i.e. groups that are expected to incur distinctive risks or benefits from project activities).
I.3.7 Biodiversity	Regional and national biodiversity information is available, but awaiting results of Humboldt study to see project level information. Information is forthcoming. Lacking project level biodiversity threats as well as the projected without-project scenario and species, HCV lists.	Low	Thoroughly document biodiversity baseline. Derive the without-out project scenario from the deforestation baseline modeling and project level drivers analysis.
I.3.8 High Conservation Values	Plan REDD Acapa provides fairly adequate information for HCVs concerning biodiversity. The Acapa plan also provides some information on cultural HCVs, but it is limited. Information is forthcoming.	Medium	Process has been determined for HCV determination, and has been carried out in at least one community (in Tumaco). Results of participatory HCV determination need to be provided and

			completed in cases where process has not yet been carried out. Gather more information on cultural and communal HCVs. Find more effective ways to document and carry out community meetings and to identify specific cultural HCVs.
I.3.8.1 Protected Areas	The Ramsar site documents have provided sufficient data with respect to the SUPP PDD.	Low	Complete analysis for other projects.
I.3.8.2 Threatened Species	Data for the identification of protected areas and species level HCVs (endemism etc.) is available at the regional albeit not the project level. Information is forthcoming. Plan REDD ACCAPA provides lists on threatened and endangered species (both plants and animals) in or around the project area.	Low	Explain how project activities (e.g. Humboldt biodiversity plots) will build on existing information for further HCV identification. Present species lists at project-level (for each project area) or at least provide definitive direction as to which documents will be used to derive preliminary species lists for each project. i.e. evidence that species are actually living <i>inside</i> the project area.
I.3.8.3 Endemic Species	As above.	Low	As above. Lists of endemics still required.
I.3.8.4 Migrations and Breeding Grounds	Plan REDD Acapa provides some information on breeding grounds for threatened species and the migratory importance of mangrove forests (Information is limited).	Low	Complete project-specific HCV analysis.

I.3.8.5 Landscape Level Biodiversity	Ecosystem/landscape level and species dynamics level information does not exist at a sufficient level to positively confirm these HCVs, according to Humboldt.	Low	As above.
I.3.8.6 Threatened or Rare Ecosystems	As above.	Low	As above.
I.3.8.7 Ecosystem Services	Community HCV mapping started in Tumaco. Information is forthcoming.	High	Complete HCV assessment. Create narrative describing best available information related to ecosystem services
I.3.8.8 Fundamental Community Needs	Community HCV mapping started in Tumaco. Information is forthcoming.	High	Complete HCV assessment.
I.3.8.9 Cultural Identity	Information is forthcoming.	Medium	Process has been determined for HCV determination, and has been carried out in at least one community (in Tumaco). Results of participatory HCV determination need to be provided, and completed in cases where process has not yet been carried out.
I.3.8.10 Managed HCV Areas	Information is forthcoming	Medium	Process has been determined for HCV determination, and has been carried out in at least one community (in Tumaco). Results of participatory HCV determination need to be provided, and completed in cases where process has not yet been carried out.

I.4 Project Proponent	Clear description of project proponents is forthcoming. Plan REDD contains an outline of community responsibilities as well as FUNDO ACCION's role and responsibilities.	High	Include all information regarding project proponent in Plans REDD.
I.4.1 Multiple Project Proponents	Not clear. Information is missing.	High	Define in Plans REDD or work plan.
I.5 Other Entities Involved in the Project	Information is forthcoming. Plan REDD has a rough outline of project participants' roles and responsibilities	High	Define specific roles and responsibilities in Plans REDD or work plan for all entities. Tri-party agreements (or specific terms) should be reviewed with a few key representatives of the community to obtain prior consent and input for terms that will be presented to potential investors.
I.5.1 Implementation Partner	As above. Information is missing.	High	Define in Plans REDD or work plan / Finalize relationship with Fondo Accion and determine full corporate structure, finances and benefit distribution involving the communities.
I.5.2 Technical Skills and Capacity	As above. Information is missing.	High	Define in Plans REDD or work plan.
I.5.3 Regulators	As above. Information is missing.	Low	Define in Plans REDD or work plan.
I.5.4 GHG Programme Administrators	As above. Information is missing.	Low	Define in Plans REDD or work plan.
I.6 Project Start Date	PD assumes start date to be Jan 1 2014, however	High	Maybe use date of agreement with

	unclear what activities lead to the emissions reductions as of this date. Information is missing.		communities
I.7 Project Crediting Period	Plan REDD for Acapa BMF shows an incomplete timeline spanning 20 years. Projects that are not at least 30 years, fail the VCS AFOLU non-permanence risk assessment.	High	Work plan and Budgets should be extended to the entire crediting period of the project (30 years); with some (minimal) budget allocated for activities that will continue into the “longevity” period (60 years) for the AFOLU non-permanence risk buffer.
I.7.1 Project Lifetime and Chronological Plan	Plan REDD for Acapa BMF shows an incomplete timeline spanning 20 years. Projects that are not at least 30 years, fail the VCS AFOLU non-permanence risk assessment.	High	Complete detailed chronological implementation schedule, work plan and budget. Work plan and budget should be extended to the entire crediting period of the project (at least 30 years).
I.7.2 Implementation Schedule	Plan REDD has a rough implementation schedule for each project activity and leakage prevention activity for each year of the project. Information is forthcoming.	High	Define in Plan REDD or detailed work plan for each project. The budget should reflect all the costs of “carbon development” (e.g. data, collection, monitoring, verification, registration and issuance) and “project implementation” (i.e. activities that reduce deforestation) separately. The types of data and frequency of data collection for verification should be checked in the methodology.

I.7.3 Baseline Reassessment	N/A	N/A	N/A
I.7.4 ARR/IFM Harvesting Periods	Not including ARR or IFM in project activities, N/A	N/A	N/A
I.7.5 Differences in Crediting Period and Implementation Schedule	Waiting on final crediting period and implementation schedule. Information is missing.	High	Determine timeline and crediting period and compare.

4. PDD Section 2 Progress

4.1 Summary of Section 2 Risks

Section 2 of the PDDs offers specific details relating to the project activities, its eligibility under VCS and CCBA, and information relating to the project's implementation such as financial forecasting, stakeholder input, and employee relations. As stated above, finalizing each project's specific activities is instrumental in completing Section 2. As these activities are developed, it is vital to include how communities are involved in the decision making process (through FPIC), as well as how each activity contributes to emission reductions. In many cases, it appears that the project is in compliance; however, the evidence and documentation are unclear or need improvement for validation.

While implementing this project as a REDD+ Avoided Unplanned Deforestation (AUD) project, there is a possibility of developing Improved Forest Management (IFM), for areas where there is planned degradation, as well as potentially Wetland Restoration and Conservation (WRC). The project proponents have decided that it will not be cost effective to implement IFM in addition to REDD+ (i.e. to demarcate those areas where planned timber harvesting will be reduced, as well as areas where ANR activities will take place, such as in Mutatá and Bajo Calima) as the cost of implementing IFM will outweigh the projected carbon benefits resulting from the reduction in timber harvesting. Further, project proponents need to determine whether wetlands meet the definition of forests and whether they will be included (e.g. Bajo Baudo), and clearly assure that there are no impacts to peat soils/ wetlands or opt to exclude these areas. There are significant implications to including WRC components to the projects: primarily the added complexity in project documentation and accounting. Adding WRC components also presents additional validation risk as the projects must conform to a larger set of VCS requirements compared to solely those requirements for AUD.

Currently, there is no jurisdictional or subnational REDD+ program in the region. However, an important consideration for the BioREDD+ program is whether the projects being developed will be recognized under a future REDD+ program in Colombia. The BioREDD+ program is taking steps to ensure its project areas are recognized as pilots under a future national REDD+ program. Specifically, the BioREDD+ program is seeking a letter of no objection from the Director of Ecosystems, Forests within the Ministry of Environment. This is the authority for managing, creating and monitoring forest ecosystems in the country. As mentioned below in Section 5.1, Colombia does not have a law explicitly recognizing carbon tenure. Therefore the BioREDD+ program should take the approach of identifying any actor who could have claim on carbon and then, through contractual arrangements, assign ownership (or long term usage rights) to a Seller's entity.

The BioREDD+ team, through its socialization meetings, has identified an initial list of project activities for the Tumaco Node, to address the unplanned drivers of deforestation that will be included in the PDDs (e.g. confirming tenure, patrolling and enforcement, sustainable timber extraction and ANR). There are additional productive activities that have also been identified (e.g. Naidi-acai fruit planting/harvesting, coconut harvesting, improved fishing practices, etc.). The project has not yet created a fully detailed description of the project activities, based on community input, nor has it prepared project implementation/30-year work plan covering all the activities that address drivers and reduce leakage, which are required for the risk buffer and financial forecasting. In addition, the project needs to consider the economic viability of

alternative project activities for both the long-term viability of the project and opportunity cost analyses. Detailed business plans are being developed for the projects' productive activities. These need to be shared with the PDD development team and incorporated into the PDD section – to ensure viability, longevity and sustainability.

The BioREDD+ teams have conducted socio-economic studies that will be critical to establishing a community baseline. However, the BioREDD+ team has not conducted household surveys or participatory rural appraisals (PRAs) to answer questions that are required by the methodology regarding the relative importance of deforestation drivers, how geographically constrained the drivers are, or even to address the questions that are more challenging to quantify such as forest fires or forest encroachment. The timber study is expected to address the most important driver- i.e. legal and illegal timber harvesting; however, it will not address the other drivers that have been identified. These social surveys are also used to explore potential risks to communities and biodiversity of implementing the project.

Once a complete list of project activities has been created, the effectiveness of each of those project activities must be linked to deforestation drivers. This is required for ex ante calculations according to the methodology, and was undertaken during socialization meetings in Tumaco. It will need to be done with each of the other communities.

Once a detailed 30-year work plan is created project proponents will need to prepare a multi-year budget, covering the period of the project, which includes all of the project implementation and carbon development costs for this period. The budget should include training and capacity activities in the early years as well and financial and administrative fees that FAAN will incur for administering the fund. The budget and revenue projections are being used to prepare a financial model. However, it will be important to also include in the financial model: 1) all of the costs of carbon development and project implementation in the budget, including the costs of the implementing partner beyond administrative fees and any labor costs incurred by the communities themselves; 2) all projected revenue from the potential sale of carbon credits beyond initial investment. Assumptions in current ex-ante carbon calculations being used in the financial model should be reviewed with ecoPartners. The financial model should be built to show the timing of revenue, tied to verification periods. This will allow for determination of “break even” for the financial viability section of the risk buffer. Projected revenue should include any potential revenue that could result from increased carbon stocks resulting from ANR activities. For the best results, related to reducing the buffer reserve pool (see risk buffer section on Longevity), and to bring a large percentage of the credits to market, project proponents should prepare the work plan and budget for 60-years of project implementation.

The project proponents have not yet identified a long-term implementing partner for the project. Most of the topics covered in this section will likely be addressed in the employee handbook of the implementing organization. For any specific risks to workers associated with implementing project activities, the BioREDD+ program should develop specific worker safety guidelines to minimize any risks.

Through extensive workshops and carefully documented public meetings and forums for public input and participation in these projects, the BioREDD+ program is advancing towards fulfillment of the requirements of this section. It will important that the implementing partner make provisions for assuring safeguards such as providing forums for voicing grievances and develop a plan for publicizing the CCB public comment period and incorporating any stakeholder comments.

4.2 List of Section 2 Risks

PD Section	Finding/Information Status	Risk Rating	Suggested Mitigation
2 Design	N/A	N/A	N/A
2.1 Sectoral Scope and Project Type	BioREDD+ has determined they will not pursue IFM. It is possible to include WRC, or ANR activities in some project areas, though this requires using additional VCS Methodologies	Low	ecoPartners suggests that BIOREDD+ not pursue IFM, WRC, or ANR activities given the added complexity and limited emission reductions potential. Team should explore whether additional carbon benefits of ANR will outweigh the added costs of implementation (demarcation, etc.).
2.1.1 Grouped Project	No grouped projects. Information is sufficient.	N/A	N/A
2.1.1.1 Programmatic Approach	Projects will not use programmatic approach	N/A	N/A
2.1.2 Project Eligibility	Generally compliant, FPIC and clear ownership and Right of Use should be more clearly outlined. Emissions reductions have been overstated and need to be adjusted.	High	Demonstrate clear FPIC process through documentation of community meetings, finalize business plans and adjust emissions reductions numbers to be more conservative, determine full legality of carbon tenure given ambiguity on national level.
2.1.3 Methodology Requirements	Projects are eligible under VM0006. Waiting for VCS remote sensing tool to be approved to ensure project meets methodology requirements.	High	Waiting for final approval of VCS tool.

	Information is missing.		
2.1.4 Project Conversions	No conversions will occur, though proof is needed. Information is missing.	High	Document that alternative agricultural activities will not lead to clearing of native vegetation or altering landscapes, and timber harvesting will occur outside of project areas.
2.1.5 Jurisdictional REDD+	No JNR or national REDD program in Colombia right now, but need to document how projects will fit into a program if one is developed. Information is missing.	High	Take steps (i.e. finalize and sign letter of no objection) to have projects recognized as pilot projects to ensure they will be included under a JNR program if one exists later. Given that there is no explicit Colombian law regarding carbon rights, seek out any actors that may lay claim to carbon rights and get assurances showing carbon rights.
2.1.6 Good Guidance and Practice	Some documentation of community meetings exists, but need more. Information is missing.	Low	Provide clear and detailed documentation of BioREDD+ strategy and internal approach to socialization meetings with communities, including multi-tiered approach funded by Chemonics.
2.1.7 Multiple Project Activities	Project activities have not been fully specified. VCS Additionality tool needs to be applied. Information is missing.	High	Finalize detailed descriptions of project activities for each community, apply additionality tool, apply non-permanence risk assessment tool
2.1.8 Multiple Instances of Project Activities	Projects will not be grouped, but project activities have not been	Medium	Select and finalize project activities for each community using clear

	selected yet. Information is missing.		FPIC input from communities during socialization meetings.
2.2 Description of the Project Activity	Project activities have not been finalized. Information is missing.	High	Some project activities have been identified in the Plan REDD for Acapa and BMF, but these activities are not clearly linked to the agents and drivers of deforestation through the Theory of Change model. There must be a clear connection that shows how project activities will decrease deforestation/degradation. Create clear and concise descriptions of project activities and link them to project carbon reduction goals and MRV framework using Theory of Change model.
2.2.1 Description of Project Technologies	Need description of Saatchi's VCS tool and any other technologies employed. Information is forthcoming.	Low	Create concise description of project technologies.
2.2.2 Project Climate Impacts	Waiting on final list of project activities. No clear plan identified for reducing forest degradation. Need direct link of project activities to actual carbon impacts. Information is missing.	High	Finalize project activities. Impacts of activities and how activities will reach projects' predicted climate benefits should be detailed using the Theory of Change model. For example, address unplanned degradation with a cohesive forest protection and "social fencing" plan with clear FPIC input from communities and linked to carbon reduction and MRV framework. Determine way to

			address the most significant drivers (i.e. illegal timber harvesting).
2.2.3 Project Activity Lifetime	Currently proposing 20-year project lifetime.	Medium	The project lifetime must be at least 30 years. Expand project lifetime during which management activities will be implemented to 60-years (i.e. the “longevity” period) to reduce buffer contribution and non-permanence risk.
2.2.4 Community and Biodiversity Impacts	Socio-economic studies are complete and critical to establishing community <i>baseline</i> but do not get at critical questions required by the methodology. Missing information to identify HCV from cultural and biodiversity perspective. Missing analysis related to negative environmental impacts of project activities.	High	Assist communities in completing <i>household surveys</i> and PRAs related to biodiversity and to show project is holistically beneficial to communities. Identify relationship between project activities and community and biodiversity benefits using the Theory of Change model. Studies should also explore potential negative impacts of projects including environmental and economic opportunity costs including but not limited to timber harvesting.
2.2.5 Fuelwood Gathering	Fuelwood gathering for commercial (charcoal) purposes was found in Tumaco region. VM0006 does not allow this. Mangroves are also used for fuelwood in Pizarro node.	High	If possible, exclude these areas where fuelwood is gathered in the Tumaco region or conduct household PRA surveys to elucidate fuelwood gathering, particularly for charcoal production.
2.2.6 Woodlot/Woodland Establishment	No lands are being cleared to establish woodlots. Information is	N/A	N/A

	sufficient.		
2.2.7 Sustainable Extraction	If sustainable extraction of NTFPs is further developed and commercialized, harvesting plans must be developed to ensure sustainability. Information is missing.	High	Provide plans for ensuring sustainable extraction of NTFPs including all products being developed as productive activities (cocoa, naidi, etc).
2.2.8 Sustainable Agriculture	Sustainable agriculture intensification will happen on existing agricultural land. Information on zoning and documentation to ensure this is the case is missing.	Low	Intensification activities should be conducted on existing lands. Provide assurance that no new land is cleared for these activities.
2.2.9 Effectiveness Factors	A complete list of project activities has not been created, so effectiveness cannot be measured. Information is missing.	High	Complete activity lists and descriptions with each community and demonstrate effectiveness of each activity to addressing each of the deforestation drivers. This is necessary for ex-ante calculations.
2.2.10 Assisted Natural Regeneration	Unsure if ANR activities will be implemented. Information is missing.	Medium	Given community request in Tumaco to undertake ANR activities, models should be developed to determine costs versus benefits. Consider excluding these areas where ANR activities may take place from the project areas to avoid complicated accounting and additional methodological requirements.
2.3 Management of Risks to Project Benefits	No cohesive document describing climate risks exists. Information is missing.	High	Identify short-term and long-term climate risks and potential impacts (e.g. sea-level rise).

2.3.1 Climate Risks	No plan has been outlined to reduce unplanned degradation of forests.	High	Implement action plan for mitigating human induced climate risks through forestry activities and long term MRV.
2.3.2 Community Risks	Some socio-economic data have been gathered. Risks are being discussed but have not been systematically analyzed. Information is missing.	High	Clearly identify community risks and create mitigation plans for these risks.
2.3.3 Biodiversity Risks	Biodiversity risks are being discussed but have not been systematically analyzed. Information is forthcoming.	High	Clearly identify biodiversity risks and create mitigation plans for these risks.
2.3.4 Non-Permanence Risk and Buffer Pool	Non-permanence risk tool has not been applied to any projects yet. Information is missing.	High	Conduct AFOLU non-permanence risk analysis for each project. Minimize risks through project design.
2.3.5 Management of Risks Beyond Project Lifetime	Long-term financial and project planning has been completed to ensure benefits beyond project lifetime. Information is missing.	Medium	Identify and develop plans to extend and enhance climate, community, and biodiversity benefits beyond project lifetime.
2.4 Measures to Maintain High Conservation Values	Some HCVs are defined but insufficient and project activities have not been finalized. Information is missing.	Medium	Some progress has been made on HCV identification. Still must complete PRAs to identify HCVs for communities.
2.5 Project Financing	Relationship with Fondo Accion (FAAN), communities, and investors has been clarified. Missing necessary documentation.	High	Agreements for financing need to be negotiated and benefit distribution mechanisms need to be drafted to ensure community governance over revenue distribution. Work plans/budgets covering the longevity

			period of the project needs to be drafted to ensure long-term project benefits. Documents needed from FAAN.
2.6 Project Employees	Implementation partner has not been identified yet, so unable to assess worker relations.	High	Identify implementation partner and assess worker relation policies.
2.6.1 Employment Training	Some socialization has occurred but training protocols are largely absent. Information is missing. FAAN will likely assist.	High	Include training plans that meet relevant requirements.
2.6.2 Equal Opportunity for Employment	Information is missing, Fondo Accion will likely assist.	Medium	Determine hiring protocols and local preference for training and employment.
2.6.3 Worker's Rights	Project activities have not been finalized, so rights are unclear. Information is missing.	Medium	Address worker rights and grievance policies for each community.
2.6.4 Worker Safety	Needs to be assessed based on project activities. Information is missing.	High	Create Job Hazard Analysis and safety plans for each project activity.
2.7 Stakeholders	Documentation of socialization process is missing. Information received on socialization process indicates that it is not being held in accordance with VM0006, CCB and VCS requirements.	High	Must demonstrate FPIC process including full methodology of how decisions are made and clearly show the channels of communication with communities. Community representatives should be brought in early to gain "prior" consent of any investment terms.
2.7.1 Stakeholder Engagement Structure	Documentation of socialization process is	High	Must demonstrate FPIC process including full

	missing. Information received on socialization process indicates that it is not being held in accordance with VM0006, CCB and VCS requirements.		methodology of how decisions are made and clearly show the channels of communication with communities. Community representatives should be brought in early to gain “prior” consent of any investment terms.
2.7.2 Stakeholder Identification	Documentation of socialization process is missing. Information received on socialization process indicates that it is not being held in accordance with VM0006, CCB and VCS requirements.	High	Some stakeholders have been identified to participate in the community socialization meetings but the methods for identifying those stakeholders still must be justified and documented, including the multi-tiered approach.
2.7.3 Stakeholder Consultation	Not clearly documented	Medium	Outline process for disseminating outcomes of stakeholder consultation.
2.7.4 Public Comment Period	Has not been mentioned yet in meetings. Information is missing.	Medium	Document projects' methodology related to public comment period for CCBA registration, and how stakeholders can participate in comment period.
2.7.5 Stakeholder Feedback and Grievances	Fundo Accion should have materials for conflicts and grievances. Information is forthcoming.	Medium	Document projects' methodology related to stakeholder grievances and conflicts.
2.8 Commercially Sensitive Information	No commercially sensitive information has been identified yet. This may change as investors become more involved. Information is missing.	Low	Provide list of commercially sensitive information.

5. PDD Section 3 Progress

5.1 Summary of Section 3 Risks

Section 3 of the PDD relates to the legal framework in which the project operates. These regulations range from the legality of land tenure and carbon rights to project legality and worker protections. While Section 3 of the PDD has evolved since the initial gap analysis, risks remain and new risks have arisen with the update of CCB version 3.0. The most notable additions are in section 3.8 which pertain to Illegal Activities and Project Benefits. To see a more detailed example of some of these project requirements, please see the highlighted areas of section 3 in Annex A.

While ownership rights for local communities have been made previously clear, there is still no approved documentation of the national government granting carbon rights. Some progress has been made concerning this requirement. A letter of no objection has been drafted and is in review before being sent to the Colombian government. Hopefully, with its approval, the project will continue without any national level legal issues.

Carbon tenure for the Afro-Colombian communities remains unclear as well as any possibility of the communities establishing Evidence of Right of Use. It is still suggested that the BioREDD+ program should identify potential actors who could claim the carbon and assign ownership to another entity. A specific seller who would act on behalf of the communities in selling carbon still needs to be identified by BioREDD+; and approval needs to be obtained from the communities for the seller to act on their behalf. Furthermore, language issues involving longevity periods, subsequent management plans and budgets remain unsolved. If the commitments that communities have signed are not made completely clear to them, then the project is at great risk under the VCS standard.

While project proponents have carried out thorough consultations within the communities, documentation of these meetings needs improvement. Project proponents must be able to demonstrate proper documentation of all meetings through whatever technique is most appropriate and effective. Verification of proper FPIC and public participation in project design, through community socialization meetings must be adequately documented.

A final but significant risk that still remains involves Illegal Activities and Project Benefits. Because the project areas/zones have a history of unruliness and resource exploitation due to their remoteness and minimal (or in some cases, corrupt) law enforcement, the most influential drivers of deforestation often involve illegal actions undertaken by criminal parties. The project proponents must create a detailed plan of project activities (alternative livelihood activities or patrols) that will address these drivers in a manner that is effective and safe for all involved in the carbon project.

5.2 List of Section 3 Risks

PD Section	Finding/Information Status	Risk Rating	Suggested Mitigation
3 Legal Status	N/A	N/A	N/A

3.1 Compliance with Laws, Statutes, Property Rights and Other Regulatory Frameworks	The communities are the landowners; therefore the project proponents have not sought government approvals. We are creating and reviewing the letter of no-objection. Plan REDD provides some detail on the legal framework.	High	FPIC documentation or at least, a letter of no objection from appropriate government authorities needs to be reviewed to reduce future risk (of reversal of project-level REDD+ credits in a future national REDD+ program). Feedback will be provided.
3.1.1 Workers' Rights and Treaties	Insufficient description of how project activities will be implemented in such a way that is consistent with international standards and treaties. Information is missing.	High	Provide evidence/description of each project activity's compliance with international standards/treaties.
3.2 Evidence of Right of Use	Carbon tenure is unclear, contracts with communities may not contain sufficient language to establish Right of Use, and management plans don't demonstrate that communities are committed to continue management practices for the "longevity" period of the project (i.e. 60 years). Little evidence of commitment to patrolling and problems of corruption with regional environmental authorities. Information is forthcoming.	High	Identify potential actors who could claim carbon, and assign ownership/long-term usage rights to seller's entity. Strategic plan must have a plan and component of policing as part of the MRV activities and ideally would involve the co-opting of the most major "corteros" as forest patrollers. Please see notes related to preliminary findings of the timber study as it relates to the complexity of the corruption involved in illegal harvesting.
3.3 Emissions Trading Programs and Other Binding Limits	Missing description of how the project will avoid double counting of emissions	Low	Clarify that this is the case.

	reductions/removals.		
3.4 Participation Under Other GHG Programs	BioREDD will be solely seeking VCS registry. Information is sufficient.	Low	None.
3.5 Other Forms of Environmental Credit	BioREDD will not be registering any other project credits. Information is sufficient.	Low	None.
3.6 Projects Rejected by Other GHG Programs	BioREDD has not been rejected by any other standards or programs. Information is sufficient.	Low	None.
3.7 Rights to Land and Free, Prior and Informed Consent	Proponents have conducted extensive community consultation. However, they have not been able to demonstrate proper documentation of all activities related to FPIC, Consulta Previa and public participation. No one is being relocated due to the projects -- project areas are not including inhabited portions of territories nor in the zones of current approved timber extraction.	Medium	Follow all FPIC and Consulta Previa protocols and record all meetings with minutes and lists of participants (possibly video tape or voice record meetings, use attendance sheets). Verify that community members completely understand everything they agree to. Identify clearly the project exclusion zones with communities and coordinate with zones of population or traditional use. Review new CCB v3.0 requirements related to FPIC.
3.8 Illegal Activities and Project Benefits	Coca, illegal mining and illegal timber harvests conducted "legally" with corrupt officials. Missing description of project's actions to reduce illegal activities. All project activities are legal. No logging revenue is planned,	High	Identify activities, use the timber study to inform on sites of illegal harvest and increase organizational effectiveness of local CARS. Create a plan to address, measure, and mitigate each of these

so no need to demonstrate
legality from timber.

risks such as the
creation of forest
protection plans for
areas with patrol and
control of forests. No
logging revenues
included, must be very
cautious with mines
and "lavado de activos."

6. PDD Section 4 Progress

6.1 Summary of Section 4 Risks

Much of the material in this section is dependent upon specific requirements of the methodology. Among the most important things to review and establish are the definition of drivers of deforestation and activities that reduce greenhouse gases. All drivers must be defined and specific cases must be compared to methodology requirements (e.g. policy changes that influence agents, land tenure changes that influence agents, market forces that influence agents, etc.).

As noted above, we need a final decision on whether reforestation, active forest management, or community forest enterprises are planned activities. Finalizing the scope of the projects is essential to applying the methodology. If available, Best Management Practices (BMPs) for the region can be used as resources to develop these activities. After the activities are decided, BioREDD+ should compile a full list of GHG pools and sinks and state which of these are included or excluded—including a justification for these decisions. There is also a gap in documenting exactly how the projects' will be deviating from the methodology in regards to measurement. The project proponent needs to ensure that the remote imagery meets the technical requirements of the methodology.

Completing an analysis of each project's additionality and reviewing the steps used to define the baseline will reduce risk associated with this section of the PDDs. Although it appears that a LULC analysis has been completed, the LULC classes used do not meet the requirements of VM0006, which requires that as a minimum the six IPCC LULC classes be considered in the analysis. The remote sensing analysis is also lacking a list of probable land transitions.

6.2 List of Section 4 Risks

PD Section	Finding/Information Status	Risk Rating	Suggested Mitigation
4 Application of Methodology	N/A	N/A	N/A
4.1 Title and Reference of Methodology	Sufficient	N/A	N/A
4.2 Applicability of Methodology	Incomplete information regarding project boundary, agents and drivers of deforestation, ANR activities and IFM activities.	High	Complete delineation of project boundary and analysis of agents and drivers of deforestation following requirements. Consider excluding ANR and IFM activities.
4.3 Methodology	Missing information on	High	Identify deviations in the

Deviations	methodology deviations.		methodology.
4.4 Project Boundary	Missing information regarding carbon pools within the project boundary.	High	Need to determine which pools are to be included.
4.4.1 De Minimis	Missing information on emissions that may be considered de minimis.	High	Need to identify pools and demonstrate that they are de minimis.
4.5 Baseline Scenario	Missing information on most plausible baseline scenario.	High	Need to complete analysis of baseline scenario.
4.5.1 Community Scenario	Incomplete analysis of the effects of the baseline scenario on communities.	High	A good start on describing the current community conditions has been made in the Plan REDD for Acapa and BMF. However, more information is needed on the expected <i>changes</i> in the well-being of communities under the without project land use scenario. This also must be developed for the other projects.
4.5.2 Biodiversity Scenario	Missing analysis of the effects of the baseline scenario on biodiversity.	High	Need to complete analysis of effects of baseline scenario on biodiversity in the project zone.
4.5.3 Climate Scenario	Missing criteria/procedures to identify the project's additional GHG emissions reductions/removals in comparison to the baseline scenario.	High	Limited progress has been made in the Plan REDD for Acapa and BMF on identifying the baseline scenario for land use change in the region, but a more extensive analysis must be conducted. Need to establish criteria for determining baseline

			scenario and additional GHG emissions reductions/removals.
4.5.3.1 Agents	Incomplete analysis of agents of deforestation/forest degradation.	High	Some progress has been made on the identification and analysis of agents. However, the connection between agents and drivers needs to be solidified, mobility must be analyzed and a more detailed analysis of motivations for deforestation/degradation must be conducted. It is currently expected that the timber extraction study will provide this information.
4.5.3.2 Drivers	Insufficient/incomplete analysis of drivers of deforestation/forest degradation.	High	Some progress has been made on the identification and analysis of drivers, however a more detailed description of drivers and their relative importance is needed. It is currently expected that the timber extraction study will provide this information.
4.5.3.3 Reference Region	Missing analysis and spatial boundaries of reference region. Appears that some analysis have been done its unclear how the boundaries were delineated.	High	Complete analysis of all reference regions.
4.5.3.4 LULC Classes and Forest Strata	Stratification is complete, but does not include LULC classes consistent with IPCC. Spatial resolution is insufficient.	High	Re-do LULC analysis to be consistent with methodology requirements and IPCC classes. Increase spatial resolution.

4.5.3.4.1 Forest Degradation	Missing forest strata representing regeneration stages.	Medium	If emissions from avoided degradation are included, complete analysis of forest strata.
4.5.3.4.2 Managed Forests	Missing stratification of IFM/ANR areas. Unclear if project area boundaries exclude IFM areas.	High	IFM areas are currently planned to be excluded from the project areas. If existing management plans don't conform, revise or remove ANR areas from projects.
4.5.3.4.3 Quality Assurance and Control	Missing QA/QC protocols/reviews.	High	Conduct QA/QC review.
4.5.3.5 Probable Transitions	Missing information dependent on land transition matrix.	High	Complete land transition matrix and table of forest strata/LULC classes likely subject to transitions.
4.6 Additionality	No demonstration of additionality.	High	Demonstrate/assess additionality of project.
4.6.1 Community Benefits	Missing justification of project's additionality in terms of benefits to community.	High	Demonstrate/assess additionality of project with respect to community benefits.
4.6.2 Biodiversity Benefits	Missing justification of project's additionality in terms of benefits to biodiversity.	High	Demonstrate/assess additionality of project with respect to biodiversity benefits.
4.6.3 Laws and Regulations	Missing analysis of effects of laws/regulations on land use.	High	Complete analysis of effects of laws on land use.
4.6.4 Application of VCS Tool	Missing application of VCS tool for the Demonstration and Assessment of Additionality.	High	Complete analysis of additionality using the VCS tool.

7. PDD Section 5 Progress

7.1 Summary of Section 5 Risks

The gap analysis revealed a moderate amount of missing information on carbon stock estimates to subsequently determine emissions factors. Based on discussions with GeoEcoMap, these data are expected in the near future. Although progress has been made on generating data for the historical LULC analysis to determine deforestation, degradation and regeneration rates, the current data fail to meet some requirements of VM0006. Specifically, the Landsat-based data do not appear to conform to the required LULC classes (six classes), spatial resolution (better than 30 meters), historical time limits (no more than 15 years old) and maximum cloud cover (no more than 20% on average). The ALSO PALSAR data share similar non-conformities. Currently, neither dataset appear to meet the requirements of VM0006.

Several other high risk areas with missing or incomplete information include the overall quantification of GHG emissions reductions and removals (section 5.1), baseline emissions (section 5.3), project emissions (section 5.4), leakage emissions (section 5.5), and quantification of non-permanence risk and ex-ante NERs (section 5.6). These sections are all contingent on the delineation of project areas, leakage areas (belts) and reference regions. To quickly mitigate these risks, these areas should be delineated. How these areas are delineated depends on many factors prescribed in VM0006, including whether certain project activities are adopted by the project proponents (such as IFM and ANR). These project activities must be finalized to delineate these areas. We recommend not including IFM and ANR activities to avoid additional complexity in project design and accounting.

Many aspects of section 5 are related to the agents and drivers of deforestation. It is expected that the agents and drivers of deforestation are identified in a forthcoming timber study. If the timber study fails to quantify the agents and driver, and their motilities, then a PRA should be conducted to acquire this information.

To determine project emissions an assessment of the effectiveness of project activities must be completed. In place of a traditional PRA, effectiveness ratings may be determined by expert opinion. Finally, estimates of leakage emissions are lacking complete information regarding the delineation of leakage areas and leakage belts, market leakage, and estimates of emissions from project activities.

These major information gaps identified pose a high risk to the development and validation of these projects. Although most of the requirements in this section address VM0006 requirements, some requirements are related to CCB climate indicators. It is important to note that under CCB version 3, all climate indicators are waived for projects seeking dual validation under VCS. The only other pertinent changes to section 5 from CCB version 3 relate to the criteria for achieving CCB Gold Level for Climate Adaptation, see section 5.7 in Annex A for all of the new requirements.

7.2 List of Section 5 Risks

PD Section	Finding/Information Status	Risk Rating	Suggested Mitigation
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5 Quantification of GHG Emissions Reductions and Removals (Climate)	Criteria and procedures have been selected as VM0006 or developed by GeoEcoMap.	N/A	
5.1 Project Scale and Estimated GHG Emission Reductions or Removals	No indication of project scale and GHG emission reductions/removals.	High	Indicate scale and complete analysis of GHG emission reductions/removals.
5.2 Leakage Management	Missing leakage management plan/mitigation activities.	Low	Define leakage management plan, perhaps as part of Plan REDD.
5.3 Baseline Emissions	No analysis of baseline scenario and quantification of emissions/removals.	High	Analysis of baseline scenario and quantification of GHG emissions needs to be completed.
5.3.1 Delineating a Reference Region	Missing delineation/analysis of reference region. It appears some reference regions have been delineated but unclear how. Unclear whether areas of planned deforestation events have been excluded from reference regions.	High	Delineate all reference regions and conduct analysis to ensure no areas of planned deforestation events have been included.
5.3.2 Analyze Historical Deforestation/Forest Degradation	Analysis has been conducted but does not appear to conform to VM0006 requirements.	High	Analysis needs to be revised to meet the requirements of VM0006.
5.3.2.1 Data	Resolution of data is greater than 30 meters (100 meters). Appears to include three points in time: 1986, 1997 and 2011. The oldest imagery that is allowed is 15 years before the project start date. Appears that greater than 20% cloud cover in most	High	Use < 30 meter resolution imagery no earlier than 15 years prior to project start date. Meet maximum cloud-cover requirements.

	areas.		
5.3.2.2 Land Transitions	Appears that 3 IPCC-like classes are used (intact forest, secondary forest and non-forest) but other IPCC classes required by VM0006 are not included.	High	Include all required classes in analysis.
5.3.2.3 Historical LULC Class and Forest Strata Transitions	Incomplete analysis of historical land cover transitions. Missing required LULC classes and analysis in the reference region.	High	Complete analysis (especially within delineated project, reference and leakage areas).
5.3.2.3.1 Pre-Processing of Remote Sensing Data	A description of the pre-processing has been provided. No discussion of how atmospheric correction was accomplished or other radiometric or topographic corrections. No discussion of RMSE.	High	Ensure that imagery is processed correctly per the requirements of VM0006 and that the minimum threshold on RMSE has been met.
5.3.2.3.2 LULC Classification and Forest Stratification	Stratification has not been applied to project, reference, and leakage areas.	High	No data for forest stratification have been provided.
5.3.2.3.3 Estimating and Minimizing Uncertainty	Uncertainty estimates are missing.	High	Complete uncertainty analysis.
5.3.3 Analyze Deforestation/Degradation Agents and Drivers	Incomplete.	High	Complete analysis of agents and drivers.
5.3.3.1 Assessing Impacts from Drivers of Deforestation/Degradation	Missing information on impacts from agents/drivers.	High	Analysis needs to be completed.
5.3.3.2 Analyzing Mobility of Agents	Missing information on mobility of agents/drivers	High	Analysis needs to be completed.
5.3.3.3 Identifying Driving Variables of	Missing information on variables.	High	Analysis needs to be completed.

Deforestation/Degradation

5.3.4 Determining Emissions Factors	Missing analysis of emissions factors.	High	Analysis needs to be completed.
5.3.4.1 Data Sources	Missing review of data sources.	Medium	Conduct thorough documentation and review.
5.3.4.2 Sampling Design	Missing documentation of sampling design and methodology deviations.	High	Analysis needs to be completed including uncertainty estimator for methodology deviations.
5.3.4.3 Measure and Calculate Carbon Stock Density	Missing calculations of carbon stock density.	High	Calculations need to be completed.
5.3.4.3.1 Allometric Equations	Allometric equations appear to be complete.	N/A	Confirm that all allometry has been determined and documented.
5.3.4.4 Calculating Emission Factors	Missing calculations of emission factors	High	Calculations need to be completed.
5.3.5 Rates of Deforestation/Degradation	Data sources have been described, but rates have not been calculated for the reference regions.	High	Calculate transition rates.
5.3.5.1 Calculating Rates of Deforestation/Degradation	Missing calculations of rates of deforestation/degradation.	High	Calculations need to be completed after reference areas are defined.
5.3.5.1.1 Summarize Historical Land Transitions	Missing summary table of historical land transitions.	High	Analysis needs to be completed after reference areas are defined.
5.3.5.2 Calculating Regeneration Rates	Missing calculations of regeneration rates.	High	Calculations need to be completed after reference areas are defined.

5.3.5.3 The Spatial Model	The spatial model has not been developed, but contracted.	High	Complete the spatial model.
5.3.5.4 Calculate Transition Rates	Missing calculations of transition rates	High	Calculations need to be completed.
5.3.6 Calculate Baseline Emissions from ANR Activities	Missing calculations of emissions from ANR activities.	High	Recommend not pursuing ANR activities.
5.4 Project Emissions	Missing analysis and quantification of project GHG emission reductions/removals.	High	Analysis needs to be completed.
5.4.1 Quantifying the Effectiveness of Project Activities	Missing quantification of project activity effectiveness.	High	Quantification needs to be completed.
5.4.1.1 Effectiveness of Strengthening Land Tenure Status	Missing quantification.	High	Quantification needs to be completed.
5.4.1.2 Effectiveness of Sustainable Land Use Plans	Missing quantification.	High	Quantification needs to be completed.
5.4.1.3 Effectiveness of Property Demarcation	Missing quantification.	High	Quantification needs to be completed.
5.4.1.4 Effectiveness of Fire Prevention	Missing quantification.	High	Quantification needs to be completed.
5.4.1.5 Effectiveness of Increased Energy Efficiency	Missing quantification.	High	Quantification needs to be completed.
5.4.1.6 Effectiveness of Alternative Fuelwood Sources	Missing quantification.	High	Quantification needs to be completed.
5.4.1.7 Effectiveness of Agricultural Intensification	Missing quantification.	High	Quantification needs to be completed.
5.4.1.8 Effectiveness of Alternative Livelihoods	Missing quantification.	High	Quantification needs to be completed.

5.4.1.9 Total Effectiveness of Project Activities	Missing quantification.	High	Quantification needs to be completed.
5.4.2 Calculating Deforestation/Degradation Rates	Missing calculation of deforestation/degradation rates.	High	Analysis needs to be completed.
5.4.3 Estimating GHG Emissions from Fire Breaks	Missing quantification.	High	Quantification needs to be completed.
5.4.4 Estimating Net GHG Sequestration from ANR Activities	Missing quantification.	High	Recommend not pursuing ANR activities.
5.4.4.1 General Quantification (ANR Activities)	Missing quantification.	High	Recommend not pursuing ANR activities.
5.4.4.2 Estimating Carbon Stock Increases (ANR Activities)	Missing quantification.	High	Recommend not pursuing ANR activities.
5.4.4.3 Calculating Emission Sources (ANR Activities)	Missing quantification.	High	Recommend not pursuing ANR activities.
5.4.5 Estimating Net GHG Sequestration from CFE Activities	Missing quantification.	High	Recommend not pursuing CFE activities.
5.4.6 Estimating Net GHG Emissions from Harvesting	Harvesting and IFM are being omitted from the project area.	N/A	N/A
5.4.6.1 Harvest Plan	Harvesting and IFM are being omitted from the project area.	N/A	N/A
5.4.6.2 Calculating Long-term Average Carbon Stock	Harvesting and IFM are being omitted from the project area.	N/A	N/A
5.4.6.3 Calculating Emissions or Sinks on Land with Harvesting Activities	Harvesting and IFM are being omitted from the project area.	N/A	N/A
5.4.6.4 Quantification of	Harvesting and IFM are	N/A	N/A

Emissions from Harvesting	being omitted from the project area.		
5.4.7 Quantifying Emissions from ARR/IFM Activities	Missing quantification.	High	Exclude ANR areas from project.
5.5 Leakage	Missing identification of leakage types and quantification of leakage.	High	Analysis needs to be completed.
5.5.1 Estimating Emissions from Leakage	Missing leakage emissions estimates.	High	Analysis needs to be completed. It is expected that the timber extraction study will provide some information to meet these requirements.
5.5.2 Estimate Leakage from Geographically Constrained Drivers	Missing calculations/analysis.	High	Analysis needs to be completed. It is
5.5.2.1 Calculating Effects of Leakage on Deforestation/Degradation Rates	Missing calculations/analysis.	High	Analysis needs to be completed.
5.5.2.2 Calculating Leakage Cancellation Rates	Missing calculations/analysis.	High	Analysis needs to be completed.
5.5.2.2.1 Calculation of Cancellation Rates for Subsistence Agriculture	Missing calculations/analysis.	High	Analysis needs to be completed.
5.5.2.2.2 Calculation of Cancellation Rates for Logging	Missing calculations/analysis.	High	Analysis needs to be completed.
5.5.2.2.3 Calculation of Cancellation Rate for Fuelwood Collection	Missing calculations/analysis.	High	Analysis needs to be completed. Consider excluding areas where fuelwood is being collected.
5.5.2.2.4 Calculation of Cancellation Rate for Cattle Grazing	Missing calculations/analysis.	High	Analysis needs to be completed. Consider excluding areas where

			cattle are grazing.
5.5.2.2.5 Calculation of Cancellation Rate for Extraction of Understory Vegetation	Missing calculations/analysis.	Low	Analysis needs to be completed. This does not appear to be a significant driver of deforestation.
5.5.2.2.6 Calculation of Cancellation Rate for Human-Induced Forest Fires	Missing calculations/analysis.	Low	Analysis needs to be completed. This does not appear to be a significant driver of deforestation.
5.5.2.3 Delineating the Leakage Area and Leakage Belts	Missing analysis, mobilization costs should be based on timber study.	High	Leakage belt should be defined. It is expected that the timber extraction study will provide information on mobilization costs.
5.5.2.4 Calculating Deforestation/Degradation Rates in the Leakage Belts	Missing calculations/analysis.	High	Analysis needs to be completed after leakage areas are defined.
5.5.3 Estimate Leakage from Geographically Unconstrained Drivers	Missing calculations/analysis, doesn't appear that migrants are in the area.	High	Analysis needs to be completed.
5.5.4 Quantifying Emissions from Project Activities	Missing quantification of project activity emissions.	High	Analysis needs to be completed.
5.5.4.1 Quantifying Emissions from Agricultural Intensification	Missing quantification/analysis.	High	Analysis needs to be completed.
5.5.4.2 Quantifying Emissions from Flooded Rice Production	Missing quantification/analysis.	High	Analysis needs to be completed. Consider excluding areas of flooded rice production.
5.5.4.3 Quantifying Emissions from Livestock Stocking	Missing quantification/analysis.	High	Analysis needs to be completed. Consider excluding livestock from project area.

5.5.5 Determining Market-Effects Leakage	Incomplete analysis of market leakage from timber study, however timber and coca production are likely to decrease.	High	Analysis needs to be completed.
5.5.6 Leakage Mitigation	Missing leakage mitigation plan and mitigation activities.	High	Analysis needs to be completed, consider including in Plans REDD .
5.6 Summary of GHG Emission Reductions and Removals	Missing summary of GHG emission reductions and removals.	High	Analysis needs to be completed.
5.6.1 Summarize the Projected Land Use Change	Missing summaries of projected land use change.	High	Analysis needs to be completed.
5.6.2 Carbon Stocks in Wood Products	Missing calculations/analysis.	High	Analysis needs to be completed for the baseline scenario as the project boundaries should be defined to exclude IFM areas in the project scenario.
5.6.2.1 Calculate Change in Carbon Stocks in Long-Lived Wood Products	Missing calculations/analysis.	High	Analysis needs to be completed for the baseline scenario as the project boundaries should be defined to exclude IFM areas in the project scenario.
5.6.2.2 Calculate Carbon Stocks in Harvested Wood Products	Missing calculations/analysis.	High	Analysis needs to be completed for the baseline scenario as the project boundaries should be defined to exclude IFM areas in the project scenario.
5.6.2.3 Calculate Carbon Stocks in Long-Lived Wood Products	Missing calculations/analysis.	High	Analysis needs to be completed for the baseline scenario as the

			project boundaries should be defined to exclude IFM areas in the project scenario.
5.6.2.4 Calculate Net Change in Carbon Stocks in Long-Lived Wood Products	Missing calculations/analysis.	High	Analysis needs to be completed for the baseline scenario as the project boundaries should be defined to exclude IFM areas in the project scenario.
5.6.3 Test the Significance of GHG Emissions	Missing calculations/analysis.	High	Analysis needs to be completed.
5.6.4 Quantifying Net Emissions Reductions	Missing quantification/analysis.	High	Analysis needs to be completed.
5.6.4.1 Non-Permanence Risk	Missing quantification/analysis.	High	Analysis needs to be completed.
5.6.5 Estimate Ex-ante NERs	Missing quantification/analysis.	High	Analysis needs to be completed.
5.6.6 Uncertainties	Missing quantification/analysis.	High	Analysis needs to be completed.
5.7 Climate Change Adaptation Benefits	Missing optional analysis of project's climate benefits.	Low	If Climate Gold will be sought, analysis needs to be completed.
5.7.1 Regional Climate Change and Variability	Missing optional analysis of project's climate benefits.	Low	If Climate Gold will be sought, analysis needs to be completed.
5.7.2 Anticipated Climate Change Impacts in Project Zone	Missing optional analysis of project's climate benefits.	Low	If Climate Gold will be sought, analysis needs to be completed.
5.7.3 Climate Change Adaptation Measures	Missing optional analysis of project's climate benefits.	Low	If Climate Gold will be sought, analysis needs to be completed.
5.7.4 Climate Change Adaptation Indicators	Missing optional analysis of project's climate benefits.	Low	If Climate Gold will be sought, analysis needs to be completed.

8. PDD Section 6 Progress

8.1 Summary of Section 6 Risks

Section 6 of the PDDs provides a detailed account of how the project will affect and benefit communities in the project zone, as well as the ways that communities have been involved in project design and implementation. Many of the gaps identified in the original gap analysis report remain, though the ecoPartners team has noticed some progress in fulfilling section 6 requirements.

The most important gap in section 6 is in the identification of impacts of project activities. An SOP for risk assessment has been developed, and this can possibly be used as a foundation for the development of a theory of change model to consider impacts and outcomes of project activities. A conceptualization of the theory of change should be carried out with as much stakeholder participation as is reasonable and feasible. The theory of change model need not be complex; in fact a relatively simple diagram is preferred. Appropriate methodologies for measuring impacts, selecting indicators, and conceptualizing a theory of change model are provided in the Social and Biodiversity Impact Assessment (SBIA) Manual (Richards, M. and Panfil, S.N. 2011. Climate, Community & Biodiversity Alliance, Forest Trends, Fauna & Flora International, and Rainforest Alliance. Washington, DC. Available online). The ecoPartners team has also provided guidance on developing a Theory of Change model in the first draft of the PDDs submitted in January and through continued conversations in February.

High Conservation Value (HCV) areas related to community needs (ecosystem services, subsistence needs, cultural significance) need to be identified using tools outlined in the High Conservation Value Resource Network (Global HCVF Toolkits online). The ecoPartners team observed a participatory community HCV mapping exercise in Tumaco. This is a good start for identifying community HCVs; the next step is to complete a plan to maintain these resources and complete the analysis for each project.

Project proponents need to demonstrate an equitable benefit sharing mechanism, as well as demonstrating there are no barriers to accessing benefits for marginalized groups. Information related to the SOP for benefit sharing is being formalized and can be considered forthcoming.

To date, BioREDD has indicated that Community Gold Level validation will not be sought. Thus, this report does not offer guidance on fulfilling these requirements. Most of the major changes in CCB version 3 that are relevant to section 6 of the PDDs involve these gold level criteria and more explicit requirements for assessing risks, benefits, and costs to communities. Please see the revised Gap Analysis Checklist, Annex A for further details on these updated requirements.

8.2 List of Section 6 Risks

PD Section	Finding/Information Status	Risk Rating	Suggested Mitigation
6 Community	N/A	N/A	N/A

6.1 Net Positive Community Impacts	A methodology to demonstrate net positive community impacts has not been completed. A descriptive summary of all socio-economic impacts (notably positive impacts) on all community and indigenous groups needs to be completed as well as the demonstration that costs and benefits are being shared among community members and that High Conservation Values are being maintained for the community's wellbeing.	High	Information related to SOP for benefit sharing is being formalized and can be considered forthcoming. The most important gap is in the identification of impacts of project activities. An SOP for risk assessment has been developed and this can be used to help in the development of a theory of change model to consider impacts and outcomes of project activities.
6.2 Negative Offsite Stakeholder Impacts	A description of potential negative offsite stakeholder impacts within project area has not yet been completed. An analysis to mitigate negative offsite socio-economic impacts of the main stakeholders using SBIA standards has not been completed.	High	An SOP for risk assessment has been developed and this can help to consider impacts and outcomes of project activities.
6.3 Exceptional Community Benefits	A description of how the project will pursue community gold level certification has not yet been completed.	Low	Currently, BioREDD+ has indicated that community gold will not be sought.
6.3.1 Short- and Long-Term Benefits	Community Gold will not be sought.	Low	N/A
6.3.2 Risks for Smallholders/Community Members	Community Gold will not be sought.	Low	N/A
6.3.3 Marginalized and/or Vulnerable Groups	Community Gold will not be sought.	Low	N/A
6.3.4 Participation and	Information forthcoming.	Low	N/A

Impacts on Women

6.3.5 Benefit Sharing Mechanism	Information forthcoming.	Low	N/A
6.3.6 Communication of Risks and Costs	Community Gold will not be sought.	Low	N/A
6.3.7 Project Governance and Implementation Structure	Community Gold will not be sought.	Low	N/A
6.3.8 Smallholder/Community Member Capacity	Community Gold will not be sought.	Low	N/A

9. PDD Section 7 Progress

9.1 Summary of Section 7 Risks

This section of the PDDs includes how each project has influenced the biodiversity in the project zone. Many of the gaps in documentation identified in the original literature review and gap analysis remain. As noted in section 3 above, project specific HCV analysis has yet to be completed (SUPP has generally been completed). Finalizing section 7 of the PDDs is contingent upon having some project-specific species lists.

With the project being conservation oriented it is likely that net biodiversity impacts will be positive. However, in order to estimate changes in biodiversity as a result of the project and determine a net positive benefit, biodiversity related activities need to be defined and a linkage provided as to how activities specifically address identified biodiversity focal issues.

The respective cause and affect assumptions about how project activities will result in desired outcomes and impacts (theory of change) still needs to be developed. The ecoPartners team has provided guidance on developing the Theory of Change model in section 7 of the first draft of the PDDs, as well as through communications with BioREDD starting in February.

Over a 30-year project period it can be expected that activities will change and evolve over time. Therefore it is not critical that 100% of activities are outlined in detail at this point. A potential approach might include two tiers, one with projects that have been developed and programed, and another tier of activities still under consideration or development. Caution is needed however with respect to activities that might affect emissions quantification and/or lead to the need for re-validation.

Ideally, community members should be engaged in the process of identifying focal issues, project activities and respective change models. In turn, these should link to community involvement and commitment to monitoring and evaluation. Our analysis revealed that more information is needed about the nature and extent of forest degradation that will occur in the without project scenario, and how much degradation/deforestation will be avoided in the project scenario. Data from modeled projections of degradation rates (for GHG calculations) should be assessed for its ability to provide benchmarks to support biodiversity narratives.

Due to the likelihood that there are a high number of HCV species, some of which may not even be possible to identify at this time, it won't be practical to demonstrate the maintenance of biodiversity HCVs on a species by species level, nor in the case of ecosystem dynamics and landscape HCVs. Instead, well-designed proxy indicators will be needed. More clarity is needed regarding species to be planted or used by the project and any implications regarding non-native and invasive species. A narrative and possibly some further investigation will be required regarding offsite biodiversity impacts, which will be related to climate leakage and any additional biodiversity activities such as hunting regulation.

Furthermore, the CCB version 3 has added a few requirements relevant to section 7 that should be highlighted. These include an analysis and justification of chemical and biological inputs employed by the project such as fertilizers and pesticides, as well as developing a process for identifying and managing waste products resulting from project activities. As with the climate and community criteria, the biodiversity Gold Level requirements are more stringent under

CCB version 3. Monitoring requirements and population trend analysis of “trigger species” are now required to meet biodiversity Gold Level. For more details on specific CCB version 3 updates, please see Annex A and section 7 of the draft PDDs submitted to BioREDD in January.

9.2 List of Section 7 Risks

PD Section	Finding/Information Status	Risk Rating	Suggested Mitigation
7 Biodiversity	N/A	N/A	N/A
7.1 Net Positive Biodiversity Impacts	A summary of the net positive impacts including information on forest degradation that will occur in the projected baseline as well as how much degradation will be avoided in the project scenario has not been fully completed. Information is forthcoming. A demonstration that the project generates net positive impacts on biodiversity within the project zone and during the project lifetime, measured against the baseline conditions has not been fully completed. Information is forthcoming. A description of biodiversity objectives, project activities and estimated changes in biodiversity as a result of the project, has not been fully completed. Information is forthcoming.	High	Adequately demonstrate that the project will generate biodiversity benefits (it is a low risk that it will not demonstrate benefits) using a logical cause and effect narrative. Provide a conceptual "theory of change" model which follows SBIA guidelines and reflects an appropriate level of complex analyses, proper rationale, narratives and comparisons to the properly projected baseline that will meet CCB requirements. More detailed guidance on theory of change model is included in the first draft of PDD Section 7 delivered to BioREDD+ on January 31, 2014 and on conference call on February 7, 2014
7.1.1 Maintenance and Enhancement of HCVs	A demonstration that no High Conservation Values related to biodiversity (notably those identified in GI.8.1-3) will be negatively affected by the project and	High	Local input/expertise related to landscape level HCVS which describes the best available information related to ecosystem

	the identification of all species used in the project has not been completed.		and species dynamics HCVs Assist with explaining how project activities will build on existing information for further HCV identification.
7.1.2 Species Used in Project	A demonstration that invasive species populations must not directly or indirectly increase or be introduced as a result of the project activities has not be completed. A description of possible adverse effects of non-native species used by the project, and a guarantee that no genetically modified organisms (GMOs) will be used to generate GHG emissions reductions or removals has not been completed. A description of possible adverse effects of non-native species used by the project on the region's environment, as well as any justification for any use of non-native species over native species has not been completed.	Low	Provide list of species to be used by the projects, and which ones are introduced. Provide a written commitment regarding invasive, non-native, and use of GMOs. Ensure productive project activities do not use GMOs, invasive species, etc. A commitment to periodic revisiting and updating this component may be acceptable in lieu of having all of the activities and species 100% defined at this time.
7.1.3 Project Inputs	A list of chemical and biological inputs has not been provided.	Low	Provide list of inputs such as fertilizers and pesticides used by the project, justify use of such inputs and describe potential negative effects of these inputs. Draft policy statement or SOP on when inputs will be used or not used.

7.1.4 Waste Products	A description of waste product management has not been included in the descriptions of project activities.	Low	Create waste management SOP for activities that will produce waste products
7.2 Negative Offsite Biodiversity Impacts	A description providing any potential negative offsite biodiversity impacts that the project is likely to cause as well as the identification and evaluation of likely or potential negative impacts on biodiversity outside the project zone resulting from project activities has not been completed. A mitigation plan for offsite biodiversity impacts has not been completed.	Low	Provide an evaluation and rationale of potential negative impacts; a large proportion of these potential negative impacts will be related to the results of the leakage assessment while hunting related impacts may not be related. Create an offsite mitigation plan, likely overlapping with leakage mitigation.
7.3 Exceptional Biodiversity Benefits	CCB version 3 has new, more stringent requirements for achieving gold level biodiversity. Project specific HCV analysis has not been completed to see if any BioREDD projects have trigger species populations and adequate data for pursuing gold level certification.	Low	Finalize HCVs for each project area, identify any species that qualify for gold level criteria
7.3.1 Population Trends of Trigger Species	No analysis of project-specific HCVs or trigger species has been completed.	Low	Identify which qualified species have sufficient data for analyzing population trends
7.3.2 Maintenance and Enhancement of Trigger Species	No analysis of project-specific HCVs or trigger species has been completed.	Low	For species identified above, describe threats and measures needed to reduce those threats. Create plan for protecting species.
7.3.3 Trigger Species	No analysis of project-	Low	Develop monitoring

Indicators

specific HCVs or trigger
species has been
completed.

indicators to
demonstrate project is
effectively protecting
gold level species
above.

10. PDD Section 8 Progress

10.1 Summary of Section 8 Risks

Section 8 of the PDDs is intended to provide a detailed description of the project's monitoring procedures and activities. At the time of this revised report, the MRV tools to be developed by GeoEcoMap have not been completed. Thus, a thorough description of the carbon stock monitoring plan including team roles and responsibilities, data and parameters, and standard operating procedures for monitoring teams is missing from the project documentation. As these elements are essential to verifying emissions reductions, they pose a high risk to project compliance. It is unnecessary to include the results of the monitoring activities in the PDDs at this time; however, a summary of the monitoring activities is needed for the project to be validated.

There are also significant gaps in the community and biodiversity monitoring initiatives. Community and biodiversity indicators should be developed as part of the Theory of Change model in order to demonstrate net positive impacts relative to the projected baseline scenarios. This is in part due to the fact that project activities have not been explicitly stated. It is recommended that procedures for monitoring these activities be included either in the Plans REDD or a detailed work plan, with specific details relating to monitoring team organizational structure and standard operating procedures. While CCB version 2 allowed project proponents 6 months to develop a detailed monitoring plan, the new edition of CCB requires a complete community and biodiversity monitoring plan.

ecoPartners suggests basing the monitoring plan on the VCS and CCB Monitoring & Implementation Report Template, v3.0 and the Rules for Use of CCB Standards document to facilitate verification at a later time.

10.2 List of Section 8 Risks

PD Section	Finding/Information Status	Risk Rating	Suggested Mitigation
8 Monitoring	Monitoring procedures have not been created. Information is missing.	High	Create detailed monitoring plan and outline documentation measures clearly.
8.1 Description of the Monitoring Plan	A description of the monitoring plan has not been completed. Information is missing.	High	Create a description of the monitoring plan.
8.1.1 Organization	Monitoring organizational structure, responsibilities and competencies have not been documented.	High	Provide the monitoring plan description, organizational structure,

	Information is missing.		responsibilities and competencies as well as monitoring procedures which include monitoring roles and responsibilities.
8.1.2 Data	A description of methods for generating data on monitored parameters within the monitoring plan description has not been completed. Information is missing.	High	Provide a description of methods for generating data on monitored parameters within the monitoring plan description.
8.1.3 Management System	No discussion of data management procedures for monitored parameters. Information is missing.	Medium	Include data management descriptions for the project and baseline scenarios as well as QA/QC procedures in monitoring plan.
8.1.3.1 Quality Assurance and Control	QA/QC procedures have not been created. Information is missing.	High	Include data management and QA/QC procedures in monitoring plan.
8.1.3.1.1 Field Measurements	An MRV SOP has not be completed. Information is missing.	High	Develop record keeping system for monitoring teams including names, abilities and roles of team members, observations, SOPs and investigations of errors.
8.1.3.1.2 Calibration	An MRV SOP has not been completed. Information is missing.	Medium	Include demonstration of proper calibration in QA/QC procedures.
8.1.3.1.3 Managing Data Quality	Information is missing.	Medium	Include data quality management in QA/QC procedures.
8.1.3.1.4 Data Handling	An MRV SOP and data management procedures	High	Include demonstration of reliable data entry,

	have not been completed. Information is missing.		correction, documentation, verification and adherence to an SOP in the QA/QC procedures.
8.1.3.1.5 Remote Sensing	MRV SOP and data management procedures have not been completed. Information is missing.	High	Include demonstration of proper remote sensing techniques in QA/QC procedures.
8.1.3.1.6 Land Use Change Modeling	MRV SOP and data management procedures have not been completed. Information is missing.	High	Identify preliminary monitoring variables linked to and attributable to project activities and based on SMART principles.
8.1.4 Initial Monitoring Plan	Monitoring procedures have not been created. Information is missing.	High	SBIA workshops in the community may be needed as a component of the full monitoring plan, CCB v.3 requires the monitoring plan to be completed prior to validation.
8.1.4.1 Community	Community monitoring indicators have not been selected yet. A system for monitoring those indicators has not been developed.	High	Find ways to involve community members with the final selection of monitoring indicators, including species of relevance to the community, and Pressure, Response based variables.
8.1.4.2 Biodiversity	Biodiversity monitoring indicators have not been selected yet. A system for monitoring those indicators has not been developed.	High	Develop biodiversity monitoring indicators from the Theory of Change model, as well as a plan for assessing biodiversity impacts relative to the projected baseline scenario.

8.1.4.3 Climate	Climate impact monitoring procedures have not been developed yet. Information is missing.	High	Create detailed monitoring plan and outline documentation measures clearly.
8.1.4.3.1 Stocks	Detailed description of monitoring plan or procedures has not been completed.	High	Provide a detailed description of monitoring plan or procedures.
8.1.4.3.2 Emissions	No detailed description of monitoring plan or procedures.	High	Provide a detailed description of monitoring plan or procedures.
8.1.4.3.3 Leakage	No detailed description of monitoring plan or procedures of leakage monitoring for at least five years after all activity displacement.	High	Provide a detailed description of monitoring plan or procedures for leakage activities.
8.1.5 Reporting	N/A to be completed when seeking verification.	N/A	N/A
8.1.5.1 Dissemination	N/A to be completed when seeking verification.	N/A	N/A
8.2 Data and Parameters Available at Validation	No detailed description of monitoring plan or procedures.	High	Provide a detailed description of monitoring indicators and parameters that will be available at validation.
8.3 Data and Parameters Monitored	No detailed description of monitoring plan or procedures.	High	Provide a detailed description of monitoring indicators and parameters.