Final Plan Vivo Validation Report for Yaeda Valley REDD project

Plan Vivo Foundation: updated information on corrective actions added 5th June 2014

Final Plan Vivo Validation Report

Name of Reviewer:

Theron Morgan-Brown

Date of Review:

November 19th – November 23rd, 2012

Project Name:

Reducing Emissions from Deforestation and Forest Degradation in the Yaeda Valley, Northern Tanzania

Project Description:

Carbon Tanzania, a not for profit business is working with Hadzabe community members from Mongo wa Mono and Domanga villages to institute a REDD project in Acacia / Commiphora woodland in Northern Tanzania. The Hadzabe are one of Tanzania's last remaining hunter gather groups who still maintain a traditional life style (which is entirely compatible with REDD) and until now, have been unable to defend their lands against neighboring agriculturalists who wish to convert their woodlands for farming. Recognizing this, the local village governments helped them obtain right of occupancy for around 20,000 hectares of woodland that was set aside in the village land use plans for the Hadzabe. However, enforcing the land-use plan requires paying for community guards and support from the village and district governments. Financing from the sale of REDD emissions reductions under Plan Vivo, will help to pay for these activities and give the local governments some incentive to support the Hadzabe people. REDD financing will also be used to support leakage mitigation activities (such as promoting conservation agriculture) in surrounding communities.

List of Documents Reviewed:

Project PDD and Appendixes
Project Technical Specs and Appendixes
Contract between Carbon Tanzania, Domanga Village and the Domanga Hadzabe community
Contract between Carbon Tanzania, Mongo wa Mono Village and the Mongo wa Mono Hadzabe community
Land-use planning meeting minutes and attendance list
Contract signing minutes and attendance list
CVs and Bios for the Project Coordinators
Carbon Tanzania's / Ecological Initiatives business registration and articles of association
Carbon Tanzania's 2011 audit report
Signed payment sheets for Hadzabe community guards paid by Carbon Tanzania
Project's Carbon Sales Tracking Spreadsheet
Business plan and revenue projections
Carbon Tanzania's agreement with Price Waterhouse Cooper to provide advice on tax implications of REDD carbon sales in Tanzania.

Description of field visit (including list of sites visited and individuals/groups interviewed, and description of how sites were chosen to ensure a representative sample:

The project was evaluated over a 5 day period. A detailed list of the activities and people met is presented in the table below. Since there are only two participating communities / villages in this project, the validator visited both sites and spoke with project participants from both sites.

Date	Activity / Person's interviewed
Nov. 19, 2012	• Traveled to Arusha • Met with project coordinators, Marc Baker and Jo Anderson. • Interviewed Daudi (David) Peterson, cofounder of Dorobo Safari's and a trustee for the Dorobo Fund which supports the Ujamaa Community Resource Team (UCRT).
Nov. 20, 2012	• Reviewed project documents and discussed project details with project coordinators.
Nov. 21, 2012	• Traveled to project site in Yaeda Valley • Interviewed Richard Baalow, UCRT community coordinator for Yaeda Valley, ward development officer, and Hadzabe community member in Mbulu town. • Viewed forests and deforestation in the participating villages
Nov. 22, 2012	• Interviewed the chairman of Domanga village • Interviewed the Hadzabe community forest guards (Walinzi wajadi) and other Hadzabe community members from Domanga Village • Interviewed Pili Goodo, project community coordinator for Domanga Village and Hadzabe community member. • Interviewed the Hadzabe community forest guards (Walinzi wajadi) from Mongo wa Mono
Nov. 23, 2012	• Returned to Arusha • Interviewed Dismas Partalala, UCRT program officer for Yaeda and Mongo wa Mono

Validation Opinion:

The project has resolved all major CARs and most minor CARs that need to be resolved at this point. It is the opinion of the validator that the project should receive validation from Plan Vivo. Plan Vivo should followup through annual reports to insure that the project resolves the only outstanding CAR 01/12 which did not need to be resolved at the time of the validation, but should be resolved by the end of 2012.

Table 1. Summary of major and minor Corrective Actions

Theme	Major CARs	Minor CARs	Recommendations
Governance	2	1	4
Carbon	8	4	7
Ecosystem	0	0	0
Livelihoods	4	2	5

Theme	**1. Effective and Transparent Project Governance**
Requirement	1.1 Administrative capabilities The project has set up a legal and organizational framework with the ability and capacity to aggregate carbon from multiple land-owners and transact to purchasers, and monitor progress across all project operations, including: 1.1.1 A legal entity (project coordinator) able to enter into sale agreements with multiple producers or producer groups for carbon services; 1.1.2 Standard sale agreement templates for the provision of carbon services; 1.1.3 Transparent and audited financial accounts able to the secure receipt, holding and disbursement of payments to producers; 1.1.4 All necessary legal permissions to carry out the intended activities; 1.1.5 Mechanisms for participants to discuss issues associated with the design and running of the project.
Guidance	Organisational capacity may be demonstrated through e.g.: • Previous project record, especially the receipt, safeguarding and management of other funds involving disbursement to smallholders/community groups • Staff able to explain legal status of organization, and financial structure i.e. how funds will be held and transferred – backed up by evidence of setting up bank accounts/record keeping systems etc
Findings	1.1.1 Carbon Tanzania / Ecological Initiatives, the project coordinator, is a legally registered not for profit business in Tanzania with a clear business plan, bank accounts, and financial management system. The project coordinator is able to enter into legal agreements with the participating communities. The project coordinator's management team are capable and experienced entrepreneurs and scientists, each with over 15 years of work experience in Tanzania. They are capable of carrying out this Plan Vivo project. 1.1.2 The project has signed carbon sales agreements with the participating communities. 1.1.3 Carbon Tanzania has audited accounts and is capable of holding and dispersing payments on behalf of the participating communities. Carbon Tanzania has agreements with the participating communities, the necessary bank account information, and a system for tracking sales. 1.1.4 There are currently no policies in Tanzania regarding carbon trading in the voluntary carbon market. Local government authorities are aware of the project coordinator's activities in project area and area supportive. From the perspective of the project participants, the communities have gone through the formal land use planning process specified under Tanzanian law. The land is clearly village land and has been clearly given under the right of occupancy from the participating villages to the local Hadzabe communities.

	1.1.5 The project coordinators meet regularly with members of the Hadzabe community and the local village governments. Though stated as a possibility in the PDD, there is no specific plan for reviewing the sales agreement or other aspects of the project on an ongoing basis. The sales agreement specifies that Carbon Tanzania provide 6 month reports, but is vague about the content of the reports and does not specify that these would be opportunities for participating communities to make adjustments to the project, nor meet directly with the project coordinators.
Requirement	**1.2. Technical capabilities** The project, through its participants, is able to provide assistance to producers in planning and implementing productive, sustainable and economically viable forestry and agroforestry systems, and provide support for silvicultural and other management operations.
Guidance	• Project staff should be able to define clearly who is responsible for the provision of technical extension support • Project staff should be familiar with the content of project technical specifications (e.g species to be planted, spacing requirements, management systems, potential issues)
Findings	1.2.1 This a REDD project, so the specific guidance listed doesn't apply. However, in terms of technical services broadly speaking, responsibilities for technical extension support are divided between Carbon Tanzania, Ecological Initiatives, and the Ujamaa Community Resource Team (UCRT). The roles of each actor are clear and the project staff from each organization are able to accurately articulate their roles. To facilitate engaging with participating communities, surrounding communities, and local government, Carbon Tanzania has built a strong relationship with the Ujamaa Community Resource Team (UCRT), which has been working in the project area for nearly 10 years and is well respected by the local residents. UCRT is nationally recognized as a champion for community land and natural resource management rights. The UCRT program officer responsible for engaging with communities in the project area understands all basic REDD concepts, understands the project, and recognizes that while Carbon Tanzania has supported specific UCRT activities in the area, UCRT should remain independent and help represent the communities involved in the project. Neither Carbon Tanzania nor UCRT are agricultural experts. As agricultural expansion from neighboring communities is the primary threat to the project area, to mitigate leakage to nearby forest areas, Carbon Tanzania will need to engage with an outside organization or business capable of promoting sustainable agricultural intensification practices in these communities. This is noted in the PDD, but the project has not yet identified a agricultural expert and doesn't specify where it plans to target these activities. Carbon Tanzania relied on the Nature Conservancy to conduct the baseline deforestation analysis and provide some basic area measurements. However, they don't have a long term agreement with the Nature Conservancy to supply GIS and remote sensing support that will be required for future project monitoring. They have not yet started to test the UAV monitoring system or

	incorporate the images that it generates into a systematic monitoring system.
Requirement	**1.3. Social capabilities** • Able to select appropriate target groups, inform groups about the Plan Vivo System and the nature of carbon and ecosystem services and establish effective participatory relationships with producers • Able to establish land-tenure rights through engaging with producers and other relevant organizations • Able to consult producers effectively on a sustained basis
Guidance	• Project coordinators should maintain minutes of community meetings and training workshops etc • Project staff should be able to explain (in line with PDD) how land tenure is checked by the project • Project staff should be able to explain how communities/target groups were involved in the development of the project and choice of activities
	1.3.1 The project coordinators and UCRT have good understanding of REDD concepts and Pland Vivo. They are capable of informing community members about these subjects and have good working relationships with the participating communities. However, the project field coordinators and other community members feel that their understanding of REDD could be improved. In particular, making sure that the project field coordinators understand and can explain the concept of leakage to community members will be important, as the appropriate leakage mitigation activities will likely not involve the project's primary participants and beneficiaries (the Hadzabe) and this may raise questions in the future. 1.3.2 The land tenure of the project area is already established and by coordinating with UCRT, the project will be able to clarify or establish the land tenure in areas of expansion. 1.3.3 Carbon Tanzania and UCRT make frequent visits to the participating communities, but these meetings are often not documented unless a formal decision is being made. Carbon Tanzania is also receiving regular feedback from the Hadzabe community guards via their field coordinators, though this information is mainly limited to forest and wildlife monitoring.
Requirement	**1.3. Reporting** Projects must on an annual basis, according to the reporting schedule agreed with the Plan Vivo Foundation: • Accurately report progress, achievements and problems experienced; • Transparently report sales figures and demonstrate resource allocation in the interest of target groups.

Findings	NA – not yet reporting to Plan Vivo		
Conformance	Yes √	No	NA
CAR/REC	REC 01/12 (Changed to CAR as per Plan Vivo Recommendation) 1.1.5 Mechanisms for participants to discuss issues associated with the design and running of the project. While the project coordinators have frequent contact with communities, receive reports from their field coordinators, and will be required to submit 6 month reports to communities, there is no formalized method of reviewing project progress and making adjustments. It is recommended that the project establish a annual meeting with the participating communities to review the project and make adjustments, including potential adjustments to the sales agreement. The meeting could be timed with community discussions regarding the use of their funds in order to reduce the opportunity cost of the meeting and insure a wide turnout. This is identical to REC 12/12 and REC 15/12. **Closed – Plans for this meeting have been included in section 8 of the annual report.** CAR 01/12 1.2.1 Technical capabilities The project needs to identify an agricultural expert or organization that can help them plan and implement leakage mitigation activities in neighboring communities, including communities that may border, but are not part of the participating villages. This expert should be identified and should begin work before the end of 2013. **Update: 2014 annual report. Other REDD methodologies have been consulted. Assessing needs for technical support on the basis of these findings.** CAR 02/12 1.2.1 Technical capabilities The project should either secure an agreement with the Nature Conservancy for future support with GIS and remote sensing, develop these capabilities in house, or secure outside support for these capabilities by Dec. 2013. The project coordinators should be able to demonstrate their knowledge of the use of the UAV and the imagery it generates by Dec. 2013. **Closed – Agreement for monitoring support has been reached with the nature conservancy.** REC 02/12 1.3.1 Able to select appropriate target groups, inform groups about the Plan Vivo System and the nature of carbon and ecosystem services and establish effective participatory relationships with producers		

	While the process of developing the village land-use plans and the contract with Carbon Tanzania was participatory and communities were supported by UCRT, prominent members of the Hadzabe community (and Carbon Tanzania field coordinators) feel that they don't understand REDD well enough to properly advise their fellow community members. In particular, there seems to be little awareness of the concept of leakage, which could pose a challenge to explain to community members if payments are reduced due to leakage. It is recommended that addition training on REDD and Plan Vivo be provided to prominent Hadzabe community members that will be able to explain these concepts in the Hadzane language. The project should consider reaching out to Hadzabe community members currently studying at the university level, who might be able to better explain REDD concepts to the Hadzabe community. REC 03/12 1.3.2 Able to establish land-tenure rights through engaging with producers and other relevant organizations Some aspects of the land tenure of the project area are not stated clearly in the PDD, suggesting that the project coordinators are somewhat unclear on the national land and forest tenure policies. It is recommended that they reread the 2002 Forest Act and 1999 Village Land Act as well as the relevant regulations associated with these acts to help them better understand forest tenure in areas where they plan to expand the project. Minor CAR 02/12 1.3.2 Able to establish land-tenure rights through engaging with producers and other relevant organizations Clarify whether the village land use plan has been approved by the district or not and if not, the project should work to facilitate its review by the district before the end of the first 5 year verification period. **Closed: Complete. A final version of the LUP map is shown in the annex (Fig 10.1.) of 2014 annual report. No changes to project area or planning are required.** REC 04/12 1.3.3 Able to consult producers effectively on a sustained basis It is recommended that the project coordinators work to improve the detail of meeting minutes in meetings involving themselves or UCRT and the participating communities. REC 01/12 also applies here.
Theme	**2. Carbon Benefits**

Requirement	2.1. **Accounting methodology** Carbon benefits are calculated using **recognised carbon accounting methodologies** and conservative estimates of carbon uptake/storage that take into account risks of leakage and reversibility.
Guidance	• Projects staff should identify the carbon accounting methodologies used (e.g. CDM, VCS, Plan Vivo). If projects are using their own methodology, validators should determine whether this is a valid approach.
Findings	The project did not use a previously approved methodology, but have developed their own their own technical specification reviewed by the Plan Vivo Technical Committee. The technical specifications cover the basic parts of any REDD methodology, including establishing a baseline scenario based on historical data, accurate measurement of carbon stocks that will be lost during deforestation, and plans for monitoring carbon stock changes against the baseline scenario.
Requirement	2.2. **Baseline** Carbon benefits are measured against a clear and credible **carbon baseline**.
Findings	The reference region appears to have been drawn specifically around the project area and an area to the southwest of the project area that the analysis implies is representative of the type of deforestation expected in the near future. However, the authors don't describe how the reference region was selected or how it is similar to the project area (other than in terms of soil type), so it is difficult to evaluate the validity of the approach. Also, small patches of deforestation near the northern tip of the project area during the reference period suggest that at least some of the deforestation pressure is originating and likely to be displaced to areas to the north of the project area that are not currently included in the reference region or leakage belt. The reference region also excludes a patch of forest along the southern edge of the project area on the slopes leading up to project area, where leakage may be likely. The project coordinators chose to reduce the size of their project area by 5% to account for areas such as rocky outcroppings where deforestation would be unlikely to occur (though no systematic measurement of these features was conducted). However, since similar areas doubtlessly also exist within the reference region, and a substantial portion of the project area will remain forest in at the end of the project period in the baseline scenario, this seems unnecessary. On the other hand, there are a few patches of the project area that were deforested during the reference period and are thus no longer forest and cannot be counted as part of the project area for crediting purposes. The PDD appears to confuse two different approaches to measuring deforestation rates. The authors state that the average historical deforestation rate is 0.93% per year and say that this is equivalent to 183 ha per year. They then apply this 183 ha per year for each year of the project life span, which implies an accelerating rate (constant area) of deforestation rather than a

	constant rate. Since the results of the deforestation analysis are only presented in terms of a single average for the past 10 years, the validity of using a constant area to project future deforestation cannot be verified. For the most part, the carbon stock measurement methodology seems appropriate and arrives at very similar results for Acacia / Commiphora woodland to the VCS validated Kisagau REDD project. A typo was identified in the carbon stock estimates that stated that the 95% confidence interval for the mean was 19 t/ha C rather than 2.8 t/ha C. The corrected error (2.8 t/ha C) at 95% confidence is 12.4% (most VCS REDD methodologies allow up to 15% error in biomass measurements at the 95% confidence interval without any penalty for uncertainty). The project has selected an a root to shoot ratio for woodlands / savannas from the 2003 IPCC Good Practice Guidance for LULUCF rather than the more recent 2006 IPCC Guidelines for National Greenhouse Gas Inventories where the woodlands / savannas category does not appear. The sources for the 2003 woodlands figures (which appears under the larger category of "other" rather than within the "tropical" category) are from subtropical regions, (primarily Australia). The 2006 report includes root to shoot ratios for tropical dry forests (which by definition include woodlands) divided into two categories based on above ground biomass of less than or greater than 20 t/ha. Since most of the carbon plots within the project area indicate an above ground biomass of above 20 t/ha, the later root to shoot ratio (0.28) would be the correct equation for the project area. However, the VCS validated Kasigau REDD project applied a root to shoot ratio of 0.4 to the same type of woodland found in the project area, which is the 2006 IPCC Guidelines for National Greenhouse Gas Inventories root to shoot value for tropical scrub land. The project claims that the long term average post deforestation carbon stock is zero for the carbon stocks that they are monitoring. The field visit suggests that regeneration of deforested areas is indeed very slow in the reference region. Recently abandoned farm plots showed no evidence of root stocks or coppicing, meaning that all regeneration would have to occur from seeds. There were no seedlings visible in the farm clearings that were visited, suggesting that the cultivation had destroyed the seed bank. However, the argument in favor of using zero as the long term average post deforestation carbon stock could be strengthened by describing that post deforestation land-use cycle in more detail. The project has chosen to conservatively exclude soil carbon stocks.		
Conformance	Yes√	No	NA
CAR/REC	CAR 03/12 2.2 Baseline – Reference Region The reference region should be adjusted to include the areas that will be added to the adjusted leakage belt, including all patches of forest that border the project area on the slopes to the south unless it can be shown that they are substantially different and not at risk of deforestation. Also, the reference region should be expanded to include forests bordering the project area to the		

	north by 1 km to accommodate the adjusted leakage belt. **Closed – the project plans to expand to include these forests in the next year and thus they will not be part of the leakage belt.** Minor CAR 02/12 2.2 Baseline – Reference Region More justification should be provided for the shape of the reference region and its similarity to the project area in terms of elevation, slope, soil type, precipitation, and accessibility should be demonstrated. Open – should present statistics for slope, elevation, precipitation, and accessibility (distance from roads) of the project area and reference region. CAR 04/12 2.2 Baseline – Project Area The project area eligible for crediting should be adjusted. The 5% removed to account for rocking outcroppings should be reinstated and the patches of deforestation within the project area boundaries that occurred during the reference period should be removed. **Closed – required changes have been made to the PDD and Tech Specs.** CAR 05/12 2.2 Baseline – Deforestation rate The project should commit to one historical deforestation rate approach. If they choose to use a constant annual area of deforestation rather than a constant rate, evidence should be provided to show that the deforestation rate in the reference region during the past 10 years has accelerated (such as showing that the total area deforested between 2000 and 2005 is less than the area deforested between 2005 and 2010). **Closed – evidence has been presented in the PDD and Tech Specs to justify the use of a future deforestation scenario that uses a constant deforestation rate.** Minor CAR 03/12 2.2 Baseline – Carbon stocks The carbon stock error value should be corrected. **Closed – Corrections made in Tech Specs.** CAR 06/12 2.2 Baseline – Carbon stocks The project should either adopt a root to shoot ratio of 0.28 (the 2006 IPCC ratio for tropical dry forests) or 0.4 (the 2006 IPCC value for tropical shrubland), or provide justification for using another value such as evidence that for the type of forest they are working in another value is more appropriate or that Plan Vivo accepts the use of another value.

	Closed – The project has adopted 0.4 as the root to shoot ratio. REC 5/12 2.2 Baseline – Carbon stocks The project should describe the post deforestation land-use cycle in the reference region in terms of years of length of cultivation, years of fallow between cultivation periods, and the expected regeneration during the fallow period. REC 6/12 2.2 Baseline – Carbon stocks The project should consider accounting for soil carbon losses associated with deforestation in the project area. Given the environment and post deforestation land use, soil carbon stock losses associated with deforestation may even exceed the emissions from above ground biomass loss.
Requirement	**2.3. Additionality** Carbon benefits are **additional**, i.e. the project and activities supported by the project could not have happened were it not for the availability of carbon finance. Specifically this means demonstrating, as a minimum: 2.4.1. The project does not owe its existence to legislative decrees or to commercial land-use initiatives likely to have been economically viable in their own right without payments for ecosystem services; and 2.4.2. In the absence of project development funding and carbon finance, financial, social, cultural, technical, ecological or institutional barriers would have prevented the project activity.
Findings	2.3.1 The project does not owe its existence to legislative decrees or economically viable land-use initiatives. Though the project area was set aside in the Mongo wa Mono land-use plan for the traditional land-use of the Hadzabe people prior to any discussion of REDD, the land use plan alone would not have been sufficient to prevent deforestation in the area. Another portion of the land set aside for the Hadzabe people in the part of Mongo wa Mono which is now part of Domanga village, was subsequently encroached upon by farmers originating from the villages included in the reference region despite its status in the land-use plan. 2.3.2 In the absence of carbon finance, the project area would not be adequately protected. Given the Hadzabe life style, which involves moving frequently and leaves agriculturalists with the impression that the land is open for their use, and the Hadzabe peoples' general passivity in the past when their lands were encroached, it is likely that the project area would be poorly defended by the Hadzabe without the efforts of the REDD project to organize and pay Hadzabe community members to patrol and enforce the land-use plan. Additionally, the project will provide funds from carbon finance to support the village government and district governments efforts to support the land-use plan.

Conformance	Yes√	No	NA
CAR/REC	None		
Requirement	**2.4. Permanence** 2.4.1. Potential risks to permanence of carbon stocks are identified in project technical specifications and effective mitigation measures implemented into project design, management and reporting procedures. 2.4.2. Producers enter into sale agreements with the project coordinator agreeing to maintain activities, comply with the monitoring, implement management requirements and re-plant trees felled or lost. 2.4.3. As a minimum, a 10% risk buffer is deducted from the saleable carbon of each producer, where the level of buffer is recommended in the technical specifications according to the level of risk identified, and subsequently reviewed annually following annual reporting.		
Findings	2.4.1 Potential risks have been identified. Generally, given that the Hadzabe have been given right of occupancy to the project area and have no interest in farming the area in the future, the risk of project reversal on the ground is low. 2.4.2 The two producer communities have entered into a sales agreement with the project coordinator and have agreed to their responsibilities in line with a Plan Vivo REDD project (though the roles of the Hadzabe communities and the village governments are sometimes confused). 2.4.3 The project has included a 10% risk buffer in their accounting of emissions reductions.		
Conformance	Yes√	No	NA
CAR/REC	Minor CAR 04/12 2.4.1 Potential risks are identified The project coordinators should clarify the risk implications of current and future forest policy considering that the project area is not an official village forest reserve or community forest reserve, but rather a private forest on village land held under right of occupancy. **Closed – accepted argument from project proponents that they can't predict future legislation.**		

Requirement	**2.5. Leakage** Potential sources of **leakage** have been identified and effective mitigation measures implemented.		
Findings	There is a strong likelihood of leakage from this REDD project because the primary beneficiaries of the project activities currently are not the same actors that would have caused the deforestation in the project area. Furthermore, there is still a substantial amount of forest (though fragmented) remaining in the reference region where the primary deforestation actors are currently located, where their activities can leak to in the form of an accelerated deforestation rate. The project coordinators believe that leakage will be limited to areas to the southwest and northwest of the project area. The project drew a leakage belt representing the direction they believed deforestation would travel if it could not continue alone the ridge represented by the project area. However, the leakage belt does not account for leakage in the form of an increased deforestation rate in the remaining forest patches in the areas where the deforestation originated (possibly because the project coordinators were under the impression that the leakage belt was required to be a single continuous block of forest). Also, forest patches on the slopes to the south and southwest of the project area are not included in the leakage belt. Additionally, it is clear that some deforestation may be displaced from the northern portion of the project area to areas that are currently outside of the reference region and leakage belt. Finally, the area of forest in the leakage belt is not presented and the method of determining leakage is not specified. The plan for addressing leakage at this point is very general in the PDD and the specific areas where leakage mitigation activities should be focused have not been identified.		
Conformance	Yes√	No	NA
CAR/REC	CAR 07/12 2.5 Leakage – Leakage belt The leakage belt should be redrawn to include all forest patches within Domanga village and to include at least a 1 km buffer to the north of the project area. The leakage belt should also include forest patches that directly border the project area on the slopes to the south (these patches currently belong to Endekesh Village), unless it can be shown that there is no threat of deforestation in these areas. The leakage belt should be displayed on the land-cover map, rather than on an unclassified satellite image to make it easier for PDD readers to see which forest patches have been included.		

<table>
<tr><td></td><td colspan="3">Closed – project plans to expand to the areas that are missing from the leakage belt this year.

CAR 08/12
2.5 Leakage – Leakage belt

The area of the forest patches within the leakage belt should be specified in the PDD and be equal to the project area or larger.

Closed – the area of the leakage belt has been presented.

REC 07/12
2.5 Leakage

The project should develop a clear leakage mitigation strategy that identifies the specific locations of leakage mitigation activities and a partner organization with the technical capacity to care out the agricultural related leakage mitigation activities.</td></tr>
<tr><td>Requirement</td><td colspan="3">2.6. Traceability and double-counting

Carbon sales are traceable and recorded in a database.</td></tr>
<tr><td>Findings</td><td colspan="3">The project is tracking its carbon sales and plans to register these sales at the time of verification to ensure there is no double counting.</td></tr>
<tr><td>Conformance</td><td>Yes√</td><td>No</td><td>NA</td></tr>
<tr><td>CAR/REC</td><td colspan="3">None</td></tr>
<tr><td>Requirement</td><td colspan="3">2.7. Monitoring

Project has an effective process for monitoring the continued delivery of the ecosystem services, where:

2.7.1. Monitoring is carried out against targets specified in technical specifications;
2.7.2. Monitoring is carried out accurately using indicators specified in technical specifications;
2.7.3. Monitoring is accurately documented and reported to the entity</td></tr>
</table>

	responsible for disbursing payments to producers; 2.7.4. Corrective actions are prescribed and recorded where targets are not met, and followed up in subsequent monitoring.		
Findings	2.7 Monitoring The project lays out a carbon monitoring plan in the PDD, that is potentially acceptable, but is not yet carrying out all parts of the monitoring plan. The project plans to rely on community guards to map the locations of incursions into the project area and leakage belt, but has not organized the community guards to cover these areas in a systematic fashion while on patrol, leaving the possibility that they will miss some areas. Also, the patrol teams currently don't have GPSs (though there are plans to get them GPSs or GPS equipped cameras), which is required for the monitoring plan to work. The project plans to use the location data obtained from the community patrol teams to help them determine where they need to map with their UAV. The project has acquired a UAV helicopter for these purposes, but has not yet tested it and does not yet have the capacity to determine exact area sizes from the imagery. The project doesn't possess the vector boundary files for the project area, reference region or leakage belt, which will be needed for it to carry out this in house monitoring. The PDD does not describe specifically how leakage will be measured, which involves, not just measuring disturbance in the leakage belt, but also determining whether or not that disturbance is greater than the baseline scenario. The PDD states that land-use change in the reference region and leakage belt will be tracked, but indicates that it will exclude areas on the land-use plan where deforestation is permitted. The project's ecological monitoring is already underway, and community guards are reporting on a regular basis and the data is being entered into a database.		
Conformance	Yes√	No	NA
CAR/REC	CAR 09/12 2.7 Monitoring The community patrols should be planned to cover the project area and leakage belt in a systematic way to ensure that major disturbances are not missed. Targets should be specified for the patrols in terms of number over a specific time period and areas that should be visited. **Closed – Monitoring now to include annual satellite image mapping of deforestation.** CAR 10/12 2.7 Monitoring		

	The project should define in the PDD how it will determine leakage in line with the baseline deforestation rate they choose. Currently, only evidence for a constant deforestation rate is provided in the PDD. In that case, leakage would be defined as an observed deforestation rate in the leakage belt above the baseline rate. The PDD should be corrected to indicate that leakage will be monitored throughout the leakage belt, including areas that are zoned for conversion to agriculture. **Closed – the method for calculating leakage is now accurately described.** Minor CAR 05/12 2.7 Monitoring The project should acquire for its own records and use, the project area boundary file, the reference region boundary file, and the leakage belt boundary file from the nature conservancy. **Closed – the project has secured and agreement for future support from the nature conservancy** REC 08/12 2.7 Monitoring The project should start testing the helicopter and building in house capacity to use it for mapping as soon as possible. REC 9/12 2.7 Monitoring The project should purchase GPSs and train the community patrol teams to use them as soon as possible. Alternatively, the project may want to consider purchasing smart phones that are equipped with GPS, camera, and database forms such as ODK to simplify field monitoring. The Jane Goodall Institute uses inexpensive ODK equipped phones to conduct extensive community monitoring of chimpanzees and threats to chimpanzees. Data entered by community members is stored on the phone and automatically uploaded to a cloud database the next time the phone is within range of a network. REC 10/12 2.7 Monitoring The project should consider using a radar sensor (which works well for monitoring dry forest in areas similar to the project area) like ALOS PALSAR to map future deforestation in the project area and leakage belt on an annual or biennial basis as a compliment to ground monitoring activities. ALOS PALSAR stopped functioning in 2011, but PALSAR II is scheduled to be launched in early 2013. ALOS PALSAR data is inexpensive and one scene covers the entire project area and leakage belt. REC 11/12 2.7 Monitoring The project area land base is probably not sufficient to support the Hadzabe if other surrounding areas are all lost. Hadzabe in other communities where a

	significant portion of the forest was converted to agriculture eventually also adopted agriculture themselves. Thus an important measure of project sustainability will be food security for the Hadzabe community. It is recommended that the project include Hadzabe food security (which may include purchasing food with REDD revenue) amongst the social indicators they plan to monitor.		
Requirement	**2.8. Plan Vivos** Producers **draw up Plan Vivos** as part of a participatory process that ensures proposed land-use activities: — Are clear, appropriate and consistent with approved technical specifications for the project; — Will not cause producers' overall agricultural production or revenue potential to become unsustainable or unviable.		
Findings	This project does not involve individual Plan Vivo's. The land-use planning process that led to awarding the Hadzabe community the right of occupancy to the project and reserving the area for the traditional land uses of the Hadzabe people, was participatory and approved by a majority of community members.		
Conformance	Yes√	No	NA
CAR/REC	None		
Theme	**3. Ecosystem benefits**		
Requirement	**3.1. Planting native and naturalised species** 3.1.1. Planting activities are restricted to **native and naturalised species**. 3.1.2. Naturalised (i.e. non-invasive) species are eligible only where they can be shown to have compelling livelihood benefits and: — Producers have clearly expressed a wish to use this species; — The areas involve are not in immediate proximity to conservation areas or likely to have any significant negative effect on biodiversity; — The activity is still additional i.e. the producers in the area are not doing this activity or able to do this activity without the intervention and support of the project; — The activity will have no harmful effects on the water-table.		

Findings	No planting of exotic species is planned as any part of the project activities.		
Conformance	Yes√	No	NA
CAR/REC	None		
Requirement	3.2. **Ecological impacts** Wider **ecological impacts** have been identified and considered expressly including impacts on local and regional biodiversity and impacts on watersheds.		
Findings	The ecological impacts within the project area will only be positive. The project has established a system to monitor the ecological status of the project area using the community forest guards to record the status of ecological indicators. Leakage mitigation activities will be limited to promoting conservation agriculture, which involves soil and moisture conservation techniques. Thus, no negative ecological effects are expected from leakage mitigation.		
Conformance	Yes√	No	NA
CAR/REC	None		
Theme	**4. Livelihood Benefits**		

Requirement	4.1. **Community-led planning** Project has undergone a **producer/community-led planning process** aimed at identifying and defining sustainable land-use activities that serve the community's needs and priorities.		
Findings	Meeting minutes and field interview confirm that a substantial number of village and Hadzabe community members were involved in the land use planning meetings. According the Mongo wa Mono land-use plan established before the village was divided into two parts, the conservation of the project area is the desired wish of both the Hadzabe community and the wider village population. The land-use planning process for village land is by law participatory and the project has produced the necessary documentation, though the meeting minutes for project related meetings since then could be more detailed. All of the Hadzabe communities members interviewed stated that maintaining the forest and wildlife within the project area was the preferred options of Hadzabe living in the participating villages. They express a sense of having been invaded by agriculturalists and view this project as a last chance to protect their lands from being converted to agriculture.		
Conformance	Yes√	No	NA
CAR/REC	None		
Requirement	4.2. **Continued participation and training** Mechanisms are in place for **continued training** of producers and participation by producers in project development.		
Findings	The project coordinators make frequent visits to the project area, have involved community members in the planning, provided training on some aspects of project management such as monitoring carbon stocks, and will continue to involve community members in project activities and training opportunities. The project employs members of the Hadzabe community to serve as guards for the project area and employs two Hadzabe community members as field coordinators.		

Conformance	Yes√	No	NA
CAR/REC	REC 12/12 4.2 Continued participation and training It is recommended that the project coordinators establish an annual meeting with the communities where project management and the sales agreement can be reviewed. This recommendation is identical to REC 01/12 and REC 15/12. **Closed: Carbon Tanzania now has bi-annual meetings with the community, in addition to the quality assurance visits made every trimester to collect monitoring data and carry out specific tasks. These meetings are scheduled within the first week of May and in the first week of October every year. (see annual report 2014).**		
Requirement	4.3. **Sale agreements** Project has procedures for entering into **sale agreements** with producers based on saleable carbon from Plan Vivos, where: 4.3.1. Producers have recognised carbon ownership via tenure or land-use rights; 4.3.2. Agreements specify quantity, price, buyer, payment conditions, risk buffer, and monitoring milestones; 4.3.3. An equitable system is in place to determine the share of the total price which is allocated to the producer; 4.3.4. Producers enter into sale agreements voluntarily.		
Findings	4.3.1 While the project is unusual compared to other Plan Vivo projects that deal with many small privately owned areas, the land tenure of the project area is relatively straight forward. The 1999 Village Land Act allows for villagers or groups of villagers to be awarded customary right of occupancy over areas of village land. In this case, the Hadzabe community in each village has been awarded customary right of occupancy for 99 years over areas of land designated in the village land use plan for traditional Hadazabe land uses. These uses are entirely compatible with REDD and the lease period is substantially longer than the project period. Therefore, so long as the Hadzabe communities continue to use these areas for their traditional land uses, they will retain the right of occupancy. While Tanzania does allow for villages to designate village forest or community forest reserves, this does not appear to apply to the project area, which is not designated as a forest reserve of any kind. This is not stated clearly in the PDD. Instead, this project forest area would appear to be a private forest as defined under the 2002 Forest Act as follows: (d) private forests which are: (i) forests on village land held by one or more individuals under a customary right of occupancy; Richard Ballow, the ward development officer and UCRT representative for		

	Yaeda valley says that the land-use plan, has not yet been approved by the district council, which is odd considering that the land-use plan is more than 10 years old. The legal implications of this are uncertain. However, the right of occupancy granted to the Hadzabe communities in each village has been approved by the district land's officer, suggesting that the Hadzabe's tenure is secure, even if the land-use plan passed by the village was not reviewed by the district council. 4.3.2 The contracts specify the role of the project coordinator and the participating communities (though it treats villages and communities as the same entities). The contract sales agreement section is somewhat confusing though as payments are tied to three performance categories rather than actual carbon sales. The price specified in the agreement is $3 per ton, rather than a percentage of sales and the costs of the project coordinators activities are not specified. The risk buffer is factored into the calculations, but not explicitly stated. There is no mention of leakage in the sales agreement. 4.3.3 Currently, the producers are unaware of the price that Carbon Tanzania receives for carbon sales and it is not clear in the sales agreement that they will be required to share this information, nor the costs that Carbon Tanzania incurs to support the project. Also, there is no formal mechanism for reviewing the sales agreements on a regular basis. 4.3.4 A substantial number of village and Hadzabe community members were involved in the carbon sales agreement meetings. Community members have entered into the sales agreement voluntarily. Community members are aware that receiving payments is contingent on Plan Vivo validation, Carbon Tanzania's efforts to sell carbon credits, and the performance of the project in terms of protecting forests. Interviewed community leaders and members are knowledgable about the details of the revenue sharing contracts. The project will use the same systems already in place for distributing village and community revenue from tourism. Interviewed community members said they were satisfied with the current system.		
Conformance	Yes√	No	NA
CAR/REC	Minor CAR 06/12 4.3.1 Producers have recognized carbon ownership via tenure or land-use rights The description of the land tenure should clarify that the project area is a private forest on village land held under right of occupancy by the Hadzabe community. References to village or community forest reserves should be removed as these do not apply to the project area. **Closed – the PDD now correctly describes the land tenure situation.** REC 13/12		

	4.3.2 Producers have recognized carbon ownership via tenure or land-use rights The sales agreement in the PDD suggests that Carbon Tanzania will have just one sale agreement with both communities and that performance will be tracked for the entire project area, rather than by community, which is not inline with the legal tenure over the project area (though may be fair considering that there is significantly more risk of deforestation in the Domanga portion of the project area than in the Mongo wa Mono portion). It is recommended that the project coordinators acknowledge and justify this approach in the PDD. Minor CAR 07/12 4.3.2 Agreements specify quantity, price, buyer, payment conditions, risk buffer, and monitoring milestones; While the project has developed a general sales agreement with each village / community, the agreement is confusing in several regards. First, while the project area has been awarded under right of occupancy to the Hadzabe community, and is as such a private forest, the village and the Hadzabe community are listed as the same entity in the sales agreement. However, the village and the Hadzabe community will be paid separately, and different amounts as per the agreed distribution percentages. Thus, they are clearly separate entities with different responsibilities and different rights to the carbon finance. The sales agreement should be modified to reflect these differences and the village responsibilities should be separated from the Hadzabe's communities responsibilities and their corresponding payments should also be clearly separated. The separate role of the village should also be more clearly stated in the PDD. **Closed – PDD has been adjusted to clarify that the village government and community are separate entities and that the responsibilities associated with participation in the project primarily fall on the community. The project plans to work further on resolving the roles and responsibilities as presented in the agreement through the annual meetings now include in the project annual reports.** CAR 11/12 4.3.2 Agreements specify quantity, price, buyer, payment conditions, risk buffer, and monitoring milestones; The terms of payment for the sales agreement are a little confusing. They are not related to carbon sales by the project coordinator, but rather project performance lumped into three broad categories of performance. These categories of performance are framed in terms of ha conserved per year, but without the context of the baseline deforestation rate, this is confusing to the reader since the project area is obviously much larger. Technically, if the project applies the historical deforestation rate to the project area, as is proposed in the technical specifications, then the amount of eligible credits will decline each year as the rate is applied to an increasingly smaller forest area in the baseline scenario. The use of a constant deforested area (which implies an increasing deforestation rate) is not appropriate unless justified in the baseline. Furthermore, performance under REDD is not credited on a annual basis, but rather on a cumulative basis. The emissions reductions credited in year x are equal to the observed carbon stocks in the project area in year x

less the project stocks projected to exist in the baseline scenario in year x less any reductions credited in years proceeding year x. Negative performance (exceeding the baseline) is some years will reduce the number of potential credits generated in future years. Thus, a fixed payment per year, may not be realistic unless the project plans to maintain an internal buffer (other than the risk buffer) which it uses to smooth payments over the project crediting period.

The carbon accounting should be clarified in the sales agreement.

This table provides an example of how REDD credits are calculated with a fixed historical deforestation rate of 0.93% and a starting area of 20,000 ha.

	Forest Area				
Year	Observed	Baseline (0.93% lost per year)	Difference	Cumulative Credit*	Annual Credit
2011	19800	19814	-14	-1540	0
2012	19750	19630	120	13230	13230
2013	19700	19447	253	27811	14581

* Cumulative credits are equal to the difference between the observed forest area and the projected area in the baseline multiplied by the carbon dioxide equivalent of the carbon stocks in one hectare of forest (110 tons CO2 per hectare). Annual credits are the same less any credits previously issued.

Closed – as the contract is being adjusted to reflect the recommendations. The project has presented evidence to justify the use of a constant area of predicted annual deforestation, making the calculations simpler.

CAR 12/12
4.3.2 Agreements specify quantity, price, buyer, payment conditions, risk buffer, and monitoring milestones;

The risk buffer withholding should be specified in the sales agreement. There is no mention of it at present other than the fact the number of hectares eligible for crediting per year are less than the number of hectares conserved.

Closed – the agreements will be adjusted to reflect the recommended changes and to reflect the changes in the baseline assessement resulting from the PDD review.

CAR 13/12
4.3.2 Agreements specify quantity, price, buyer, payment conditions, risk buffer, and monitoring milestones;

There is no mention in the sales agreement of the effect that leakage will have on the payments to communities. Given that the primary project beneficiaries are not the same actors who would have caused deforestation in the baseline, there is a significant risk of leakage and this will effect the number of carbon credits generated by the project. Leakage may vary from year to year and thus will be difficult to account for with an internal buffer. Therefore, leakage and its accounting, should be included in the sales agreement.
Closed – the agreement will be adjusted to more clearly describe the effects of

	leakage on payments as shown in the Annual Report section 7. REC 14/12 4.3.2 Agreements specify quantity, price, buyer, payment conditions, risk buffer, and monitoring milestones; Finally, the price is fixed at $3 per ton of CO2 even though the PDD specifies that the price may change over time. To comply with Plan Vivo, Carbon Tanzania will need to insure that at least 60% of the revenue generated from the sale of carbon credits is passed onto the producer communities. Currently, Carbon Tanzania is receiving $10 per ton of CO2 sold (less 18% VAT?). They plan to increase the proportion paid to communities after recuperating some initial investment costs and the ongoing costs of project startup have diminished. There is also a possibility that the price carbon Tanzania receives for carbon offsets will decline as they attempt to sell greater quantities. It is not clear that the current sales agreements that Carbon Tanzania has with the producer communities will be conducive to meeting the 60% Plan Vivo requirement. It is recommended that the project develop a plan to share their sales information with UCRT and producer communities and that this plan be incorporated into a revised sales agreement. Also, if Carbon Tanzania is unable to provide communities with 60% of the current sales price due to upfront costs, these costs should be specified in the sales agreement and a timeframe for their recuperation should be stated. Alternatively, as it isn't clear that Plan Vivo requires such detailed information sharing with producers, these details should be communicated to Plan Vivo in a way that allows Plan Vivo to confirm that the communities will receive 60% of the carbon revenue in the long run. **Closed – the required information has been shared with Plan Vivo through the annual report. The project plans to also share the required information with the community in the next annual meeting.** REC 15/12 4.3.3 An equitable system is in place to determine the share of the total price which is allocated to the producer It is recommended that the project coordinators establish an annual meeting with each producer community where the sales agreement can be reviewed and Carbon Tanzania's sales and costs reported. This is identical to REC 01/12 and REC 12/12. REC 16/12 4.3.3 An equitable system is in place to determine the share of the total price which is allocated to the producer Considerations should also be made for funding leakage avoidance activities. Due to the fact that the threat to the project area in the baseline scenario mostly originates from actors outside the project's primary beneficiaries, and that there is a significant risk of leakage to neighboring communities, in a sense, it can be argued that the neighboring communities are contributing to the emissions reductions that occur. Thus, the project may make a reasonable argument that funds spent on leakage mitigation activities should count towards meeting the 60% requirement. It is recommended that this be made more explicit in the sales agreement with the participating villages /

	communities, or communicated as part of project reporting to Plan Vivo.		
Requirement	4.4. **Payments to producers** Project has an effective and transparent process for the timely administration and recording of **payments to producers**, where: 4.4.1. Payments are delivered in full when monitoring is successfully completed against targets in sale agreements; **4.4.2.** Payments are recorded in the project database to ensure traceability of sales.		
Findings	4.4.1 Payments to producers based on emissions reductions have not yet started, but the project is already paying community guards directly based on their monitoring reports, and these payments are well documented. 4.4.2 Payments to producers have not yet started.		
Conformance	Yes √	No	NA
CAR/REC	None		