# *Final Plan Vivo Validation Report:*

# Hiniduma Biolink Project, Sri Lanka

Dr Edward Mitchard

7th April 2012

This report replaces the Draft Validation Report produced on the 10th April 2012

## Contents

# Final Plan Vivo Validation Report: Hiniduma Biolink Project

**Name of Reviewer:**

Dr Edward Mitchard

**Date of Review:**

3rd March 2012 – 7th March 2012

**Project Name:**

Hiniduma Bio-link Project, Sri Lanka

**Project Description:** .

The Hiniduma Bio-link Project involves the reforestation and species-enrichment of deforested and degraded forest areas of 15 smallholder farmers. The project is co-managed by the Conservation Carbon Company (financing, liaising with the Plan Vivo Foundation & administration) and Rainforest Rescue International (direct community engagement, nursery production and monitoring). Additionally much of the technical work was performed by the Carbon Consulting Company, with input from researchers at the University of Sabaragamuwa, Sri Lanka.

The principle current landcover of the smallholdings is tea plantations, with the remaining landcover home gardens and small remnant forest patches. In total 94 species have been planted by the project, chosen using the 'Analog Forestry Concept' first developed by RRI, with a mixture of species with economic value for the farmers (e.g. fruit trees) and trees with pure biodiversity value. The project involves 10.88 hectares in total, with the 15 farms forming a contiguous corridor between two remnant rainforest patches: Polgahakanda and Kanneliya.

**List of Documents Reviewed:**

- Project Design Document, Hiniduma Bio-link Project, 6th June, 2011
- Technical Specification, Hiniduma Bio-link Project, 20th December 2011
- Standard project participant contract, translated into English (originals are in Singhalese), similar to that in Annex 4 of the PDD
- Plan Vivos and planting schedules/maps for a total of 7 project participants.
- Conservation Carbon Company accounts and payment sheets signed by project participants for 2011 (3 payment cycles)

**Description of desk review and technical meetings:**

The validation was conducted by Dr Edward Mitchard, a researcher at the University of Edinburgh and member of the Plan Vivo Technical Advisory Panel.

The desk review took place from 23rd February – 1st March, and involved reviewing the Project Design Document (PDD) and Technical Specification, and discussing the project with Dr Nick Berry, who had also reviewed these documents.

An initial technical meeting was held on the 3rd March 2012 in the Conservation Carbon Company's offices, with representatives of the Conservation Carbon Company, Carbon Consulting Company, and the University of Sabaragamuwa present. In this meeting the results of the desk review were discussed, including potential ways to resolve the problems identified; accounts and Plan Vivos from the ntproject were reviewed; and the schedule for the field visits was finalised. After the field visits had been completed, a closing meeting was held on the 7th March 2012, with representative from the same organisations: here all the Recommendations and CAR's found were discussed and meetings held to work towards their resolution.

**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):**

Three days of visits to the project site took place, from the 4th – 6th March 2012 inclusive. During these visits the Validator was accompanied by Rainforest Rescue International (RRI) staff with experience working with the communities over the past year, as well as by staff from the Conservation Carbon Company (all days) and the University of Sabaragamuwa (4-5th March only).

During the field trip the Validator walked through the majority of the sections of 6 of the farms (out of a total of 15) – Ajith, Danapala, Sunil, Weersinghe, Subasena & Ariyarathne; and interviewed individually a total of 7 farmers – Ajith, Danapala, Sunil, Weersinghe, Subasena, Upul & Karunadasa. The farms were chosen to include the full variety of landcover types and farm sizes in the project (0.2 to 1.9 hectares), and covered the full range of the project area. The Validator also spent time driving and walking round the wider region, to better understand the surrounding land-uses and the pressures on the surrounding land, allowing an assessment of the leakage and baseline assumptions made by the project

**Validation Opinion:**

The evidence presented in the documents reviewed, and collected during the field visit, indicates that the project conforms to the Carbon, Social and Biodiversity benefits of the Plan Vivo Standard: the project creates additional carbon sequestration and calculates these benefits conservatively; the project distributes revenues equitably and reliably to farmers, and has set up good systems for communication with the project participants; the project participants have been heavily involved in the project design, approve of the project strongly, and have good communication routes to the project proponents; the project has clear and strong biodiversity and ecosystem benefits; and the project proponents clearly have the experience and capacity to successfully complete the project.

The validation process however found a number of areas where the project documentation fell short of the level needed for Plan Vivo Registration at this stage. This led to a finding of major CAR and 7 Minor CAR's, in addition to 8 more minor Observations (see Table 1 below). These related especially to the Carbon part of the Plan Vivo requirements.
However, following the production of a draft report, CCC and RRI have produced satisfactory responses to these issues (see below) and are currently in the process of updating their project documentation. Assuming these updates are completed as described below the project should be considered as Validated under the Plan Vivo Standard.

**Table 1. Summary of major and minor Corrective Actions**

| Theme | Major CARs | Minor CARs | Observations |
|---|---|---|---|
| **Governance** | 0 | 0 | 1 |
| **Carbon** | 1 | 6 | 6 |
| **Ecosystem** | 0 | 0 | 0 |
| **Livelihoods** | 0 | 1 | 1 |

# Report Findings .

| **Theme** | **1. Effective and Transparent Project Governance** |
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| Requirement | 1.1 Administrative capabilities<br><br>The project has set up a legal and organisational 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:<br><br>1.1.1 A legal entity (project coordinator) able to enter into sale agreements with multiple producers or producer groups for carbon services;<br>1.1.2 Standard sale agreement templates for the provision of carbon services;<br>1.1.3 Transparent and audited financial accounts able to the secure receipt, holding and disbursement of payments to producers;<br>1.1.4 All necessary legal permissions to carry out the intended activities;<br>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.:<br>• Previous project record, especially the receipt, safeguarding and management of other funds involving disbursement to smallholders/community groups<br>• Staff able to explain legal status of organisation, 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 |

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| **Findings** | *The project is managed by two organisations: the Conservation Carbon Company (CCC) and Rainforest Rescue International (RRI). Both organisations are able to clearly explain the delineation between their responsibilities, and there appear to be very good relationships and communications between the two organisations.*<br><br>*RRI has a long experience of setting up community-led projects, and has also previous experience of reforesting land using the Analog Forestry Concept on land it owns. Its track record is excellent, and there is strong confidence that the technical (planting) and social relations side of the organisation will be well managed. CCC was set up for the specific purpose of financing and managing this project, and thus has no specific track record for other projects; however its staff are experienced in project management more generally, and the organisation appears highly competent.*<br><br>*Evidence was shown that the CCC and RFI are legitimate organisations, with proper governance structure and full legal status to operate in Sri Lanka. As the project is taking place on private land, no specific government permission is needed; however evidence was shown that the Forestry Department of Sri Lanka has been informed of the project, and indeed members of the Forestry Department took part in initial workshops relating to the project.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CARs** | *None, but see Comment to 1.4 re. audited accounts.* | | |
| **Requirement** | **1.2. Technical capabilities**<br><br>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<br>• Project staff should be familiar with the content of project technical specifications (e.g species to be planted, spacing requirements, management systems, potential issues) | | |

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| **Findings** | *Both CCC and RFI staff clearly understood the details of how the project functions, and who is responsible for which technical activities. RFI staff clearly had excellent levels of knowledge on propagating, siting and planting the species grown, due to many years of working on reforesting their own land according to the Analog Forestry Concept, and with work to survey and increase the biodiversity smallholder home gardens. All the project participants interviewed agreeing that they through the RFI staff had a very good level of technical knowledge. Communication was rated as excellent by all project participants interviewed, with RFI technical staff visiting each farmer and touring the farms every month, allowing for the quick and effective remedy of any problems.* | | |
| **Conformance** | Yes [X] | No [ ] | N/A [ ] |
| **CARs** | *None.* | | |
| **Requirement** | **1.3. Social capabilities**<br><br>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<br>1.3.2. Able to establish land-tenure rights through engaging with producers and other relevant organisations<br>1.3.3. Able to consult producers effectively on a sustained basis | | |
| **Guidance** | • Project coordinators should maintain minutes of community meetings and training workshops etc<br>• Project staff should be able to explain (in line with PDD) how land tenure is checked by the project<br>• Project staff should be able to explain how communities/target groups were involved in the development of the project and choice of activities | | |
| **Findings** | *In addition to monthly individual meetings, workshops with all farmers are to be held at least every 6 months throughout the lifetime of the project. Attendance to at least 2 meetings per year is necessary for farmers to receive the maximum payment for the project, so attendance is guaranteed to be near 100 %. Evidence was seen that minutes and attendance lists are kept from these meetings, and that issues raised are attended to speedily. RFI staff also make efforts to talk to and monitor other members of the family (for example women and children) for any potential negative impacts of the project.*<br><br>*Evidence was shown that land tenure is checked by the project staff by requiring project participants to provide their original land titles, with copies kept on file in the CCC offices.*<br><br>*The minutes of the early meetings with farmers, and the views expressed in interviews with the farmers, confirmed that their views had been taken into account when designing the project. As an example of the impact of such involvement, the original project design included the planting of wild climbers and vines to better represent the structure of rainforest, but the farmers did not approve of this aspect, and so only trees were planted. Furthermore the planting locations and individual Plan Vivos were clearly* | | |

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| | *led by the project participants. All seven project participants interviewed stated that they felt their views had been listened to, and that good and effective lines of communication existed between themselves and RFI staff.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CARs** | *None.* | | |
| **Requirement** | **1.4. Reporting**<br><br>Projects must on an annual basis, according to the reporting schedule agreed with the Plan Vivo Foundation:<br><br>1.4.1. Accurately report progress, achievements and problems experienced;<br>1.4.2. Transparently report sales figures and demonstrate resource allocation in the interest of target groups. | | |
| **Findings** | *The CCC has set up a reliable and robust spreadsheet-based system for calculating and recording payments made to farmers. Paper records are also kept, with farmers signing for the receipt of their 3-monthly payments, along with detailed descriptions of how they are calculated.*<br><br>*Annual reporting to the Plan Vivo Foundation has not yet started, but the CCC has already set up the necessary systems for performing such reporting.*<br><br>*One concern is that as yet no auditing has occurred of CCC's accounts and community payments (though the Validator has reviewed them and all seemed in order). This should not present a problem, as CCC will ensure audited accounts are submitted to the Plan Vivo Foundation during the annual reporting cycle once the project is approved.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CARs** | *Observation: currently no 3rd party audit of CCC accounts and community payments has taken place. CCC has verbally committed to submitting 3rd party audited accounts to the Plan Vivo Foundation during its annual reporting cycle – this will be sufficient to conform.* | | |
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| Theme | 2. Carbon Benefits | | |
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| Requirement | **2.1. Accounting methodology**<br><br>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 has a unique challenge in calculating carbon benefits due to the very large number of species used (94). Though the estimation method for the growth rates for these species is not currently entirely clear in the technical specification, in discussions with the technical team during meetings and reviewing the raw spreadsheets the methodology used appears sensible. There is in general however a paucity of data beyond year 5 (as most data comes from a 50 hectare Smithsonian plot where only 5 years of growth increment data is available); though the overall year-20 DBH values seem conservative, the effect of this significant extrapolation beyond the data is hard to assess.* ***A further assessment of the equations should be made by an expert reviewer in advance of full project registration –*** *but within the scope of this Validation no further corrective action is advised for the growth equations.*<br><br>*Two minor CAR's and two recommendations have been made relating to this area.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CAR/REC** | *Minor CAR 1: Table 4.5 ("Developed Growth models and DBH predicted for 20 years") in the Technical Specification must have columns showing what data was used to derive each specific equation: i.e. exact references used, and the number of data points used for each year of growth. Without this information it is impossible to assess the source or accuracy of each individual equation.*<br><br>*Minor CAR 2: the technical specification should make it clearer how monitoring will proceed against these growth equations. I suggest that a paragraph is added saying that a sample of at least 25% of the stems of each species being grown is measured each year, and if >10 % fall below the growth curve, the curve is adjusted and the carbon credits claimed adjusted accordingly through a revision to the technical specification. Adjustments may also be made if the growth is significantly above the curve when the technical specification is revised (normally every 5 years for an active Plan Vivo project), but that is not necessary.*<br><br>*Recommendation 1: Ideally species-specific allometric equation would be used to calculate the carbon held in each tree, but this is unlikely to be possible for the relatively unstudied and non-commercial species being* | | |

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| | *grown by the project. Therefore sensibly a generic allometric equation is used. However, while the allometric equation chosen (Brown 1997, DBH-only) may be appropriate, I would recommend that a higher accuracy would be achieved by using an equation such as that in Chave* et al. *(2005), which includes height, DBH and wood density, rather than DBH alone (and is built from a much larger dataset of tropical trees).*<br><br>*Recommendation 2: references to soil sampling should be removed from the technical specification – no credits are claimed for soil carbon in this technical specification, so there is no need to discuss potential future methodologies.* |
| | ***CCC Response to minor CAR 1***<br><br>CCC technical team has already taken the necessary steps to address this point. As the reviewer suggested we have added two columns stating the references for the development of the growth models and a number of data points used for each year growth for each individual equation.<br><br>***CCC Response to minor CAR 2***<br><br>As Validator suggested to CCC to include the clear monitoring possess *against the growth equations* in the technical specification. It is as follows,<br><br>*"25 plants (sample of 25%) from each species will be identified representing all the land use patterns the being grown and the stem measurements and height measurements are measured in each year. altogether we will measure 1687 plants from total of 6748 tress, and if >10 % fall below the growth curve, the curve is adjusted and the carbon credits claimed adjusted accordingly through a revision to the technical specification. Adjustments may also be made if the growth is significantly above the curve when the technical specification is revised."*<br><br>***CCC Response to recommendation 1***<br><br>For trees with available data (both DBH and the Height), CCC technical team will recalculate the growth model. In addition we will incorporate the recommended allometric equation (*Chave* et al. *(2005)) for the tree species which wood densities are available.*<br><br>***CCC Response to recommendation 2***<br>As the reviewer recommended the paragraph stated about the soil sampling has removed from the technical specification. |
| **Requirement** | **2.2. Baseline**<br><br>Carbon benefits are measured against a clear and credible **carbon baseline**. |
| **Findings** | *The result of the field visit suggests that the arguments used in the Technical Specification and PDD are correct, and a zero baseline is appropriate. The general trend for land once it has been allocated for farmers is for a loss of carbon as increasing areas of land are cleared for* |

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| | *tea plantations: and thus the assumption of a zero baseline appears conservative. It appears very unlikely that the increase in biomass on the project participants' land would occur without the influence of the project.*<br><br>*However, the treatment of the baseline and how it will be monitored is not entirely clear in the project documentation as yet, so there are two Minor CARs and one recommendations for this section.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CAR/REC** | *Minor CAR 3: the technical specification needs to make clearer how the assumption of zero baseline will be monitored – e.g. looking for new cutting of significant numbers of trees within the project area. Small removals for fuelwood or construction purposes are okay as not additional (caused by the project), provided all of a farmers' land is included in the project – see Major CAR in Section 2.5.*<br><br>*Minor CAR 4: more references need to be included in the technical specification to justify the zero baseline: is the biomass on farmers' lands in the region in general decreasing or staying the same over time (i.e. definitely not increasing).*<br><br>*Recommendation 3: the initial survey of standing biomass stocks is unnecessary if a zero baseline is claimed, and should thus be removed from the technical specification.* | | |
| | ***CCC Response to minor CAR 3***<br><br>CCC have updated and strengthened their technical specification by the given suggestion. Plan Vivos has being updated including all the land owned by the farmers. Furthermore the CCC has primary baseline data collected, an effective monitoring system for current land-use systems have been included in the technical specification. Detailed information are addressed in major CAR 1 in the section 2.5.<br><br>***CCC Response to minor CAR 4***<br>More information and references to prove zero base line and the biomass on the farmer's land in the region in general, biomass decreasing or remaining the same was included in the technical specification.<br><br>In addition CCC's research team have put up permanent sampling plots covering all the land use patterns, thus the regeneration rate and other parameters can be studied in detail in future.<br><br>***CCC Response to Recommendation 3***<br>Details about the initial survey of the standing biomass stock removed from the technical specification. | | |

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| **Requirement** | **2.3. Additionality**<br><br>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:<br><br>2.3.1. 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<br>2.3.2. 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** | *It is clear that farmers would not have reforested their land in the absence of the forest project: they have neither the income nor the expertise (i.e. there are both financial and technical barriers). In the interviews all farmers stated that the income they earn from the project is essential for them to perform the planting and maintenance: the non-financial benefits they receive from the project are not sufficient to enable them to do this work in the absence of the project.*<br><br>*Also it is clear that no legislative decrees exist that would have led to the reforestation of this land: indeed most legislative pressure is towards increased clearing. There are laws protecting forested areas around streams and rivers, but these areas of project participants' land are already forested and thus are not responsible for the carbon additionality claimed.* |
| **Conformance** | Yes [x] No [ ] N/A [ ] |
| **CAR/REC** | *Evidence request: RRI is an NGO that has performed reforestation efforts before, and has income from grants and donations. Though the barrier analysis presented showing that carbon finance is necessary for the project to succeed are clear; in order to fully validate this project it is necessary to see evidence that carbon financing was central to the initial project planning. CCC and RRI have stated this is the case, and have agreed to show the Validator emails confirming that carbon was central to the initial planning.* |
| **Requirement** | **2.4. Permanence**<br><br>2.4.1. Potential risks to permanence of carbon stocks are identified in project technical specifications and effective mitigation measures implemented into project design, |

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| | management and reporting procedures.<br>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.<br>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** | *All the farmers stated at interview that once the trees were established they had no intention of removing the trees, even after the payments and monitoring stop after year 20. They see significant benefits from having a higher tree cover on their land, particularly in terms of the economically beneficial species, but also for the biodiversity-enhancing species (they particularly mentioned soil protection, especially on steep slope, field margins and edges of streams/river, where most of the planting has taken place.)*<br><br>*RRI also has significant plans for ensuring permanence: they aim to set up community cooperatives, encourage the application for sustainable tea production certification that could lead to higher prices, and encouraging income diversification (e.g. promoting fruit and honey sales).* |
| **Conformance** | Yes [x] No [ ] N/A [ ] |
| **CAR/REC** | *Minor CAR 5: The Risk buffer % (20%) is not fully justified in the proposal. I recommend following the VCS AFOLU Non-Permanence Risk Tool (or similar) to allow this percentage to be formally assessed, and detailing the decisions made in each section of the VCS AFOLU Non-Permanence Risk Tool within the Technical Specification. (In fact, in the final day of meetings the Validator worked through this tool with the Project staff, leading to a lower risk buffer percentage – 15%.)*<br><br>*Recommendation 4: more could be made in the technical specification of the plans to ensure permanence here: e.g. setting up community bodies, supporting tea production certification to ensure higher prices etc.* |
| | ***CCC Response to minor CAR 5***<br>As suggested by the validator, CCC has done the *VCS AFOLU Non-Permanence Risk Tool (version 3). And the final risk buffer % has come as 12%. In addition the assessment was included in the technical specification.*<br><br>***CCC Response to Recommendation 4***<br>More information about setting up the CBO's and the Forest Garden Product (FGP) certification procedure to ensure the permanence of the project is incorporated in the technical specifications. |
| **Requirement** | **2.5. Leakage**<br><br>Potential sources of **leakage** have been identified and effective mitigation measures implemented. |

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| **Findings** | *There is a very low risk of leakage outside the project participants' land, as the surrounding land either belongs to other farmers, or is well-protected and delineated land managed by the forest department, which monitors the land for encroachment annually.*<br><br>*However, the desk review brought up a concern that some areas of project participants' land had been excluded from the project boundary and Plan Vivos. As set up, there was a significant risk that the project participants could as a direct result of the project clear trees from their non-project land. Though during the field review it became obvious that most of these excluded land areas were small and had low tree cover, this still needs to be addressed.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CAR/REC** | *Major CAR1: Currently some areas of farmers' lands are excluded from the project, but the technical specification does not specifically say they will be monitored. This is a significant leakage risk, as farmers could potentially clear these lands of trees as a result of not being allowed to clear trees on the project land. To rectify this the project should either 1) include ALL of a farmers' land in the project, and therefore include in general 'zero-baseline' monitoring, or 2) insert into the technical specification that monitoring for leakage will take place in those areas of a farmers' land that are not included in the project.* | | |
| | ***CCC Response to Major CAR1***<br>*In addition to the CCC response for minor CAR 3 under the section 2.2, both project coordinators have taken the steps to include all the farmer land that are not taken into the project area and the Plan Vivos will be revised accordingly.*<br><br>*CCC have done a complete enumeration of the baseline, thus there is a good data base on the base-load of the total land area. CCC have included a continuous monitoring plan which covers annual monitoring by the project coordinators and frequent monitoring by the farmers by them self after the formation of the CBOs to ensure that no clearing of new areas occurs in the area.* | | |
| **Requirement** | **2.6. Traceability and double-counting**<br><br>Carbon sales are **traceable** and recorded in a database. | | |
| **Findings** | *CCC has registered an account with the Markit Environmental Registry, and will record all allocations and purchases on Markit (as well as following all Plan Vivo procedures). As the project is small, self-contained and simple, and CCC and RRI well-organised, there is every reason to suggest that carbon sales will be traceable and well-recorded, and there is currently no perceived risk of double-counting: a single purchaser for the credits has been identified.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |

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| **CAR/REC** | *Recommendation 5: the project should set up a formal internal database of carbon credits created and sold and their Plan Vivo certification reference numbers, to cross-register with the entry on the Markit Environmental Registry.* | | |
| | ***CCC Response to Recommendation 5***<br>CCC has already taken the initial steps to register in the Markit Environmental registry. As the Validator suggested we have prepared an internal database of Carbon Credits created and sold. | | |
| **Requirement** | **2.7. Monitoring**<br><br>Project has an effective process for **monitoring** the continued delivery of the ecosystem services, where:<br><br>2.7.1. Monitoring is carried out against targets specified in technical specifications;<br>2.7.2. Monitoring is carried out accurately using indicators specified in technical specifications;<br>2.7.3. Monitoring is accurately documented and reported to the entity responsible for disbursing payments to producers;<br>2.7.4. Corrective actions are prescribed and recorded where targets are not met, and followed up in subsequent monitoring. | | |
| **Findings** | *The monitoring procedures as set out in the technical specification appear robust and appropriate. There is evidence that it is well documented and covers the full area. The frequency of monitoring appears sensible.* | | |
| **Conformance** | Yes [X] | No [ ] | N/A [ ] |
| **CAR/REC** | *Minor CAR 6: the project monitoring plan within the Technical Specification needs to include concrete method for monitoring the baseline, to confirm that the 'zero baseline' approach is reasonable. For example this could involve stating that visits from RRI staff must include an inspection of all the project participants' land, to ensure that no clearing of new areas occurs (though felling some trees for construction or fuel is acceptable, as it would have occurred without the project anyway).*<br><br>*Recommendation 6: I suggest there is a formal method detailed in the technical specification for measuring a sample of individuals for each species during every monitoring cycle, and confirming the growth rates for >10 % of individuals do not fall below the predicted growth curve. (NB this is the same issue as Minor CAR 2).* | | |

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| | ***CCC Response to Minor CAR 6***<br>*As mentioned in the CCC response for minor CAR 3 under the section 2.2 and Major CAR 1 in section 2.5 CCC technical team have revise the technical specification including a solid mechanism for the base-load monitoring plan.*<br><br>***CCC Response to Recommendation 6***<br>*Corrected in Minor CAR 2 under the section 2.1* |
| **Requirement** | **2.8. Plan Vivos**<br><br>Producers **draw up Plan Vivos** as part of a participatory process that ensures proposed land-use activities:<br>— Are clear, appropriate and consistent with approved technical specifications for the project;<br>— Will not cause producers' overall agricultural production or revenue potential to become unsustainable or unviable. |
| **Findings** | *In total 7 Plan Vivos were studies on paper, and in 6 cases the validator walked around the farm while inspecting the Plan Vivo. In all cases the Plan Vivos appeared comprehensive, sensible, and to match the actual layout of the farm and the location of planting.*<br><br>*The Plan Vivos were clearly drawn up as part of a participatory process, with all 7 farmers interviewed stating that they were heavily involved in the creation of their Plan Vivo, and able to explain the details to the Validator when asked.*<br><br>*The farmers all stated that they expected the Plan Vivos not to have a significant negative effect on their agricultural production, and that indeed they hoped in the long-term that income from NTFP's would offset any small reduction in tea production; while the increased tree cover would protect their soil and help prevent flooding.* |
| **Conformance** | Yes [x] No [ ] N/A [ ] |
| **CAR/REC** | *None* |
| **Theme** | **3. Ecosystem benefits** |
| **Requirement** | **3.1. Planting native and naturalised species**<br><br>**3.1.1.** Planting activities are restricted to **native and naturalised species**.<br>**3.1.2.** Naturalised (i.e. non-invasive) species are eligible only where they can be shown to have compelling livelihood benefits and:<br>— Producers have clearly expressed a wish to use this species; |

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| | — The areas involve are not in immediate proximity to conservation areas or likely to have any significant negative effect on biodiversity;<br>— 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;<br>— The activity will have no harmful effects on the water-table. | | |
| **Findings** | *All species to be planted are native species, so there are no problems with this requirement. In fact 94 native forest species have been planted, providing very large biodiversity benefits.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CAR/REC** | *None.* | | |
| **Requirement** | **3.2. Ecological impacts**<br><br>Wider **ecological impacts** have been identified and considered expressly including impacts on local and regional biodiversity and impacts on watersheds. | | |
| **Findings** | *The project should have positive impacts on the biodiversity of the region by greatly increasing the diversity of woody species grown on the project participants' lands. As well as increasing biodiversity directly, the increase in tree cover and range of species on the project participants' lands will greatly increase the connectivity of the landscape, providing an effective biological corridor between two remnant forest patches: Polgahakanda and Kanneliya forests. This will increase the effective population size and genetic diversity of species living in these two forest patches.*<br><br>*The project will also have positive impacts on region's watersheds, and work to slow and prevent soil erosion, through increasing the woody cover on steep slopes and river banks.*<br><br>*No potential negative ecological impacts have been identified by the project, but the frequent monitoring of the land by RRI staff for ecological and biological factors (for example for the presence of threatened rainforest bird and amphibian species, and monitoring of water quality) would allow any negative impacts to be swiftly noticed.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CAR/REC** | *None.* | | |

| Theme | 4. Livelihood Benefits | | |
|---|---|---|---|
| Requirement | **4.1. Community-led planning**<br><br>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** | *All of the 7 farmers interviewed stated that they and their families were heavily involved in the initial planning process, and that their views and concerns had been incorporated into the project planning. They also felt that the project served their needs, and believed it would increase their incomes in both the short- and long-term, as well as increasing their overall quality of life.*<br>*The RRI and CCC staff clearly put the best interests of the project participants first, and minutes from community meetings and discussions with the staff showed that they had worked hard to maximise community benefits.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CAR/REC** | *None.* | | |
| Requirement | **4.2. Continued participation and training**<br><br>Mechanisms are in place for **continued training** of producers and participation by producers in project development. | | |
| **Findings** | *Evidence was shown of frequent (> 2 x per year) project participants meetings/workshops. As a condition of their contracts, all participants must attend at least 2 out of 3 workshops held per year throughout the project lifetime, ensuring their continued participation. Over time the emphasis of these workshops will switch from concentrating on caring for the trees planted towards maximising sustainable income from the farms, increasing the long-term income of the project participants and increasing the likelihood that carbon benefits will be permanent.*<br><br>*RRI staff visit the project participants once per month, and the seven participants interviewed stated that they felt the staff were very good at listening and responding to any concerns or suggestions.* | | |
| **Conformance** | Yes [x] | No [ ] | N/A [ ] |
| **CAR/REC** | *None.* | | |

<table>
<tr><td>Requirement</td><td colspan="3">4.3. Sale agreements<br><br>Project has procedures for entering into sale agreements with producers based on saleable carbon from Plan Vivos, where:<br><br>4.3.1. Producers have recognised carbon ownership via tenure or land-use rights;<br>4.3.2. Agreements specify quantity, price, buyer, payment conditions, risk buffer, and monitoring milestones;<br>4.3.3. An equitable system is in place to determine the share of the total price which is allocated to the producer;<br>4.3.4. Producers enter into sale agreements voluntarily.</td></tr>
<tr><td>Findings</td><td colspan="3">The sales agreements with producers are easy to understand, comprehensive and appear equitable. The farmers all clearly understood the conditions and Key Performance Indicators (KPI's, e.g. survival percentages) necessary to receive payment, and the reductions in payment that would result from not fulfilling the KPI's.<br><br>The agreements do not provide payment directly relating to the quantity of carbon credits sold. Instead the contracts pay farmers 3 rupees/plant/month, provided all KPI's are met. These payments are made every 3 months. Under current conditions, this results in 55 % of the total project revenues going directly to the project participants as payments, or 56% once the costs of farmer training and economically-beneficial seedlings are taken into account. This is a high percentage, and suggests that the distribution of revenues is equitable. However, there is one concern: there is currently no mechanism clear in the project documentation for changing the size of this monthly payment as the revenues and costs of the project change, nor due to inflation: the project documentation should state how this 56 % share to project participants will be maintained over the 20 years.</td></tr>
<tr><td>Conformance</td><td>Yes [x]</td><td>No [ ]</td><td>N/A [ ]</td></tr>
<tr><td>CAR/REC</td><td colspan="3">Minor CAR 7: need some mechanism (for example an annual review) for increasing the 3 rupee/tree/month to keep the 56 % of resources to farmers constant despite inflation etc. (or else it is possible for the project documentation to say that this proportion of revenues is allowed to fall a little, but with a floor % share stated below which it will not be allowed to fall).<br><br>Recommendation 7: The validator has inspected detailed descriptions of how the funds are calculated for each farmer, based on their performances against the KPI's, e.g. there is a reduction of 25% of payments if they haven't yet put plastic sheeting around all the stems. It would be good if this schedule of payment conditions was added into the PDD: currently the only details of the exact payment schedule are to be found within the translated contract in an annex (which incorrectly states that the participants are to be paid 3 rupees/month, rather than 3 rupees/tree/month).</td></tr>
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<tr><td></td><td>CCC Response to Minor CAR 7<br><br>CCC technical team has amended the PDD under the section 20: Projects financial structure and benefit sharing stating more details of the farmer payments.<br><br>A clear mechanism is being introduced to address the inflation of the rupee value to maintain 56 % benefit to the farmers. A review the inflation rate of rupee and readjust the farmer payments. CCC will ensure that farmers benefit will remain as 56% and we are reviewing the inflation/depreciation of rupee value in every 5 year time thus we will readjust the farmer payment if the inflation rate exceeds 5% (current inflation rate is 2.7%).<br><br>CCC Response to Recommendation 7<br><br>As the validator suggested, a detailed description of calculating farmer payment, payment conditions including the KPI's and dissemination of the farmer payment was included in the PDD.<br><br>The correction was made in the sales agreement and CCC & RRI will take the immediate steps to distribute the amended agreement to the farmers.</td></tr>
<tr><td>Requirement</td><td>4.4. Payments to producers<br><br>Project has an effective and transparent process for the timely administration and recording of payments to producers, where:<br><br>4.4.1. Payments are delivered in full when monitoring is successfully completed against targets in sale agreements;<br>4.4.2. Payments are recorded in the project database to ensure traceability of sales.</td></tr>
<tr><td>Findings</td><td>The project has set up a clear mechanism for calculating and making payments to project participants. This system has been used successfully for the three payment rounds that have so far been made since the project began. All 7 farmers interviewed expressed satisfaction with the payment system.<br><br>Evidence was shown of solid computerised record keeping, with separate paper records of all payments kept on file.</td></tr>
<tr><td>Conformance</td><td>Yes [X] | No [ ] | N/A [ ]</td></tr>
<tr><td>CAR/REC</td><td>None</td></tr>
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