



24 August 2010

VCS Association  
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Dear Sir

**Re: Comments on the proposed Methodology for “Improved Forest Management-Logged to Protected Forest (IFM-LtPF) on Fee Simple Forested Properties, v.7.0” by 3GreenTree Ecosystem Services and Ecosystem Restoration Associates**

Please find attached Carbon Planet’s comments on the above-mentioned Methodology.

Carbon Planet has identified eleven issues, for which the Methodology does not appear to conform with the VCS Program and Guidelines. Such issues are associated with the Methodology’s approach to the eligible project category, selection of carbon pools, baseline projection, estimation of GHG emissions from logging, calculation of voluntary carbon units (VCUs), accounting carbon loss due to illegal activity and natural disturbances, leakage, monitoring and some general issues.

We commend the VCS association and express appreciation for providing the public with the opportunity to comment on methodologies as part of the global stakeholder consultation.

Yours faithfully

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### **CP-Issue 01: Eligible IFM-LtPF Project Category**

This Methodology is written for the conversion of logged forests to protected forests (LtPF) under the VCS Improved Forest Management project category. It implies that after the implementation of the IFM-LtPF project the project area will be conserved by ceasing the proposed harvesting under the IFM. This Methodology has contradicted the basics of the “logged to protected forest” category under the VCS (see VCS 2008a, p. 3) by stating that this Methodology is also applicable to “... and where timber production is a minor component of the land management in the carbon project scenario” (see on Section 1.2, p. 3).

### **CP-Issue 02: Carbon Pools**

This Methodology includes aboveground biomass as a carbon pool for accounting carbon stock in the baseline and project scenarios. However, the term aboveground biomass has not been clearly defined or specified whether to include the biomass of aboveground trees and/or the biomass of aboveground non-trees. The VCS has clearly distinguished the aboveground biomass for trees and non-trees and does not require the IFM-LtPF project to consider aboveground biomass for non-trees (VCS 2010, p. 5). Similarly, according to the VCS, dead organic matter in the litter carbon pool is not required for accounting under the IFM-LtPF project category - however it has been included in this Methodology (see Table 1 on p. 4).

### **CP-Issue 03: Carbon Sources**

Table 2 on p. 5 in the Methodology provides the carbon sources as emission sources within the project boundary. Firstly, the term “carbon pool” in the first column of the Table does not reflect the content in the column. Next, although this Methodology suggests to include the non CO<sub>2</sub> gases such as CH<sub>4</sub> and N<sub>2</sub>O (sic) from the use of fertilisers if applicable to the project, it does not provide any methods to consider these gases in the calculation.

### **CP-Issue 04: Terminology - Leakage Risk Withholding**

Section 1.5.1, point 14 on p. 6, this Methodology suggests to calculate and apply leakage risk withholding. The term “leakage risk withholding” is not used by the VCS and is not defined in this Methodology. The VCS uses the term “buffer withholding” to account for the non-permanence risk (VCS 2008b, p. 9).

### **CP-Issue 05: Baseline Projection**

Section 2.4.1 on p. 9 suggests to prepare a harvest plan or forest management plan for the baseline and project scenarios. Firstly, it is likely that an existing data or harvesting plan/forest management plan could be available for the project area. Such data or plans could have been used for harvesting the forest on a sustainable basis. This Methodology does not speculate the availability of such data, plan or document and also does not provide a method to verify these data, plan or document. Secondly, this methodology has discussed the preparation of new harvesting plan prior to the carbon project for baseline projection and has suggested to use robust modelling tools. However, it does not mention about the legitimacy of such document and technical validation. Should it be the case that a harvesting plan prepared by the Project Proponent with the intention of establishing a potential carbon project be used without proper legal and technical scrutiny??

### **CP-Issue 06: Carbon Emissions from Logging**

- (i) The concept of time is not employed throughout the Methodology’s equations for GHG emissions reductions under the baseline and project scenario. The Methodology presents that the baseline projection in the harvesting plan be used as the source of carbon emissions and that the



rate of harvesting is likely to be different for different forest types. hence, affecting the annual harvest rate year to year for the rotation period. This Methodology uses forest type as subscript for determining the annual harvest in terms of area by using the parameter ( $A_{HARVESTi}$ ). It implies that a forest type,  $i$ , is harvested every year and for a rotation age of 35, there must be 35 forest types. Hence, the equations in this Methodology cannot estimate annual carbon stock change where the harvesting volumes vary on a year to year basis.

- (ii) This Methodology has used several factors such as  $f_{ACTUALi}$ ,  $f_{FUELWOODi}$ ,  $f_{DAMAGEi}$ ,  $f_{NATURALi}$ ,  $f_{LBBRANCHi}$ ,  $f_{BUCKINGLOSS}$ ,  $f_{LBROOTSi}$  etc. for estimating the annual carbon stock changes in various carbon pools and sources. The parameter descriptions are not consistent and accurate throughout this Methodology and also the sources for these parameters or guidance to estimate these parameters specific to forest type,  $i$ , have not been provided.
- (iii) This Methodology accounts for carbon stock change due to fuelwood gathering. If there is fuelwood gathering from the project areas, carbon emissions from the burning of fuelwood should also be considered as carbon emissions in the form of  $CH_4$  and  $N_2O$ . Not considering the emissions in the form of these gases due to the burning of fuelwood in the project scenario is not a conservative approach.
- (iv) Section 2.4.4.1.7 on p. 15 states that damage due to road construction is also considered under the carbon stock change due to other losses. It is not clear how the equation (E. 3.2.8 on p. 15) can handle different sources of losses with different damage factor ( $f_{DAMAGEi}$ ) and also a year to year variability in the carbon losses.
- (v) E. 3.2.12 accounts for the biomass into the deadwood pool from the various sources. Although the tree parts from damage and natural mortality such as branch, bucking loss and roots are considered as carbon sources into the deadwood pool, the other remaining parts are not accounted in any other carbon pools. The carbon emissions associated with these biomass have been ignored without considering their contribution in the net GHG emissions and hence, the GHG accounting does not adhere to the principle of conservativeness.
- (vi) E. 3.2.13 calculates the average annual transfer into deadwood from the live biomass pool (tonnes d.m.  $yr^{-1}$ ) by considering both the portion of the biomass that accumulates into the permanent storage and the rate of decay. This estimation is correct in the first year after the commencement of the IFM-LtPF project. Since a portion of the deadwood pool is emitted through the process of decay, the remaining parts enter the deadwood pool in the second year - and the cycle goes on. This Methodology does not account for the emissions from the biomass added into the deadwood pool every year after decay. Hence, a comprehensive methodology must provide an estimation of the carbon emissions from the cumulative increase in the deadwood pool by applying appropriate decay rates to each (input) component of the deadwood pool.
- (vii) The subscript for the forest type,  $i$ , is not consistently used in the biomass input and biomass output parameters throughout the Methodology.
- (viii) This Methodology also considers litter as a carbon pool for an IFM-LtPF project - which is not required by the VCS (See CP-Issue 02). In addition, portions of the litter pool which constitute foliage and fine roots have also been considered to store permanently. This Methodology does not provide a reference in support of the above assumption and also does not provide a guidance to obtain a value for the parameters,  $BLT_{PERM}$  and  $BLT_{CWDECAY}$ .

## CP-Issue 07: Calculation of VCUs

The Methodology calculates the VCUs for the IFM-LtPF activity using equation E.3.2.27:



$$\Delta VCU_{GROSS} = \frac{44}{12} (\Delta C_{TOTbaseline} + \Delta C_{TOTproject})$$

The above equation does not truly represent what is said in-text in Section 2.4.5.1 and hence, provides an over estimation of the gross carbon emissions reductions due the project.

### **CP-Issue 08: Accounting Carbon Loss due to Illegal Activity and Natural Disturbances**

Section 2.4.2 on p. 10 states that the stand-replacing disturbances are taken into account by the non-permanence risk. In contrast, ex ante removal of the GHG in the project scenario requires accounting of the annual carbon change due to illegal activities as well as the natural disturbances, and suggests to use Section 2.4 for their estimations (see Section 2.5 on p. 25). However, the Methodology does not provide any method on how to deal with emissions from natural disturbances, or illegal logging in the project area in its monitoring plan or GHG accounting. In addition this Methodology does not provide any guidance or a procedure on how to make an ex ante estimation of carbon emissions due to illegal activities and natural disturbances in the project scenario.

Furthermore, illegal logging and devastating fire potential are key components of an IFM project's non-permanence risk assessment and hence risk factor rating (VCS 2008b, Table 6, p. 8). This, in turn, is employed in the determination of the buffer withholding percentage (VCS 2008b, Table 7, p. 9) required for the AFOLU Pooled Buffer Account. The inclusion of both illegal logging and fire in the non-permanence risk assessment imply that these events must be tracked and properly managed (such as the use of forest guards and fire prevention measures, respectively) in order for the associated risks to be reduced.

### **CP-Issue 09: Leakage**

This Methodology has described and distinguished leakage (types) as primary and secondary in Section 2.6 on pp. 25-26. The estimation of both leakage types,  $VCU_{PRIMLEAK}$  and  $VCU_{SECLEAK}$  are needed for equation E. 3.2.28 for estimating the net emissions reduction. The Methodology does not provide a procedure for leakage estimation but instead suggests the Project Proponent to follow the VCS guidance. One of the principles stated in the guidelines for VCUs to be validated and verified under the VCS Program is "Measurable" (VCS 2008c, p. 4). To conform with this principle, a VCS methodology must provide an accurate method for quantifying GHG emission reductions and removals from the baseline activity, the project activity, as well as leakage. Hence, a method for estimating leakage is an essential component for any VCS approved methodology in order to permit the Project Proponent to make the necessary adjustment on the matter of VCU issuance.

### **CP-Issue 10: Monitoring**

- (i) This Methodology provides three different monitoring approaches for an IFM-LtPF project in Section 3.1 on p. 28. For the land use change and forest change the remote sensing approach complimented by field visits has been suggested. The Methodology, however, does not provide a method on how the remote sensing data can be used and where, in the net GHG removals by sink in Section 2.4.
- (ii) For the forest biomass monitoring the biomass measurement in the forest has been suggested in this Methodology. Table 5 on pp. 30-34 presents the temporary sample plots (TSPs) and the permanent sample plots (PSPs) for obtaining the biomass data. Section 3.2 of the Methodology discusses the sampling design and provides reference to Pearson et al. (2005) for field measurement. However, this Methodology has not clearly stated that measurements are taken in the sample plots, has not differentiated between TSPs and PSPs and their uses.



- (iii) For ex ante baseline estimation this Methodology has suggested establishing pilot baseline sampling experiments on or nearby the project area for obtaining baseline data (see Section 3.1, point c, p. 28). Should this activity be considered as leakage for the IFM-LtPF and accounted in the net GHG removals?
- (iv) CP-Issue-10: Table 5 summarises parameters as data necessary for determining the baseline net GHG removals by sinks. The issues associated with this table are: 1) The title of the Table itself is not inclusive for the net GHG removals by sinks under the project scenario. 2) This Methodology has been ambiguous in the use of parameters such as aboveground herbaceous and aboveground shrub in the net GHG calculations. 3) This Table has several parameters such as over-dry herbaceous biomass, oven-dry shrub biomass and so on, which are not mentioned in the document elsewhere. 4) Although the Table mentions how the parameters are derived, it does not specify which parameters are monitored and which are not monitored.

## CP-Issue 11: General

- (i) This Methodology has used ambiguous statements without providing enough detail. For example Section 2.1 on p. 6 this Methodology states “...consistent with the VCS requirements” and does not state the detail or provide a cross reference within the document.
- (ii) The parameter,  $\Delta C_{FF}$  on p. 10 has been defined as “the annual change in carbon stocks from forest land remaining forest land in the timber harvesting land use area (including planned and illegal activities) tonnes C yr<sup>-1</sup>” and the calculation is provided in Section 2.4.4. Although the parameter is said to include the annual carbon change due to the illegal activities and suggests to monitor illegal or unplanned land use change or harvesting (see Section 3.5 on p. 37), this methodology does not provide a procedure on how to assess and estimate the change in the carbon stocks due to illegal activities.
- (iii) This Methodology has used a general referencing style for IPCC reports such as (IPCC, 2003) on p. 10, (IPCC, 2006) on p.11. These reports have several chapters and volumes. It would be better for the reader to specify the chapter or volume, section and page number while referencing.
- (iv) Units for some parameters are not correct. For example,  $LB_{FELLINGS}$  and  $LB_{OTHER}$  have tonnes C yr<sup>-1</sup>. In fact, both parameters are measured in tonnes d.m. yr<sup>-1</sup>. In addition the unit for  $AGB_i$  is written as tonnes ha<sup>-1</sup> and this unit does not conform with the international standard best practice.
- (v) This Methodology has used several terms such as un-merchantable area (p. 5), timber harvesting land base (p. 5), analysis unit (p. 8), timber development (p. 8), economic logging development (p. 8) without providing a clear definition or description for each of these used.

--- END OF CP-Issues ---

## References

- VCS (2008a). Tools for AFOLU Methodological Issues, accessed 25 May 2010 from <http://www.v-c-s.org/afl.html>
- VCS (2008b). VCS Tool for AFOLU Non-Permanence Risk Analysis and Buffer Determination, accessed 25 May 2010 from <http://www.v-c-s.org/programs.html>
- VCS (2008c). VCS Program Guidelines, accessed 25 May 2010 from <http://www.v-c-s.org/programs.html>
- VCS (2010). VCS Program Update, accessed 15 Aug 2010 from <http://www.v-c-s.org/afl.html>