

# REVIEW OF VM0007

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| <b>Methodology Element Title</b>    | REDD Methodology Modules (BL-PL, BL-UP, LK-ASP, CP-W, M-MON) |   |
| <b>Version</b>                      | Version 1.0  |   |
| <b>Methodology Element Category</b> | Methodology  | x |
|                                     | Methodology Revision   |   |
|                                     | Module   | x |
|                                     | Tool   |   |
| <b>Sectoral Scope(s)</b>            | 14 - Agriculture, Forestry and Other Land Use                |   |

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| <b>Report Title</b>        | Review of VM0007  |
| <b>Assessment Criteria</b> | <i>AFOLU Requirements v3.2, Methodology Approval Process v3.4</i> |
| <b>Date of Issue</b>       | 2 November 2012   |
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| <b>Summary:</b>  |
| <p>The VCS Association reviewed VM0007 against <a href="#">Section 4.5.3</a> of the <i>AFOLU Requirements v3.2</i> released on 1 February 2012 to determine whether VM0007 complied with the new requirements. As a result of the review, the BL-UP and BL-PL modules were found to be non-conformant to section 4.5.3 of the <i>AFOLU Requirements</i> for the decay of soil carbon, belowground biomass and dead wood. Specifically, the methodology assumed the immediate release of emissions from these pools.</p> <p>The C-WP module was also found to be non-conformant with <a href="#">Section 4.5.3</a> of the <i>AFOLU Requirements</i> for harvested wood products. Specifically, the module assumed immediate emissions from medium-term harvested wood products that that are retired between 3 and 100 years.</p> <p>The methodology has been updated following the streamlined procedure described in <a href="#">Section 8.3.2</a> of the <i>Methodology Approval Process v3.4</i> and sets out criteria and procedures to reliably establish the</p> |

pattern of carbon loss for the decay of soil carbon, belowground biomass, dead wood, and medium-term harvested wood products.

The methodology applies the default approach for modelling the decay of each of these pools as given in the *AFOLU Requirements*. Other limited modifications, edits and clarifications have also been incorporated into the methodology. As part of this revision, the REDD Methodology Framework and relevant modules have been updated to include avoided planned degradation as an allowable activity.

[A description of the updates made to the methodology following a review by the VCSA as well as a description of the other revisions made to the methodology and their justifications are provided below.](#)

## 1 ASSESSMENT FINDINGS

### 1.1 Applicability Conditions

#### Revision Proposed by Methodology Developer:

To include avoided planned degradation, as defined in the *AFOLU Requirements*, in the methodology, the following changes have been made:

- (1) Eliminated applicability condition “Where post-deforestation land use constitutes reforestation this module shall not be used” (from BL-PL and REDD-MF)
- (2) Renamed "planned deforestation" to "planned deforestation and planned degradation" (in modules REDD-MF, BL-PL, and LK-ASP), and
- (3) Included text in modules REDD-MF, BL-PL, LK-ASP and M-MON, “hereafter in this module, deforestation refers to both deforestation and planned degradation”, to clarify that APD treatments apply equally to planned degradation

#### Justification for Proposed Revision:

Expanding the current avoided planned deforestation treatment in VM0007 to included planned degradation will create no substantive impacts to the methodology.

There are no substantive impacts to establishing the most plausible baseline scenario for activities that avoid planned degradation. This is fully covered already in module BL-PL – the same requirements to identify and substantiate the baseline scenario that are already there (identification of agent, legal permissibility, suitability of project area for baseline land-use, transfer of ownership, government approval, intent to deforest) would extend to establishing a planned degradation scenario, simply by renaming the module from “planned deforestation” to "planned deforestation and planned degradation" and including the statement in the introduction “hereafter in this module, “deforestation” refers to both deforestation and planned degradation.”

There are no substantive impacts to estimating oscillating baseline carbon stocks in a plantation

scenario given that post-deforestation carbon stocks are calculated as the long-term average stocks on the land following deforestation as per BL-PL.

There are no substantive impacts to accounting for the harvesting that would have occurred in the baseline scenario. Where harvested wood products is identified as an included pool, then it must clearly be accounted for in the baseline as described in the module REDD-MF. Thus, if there is recovery of wood products in the baseline plantation case, this pool would have to be estimated and accounted in the long-term average stocks.

There are no substantive impacts to estimating and accounting for leakage. The REDD-MF module adequately covers identification of included pools, equally applicable to avoided planned deforestation as planned degradation, and leakage would be accounted using existing modules LK-ASP (for activity shifting leakage) and LK-ME occurring (for market leakage).

**VCSA [ResponseReview](#):**

This revision does not materially impact the methodology and is in conformance with the *AFOLU Requirements*. As such, the revisions to applicability conditions are deemed acceptable.

**1.2 Project Boundary**

Not applicable.

**1.3 Procedure for Determining the Baseline Scenario**

Not applicable.

**1.4 Procedure for Demonstrating Additionality**

Not applicable.

**1.5 Baseline Emissions**

**Non-conformity raised by VCSA:**

Section 4.5.3 of the *AFOLU Requirements* requires methodologies to consider the decay of carbon in soil carbon, belowground biomass, dead wood and harvested wood products and shall not assume the immediate release of carbon from these pools in the baseline case.

- (1) For the belowground biomass, deadwood and soil carbon pool in BL-UP and BL-PL modules, the change in carbon stocks in the baseline case is equivalent to the stock before deforestation minus the stock after deforestation (equations 3-5 in BL-PL, equations 16-18 in BL-UP). This procedure assumes immediate oxidation for these pools following a disturbance. This is non-conformant to the *AFOLU Requirements*, which explicitly states that it shall not be assumed that GHG emissions from these pools occur instantaneously in the baseline case.

The BL-UP and BL-PL modules shall set out criteria and procedures to reliably establish the pattern of carbon loss or apply an appropriate decay model for the decay of soil carbon, belowground biomass and dead wood. A default approach for modelling the decay of each of these pools is given in the *AFOLU Requirements* and may be applied.

- (2) For harvest wood products (CP-W), the assumption is that there is immediate emission of stocks not still sequestered after 100 years. In the baseline case, this is non-conformant to the *AFOLU Requirements*, which explicitly states that it shall not be assumed that GHG emissions from the medium-term harvested wood products pool occur instantaneously in the baseline case.

The methodology shall set out criteria and procedures to reliably establish the pattern of carbon loss or apply an appropriate decay model for the decay of medium-term harvested wood products. A default approach for modelling the decay of each of this pool is given in the *AFOLU Requirements* and may be applied.

- (3) In BL-DFW, the methodology looks at different fuel usage in the baseline and project cases. In equation 1, beyond the biomass of fuelwood itself, the methodology assumes, in harvesting the fuel, 10% of biomass is left in the forest and is immediately oxidized. However, given that this 10 percent will be twigs and branches too small to be burned as fuel it is reasonable to assume immediate oxidation. No action is required.

**Developer Response:**

In response to the non-conformance, the modules BL-UP, BL-PL, LK-ASP and CP-W have been revised.

In BL-UP, text from section 4.2.1 which assumed that belowground biomass, soil carbon, and dead wood pools to be immediately emitted has been removed and equations 16 – 22 have been altered. Previously, the equations calculated the total stock before deforestation and the total stock after deforestation with the change being the difference between the two totals. In order to meet the updated *AFOLU Requirements* on decay, the methodology now accounts for change in each of the pools separately. The methodology is revised to reflect that 1/10<sup>th</sup> of the stock change in belowground biomass and dead wood and 1/20<sup>th</sup> of the stock change in soil organic carbon and wood product proportion is emitted annually, and is expected to be emitted before year 100.

Changes were also made in BL-PL to reflect the structure of the changes made in the BL-UP module. To allow each of the pools to be considered separately, the annual area deforested has been removed from equation 1. This is now incorporated in a new section of the module, *Section 1.6, Annual area of deforestation*. As in BL-UP, equations 4 to 11 account for the change in each pool separately and then apply the decay of emissions over time for the baseline for the relevant pools.

The changes in BL-PL required changes in the linked leakage module LK-ASP which now includes a reference to the new parameter calculated in BL-PL.

The wood products pool module CP-W has also been revised to allow a clear separation between the short, medium and long lived products as required in the VCS rules. The revised CP-W module does not provide emission estimates from the wood products pool beyond those that are immediate (wood waste fraction), instead it provides a procedure to calculate the amount of wood products entering the pool at the time of deforestation (revised equations 2 and 5). This results in the parameter  $C_{WP100}$  which is the amount that is expected to be emitted over a 100-year timeframe (i.e. short-term and medium-term) – see revised equations 3 and 6. The emissions from  $C_{WP100}$  are accounted for in modules BL-UP and BL-PL based on a linear 20 year decay function as described above. As such, the revision in the module includes the entire fraction of wood products emitted to the atmosphere within 5 years of timber harvest as part of the the medium-term amount emitted over 20 years.

**VCSA Response:**

The developer response adequately addresses the findings. No further action is required.

**1.6 Project Emissions**

Not applicable.

**1.7 Leakage**

Not applicable.

**1.8 Quantification of Net GHG Emission Reductions and/or Removals**

Not applicable.

**1.9 Monitoring**

Not applicable.

**1.10 Data and Parameters**

Not applicable.

**1.11 Use of Tools/Modules**

Not applicable.

**1.12 Additional Information**

**Revision Proposed by Methodology Developer:**

Two corrections were made to the methodology, with respect to removing relict draft text (BL-UP top of p 32 related to including the long-lived wood products in the estimation of changes in carbon

stock) and an equation (eq 8 REDD-MF) mistakenly retained from earlier drafts of the VM0007 revision completed and released 31 July 2012.

**Justification for Revision:**

These corrections were intended as part of the VM0007 revision issued on 31 July 2012, but were accidentally overlooked.

**VCSA [ResponseReview](#):**

These revisions do not materially impact the methodology and are in conformance with the *AFOLU Requirements*. As such, the revisions are deemed acceptable.

**2 ASSESSMENT CONCLUSION**

The developer has provided sufficient responses to close all findings. Further limited modifications, edits and clarifications that were made to the methodology do not materially impact the methodology and are deemed acceptable.