

CORRECTIONS TO VM0045 IMPROVED FOREST MANAGEMENT USING DYNAMIC MATCHED BASELINES FROM NATIONAL FOREST INVENTORIES, V1.1

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This document provides corrections applicable to *VM0045 Improved Forest Management using Dynamic Matched Baselines from National Forest Inventories, v1.1*. Such corrections are effective on their issuance date. Project proponents and validation/verification bodies (VVBs) shall apply and interpret *VM0045, v1.1* consistent with the corrections set out in this document.

These updates will be incorporated into the next issued version of the methodology.

Correction/Clarification	Description	Document and Section Reference	Effective Date
Correction 1	Added missing parenthesis	Section 8.4, Equation 30	Effective immediately
Correction 2	Added missing parenthesis	Section 8.4, Equation 31	Effective immediately
Correction 3	Added missing mean stock change and multiplied by area to arrive at the unit tCO ₂ e	Section 8.6, Equations 33 and 34	Effective immediately

CORRECTION 1

Correction:

$$\begin{aligned}
 \overline{ER}_t = & I(\Delta CO2_{wp}) \times \frac{1}{n} \times \sum_{i=1}^n (-PE_{i,t} - MIN(0, \Delta CO2_{bsl,i,t}) \\
 & + MIN(0, \Delta CO2_{wp,i,t})) + (1 \\
 & - I(\Delta CO2_{wp})) \times \frac{1}{n} \times \sum_{i=1}^n (PE_{i,t} - BE_{i,t} - MIN(0, \Delta CO2_{bsl,i,t}) \\
 & + MIN(0, \Delta CO2_{wp,i,t}) + MAX(0, \Delta CO2_{wp,i,t}) \\
 & - MAX(0, \Delta CO2_{bsl,i,t}))
 \end{aligned} \tag{1}$$

Background:

In the original equation, a closing parenthesis was missing, which is necessary to conclude the second summation over n .

CORRECTION 2

Correction:

$$\overline{CR}_t = I(\Delta CO2_{wp}) \times \frac{1}{n} \times \sum_{i=1}^n (MAX(0, \Delta CO2_{wp,i,t}) - MAX(0, \Delta CO2_{bsl,i,t})) \tag{2}$$

Background:

In the original equation, a closing parenthesis was missing, which is necessary to conclude the second summation over n .

CORRECTION 3

Correction:

$$\begin{aligned}
 Bu_{CR,t} = & I(\Delta CO2_{wp}) \times A_t \times \frac{1}{n} \\
 & \times \sum_{i=1}^n (MAX(0, \Delta CO2_{wp,i,t}) - MAX(0, \Delta CO2_{bsl,i,t})) \times NPR\%
 \end{aligned} \tag{3}$$

Where:

$I(\Delta CO2_{wp}) = 1$ if $\sum_{i=1}^n \sum_{j=1}^t \Delta CO2_{wp,i,j} > 0$ and;

$I(\Delta CO2_{wp}) = 0$ if $\sum_{i=1}^n \sum_{j=1}^t \Delta CO2_{wp,i,j} \leq 0$

$Bu_{CR,t}$	=	Buffer credits to be deducted from removals in year t (t CO ₂ e)
A_t	=	Project area in year t (unit area)
n	=	Number of sample units in which stock change values are available for both the project and baseline scenarios
$\Delta CO2_{wp,i,t}$	=	Carbon stock change in the project scenario at sample unit i in year t (t CO ₂ e/unit area/year)
$\Delta CO2_{bsl,i,t}$	=	Carbon stock change in the baseline scenario in composite baseline i in year t (t CO ₂ e/unit area/year)
$NPR\%$	=	Overall project non-permanence risk rating converted to a percentage

$$\begin{aligned}
 Bu_{ER,t} = & I(\Delta CO2_{wp}) \times A_t \times \frac{1}{n} \\
 & \times \sum_{i=1}^n (MAX(0, \Delta CO2_{wp,i,t}) - MAX(0, \Delta CO2_{bsl,i,t})) \times NPR\% \\
 & + (1 - I(\Delta CO2_{wp})) \\
 & \times A_t \times \frac{1}{n} \times \sum_{i=1}^n (MIN(0, \Delta CO2_{wp,i,t}) - MIN(0, \Delta CO2_{bsl,i,t}) \\
 & + MAX(0, \Delta CO2_{wp,i,t}) - MAX(0, \Delta CO2_{bsl,i,t})) \times NPR\%
 \end{aligned} \tag{4}$$

Where:

$$I(\Delta CO2_{wp}) = 1 \text{ if } \sum_{i=1}^n \sum_{j=1}^t \Delta CO2_{wp,i,j} > 0 \text{ and;}$$

$$I(\Delta CO2_{wp}) = 0 \text{ if } \sum_{i=1}^n \sum_{j=1}^t \Delta CO2_{wp,i,j} \leq 0$$

$Bu_{ER,t}$	=	Buffer credits to be deducted from reductions in year t (t CO ₂ e)
A_t	=	Project area in year t (unit area)
n	=	Number of sample units in which stock change values are available for both the project and baseline scenarios
$\Delta CO2_{wp,i,t}$	=	Carbon stock change in the project scenario at sample unit i in year t (t CO ₂ e/unit area/year)
$\Delta CO2_{bsl,i,t}$	=	Carbon stock change in the baseline scenario in composite baseline i in year t (t CO ₂ e/unit area/year)
$NPR\%$	=	Overall project non-permanence risk rating converted to a percentage (percent)

Background:

The original Equations 33 and 34 did not include the mean carbon stock change across the sample units or multiplication by the project area to obtain the result as tCO₂e.