VCS MODULE VMD0020

METHODS TO DETERMINE THE PROJECT BOUNDARY

Version 1.0

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Sectoral Scope 14

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1   SOURCES

Adapted from: Draft Methodology for Estimating Reductions of GHG Emissions from Mosaic Deforestation, author Lucio Pedroni

VCS methodology *VM0015 Methodology for Avoided Unplanned Deforestation*

Brown, S., F. Achard, R. de Fries, G. Grassi, N. Harris, M. Herold, D. Mollicone, D. Pandey, T. Pearson, D. Shoch, 2007. Reducing Greenhouse Gas Emission from Deforestation and Degradation in Developing Countries: A Sourcebook of Methods and Procedures for Monitoring, Measuring and Reporting (Draft Version, 10.November, 2007).

2   SUMMARY DESCRIPTION OF THE MODULE

The module sets out the methods and standards by which the temporal and spatial boundaries of the project are to be defined and documented, and the criteria for selecting carbon pools and GHG emissions to be monitored.

3   DEFINITIONS

Baseline:	The total amount of carbon within the project boundary in absence of the project.
Baseline Scenario:	The most likely sequence of events and actions which would be expected to occur within the project boundary in the absence of the project.
Directly Attributable:	The change or effect occurs as result of a chain of causal events linking the change or effect to an event, or to the actions of an agent. Each of the causal events or conditions in the chain must be primarily and directly caused by the previous event in the chain. Analysis of the linkages in the chain should show that for each one, the previous event is at least 75% responsible for the next event. For this reason, the relationship between an event, or the actions of an agent, and the directly attributable effect, typically consist of not more than a few causal linkages.
Ex-ante:	Before the fact. Projection of values or conditions in the future.
Ex-post:	After the fact. Estimation of values or conditions in the present or past.
Leakage:	See *VCS Program Definitions*.
Project Area:	The area or areas of land on which the project proponent will undertake the project activities.
Project Crediting Period:	See *VCS Program Definitions*.
Project Scenario:	The actions and events which are expected to occur as a result of

implementing the project.

Project Start Date: See *VCS Program Definitions*.

Significant: A pool or source is significant if it does not meet the criteria for being deemed *de minimus*. Specific carbon pools and GHG sources, including carbon pools and GHG sources that cause project and leakage emissions, may be deemed *de minimis* and do not have to be accounted for if together the omitted decrease in carbon stocks (in carbon pools) or increase in GHG emissions (from GHG sources) amounts to less than five percent of the total GHG benefit generated by the project.

4   APPLICABILITY CONDITIONS

None

5   PROCEDURES

The procedures described in the sub-sections below entail the following inputs and outputs.

Inputs:
- General knowledge of project area and expected conditions under the baseline and project scenarios;
- Maps of the region within which the project occurs, ideally consisting of layers in a GIS showing geographic and cultural features;
- Geo-referenced data points delineating the project area; and,
- Knowledge of the range of the permissible project crediting periods as set out in the latest version of the *VCS Standard.*

Outputs:
- Geo-referenced definition of the project area;
- Documented project start date;
- Documented choice of project crediting period;
- Documented projection of the monitoring periods;
- Documented choice of carbon pools to be accounted; and,
- Documented choice of sources of GHG emissions to be accounted.

5.1   Spatial boundaries

Define the boundaries of the following spatial feature:

5.1.1   Project area:

The project area is the area or areas of land on which the project proponent will undertake the project activities. Lands on which the project activity will not be undertaken cannot be included in the project area.

Describe and justify the criteria used to define the boundary of the project area. Use appropriate sources of spatial data for each of these criteria, such as remotely sensed data, field information, and other verifiable sources of information meeting the requirements laid out in the latest version of the *VCS Standard*.

Provide project location in KML file and geodetic polygons, as well as additional shape files, maps, GPS coordinates or any other location information that allows the identification of the boundaries unambiguously and with a reasonable level of certainty.

5.2   Temporal boundaries

Define the temporal boundaries listed below:

5.2.1   Project start date and end date of the project activity

The duration of the project activity must fall within the permissible range as set out in the most recent version of the *VCS Standard*.

5.2.2   Starting date and end date of the project crediting period

The crediting period must fall within the permissible range as set out in the most recent version of the *VCS Standard*.

5.2.3   Monitoring period

The minimum duration of a monitoring period is one year.

5.3   Carbon pools

Selection of carbon pools to be accounted must conform with requirements for the project type, given in the most current version of the VCS document *Agriculture, Forestry and Other Land Use (AFOLU) Requirements*.

Where pools are indicated as optional in the *AFOLU Requirements*, further guidance on the selection of carbon pools can be found in the GOFC-GOLD sourcebook (Brown *et al.*, 2007)[1].

5.4   Sources of GHG emissions

The four sources of GHG emissions listed in Table 2 are eligible. The inclusion of a source is to be decided (TBD) by the project proponent taking into account the specific project circumstances and the guidance provided below.

Table 2. Sources and GHG included or excluded within the project boundary

Sources	Gas	Included/ TBD/ excluded	Justification / Explanation of choice
Biomass burning	CO_2	Excluded	Counted as carbon stock change
	CH_4	TBD	
	N_2O	TBD	
Combustion of fossil fuels by vehicles	CO_2	TBD	
	CH_4	Excluded	Not a significant source
	N_2O	Excluded	Not a significant source

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[1]   GOFC-GOLD, 2009, Reducing greenhouse gas emissions from deforestation and degradation in developing countries: a sourcebook of methods and procedures for monitoring, measuring and reporting, GOFC-GOLD Report version COP14-2, (GOFC-GOLD Project Office, Natural Resources Canada, Alberta, Canada) (http://www.gofc-gold.uni-jena.de/redd/sourcebook/Sourcebook_Version_July_2009_cop14-2.pdf).

Emissions from livestock husbandry	CO$_2$	Excluded	Carbon content is assumed to be sourced from renewable carbon pools with a cycle of less than 1 year, and thus no net addition to atmospheric carbon occurs
	CH$_4$	TBD	
	N$_2$O	TBD	
Emissions of nitrogen captured by nitrogen fixing plants	CO$_2$	Excluded	Not a significant source
	CH$_4$	Excluded	Not a significant source
	N$_2$O	TBD	

Any source noted as TBD above, and which will emit significantly more GHGs under the project scenario, as compared with the baseline scenario, must be included in the project boundary. Where accounting is not required, the decision on which sources of GHG emission to select depends on presence or absence of emissions from specific sources, available financial resources, ease and cost of measurement, the magnitude of potential change and the principle of conservativeness. The following guidance is given:

- Sources of GHG emissions that are not significant according to the validated ex ante assessment do not need not to be monitored ex post.

- Changes in GHG emissions not associated with carbon stock changes are considered permanent, while carbon stock changes are considered non-permanent under the VCS. For this reason, accounting of changes in carbon stocks and of GHG emissions must be kept separate at all times in this methodology.

6   PARAMETERS

None

7   REFERENCES AND OTHER INFORMATION

GOFC-GOLD, 2009, Reducing greenhouse gas emissions from deforestation and degradation in developing countries: a sourcebook of methods and procedures for monitoring, measuring and reporting, GOFC-GOLD Report version COP14-2,49 (GOFC-GOLD Project Office, Natural Resources Canada, Alberta, Canada)

VCS methodology *VM0015 Methodology for Avoided Unplanned Deforestation*

DOCUMENT HISTORY

Version	Date	Comment
v1.0	16 Nov 2012	Initial version released