REDD+ Methodology Development: A Decade of Leadership by Winrock International

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What are methodologies and why are they important?

Under both compliance and voluntary markets, the integrity of offsets is assured through the use of approved accounting methodologies. Methodologies outline the steps a project developer must follow to demonstrate additionality, identify the baseline scenario, and determine how greenhouse gas sources, sinks and pools will be measured and monitored to calculate net emission reductions resulting from project activities.

Winrock's history in methodology development

For the past decade, Winrock International's Ecosystem Services Unit (ECO-WI) has led the development of procedures and approaches required to produce credible accounting methodologies. Here we discuss some key examples of methodologies produced by ECO-WI.

ECO-WI: Leaders in Methodology Development for the Land Use Sector

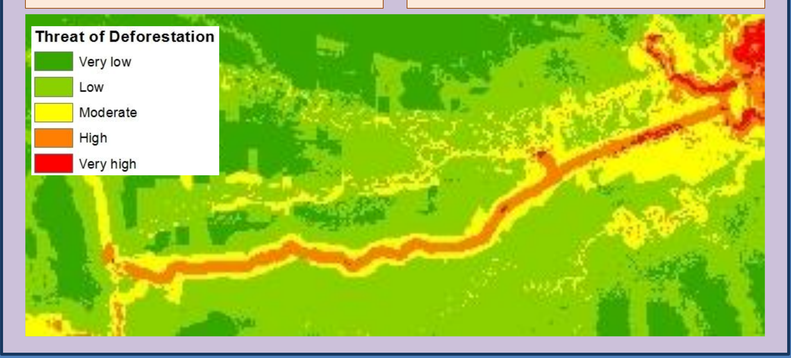
First certified REDD methodology (Noel Kempff Project, Bolivia)

Two methodologies were developed for calculating offsets from the Noel Kempff Mercado Climate Action Project, a 650,000 ha conservation project.

One methodology applies to stopping timber harvesting activities in natural forests (LtPF) and is based on field-based emission factors caused by logging activities and a model of the Bolivian timber market. It projects baseline emissions and leakage for the project area.

The other methodology applies to projects that avoid unplanned deforestation by agents that are resident and bound to a certain region. The methodology quantifies how much area would have been deforested and its location in the baseline case using historical data and spatial modeling.

Both methodologies were developed with support from TNC and were independently certified by SGS in 2005.



Reforestation or afforestation of land currently under agricultural use (CDM AR-AM0004)

This was the fourth methodology to be approved under Sectoral Scope 14 of the Clean Development Mechanism. The methodology applies to projects that reforest or afforest current agricultural or grazing lands that may or may not be in a slash and burn cycle.

The methodology was the first and until this year the only methodology to cover croplands.

The methodology includes a novel component for leakage accounting, whereby emissions are estimated in the case where the project activity leads to a shift of pre-project agricultural activities outside the project boundary.

The CDM A/R Working Group validated the methodology in 2006. Of 20 approved A/R CDM methodologies AR-AM0004 has been the 4th most commonly used.

Improved Forest Management through extension of rotation age (VCS VM-0003)

This methodology was the **first AFOLU (agriculture, forestry and other land uses) methodology to be approved by the Voluntary Carbon Standard**.

The methodology was written by Winrock International under support from Ecotrust.

It applies to improved forest management (IFM) VCS project activities that involve an extension in rotation age (ERA).

The methodology is applicable to forests with clear-cut or patch-cut management.

The baseline is modeled based either on historic practices or common practices in the project region. In the project case changes in stock are directly measured.

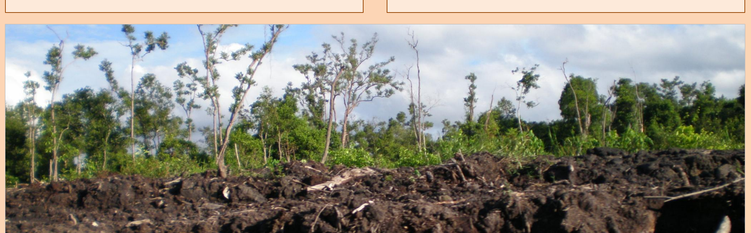
This methodology was validated in 2010 after double approval by SCS and DNV.

Avoided planned land use conversion in peat swamp forests (VCS VM-0004)

This methodology was the **first REDD methodology** and the **first peat methodology to be approved by VCS**. It outlines transparent and conservative methods to estimate avoided net greenhouse gas emissions resulting from project activities implemented to prevent land-use change in the undrained tropical peat swamp forests of Southeast Asia. These highly threatened landscapes store vast quantities of carbon.

The methodology accounts for changes in carbon stocks in aboveground biomass and also accounts for emissions from peat drainage and burning. It was first developed for the Mawas Peatlands Conservation Project In Central Kalimantan, Indonesia.

The methodology was validated in 2010 after double approval by Rainforest Alliance and Bureau Veritas Certification.



N_2O emission reductions through changes in fertilizer management

This methodology was the **first to cover agricultural land management (ALM) project activities in the voluntary market and has been approved by the American Carbon Registry.**

Project activities may include changes in fertilizer rate (quantity), type (specific synthetic or organic fertilizers), placement, timing, use of timed-release fertilizers, use of nitrification inhibitors and other factors.

The methodology uses a peer-reviewed, tested and highly parameterized model (DNDC) to estimate, for baseline and project scenarios, direct N_2O emissions from fertilizer use and indirect emissions from leaching and ammonia volatilization.

The methodology was subjected to a rigorous external peer-review process and public comment period as part of ACR validation procedures.

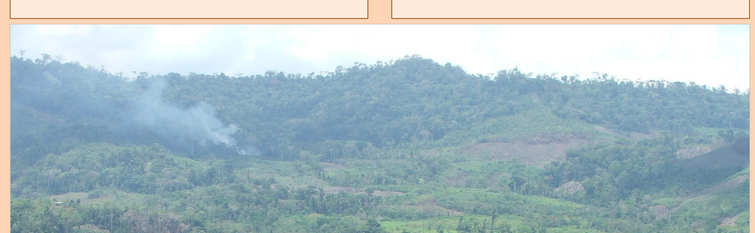
AD Partners REDD methodology modules

This methodology will be the **first to cover unplanned deforestation and avoided degradation,** as well as cover planned deforestation, in the VCS's REDD category.

The methodology takes an innovative modular approach. There are 18 individual methodology components, or modules, that project developers can fit together to suit the needs of a particular REDD project.

The modules are applicable to project activities that reduce emissions from avoiding planned and unplanned deforestation, and for activities to reduce emissions from forest degradation due to fuelwood collection and charcoal production.

The methodology modules have been successfully validated by SQS and Rainforest Alliance and are in the final stages of double approval.



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