a VCS Mosaic REDD Methodology and Participatory Biomass Inventories

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Acknowledgements

- Forestry Administration, Cambodia
- Community Forestry International
- PACT Cambodia
- Clinton Climate Initiative
- Technical Working Group on Forests and the Environment, Cambodia
- Children's Development Association, Cambodia
- Buddhist Monk's Association, Oddar Meanchey, Cambodia
- Communities of Oddar Meanchey Province, Cambodia
- MacArthur Foundation
- DANIDA, Denmark
- Clinton Climate Initiative, USA

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Applicability of VCS methodology

- Main applicability criteria
  - **Mosaic deforestation**, defined using
    - Minimal population density
    - Minimal road network
    - Minimal historical deforestation rate
  - **Data must be available** on historical deforestation/forest degradation
  - Allowable **drivers and project actions** are defined
  - No **commercial timber** logging before or after project starts
    - Allows the exclusion of long-lived wood products
    - Logging for domestic is still allowed
    - Illegal logging may have occurred in the baseline
  - Agricultural intensification only on land that is **already under agriculture**

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Main Drivers and Actions

Project Actions

Drivers	Strengthening land-tenure	Sustainable forest use plans	Forest protection	Fuel-efficient woodstoves	Agricultural intensification	Assisted Natural Regeneration
Fuel-wood collection		✔		✔		✔
Forest fires		✔				
Crop-land conversion	✔	✔	✔		✔	
Settlement conversion	✔	✔	✔			
Illegal logging	✔		✔			
Logging of timber for domestic use		✔				✔

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Baseline

- Baseline is based on combination of **historical remote sensing analysis** (fixed number of images and intervals) and a **land-use change model**
- Includes deforestation/reforestation as well as degradation/regeneration
- Historical rates determined in a **reference region**

Size of the Project Area	Minimal Size of the Reference Region
< 25,000	20 ×
25,000 – 50,000	10 ×
50,000 – 100,000	5 ×
> 100,000	2 ×

- **Similarity** Test
  - Same drivers of deforestation are present
  - Similar landscape features (slope, aspect, etc.)
  - Similar land-tenure and land policies

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Accuracy Discounting and Inclusion of Degradation

- **Credits are discounted** according to lower confidence interval (alpha=5%)
- Credits from deforestation, forest degradation and assisted natural regeneration have **different accuracy**, and therefore different discounting
- Including forest **degradation is optional** and may be included after project start
  - Forest degradation must be detected with a **minimal accuracy**
  - **Initial income** from carbon can be used to purchase the necessary high-resolution imagery

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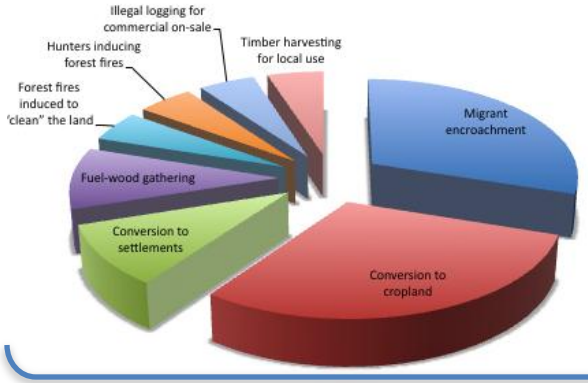
Ex-ante Credit Estimation

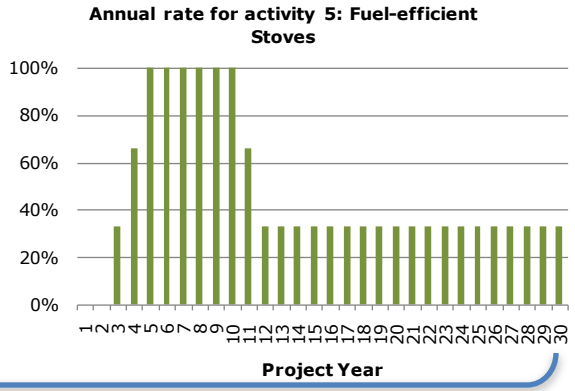
Relative importance of drivers



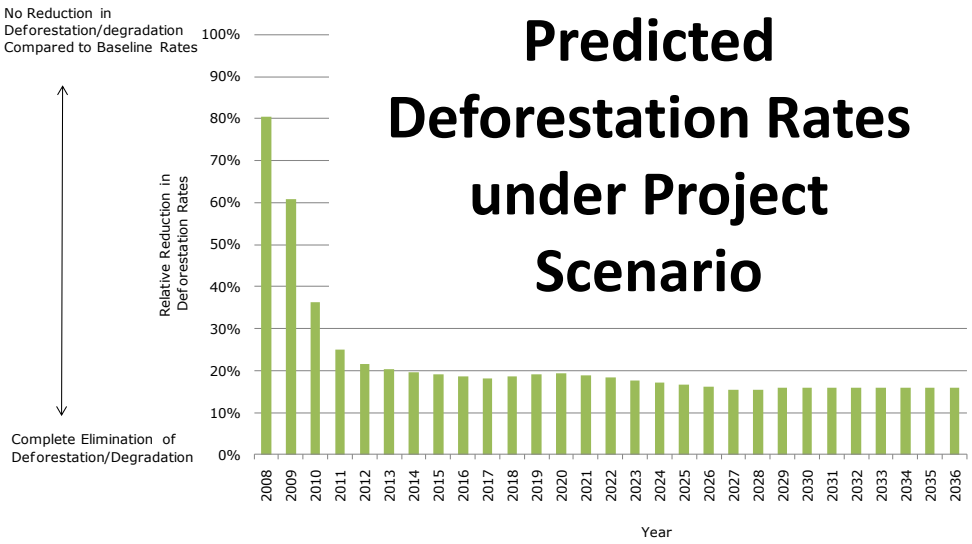
Effectiveness of project activities

	Strengthening land-tenure	Sustainable forest use plans	Forest protection	Fire prevention	Fuel-efficient woodstoves and mosquito nets	Agricultural intensification	Increased livestock production	Assisted Natural Regeneration
Fuel-wood collection		5			30			5
Forest fires		5		25				
crop-land conversion	10	10	10			25	25	
Settlement conversion	10	10	15					
Illegal logging	15		5					
Logging of timber for domestic use		15						10

Annual rate of project activities



Predicted Deforestation Rates under Project Scenario



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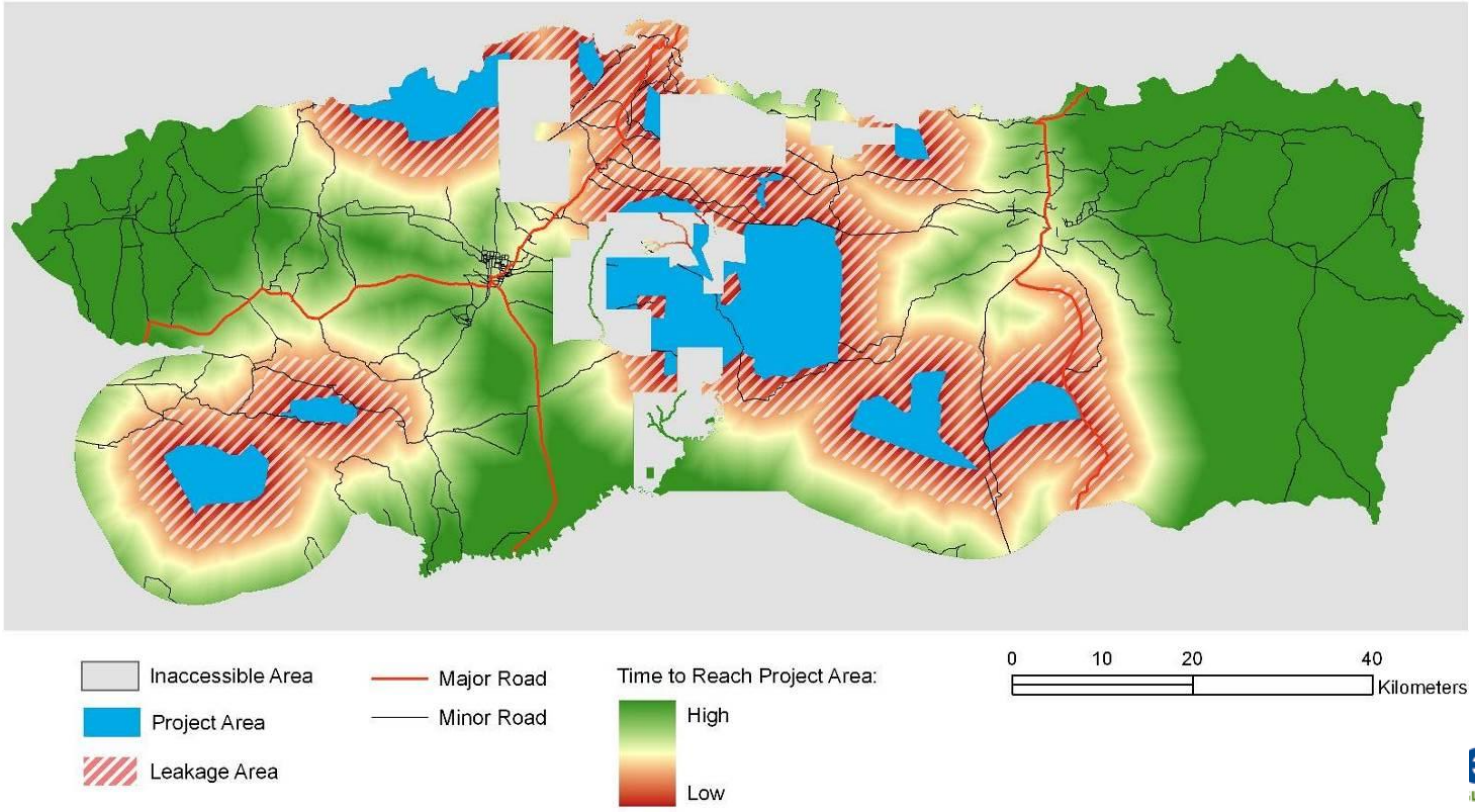
Leakage

- Leakage divided into
  - **Activity-shifting within** leakage belts (monitored)
  - **Activity shifting outside** of leakage belts (ex-ante factor)
  - **Market leakage** (ex-ante factor)



Community-Based Monitoring

- Goals
  - Provides employment and education/training to local communities
  - Reinforces integration of communities with the carbon project
  - Theoretically more cost-effective, dependent on accuracy

- Strict QA/QC is required
  - Training
  - Re-measurement of 20% of the plots
  - Re-visiting of 100% of the plots to check GPS location
  - Requirement to take pictures of GPS device
  - Spot-check of 1-2 plots of every crew by professional team

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