



# **Sustainable Land Management and the BioCarbon Fund**

October 22, 2012

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**Harnessing the carbon market to sustain  
ecosystems and alleviate poverty**

- I. Kenya Agricultural Carbon Project
- II. Carbon accounting methodology for Sustainable Agricultural Land Management
- III. Bigger picture reflections



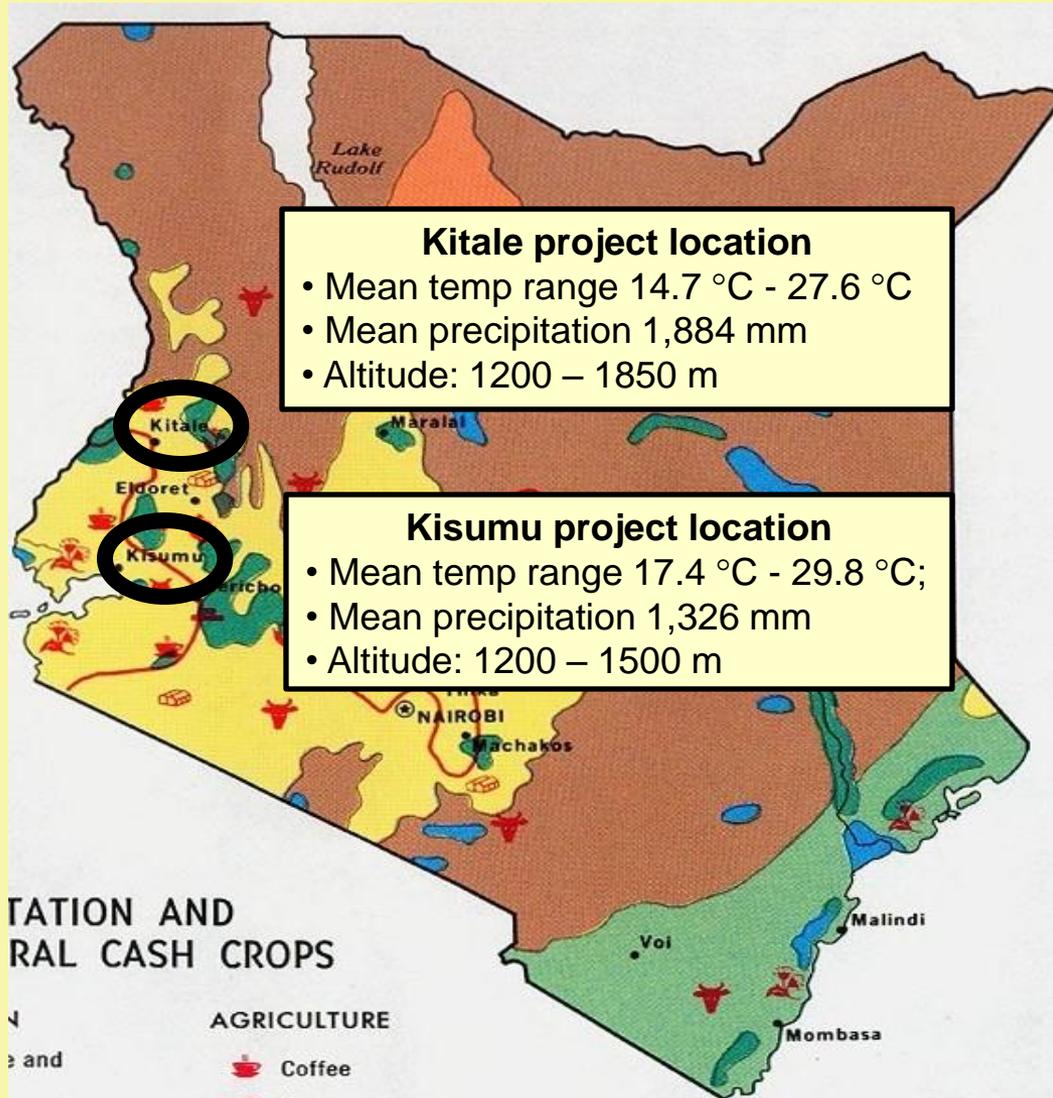


# Kenya Agricultural Carbon Project

- Implemented by Vi Agroforestry in Kenya (non-profit registered in Sweden)
- BioCarbon Fund purchases emission reductions and provides technical assistance
- 45,000 ha of land in Western Kenya (Kisumu and Kitale regions)
- 60,000 smallholder farmers, organized in 3,000 farmer groups
  - <1 ha average farm size; small-scale subsistence agriculture (mixed farming systems)
  - Household size (5.8 – 7.1 ppl); up to 40% with water scarcity 1-4 months; up to 50% with food security <6 months
- Variety of Sustainable Agricultural Land Management (SALM) activities implemented, such as:
  - Use of crop residues for mulching
  - Use of composted manure
  - Use of cover crops
  - No or reduced tillage
  - Terracing



# Kenya Agricultural Carbon Project





# Kenya Agricultural Carbon Project

## ■ Main objectives:

- Increased agricultural productivity
- Increased climate resilience
- Climate change mitigation

## ■ Project validated through the Verified Carbon Standard (VCS)

## ■ About 15,000 ha implemented to date since project start in 2009 (including 1,000 farmer groups and about 20,000 farmers)

## ■ Increased crop productivity and sustainability is the main reason for farmers to join project

## ■ Yields increase of 70-80% reported due to the adoption of SALM practices

## ■ Key features of the project:

- Strong extension services – field extension staff in all 28 project locations
- Provide advisory services (e.g., farm enterprise development, business planning, capacity building) and monitoring/evaluation
- Financial attractiveness and market linkages key for promotion and adoption of improved technologies and practices





# Kenya Agricultural Carbon Project

## Lessons Learned:

- Getting the priorities right:
  - Focus project design on smallholder farmers' interests; first come increased crop yields and food security, and then carbon sequestration
- MRV systems should be cost-effective and user-friendly
- Project developer is key:
  - Strong extension systems, innovativeness, interest to learn, and technical and financial capacity are key
- Bottom up and participatory approaches gives best results
- Technical assistance and capacity building are key to success:
  - Providing smallholder farmer access to carbon revenues requires special technical expertise
- Carbon sequestration potential is higher in areas with high biomass growth





# Kenya Agricultural Carbon Project

## Costs:

- Includes comparison of project activity monitoring approach to what it would have been with direct measurement (a concern during the development of the carbon account methodology)

Project cost item	Direct measurement		Crop production & activity monitoring	
	Total cost	% of carbon revenues	Total cost	% of carbon revenues
Carbon component	316,819	13%	316,819	13%
<b>Carbon monitoring</b>	<b>872,740</b>	<b>35%</b>	<b>260,726</b>	<b>11%</b>
Project implementation	1,293,600	52%	1,293,600	52%
<b>Total costs</b>	<b>2,483,159</b>	<b>100%</b>	<b>1,871,145</b>	<b>76%</b>



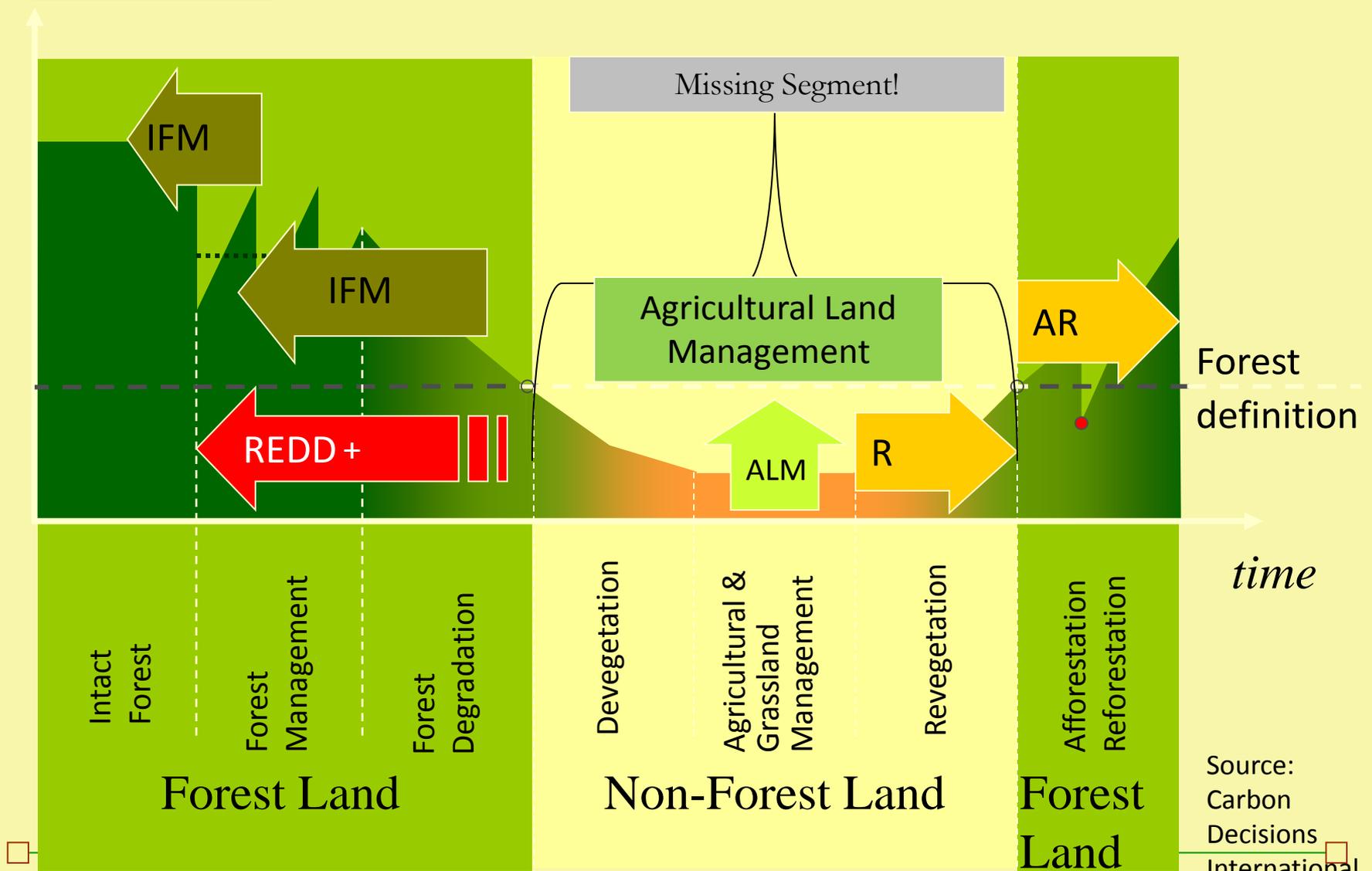
## Key challenges and context:

- Low capacity on the ground
- Limited data availability
- Large number of smallholder farmers
- Existing approaches in carbon market 'far too complex'

## Key design principles - bottom-up and participatory approach:

- Activity-based model approaches, rather than direct measurement
- Aligned with agricultural development concept (i.e., activity-based/production-based advisory systems)
- Suitable given existing resources and capacity constraints (i.e., realities of national research systems, data availability, limited research funding and capacity constraints)
- Farmers for the first time are keeping records of yields and management practices and they appreciate that





## Carbon as co-benefit:

- Mitigation lens but also adaptation – use of these terms is artificial if looked at from the ground-up
- Carbon transaction costs are relatively high - especially as first-of-a-kind
- Carbon in cropland systems: 1-2 tCO<sub>2</sub>/ha/yr
- Key driver needs to be productivity – otherwise project will fail

## Carbon market and policy framework:

- UNFCCC and EU-ETS: Largest markets to date but no land-use friendly
- Voluntary market: Latest report shows increasing values for land use transaction but decreasing volumes
- Switch from REDD+ to A/R last year; also boundaries blurring
- Fragile and fragmented market – difficult to find one's way today; tomorrow also unknown
- Transition to results-based payments?



- Started with A/R, also REDD+ and agricultural lands
- Around 25 projects, mainly CDM A/R
- Many lessons learned – and documented
- One lesson still evolving is accounting methodologies – including introduction of use of models in VCS, rather than direct measurement
- Launch new tranche of BioCF (T3)
- Move away from silos (A/R, REDD+, SALM) including landscape accounting methodology that should be more inclusive (e.g., energy)
- Focus on means to allow scaling-up
- Connecting regional activities with national plans
- Co-benefits

**More info: [www.biocarbonfund.org](http://www.biocarbonfund.org)**

