

Operationalizing Agricultural Carbon Projects – Experiences from Kenya

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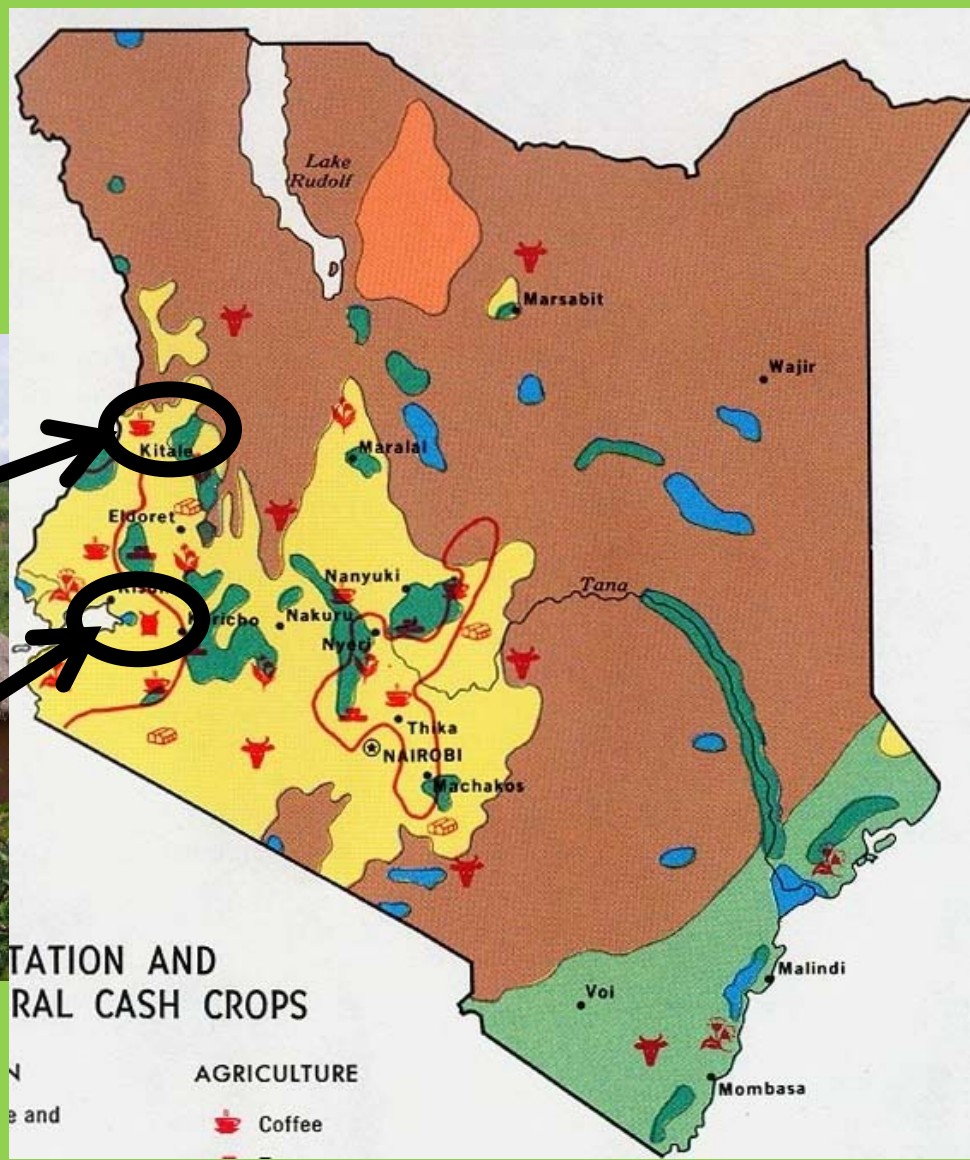
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Objectives and Content

- Features and status of Kenya Agricultural Carbon Project (WB/BioCF)
- Experiences and lessons learned:
 - Features of user-friendly, cost-effective, rigorous MRV systems
 - Next steps for advancing agricultural mitigation (UNFCCC; development assistance)

Kenya Agricultural Carbon Project



Kenya Agricultural Carbon Project – Key Features

Features	Kenya Agricultural Carbon Project
Project region and size	Western Kenya, close to Kisumu & Kitale (116,000ha, adoption area: 45,000ha)
Farming systems	<ul style="list-style-type: none"> • small-scale, subsistence agriculture • average farm size: less than 1 ha • mixed-cropping systems
Aggregator	Registered farmer associations covering an area with about 60,000 farms
Project developer	SCC-VI Agroforestry (also advisory agent)
Project objectives	<ul style="list-style-type: none"> • Restoring agricultural production • Adopting farm enterprise approach • Reducing climate change vulnerability • Selling emission reduction
Expected ERs	<ul style="list-style-type: none"> • 1.2 m t CO₂e over 20 years • average 60,000 tCO₂e per year • average 1.4 tCO₂e per ha per year

Kenya Agricultural Carbon Project – Implementation Status

Kenya Agricultural Carbon project

- BioCF ERPA signature expected in July 2010 (3-way legal agreement)
- SALM practices disseminated and adopted by 10,000 farmers, i.e. role out plan for 2009 implemented covering 6,000 ha

Methodology development

- Methodology submitted to Voluntary Carbon Standard (VCS): www.v-c-s.org/methodology_salm.html (on-going validation)
- Key methodology features:
 - Activity-based monitoring approach using model based default values for C (e.g. production, residual use, livestock, fertilizer, manure, perennials, cover crops)
 - Research study confirms model applicability (IPCC Guidelines)
 - Non-soil modules and applicability conditions

Economics of agricultural mitigation in SSA

	Package 1: No External Inputs	Package 2: Medium External Inputs (seeds only)	Package 3: High External Inputs (seeds and fertilizer)	Package 4: Agroforestry
C-sequestration	0.5 tCO ₂ /ha-yr	1 tCO ₂ /ha-yr	1.5 tCO ₂ /ha-yr	4 tCO ₂ /ha-yr
Crop response	225 kg/ha-yr	1,500 kg/ha-yr	3,000 kg/ha-yr	1,500 kg/ha-yr
Annual carbon payments	\$1.15	\$4.90	\$8.65	\$27.40
Annual revenues yield improvements	\$34	\$225	\$450	\$225
Total additional revenues	\$35	\$230	\$459	\$252
Net revenues	-\$10	\$162	\$309	\$177

Source: Tennigkeit, T.; Kahrl, F.; Wölcke, J.; Newcombe, K. 2009. Agricultural Carbon Sequestration in Sub-Saharan Africa: Economics and Institutions. Washington DC: World Bank.

Kenya – Costs for Carbon Accounting

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

How to operationalize agricultural MRV?

- Cost-effective MRV must adapt to existing farming systems:
 - Small-scale agriculture (farm size)
 - Diversity of farming systems
- MRV must assist small-scale farmers to reach their objectives:
 - Productivity
 - Food security
 - Climate resilience
- MRV must minimize transaction costs:
 - Minimize transaction costs along (carbon) value chain
 - Facilitate/acknowledge value-addition

How to operationalize agricultural MRV?

- MRV must align with agricultural development concept:
 - Coherent with activity-based/production-based advisory systems
 - Promote demand-driven advisory services
 - Limited resources and capacity constraints
- Acknowledge realities of national research systems
 - Data availability
 - Limited research funding and capacity constraints

Agricultural MRV – Next steps

- Establish agricultural MRV consultation platform (SBSTA work program)
 - Technical and economic barriers for ag GHG accounting
 - Permanence, leakage, reversibility
 - Outstanding carbon accounting methodologies
 - Model vs. measurement-based accounting (and other technologies)
 - Land-based and efficiency accounting
 - Trade issues and climate-smart agriculture
- Integration of adaptation and mitigation

Agricultural MRV – Next steps (contd)

- Readiness assessments and capacity building
 - Capacity building for policy formulation and planning
 - Formulation and implementation of NAMAs
 - GHG inventory and reference levels
 - Facilitate linkages at various scales and with different players
 - Government, agribusiness, finance institutions, NGOs, farmers
 - National, regional, local (project)
 - Demonstration projects (incl. ER delivery mechanisms)
 - Access to climate finance (public and private)
 - Support to research and advisory systems

THANK YOU!!!

