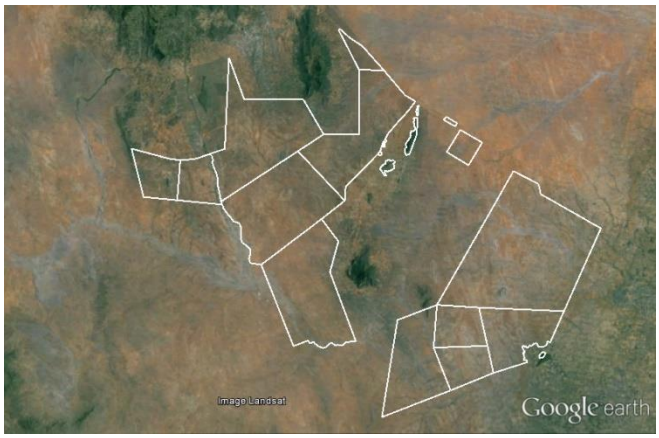
The Kasigau Corridor REDD Project Phase II – The Community Ranches

Distinctive features

The project proponent, Wildlife Works, has been involved in the project area since 1998 when it began construction of an "eco-factory" that sits on private land adjacent to the project area. In January 2000 Wildlife Works' founder, Mike Korchinsky, purchased the majority of the shares in Rukinga Ranching Company Ltd. from the then colonial owners in order to protect the investment made in the EcoFactory conservation project, because the land was to be sold to a Somali cattle slaughterhouse operator. Wildlife Works then took over financial responsibility for Rukinga Ranch forest monitoring and protection in January 2005. Rukinga has been protected by Wildlife Works as a forest habitat since this time but on a loss-making basis.

The objective of the Kasigau project is to protect in perpetuity those dryland forests that form a wildlife dispersal and migration corridor between Tsavo East and Tsavo West National Parks, to conserve the important biodiversity found in those forests, to provide alternative sustainable development opportunities for the local communities that live adjacent to the forests and to prevent the emissions that would otherwise occur were those dryland forests to be converted to subsistence agriculture using slash and burn methods.



The total area that will be protected is about 200,000 ha. This is a combination of private forested land, community owned group ranches, and community trust lands. In order to manage the complexity of such a large conservation initiative, the project was split into two phases.

The first phase design was validated by the CCBA at Gold Level in December 2009. This covered all that land known as Rukinga Ranch, a 30,166 hectare piece of wilderness at one end of the Kasigau Corridor.

Phase II of the project is the "Kasigau Corridor REDD Project Phase II – The Community Ranches" and this covers and addresses the forest conservation of 13 blocks of land owned by indigenous community ownership groups. These group/community ranches are managed by public companies owned by shareholders, but none conduct their own cattle ranching. Most have no

economic activities and have been badly affected by the illegal charcoal trade. The project strategy includes conservation easements between the project proponent and the 13 community ranches, plus a range of local investments to build long-term community interest in the project, including investment in local eco-friendly businesses to generate livelihoods, education and reforestation.

	Heading	Explanation
	Locational factors	
	**Location**	Coast Province in Southeastern Kenya
	Spatial boundaries	Project area: 169,741 ha Reference area: 329,022 ha Leakage monitoring area: Size not given Leakage management area: Size not given
	Land cover	montane forest, dryland forest, savannah grassland
	Agents and drivers of forest cover change	Agents: Local people ▪Taita people - subsistence agriculturalists who cleared the dryland forest and planted maize, with little success. ▪Duruma people - common practice for husband to bring his second or third wives to the project area to establish agricultural plots (mostly unsuccessful) Underlying drivers: New government policy of giving individual family titles in community trust land; Migration; Proximate causes: *In project zone* ▪ Subsistence agriculture *In project area* Group Ranches managed by public companies owned by shareholders, but none operate own cattle ranching. Most have no economic activities and have been badly affected by illegal charcoal trade.
	Basic project features	
	**Objectives**	▪Prevent emission of over 49,000,000 tCO2e over crediting period ▪Provide finance for expansion of conservation project ▪Prevent the loss of biodiversity and protect the area as a wildlife corridor for important indigenous species ▪Reduce community pressure on forest and ensure long-term support from community for the project
	Proponent/s	Wildlife Works Carbon LLC REDD+ project development and management company
	Actors involved in project design and implementation and their roles	▪Wildlife Works – project implementation and support ▪Community ranches – agreed to participate ▪Community group ▪Kasigau Development Trust – reforestation

		▪Kenyan Agricultural Research Institute – Jojoba cultivation
	Tenure and Carbon rights holder/s	Tenure: 13 blocks of land owned by Indigenous Community Ownership Groups; Each owned by different legal entities formed years ago by the communities and the Government of Kenya to hold legal title to the land (12 leasehold; 1 freehold) Carbon rights: Carbon rights acquired from landowner by project proponent.
	Upfront financing	Provided by Wildlife Works Carbon LLC
	Start date	1 January 2010
	Crediting period	30 years
		Baseline emissions
	**Methodology**	VCS methodology VM0009 Methodology for Avoided Mosaic Deforestation of Tropical Forests V1-0 (Developed by Wildlife Works)
	Reference data (unplanned deforestation/degradation)	Reference period: From 15 years prior to project start Types of data used: Landsat images (no further information)
	Reference data (planned deforestation/degradation)	Not applicable
	Stratification of project area	▪Project zone divided into 7 land cover strata based on ecosystem type. ▪Project area not stratified – Classed as tropical dryland forest.
	Deforestation rate and location	**Historical** *Not provided in project design* **Projected** *Not provided in project design* **Likely baseline scenario** Rapid deforestation due to unplanned slash and burn agricultural expansion by subsistence immigrants at the frontier of human expansion. **Modelling procedure** 2000 sample points in historic imagery beginning 15 years prior to the beginning of the project were used to build a cumulative deforestation model by examining forest transition for reference area. Observations of forest state from the reference region and applicable covariate data sets were used to fit the cumulative deforestation model. Population census data were considered as covariates to deforestation, but these covariates did not inform the model when compared to the model evaluated using only historical observations of deforestation. A linear rate was selected to predict the cumulative deforestation for project accounting purposes. The selected rate is y=0.031649x, where x is the number of days since the project start date, and y is

	proportion of area deforested.
Carbon pools	**Carbon pools included** ▪Aboveground tree biomass ✓ ▪Belowground tree biomass ✓ ▪Non-tree woody biomass ✓ ▪Litter × ▪Dead wood × ▪Soil ✓ ▪Wood products × **Estimation method** ▪429 17.84 m radius plots located across all 7 strata and 13 ranches in stratified random pattern. ▪DBH, height and canopy width of trees measured. Destructive sampling used to develop allometry for each dominant species. Mean of species-specific equations use for rare species. ▪Belowground biomass for all vegetation calculated using a root:shoot ratio of 0.4. ▪No. of stems of shrubs counted in plots and biomass calculated by multiplying by stem weight for species and size class. Height and diameter of shrubs with many stems measured to determine size class. Destructive sampling used to derive species-specific data to convert size to biomass. ▪Grasses harvested from four 1 m plots in each of the tree plots. Samples dried and weighed to obtain sample plot grass weights; area expansion factor applied. ▪Soil samples taken from randomly selected tree sample plot locations: 1m pits dug in two lifts, 0-30 cm and 31-100 cm; samples from each layer mixed, bagged and sent to independent soil testing lab for bulk density and soil organic matter analysis.
Carbon stock changes	▪Loss of carbon in the baseline for above and belowground biomass trees, shrubs and grasses assumed to be 100% of the starting inventory for deforested area, as most likely replacement land cover is annual crops. ▪Loss of carbon in soil calculated through analysis of carbon in soil in project area and immediately adjacent to project area, on farm land with identical soil, rainfall and climate, which had been forest less than 20 years before.
GHG emissions	*Not considered significant*
Net emissions without project	1,253,588 tCO2e (for 1st monitoring period)

Project GHG emissions reduction strategy

Scope	Avoided deforestation and degradation
Activities	▪Conservation easements between Wildlife Works Carbon LLC and 13 community ranches ▪Nurseries for citrus trees ▪Provide advice, act as distribution point and seed

		collection for cultivation and harvest of Jojoba ▪Donate elephant dung to women's group for use as fertiliser on their commercial mushroom farm ▪Financial rewards to communities for out planting 20,000 indigenous hardwood trees under 3 year reforestation project ▪Funding, training and logistics support to organised groups of Community Wildlife Scouts operating in the reference area to monitor and deter illegal activity ▪Sponsor youth participation in safari guide training programme ▪Promote ecotourism in one ranch, involving payment to ranch to stop cattle grazing ▪Open small eco lodge for conservationists ▪School construction and maintenance and sponsor students through secondary school and college/university ▪Construction/renovation of group ranch offices, including establishing a carbon office ▪Production of "ecocharcoal" by communities ▪Expand operation of soap factory using jojoba oil
	Leakage mitigation strategy	▪Removing the local communities' need for more (disastrously poor) agricultural land. ▪Physically protecting the forest from immigrant agents trying their luck at finding unprotected land to farm for income.
	Non-permanence risk mitigation strategy	▪Experienced project management team located next to project. ▪Adaptive management plan including community feedback mechanism. ▪Project works with secure tenure arrangements and carbon agreements span project crediting period.
	Additionality	▪Alternative land use scenarios: No credible alternative economic uses for this land that could compete with the project financially. ▪Investment analysis: There are no significant sources of income from the land to offset protection costs.
With-project emissions		
	**Effectiveness of measures**	Measures assumed 100% effective in stopping deforestation in the project area
	Carbon stock changes	[Could not access PD supporting documents with this information]
	GHG emissions	Not considered significant
	Leakage	**Types** Activity shifting: Any leakage expected to be compensated for by tree planting and positive leakage, which are not accounted. Market effects: Not expected. Trees in project area not used commercially and fuel wood extracted only used for home consumption. **Deduction**

		Project design did not included deduction as no leakage expected. However, during monitoring leakage was calculated and deducted from gross emissions.
	Non-permanence risk	Buffer 20% of offsets withheld (9,689,754 tCO2e)
	Ex-ante estimated net greenhouse gas emissions reductions	Total over crediting period: 38,759,010 tCO2e Annual average: 1,291,967 tCO2e Annual average per ha: 7.6 tCO2e
	Monitoring of carbon stock changes and emissions	**Parameters** i. Parameters associated with soil carbon ii. Forest parameters iii. Area of stratum iv. Degradation in leakage area **Methods** i. According to SOP ii. PSPs iii.GIS iv. Sample plots following SOP **Frequency** i. Not given ii. 20% of total PSPs remeasured annually iii., iv. Each monitoring event Key monitoring features: --Annual resampling of 20% of the total number of permanent plots --Leakage monitored in leakage plots placed in leakage belt --Satellite imagery to be used to monitor deforestation in reference area and leakage belt
Stakeholder identification and engagement		
	**Stakeholders identified**	*List of stakeholders not provided in project design. Proposed activities target local communities and community sub-groups (women's group, youth). Roles of other NGOs in area and businesses such as eco tour operators discussed.*
	Identification process	*Not described. History of regular communication with communities explained.*
Full and effective participation		
	**Access to information and consultation**	▪Numerous meetings with local communities on wide range of topics over past 10 years. ▪Flyers and posters distributed to inform public of opportunity to comment on project design document. ▪Public invited to use proponent's internet service or submit handwritten comments; proponent ensured unbiased translation when needed. ▪All minutes of meetings with communities for Phase II project document.

		▪Presentations to raise awareness of community ranch shareholders on achievable carbon benefits. ▪Negotiation resulted in easement agreements signed by 13 community-owned group ranches. Community decision was based on majority vote with proponent absent from the room. ▪Community liaison team established to travel around communities and inform on project goals and activities.
	Participation in design and implementation	▪Project geographical extent determined by community-owned group ranches that agreed to participate in project ▪Various community groups involved in project investments, e.g. Jojoba production and reforestation ▪Wildlife Works has a policy of local employment first.
	Feedback and grievance redress procedures	Document on Community Conflict Process published. Requires all grievances and efforts on resolution to be recorded. Mediation by local administrative chief expected. Written responses to be delivered in 30 days.
	Worker relations and safety	Operates within all local and national employment laws. Training relevant to health and safety provided. Employees and their families fully insured for any illness or injury.
Communities		
	**Without-project scenario**	An independent audit of the community influence conducted in August 2007; Baseline survey in 2012. Variables described in monitoring reports are: Livelihood security and income; Crop, farm animals, soil, land & water management; Food security; Water use; Land access and use; Governance and associations; Climate crises; Education and fees; Infrastructure and services; Income and expenditure; Knowledge on environment and REDD ▪Expect little improvement in community well-being as no prospect to increase land productivity
	With-project scenario	**Expected net benefits** ▪From conservation of natural resources, both forest and biodiversity ▪Direct employment of ~ 150 local people ▪Income from supported community-based business activities ▪Youth education **Possible negative offsite impacts on other stakeholders and mitigation strategy** ▪Increase in human-wildlife conflict; Exclusive dependence on Wildlife Works for livelihood; Lack of grazing area. ▪ Mitigation strategy includes: Human-wildlife conflict - providing safe habitat in project area for wildlife, patrols that will reduce the likelihood of elephant crop raiding, provision of chili pepper trees which repel elephants to communities, etc.; Employment dependence – spread of

		employment opportunities through ecotourism, etc; Lack of grazing – assist community to diversity away from cattle, legal action and patrols to stop incursion by large Somali cattle operations, etc.
	Impact monitoring	**Indicators** *Described above in "without-project" scenario* **Methodologies** *Described in monitoring reports* Household-level survey in 150 randomly-selected households across the five locations in the project area **Frequency** Baseline survey in 2012 to be followed by annual monitoring
Biodiversity and ecosystem services		
	**Without–project scenario**	Sightings by project rangers and tourism operation and literature used to assess situation and scenario **Description** ▪Expect eventually no wildlife to be left in the project zone
	With-project scenario	**Expected net benefits** ▪With investment and proper land and wildlife management expect to see return of historic species ▪Indigenous species used for reforestation ▪Non-indigenous species used such as Jojoba and Neem observed to be non-invasive **Possible negative offsite impacts and mitigation strategy** ▪No negative offsite impacts expected
	Impact monitoring	**Indicators** High conservation values, species **Methodologies** *Described in project design* Ranger patrols, one specifically to monitor high conservation value species; GIS centre of excellent to be set up near project for recording sightings; **b**iodiversity monitoring by a community based organization *Described in monitoring reports* Waterhole transects; Elephant feeding transect; Elevational bird ringing and plot-based vegetation monitoring; 180 km aerial transect using gyrocopter; Charcoal and firewood monitoring through counts along highway touching project area **Frequency** Ranger patrols are daily; Full time conservation specialist placed at GIS centre; Daily log of species of interest with GPS information recorded as people go about daily business
Progress		
	**Validation**	VCS validation report issue date: 9 May, 2011 CCBA validation report issue date: 17 05 2011 (Gold level)

	Verification	VCS verification period and report issue date: 01 January, 2010 to 31 December, 2010; 10 May, 2011 01 January, 2011 to 31 December, 2011; 29 November 2012 01 January 2012 to 31 December 2012; 3 June 2013 1 January 2013 – 31 December 2014; 30 November 2015 CCBA verification period and report issue date: 01 January, 2010 to 31 December, 2010; 25 May 2011 01 January, 2011 to 31 December, 2011; 29 November 2012 01 January, 2012 to 31 December, 2012; 23 May 2013 1 January 2013 – 31 December 2014; 15 September 2015
	Credits issued	Number: 3,429,929 As of: 21 February 2016

Further information

- Wildlife Works Carbon website:
http://www.wildlifeworks.com/WWCarbon/WWCarbon/Welcome.html
- VCS Project Database
https://vcsprojectdatabase2.apx.com/myModule/Interactive.asp?Tab=Projects&a=2&i=612&lat=-3%2E944264&lon=38%2E773234&bp=1
- CCBA Projects
http://www.climate-standards.org/?s=kasigau+II

Documents reviewed

VCS and CCBA websites: PD, PDD, Validation, Monitoring and Verification reports