

An Evolving Conservation Model for Africa: Conservation Enterprise for Livelihoods & Conservation

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AWF Livelihood Approach

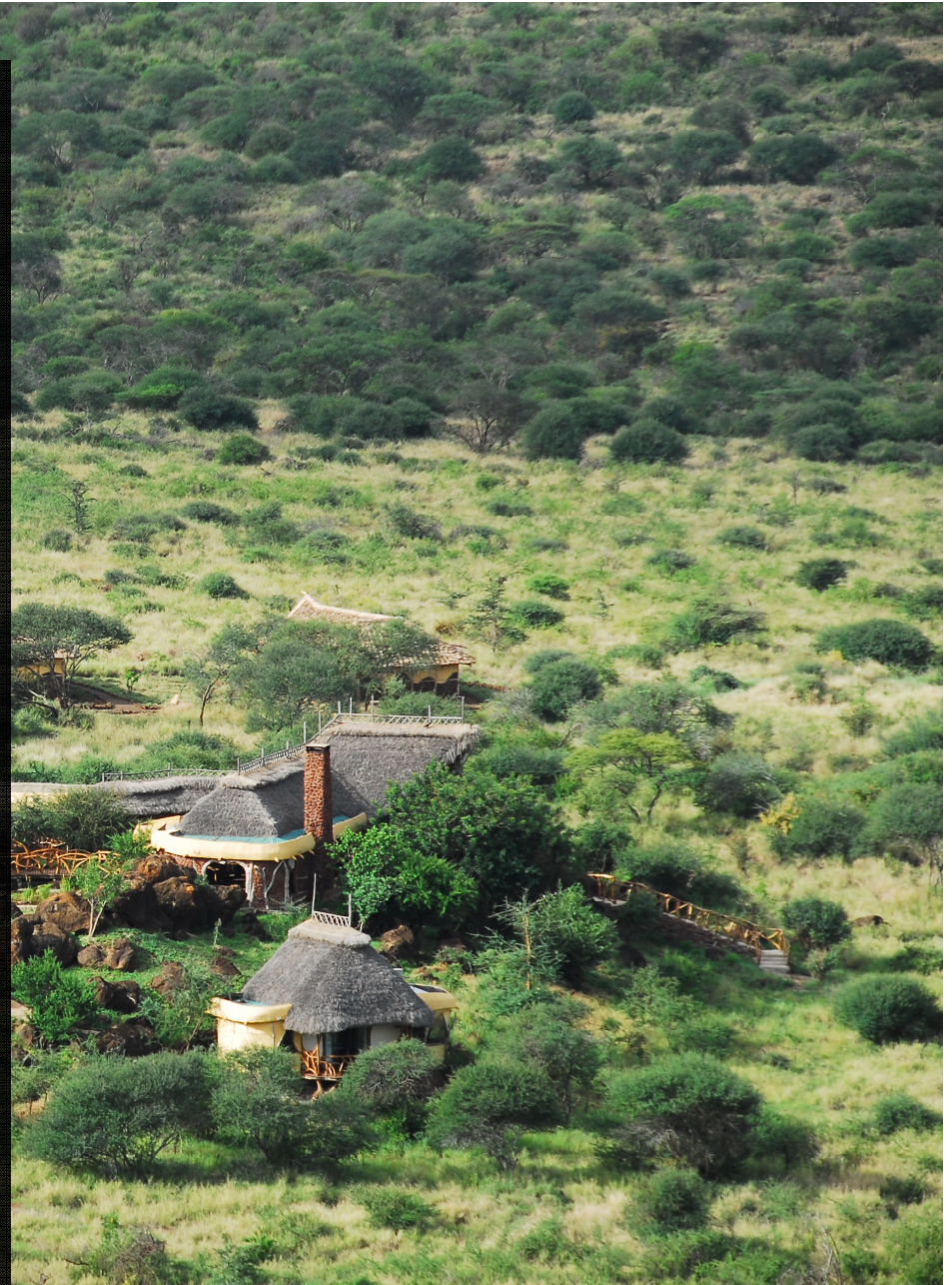
- Conservation Enterprise – a commercial activity that meets a conservation objective

A. Single Ventures

- Tourism lodges, campsites
- Aquatic Farms

B. Value Chain ventures

- Livestock Marketing
- Agro-enterprises
- Bio-enterprises



Theories of change



1. If landowners who have chosen conservation receive economic benefits, they will adopt land use practices that support conservation
2. Communities/landowners will generate significant benefits if they enter partnerships with private sector for conservation enterprise development
3. Benefits must be significant to improve livelihoods if they are to incentivize conservation
4. Benefits will incentivize conservation if they are well managed and equitably distributed

Key Question:

- Do enterprises work as conservation strategy ?
What is their impact so far?

Criteria for impact assessment

- Commercial performance
- Socio-economic Livelihood Impact
- Conservation Impact

Satao Elerai Lodge as Case study



Changes measured and indicators

Change	Indicator
Changes in economic benefits to communities	<ul style="list-style-type: none"> • Financial benefits to communities/h/hs (income, dividends, salaries, wages in US\$) • Non-financial benefits to communities/h/hs – education, security, capacity building, infrastructure development, • Perception of benefits by households/community
Changes in types of economic benefits	<ul style="list-style-type: none"> • Types of benefits (financial/non-financial and direct household and community) • Perception of benefits by households/community
Changes in livelihood diversity and contribution of conservation	<ul style="list-style-type: none"> • Types of livelihood H/H strategies used • Contribution of conservation to household incomes (US\$ and %)
Changes in management and sharing of benefits	<ul style="list-style-type: none"> • Amount of direct household/community wide benefits (US\$) shared • Perceptions of benefit sharing within community
Changes in livelihood status of households	<ul style="list-style-type: none"> • Wealth ranking index of households • Important sources of income • Household asset based score • Perception of changes in livelihoods

Methods for measuring impact

A. PIMA System

- Systematic monitoring of key impact indicators
 - *Commercial performance, employment, benefit distribution etc*

B. WELD Methodology – livelihood impact

- Mixed methods – qualitative and quantitative
- Socioeconomic surveys – h/h questionnaires (n=248)
- Focus Group Discussions
- Participatory Wealth Ranking
- Not used control groups
- Focuses on intervention NOT site/landscape

C. GIS analysis of land use change

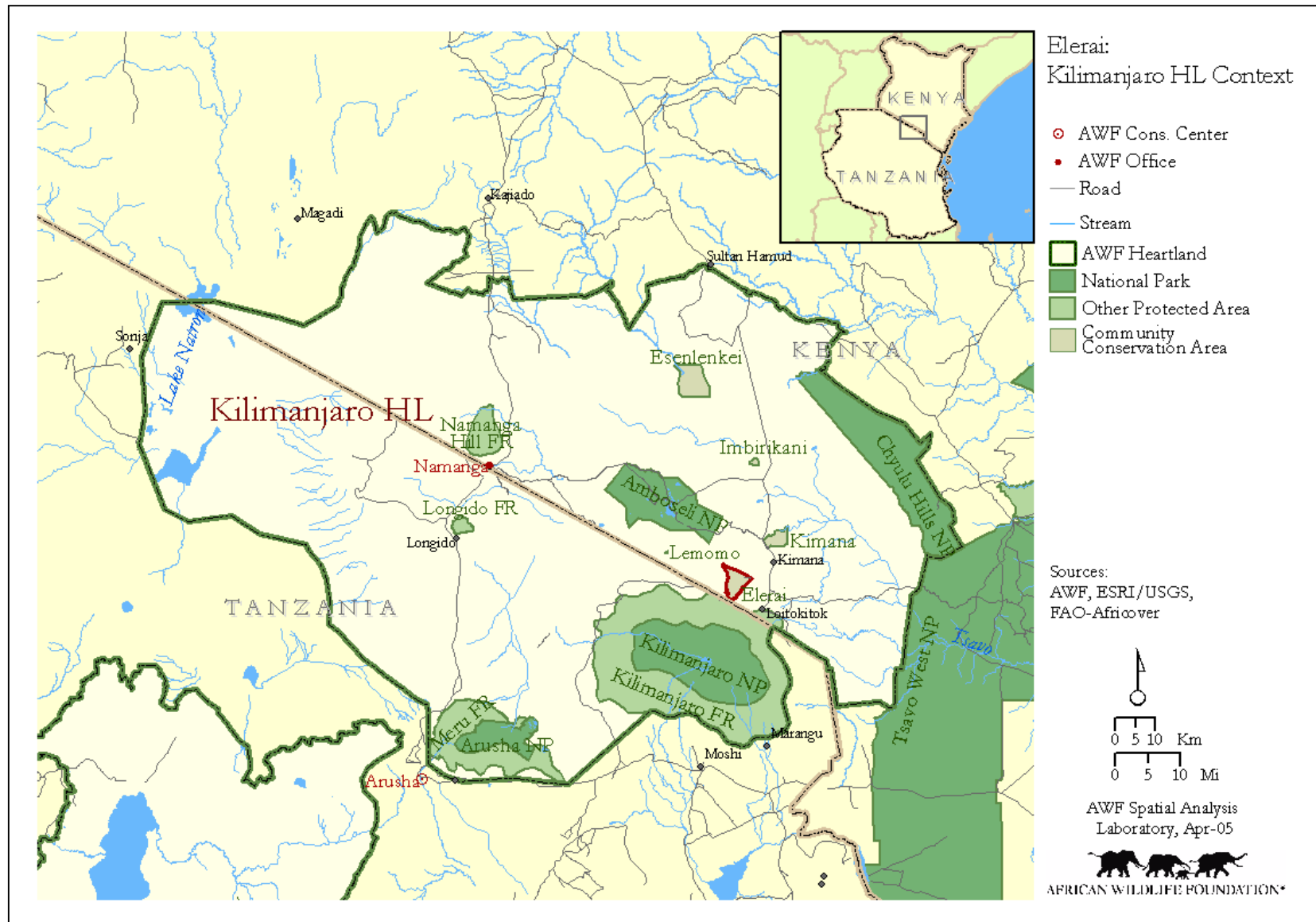
D. Cross-border aerial census

Satao Elerai Lodge: Brief

- Partnership between Southern Cross Safaris & Elerai Group Ranch
- Investment = \$600,000
- 15 year lease
- Opened June 2007
- 28-bed lodge
- Rates: \$530 (peak) - \$340 (low)
- 4350 acres conservation area - corridor & dispersal area to Mt Kilimanjaro
- Beneficiaries 253 households (1500 people) – 30 employees
- Livelihood activities - Farming, livestock production



Satao Elerai Geographical Context



Commercial Performance

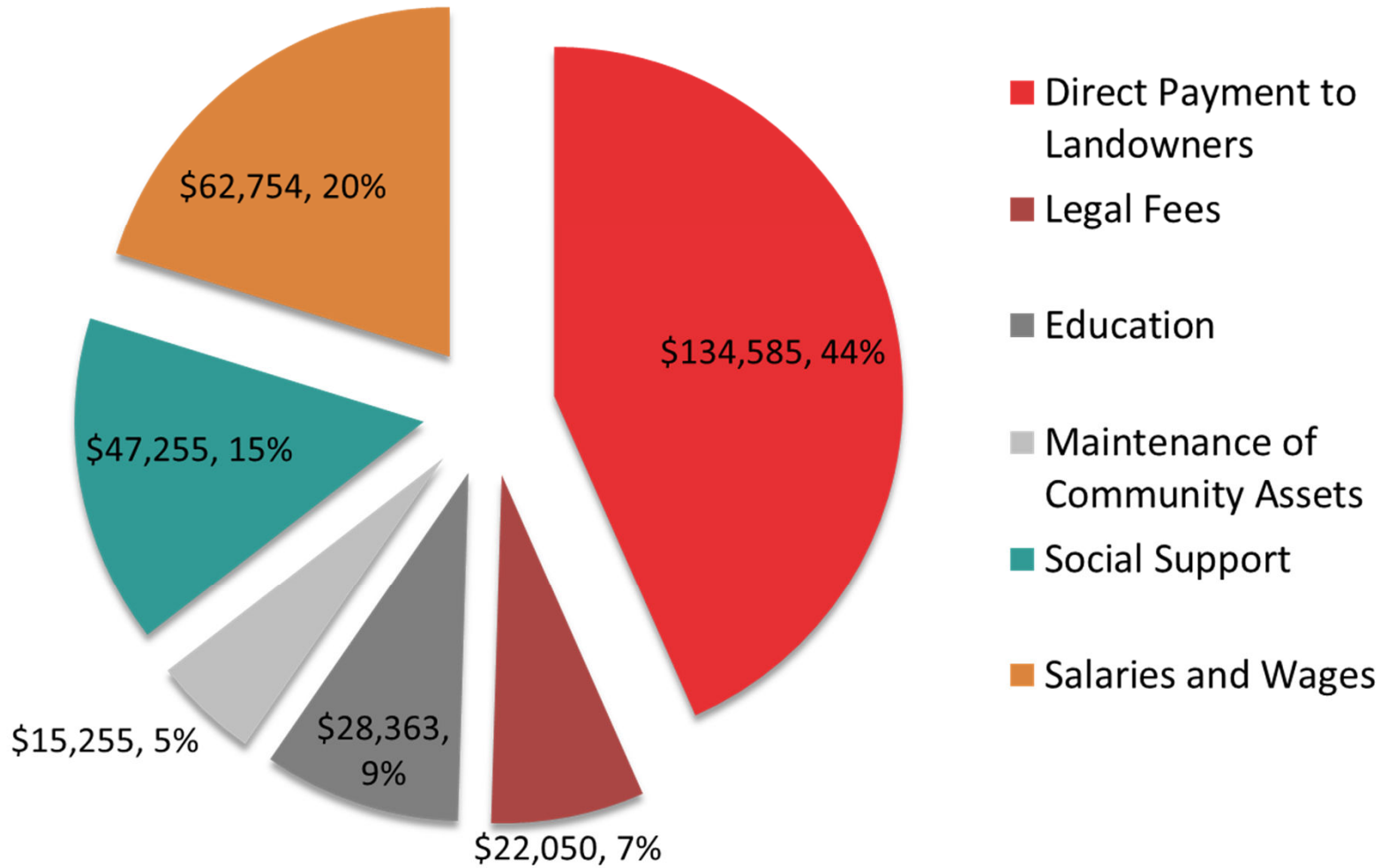


	FY2008	FY2009	FY2010	FY2011	FY2012	Total
Total Bed nights	982	2,318	2,207	4,006	4,016	13,529
Occupancy	9.6%	23%	22%	39%	39.7%	Avg =27%
Gross Revenue	\$96,174	\$297,262	\$335,970	\$600,019	\$701,290	\$2,030,715
Overheads	\$92,047	\$179,637	\$197,955	\$322,476	\$371,684	\$1,163,799
Salaries	\$75,421	\$72,789	\$66,700	\$71,507	\$104,174	\$390,591
Income to community	\$24,332	\$51,179	\$51,070	\$90,863	\$92,818	\$310,262
Profit	(\$95,626)	(\$6,343)	\$20,245	\$115,173	\$132,614	\$166,063

Distribution of Community Benefits

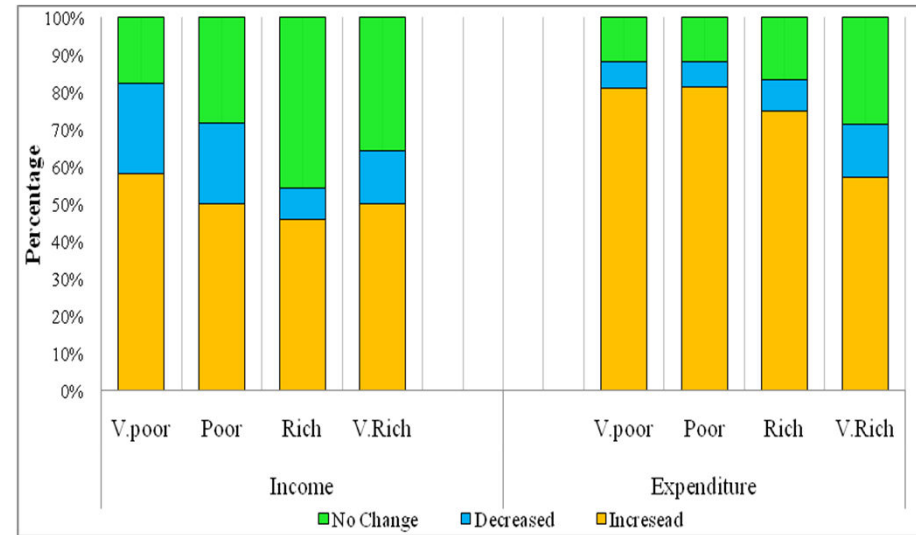


Total Benefits = \$310,262



Changes in income/expenditure

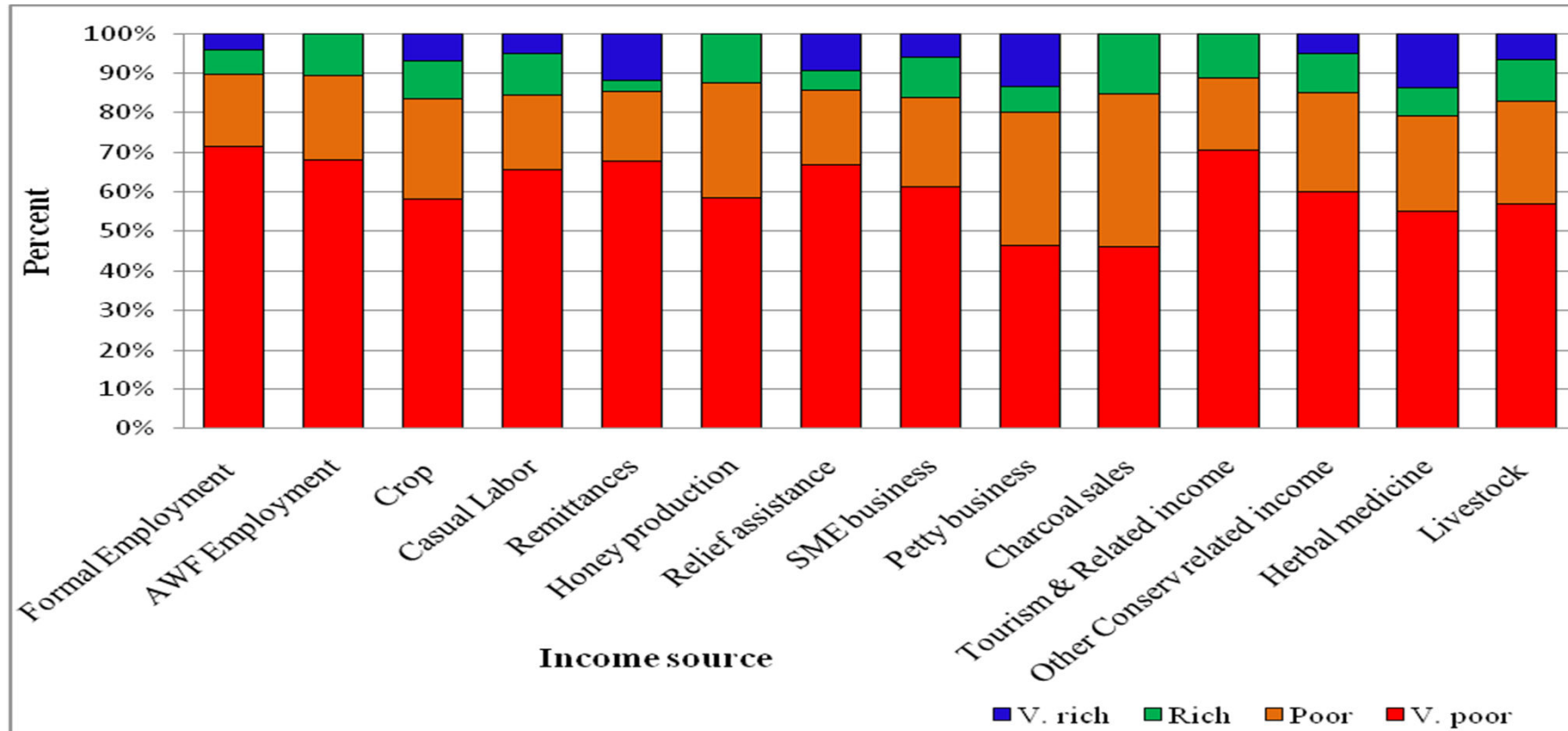
Source of Income	% of Households
Crop production	75.4
Livestock production	42.3
Casual Labor	40.7
Conservation/tourism income	27.5
Formal Employment	19.8
Remittances	19
SME business	19



Expenditure Item	Percentage
Food	62.5
Hospital	15.6
School fees	21.8
Loan payment	9.4
Crop production inputs	28.1
Livestock production inputs	25.0

Wealth Index	Frequency	Percentage
Very poor	147	59.3
Poor	60	24.2
Rich	25	10.0
Very rich	16	6.5
Total	248	100.0

Sources of income by wealth group



Changes in household assets

Household items	2010	2006	% Change
Transport/ Logistics			
Motorcycle	14.7	4.7	10
Car/matatu	2.7	2.2	0.5
Bicycle	24.3	25.4	-1.1
Communication			
Television	12.0	12.1	-0.1
Radio	73.3	68.9	4.4
Cell phone	30.5	25.2	5.3
Anti -Conservation			
Charcoal Jiko	13.7	13.8	-0.1
Other			
Bank account	24.9	19.8	5.1
A sewing machine	3.1	2.7	0.4
Sofa set	25.0	24.3	0.7
Table	69.5	68.4	1.1
Mattress	61.1	58.0	3.1
Bed	85.8	81.9	3.9
Mosquito nets	51.1	46.9	4.2
Torch	74.3	73.6	0.7
Blanket	91.1	88.9	2.2

Contribution of income streams



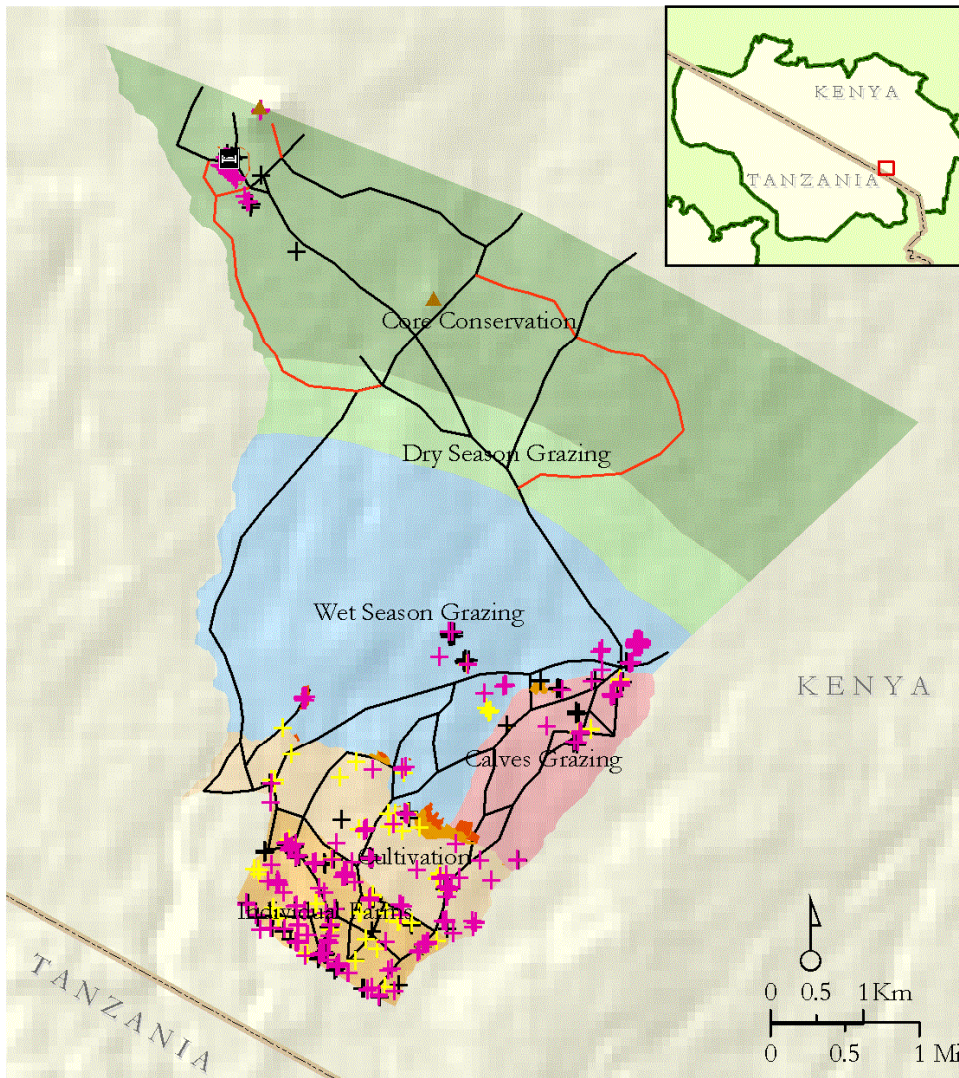
Income Stream	Clusters									
	Conservation, crop production		Crop production and livestock		Crop production and business		Crop production and employment		Conservation and business	
	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%
Employment Income	468.8	9.1	17272.5	24.4	3258.3	10.6	44000.0	25.0	8333.3	6.9
Conservation Income	1382.9	26.9	2346.4	3.3	3179.3	10.3	625.0	0.4	55,833.3	46.2
Crops Production	1528.2	29.8	33928.6	48.0	12444.6	40.4	107000	60.7	9900.0	8.2
Business Income	1068.2	20.8	6782.1	9.6	6612.0	21.5	8625.0	4.9	46,666.7	38.7
Livestock Production	684.7	13.3	10339.3	14.6	5283.9	17.2	16000.0	9.1	0.0	0.0
Average annual income	5132 (\$64)	100	70668 (\$883)	100	30778 (\$385)	100	176250 (\$2,203)	100	120733 (\$1509)	100
N	85	34%	28	11%	121	49%	8	3%	6	2%

Determinants of livelihood patterns



	Crops, conservation			Crops and livestock			Crops and business		
	B	Sig	Exp(B)	B	Sig	Exp(B)	B	Sig	Exp(B)
Wealth Status									
Very poor [®]		.271			.260			.279	
Poor	-.113	.832	.893	-.487	.420	.614	-.162	.693	.850
Rich	.657	.412	1.929	-1.157	.112	.314*	-.047	.935	.954
Very rich	-1.591	.089	.204*	-1.263	.124	.283*	1.537	.065	4.650**
Gender									
Male [®]									
Female	.058	.902	1.060	.937	.099	2.553*	-.450	.243	.638
Marital Status									
Widowed	2.331	.086	10.293*	-1.290	.265	.275	-.208	.834	.812
Other	20.856	1.000	1.14*10 ⁹	21.041	1.000	1.3*10 ⁹	-21.576	1.000	.000
Education Level of HH Head									
No Formal [®]		.607			.684			.317	
Complete primary	-.601	.466	.548	-.570	.441	.566	1.305	.061	3.686**
Complete tertiary	-19.853	1.000	.000	19.535	1.000	3.0*10 ⁸	17.994	1.000	6.5*10 ⁷
Highest Completed education									
Secondary	.492	.509	1.636	-1.778	.039	.169**	1.702	.031	5.485**
Tertiary	19.464	1.000	2.84*10 ⁸	21.666	1.000	2.5*10 ⁹	-21.982	1.000	.000
Age									
Less than 30 Years [®]		.131			.642			.437	
41-50 Years	-1.185	.058	.306**	1.288	.140	3.627	.810	.133	2.248
61 + Years	-1.591	.049	.204**	.646	.478	1.909	.254	.672	1.289
Distance to conservation area									
	-.176	.000	.839***	.052	.095	1.053*	.024	.274	1.024
Years lived in community									
	-.020	.342	.980	.020	.436	1.020	.019	.269	1.019
Participation in AWF activities									
	3.751	.000	42.582***	1.015	.086	2.761**	-1.792	.000	.167***

Conservation Impact: Land-use change



Elerai Conservation Impact Assessment

■ Ecolodge Building

▲ Observation Point

Buildings/Structures

+ Constructed 2005-2011

+ Persists 2005-2011

+ Removed 2005-2011

Road Network

— 2005

— Constructed 2005-11

Land Use Conversion¹

■ Converted 2005-11

■ Land use 2005-2011

1. Conservation and grazing zones only.

Management Zones

■ Grazing-Calves

■ Grazing-Dry Season

■ Cultivation

■ Grazing-Wet Season

■ Individual Farms

■ Core Conservation

Sources:

Zones: AWF, Elerai,
Community

Buildings, roads, land use:

- 22-aug-05 Quickbird
- 02-feb-11 WorldView2

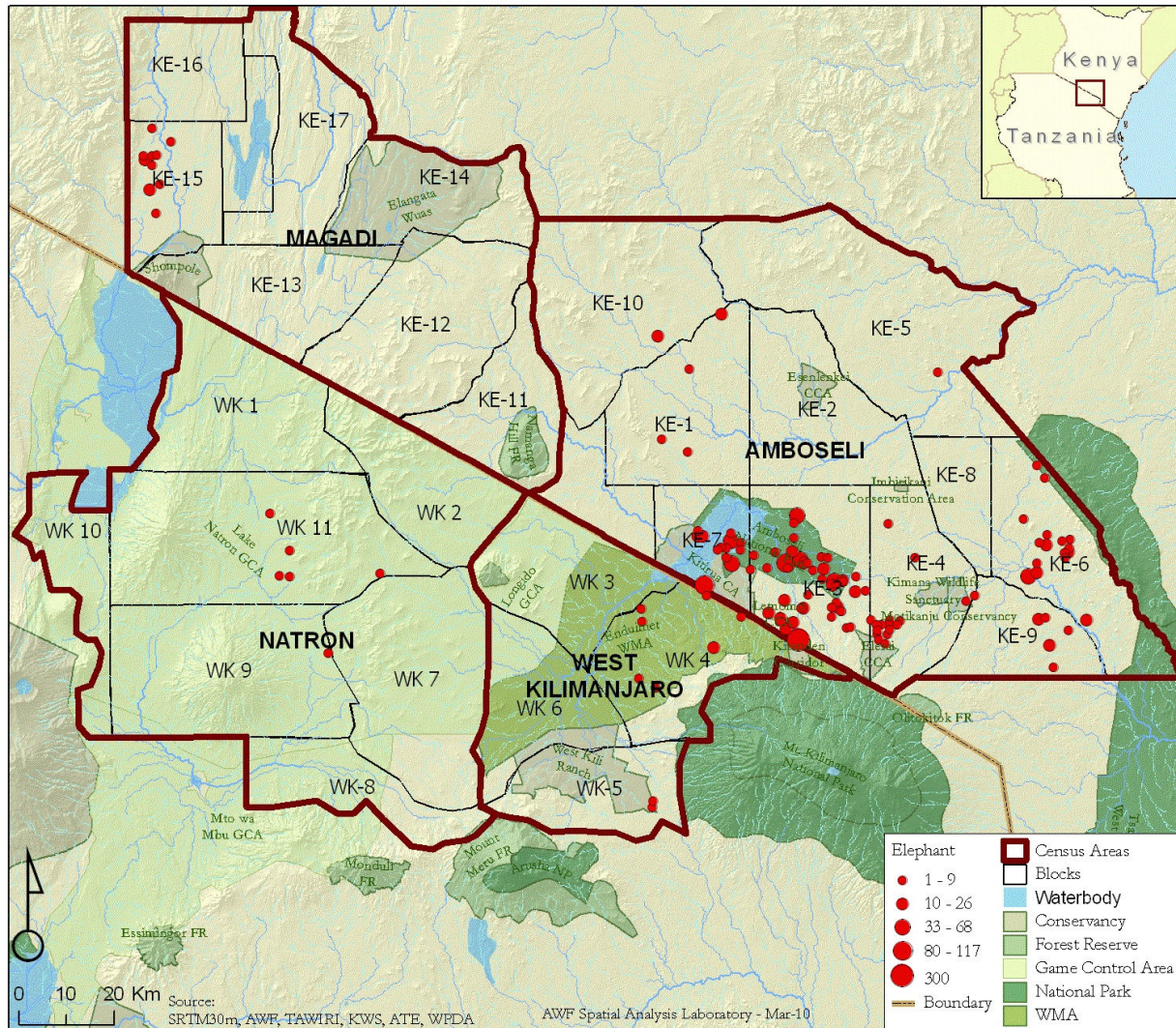
AWF Spatial Analysis
Laboratory, Jun-11

Land Use Change in Acres



Zone	Acres	Converted (2005)	Converted (2005-11)	Total Change	% change
Calves Grazing	638	12.5	21.3	33.8	34
Core Conservation	4,350	2.6	7.1	9.7	10
Dry Season Grazing	1,144	0	0	0	0
Wet Season Grazing	3,198	18.9	36	54.9	55
Totals	9,322	34	64.4	98.4	

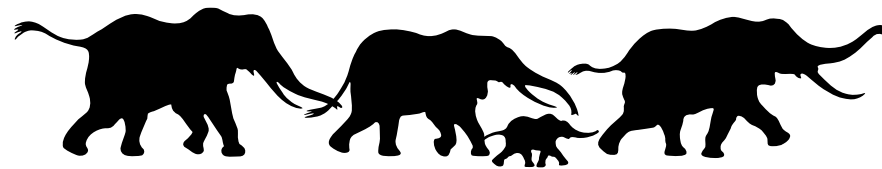
Conservation Impact: Wildlife use



Distribution of Elephant

Conclusion

- Lodge performing well, generating substantial benefits for community; slowed land use change; increase tolerance for wildlife
- Benefits very important for the poor in Elerai Group Ranch
- Impact monitoring key for designing post deal support
- Initiated SE monitoring now – more cycles required to provide clear picture of livelihood impacts of enterprises
 - Will need control groups to better judge impact
- Learning key objective for Socio-economic work



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