

Balancing Ecotourism and Livestock Production– Implications for Livelihoods and the Environment in Limpopo Province, South Africa

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Background

- GLTFCA - an opportunity for diversification of livelihoods and multiple land use practices
- Adjacent rural areas characterised by:
 - Poverty (>40% unemployment, dependence on social grants).
 - Marginal agricultural potential.
- Competition for NR and conflicts impedes development and sustainability

Background (cont)

- TFCA suggest ecotourism would benefit communities: land use option?
- Will communities shift from marginal agriculture to ecotourism?
- **Ecotourism** focus is on:
 - Biodiversity conservation,
 - community involvement,
 - improvement in incomes and employment at local levels,
 - Visitor awareness of environmental and cultural conservation

Some questions?

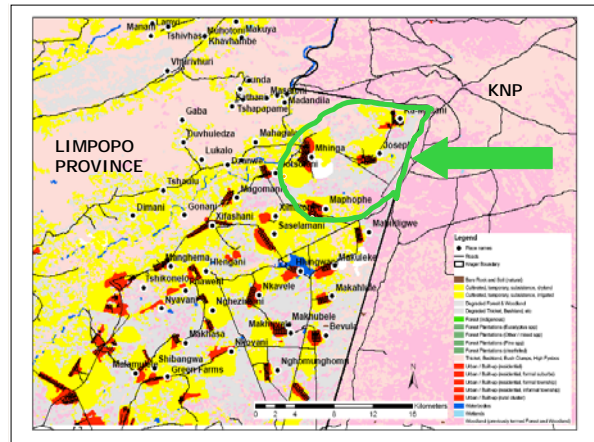
- What are options for ecotourism in TFCA?
- What economic benefits for communities?
- Are communities interested, are tourists interested in ecotourism?
- What are the implications for:
 - Current land use and cultural practices?
 - Livestock production?
 - Job creation?
 - Social infrastructure & rural development?

Objectives: to discover...

- What sort of services could communities offer?
- Would tourists be interested in what communities could offer?
- How much would tourists be prepared to pay?
- Is eco-tourism seen as a viable land use option for adjacent communities?

Study Area

- Northern side of KNP, next to the Punda Maria gate
- All within the redline area,
- Mhinga Traditional Authority
- Includes 11 villages
- Two share a border with KNP fence



Methods

Land use options in the study area were explored using:

- Choice modeling for tourist preferences
- Participatory methods for community members
 - Key informant interviews
 - 2 Workshops
 - 8 Focus Group Discussions

Choice modelling...

- Where market prices are absent, **choice modelling** can be used to estimate consumers' preferences for environmental goods and services
- The choices individuals make when given several options depend on:
 - Characteristic of the goods in question
 - Other individual specific factors eg age, gender, culture, interests, income of tourist

Choice Modelling... the approach

- Hypothetical choices which are dependent on the attributes of the goods,
- each attribute has different levels,
- a combination of attributes forms an option, and
- a combination of options forms a choice set
- [Attributes and attribute levels.doc](#)

Design of choice experiments

- Attributes and levels (Participatory)
 - Accommodation (inside or outside KNP)
 - Cultural tours (Yes/No)
 - Visit craft markets (Yes/No)
 - Fees per extra activity (\$0/\$20/\$40)
- Respondents choose a preferred alternative from each set, *status quo* included



Data collection

- December and January of 2008/09 and 2009/10.
- Shingwedzi, Punda Maria and Skukuza
- Sample size: 324 tourists interviewed

Tourists:

- **Choice modelling** to estimate demand and benefits of specific ecotourism alternatives
- Accommodation? Cultural Tours? Crafts?



Results

Results are divided into two sections:

- Results of choice modelling with tourists
- Results of participatory appraisal with community members

Results- Characteristics of tourists

Variable	Values	Freq uency	%
Sex	Female	160	50.22
	Male	159	49.78
	<i>Total</i>	<i>319</i>	<i>100.00</i>
Income	Less than \$12000	61	20.13
	\$12001 - \$25 000	77	25.41
	\$25001 - \$50 000	98	32.34
	Above \$50 000	67	22.11
	<i>Total</i>	<i>303</i>	<i>100.00</i>
Nationality	European	67	21.07
	USA or Canada	19	5.97
	SA	200	62.89
	Other African	11	3.46
	Asian	11	3.46
	Australia or NZ	6	1.89
	Other	4	1.26
	<i>Total</i>	<i>318</i>	<i>100.00</i>

Results- Visitor patterns

Variable	Values	Freq uency	%
Duration of stay	Day Visitor	78	24.84
	Overnight	236	75.16
	<i>Total</i>	<i>314</i>	<i>100.00</i>
Are you travelling alone?	No	312	98.11
	Yes	6	1.89
	<i>Total</i>	<i>318</i>	<i>100.00</i>
Have you been to KNP before?	No	94	29.75
	Yes	222	70.25
	<i>Total</i>	<i>316</i>	<i>100.00</i>
Are you planning to come back in the next 5 years?	No	33	10.56
	Yes	280	89.44
	<i>Total</i>	<i>313</i>	<i>100.00</i>

Conditional logit estimates

- Dependent variable- the choice that an individual makes (1, 2 or 3)
- Independent variables- Attributes & socio-economic characteristics of individual
- Estimate the influence of each attribute in determining choice

Results of the conditional logit model for all tourists

<i>Choice</i>	<i>Coefficient</i>	<i>Standard Error</i>	<i>P> z </i>
Vill Accom .	-1.16	0.07	0.000***
Craft Markets	0.82	0.09	0.000***
Village tours	1.40	0.09	0.000***
Fees	-0.02	0.00	0.000***

Willingness to pay estimates in US\$

Choice	Coefficients	Std E	[95% Conf. Interval]	
Village Acc	-75.21***	17.62	-109.73	-40.68
Craft markets	53.211***	10.13	33.36	73.07
Village tours	90.74***	15.59	60.19	121.29

Main points from tourist results

- Interest in both tours and craft markets, but not in using village based accommodation
- Tourists avoided selecting an option with village accommodation
- **Price** is not a key determinant of choices made

Tourist results (cont)

- Differences in preferences and MWTP :
 - Domestic and foreign tourists
 - For different income groups
- Tourists willing to pay more for village tours and entrance to crafts markets than villages ask for or are currently charging

What does this mean for the development of ecotourism in the TFCA?

- Limited prospects for success of lodging facilities as part of ecotourism in the TFCAs
- Communities should rather focus on developing ecotourism packages complementary to KNP e.g. Crafts markets, extensive cultural tourism, agri-tourism?

Results Communities: participatory appraisals



Key highlights from community debates and dialogue

- Paths for rural development :
 - Older people more supportive of agricultural-led rural development
 - Youths emphasize importance of small business development and tourism based land uses (diversification of livelihoods)
 - Limited ideas on development of tourism based livelihoods - low value services
 - KNP expected to create more employment

Key highlights from community debates and dialogue

- Requests to facilitate rural development:
 - Increased investment in schools and health centres
 - Better access to business and recreational facilities
 - Improved roads



Preliminary conclusions

Needs of tourists and needs of communities do not at present coincide:

- Tourists want cultural tours and craft markets (African culture)
- Communities want jobs and social upliftment
- Further investigation is required to see how these two viewpoints can be integrated to benefit both groups (eg Crafts market with job creation, cultural visits over new tar road)

Some main outputs from seed grant





- Dialogue and debate on land use options in communities
- Dialogue on ecotourism development in rural communities
- Rethinking rural development pathways and the role of agriculture and tourism

Some key outputs

- Information on tourist attitudes and preferences to facilitate decision making in development of community tourism businesses
- Capacity building for youths







Attributes and attribute levels

Attributes	Description	Levels
 <p data-bbox="347 584 603 618">Accommodation</p>	<p data-bbox="735 360 1123 696">Besides KNP accommodation, visitors can also spend a night in lodges with similar standards in one or more of the surrounding villages of the KNP at the same price</p>	<ul style="list-style-type: none"> <li data-bbox="1145 327 1433 394">▪ KNP accommodation <li data-bbox="1145 495 1517 741">▪ Village lodges <u>same price and standards</u> as KNP accommodation <u>plus cultural entertainment</u>
 <p data-bbox="304 1025 644 1059">Arts and crafts market</p>	<p data-bbox="735 790 1123 1167">In addition to wildlife viewing in the KNP, visitors can visit craft markets, to buy craft witness and learn the process of making them. Crafts include beading, pottery, crocheting and wood carving.,</p>	<ul style="list-style-type: none"> <li data-bbox="1193 757 1517 824">▪ No craft market visits <li data-bbox="1193 925 1517 992">▪ Visits to village craft markets
 <p data-bbox="323 1473 627 1507">Cultural experience</p>	<p data-bbox="735 1182 1078 1216">Village tour package.</p> <p data-bbox="735 1227 1123 1552">3-4 hours long. Activities include interaction with locals, photography, cultural entertainment group, visit a traditional healer, the Tribal court house and visit cultural village.</p>	<ul style="list-style-type: none"> <li data-bbox="1193 1272 1485 1305">▪ No village tours <li data-bbox="1193 1350 1437 1384">▪ Village tours
 <p data-bbox="443 1861 667 1895">Additional fee</p>	<p data-bbox="735 1608 1123 1776">These activities would come at an additional cost above the KNP entrance fees*</p>	<ul style="list-style-type: none"> <li data-bbox="1193 1574 1398 1608">• R 0 (\$0) <li data-bbox="1193 1653 1445 1686">▪ R 160 (\$20) <li data-bbox="1193 1731 1445 1765">▪ R 320 (\$40)

* Exchange rate fixed at \$1=R8.00

Choice Set I (2/3)

Characteristics	Option 1	Option 2	Status quo
Accommodation	Accommodation in the KNP	Village Accommodation similar to KNP standard and price <u>plus</u> <u>cultural entertainment</u>	I will not choose any of the two options
Craft markets	No visits to the craft market	 Visits to KNP craft markets	
Cultural experience	 Taking a village Tour	No village tour	<input type="checkbox"/>
Additional Fees	 R 320 (\$40)	 R 160 (\$20)	
Please tick one box	<input type="checkbox"/>	<input type="checkbox"/>	