

## Economic analysis of rhino conservation (A. Spenceley) (presented by R. du Toit)

**SADC REGIONAL PROGRAMME FOR RHINO CONSERVATION**



**ECONOMIC ANALYSIS OF RHINO CONSERVATION  
IN A LAND-USE CONTEXT WITHIN THE SADC REGION**

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### Objectives

Explore the rationale for regarding rhinos as "flagship species" in terms of:

"Added value" to wildlife operations in state and private areas

Extent to which their protection and monitoring needs confer blanket protection for other biodiversity

The extent to which they might contribute to community-based tourism and thereby to rural livelihoods

The extent to which they might be catalytic to land-use changes

### Approach

Concentrate on market values of relevant goods and services rather than non-use values

Outline the issues and implications associated with consumptive uses of rhinos

One or two study sites be used for each portion of the analysis

Sites: with financial data for periods both with and without rhino, or where populations have changed markedly (therefore affecting the probability of seeing/hunting rhino)

Desk study: information on black and white rhino populations, financial information from the park and tourism facilities etc.

Interviews: with key stakeholders

### QUESTION 1: What 'added value' do rhinos bring to existing wildlife operations in state and private areas?

#### Quantitative data

##### *Economic*

Revenue from hunting/photographic tourism/live sales, Rack rates for services to tourists (e.g. accommodation, park entry fees), Occupancies, turnover, cost of sales, Additional costs incurred by the presence of rhino (e.g. management, anti-poaching), Concession fees, Land values (for private land), External donor/state funding, Tourist demand studies where available.

#### *Environmental*

Area of land under conservation, Funds available for conservation management/monitoring, Population density of other species

#### *Socio-economic*

Local financial and livelihood benefits (e.g. employment, local services/product purchasing and implications for local poverty alleviation)

#### Qualitative data

regarding marketing strategies (i.e. the relative importance of rhino in marketing), tourist demand studies where available, local perceptions of rhino vs other wildlife species and protected areas (e.g. relative to human-wildlife conflict)

### QUESTION 2: How does the protection and monitoring of rhinos affect other wildlife components?

#### Quantitative data

##### *Economic*

Budgets and costs of anti-poaching activities with/without rhino (e.g. including labour, equipment per unit area) Poaching statistics per unit area (of all species monitored) Wildlife monitoring costs Relative importance of different funding sources (e.g. donor, state, private sector)

##### *Environmental*

'Success' of anti-poaching activities (e.g. changes in no. incursions/snares etc) Wildlife population dynamics

**Social**  
Reported incidents of human-wildlife conflict. Compensation  
Human/anti-poaching personnel relations

**Time-series analysis**  
Cost of anti-poaching  
(e.g. financial cost, activities, personnel, resources per unit area)  
relative to rhino populations  
(e.g. comparison presence/absence/no. rhino per unit area),  
and relative to other wildlife populations.  
Comparison of protection and monitoring 'effort'  
regarding rhino and other wildlife

**Qualitative data**  
How anti-poaching activities take place  
Areas where protection/monitoring for rhino overlaps,  
or is exclusive that from, other wildlife species.  
Intelligence activities relating to rhino.  
Whether poachers are local or not

**QUESTION 3: What impact do rhino have on community-based tourism and local livelihoods? (Namibia)**

**Quantitative data**  
**Economic**  
Revenue from hunting/photographic tourism/live sales  
External funding/support in general and specific to rhino  
(i.e. donor/state)  
Value of joint-venture concessions with the private sector

**Socio-economic**  
Local financial and livelihood benefits  
(e.g. employment, local services/product purchasing  
and implications for local poverty alleviation)

**Qualitative data**  
Marketing strategies (i.e. importance of rhino in marketing).  
Local perceptions of rhino versus other wildlife species  
Responses from NGOs / private sector (more or less likely  
to have relationships with CBT where rhino are present?)

**QUESTION 4: To what extent do rhinos influence change of land use to wildlife production? (Lowveld conservancies)**

**Quantitative data**  
Number of private landowners changing land use  
to wildlife production over time  
Revenue from rhino opportunities as a proportion of turnover  
Investment in rhino conservation/re-introductions  
(Private, state and donor funding)

**Qualitative data**  
Landowner perceptions  
(Rating of importance using a Likert scale)

To what extent have rhinos helped to MAINTAIN  
wildlife-based land-use?

Key issues and processes for the development of national rhino strategies and re-introduction projects (M. Brooks)