

# The park pricing research program

- Background
- Problem statement
- Goal
- Specific objectives
- Stakeholder analysis
- Methodology
- Research questions/Work packages
- Project outcomes
- Project partners/collaborators
- Potential donors

# BACKGROUND

- Alpizar, F. (2006). “The pricing of protected areas in nature-based tourism: A local perspective”, *Ecological Economics* 56: pp. 294-307.
- SANParks interest at 2007 EfD Annual meeting
- KWS interest at 2009 EfD Annual meeting
- 1<sup>st</sup> workshop on methodologies for park pricing (Nakuru, Kenya - October 2010)
- Interest from KWS, UWA, ZimParks (and ECA, SANParks, TANAPA)
- 2<sup>nd</sup> workshop proposed for end of April 2011 (Victoria Falls, Zimbabwe)

# Expectations on first workshop

- That the economists can learn what the real needs, constraints and opportunities are in park pricing;
- That we can define how environmental economists can support optimal park pricing;
- That we agree on next steps in terms of data collection and interaction;
- That we take a first small step towards a regional park tariff reform for sustainable park management.

# Expectations on second workshop

- That we know what data exists and has been collected
- That we collect views from the parks agencies represented on the need for a regional park tariff reform for sustainable park management.
- That we get fleshed out proposals for research projects to be conducted by country teams
- That we share results of preliminary research

# PROBLEM STATEMENT

- National parks are under threat from:
  - insufficient funds to manage them, and
  - the pressure to exploit them in alternative land-uses which easily demonstrate their worth
- Parks services increasingly being asked to rely on own revenues

# GOAL

- To use optimal park pricing to achieve sustainable park management
- To maximise the value of parks for a combination of parks and national interests

# SPECIFIC OBJECTIVES

- To identify pricing objectives desired by parks agencies in the participating countries to achieve sustainable park management
- To assess the weaknesses of the current pricing regimes (especially with respect to entry fees and concession fees)
- Investigate the attributes of an optimal pricing regime
- To review alternative pricing regimes to identify their suitability to the existing context
- To design an optimal pricing regime which satisfies the objectives desired by parks agencies in the participating countries

# STAKEHOLDER ANALYSIS

- Parks agencies (including lower level bodies)
- Hotel and tour operators
- Relevant ministries
- Local community leaders
- Concessionaires
- Conservation NGOs
- Private game reserves (or wildlife conservancies)



# METHODOLOGY

- It is envisaged that most of the articles from this project will employ the following methodologies
  - Mathematical modelling
  - Econometric analysis of historical data
  - Contingent valuation
  - Travel cost method
  - Contingent behaviour
  - Choice experiments

# WORK PACKAGE 1

- **Fundamental analyses**
- This project emerges from the realization that African parks increasingly rely on their own revenues for their management. These revenues are typically set by national park services. Since this situation differs from theoretical public finance design principles, this work package will review first and second best approaches to park tariffs and park management.
  - A review of arguments regarding earmarking of funds for park management/public goods, e.g. for cost recovery. What are the foundations for tariff setting?
  - A review of implications on management of the level of tariff setting (local/district/provincial/national/regional).
  - A review of existing governance, funding and tariff systems of national parks in Botswana?, Ethiopia, Kenya, Namibia?, Rwanda?, South Africa, Tanzania, Uganda and Zimbabwe.

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# WORK PACKAGE 2

- **Demand analyses of national parks**
- Optimal tariffs should be sensitive to the demand for various park characteristics.
  - Estimation of demand functions based on historical data on visitation rates, prices, and park characteristics.
  - Analysis of demand for park characteristics based on stated preference studies with variations in park characteristics.
  - Analysis of cross-price elasticities of demand for major parks within countries.
  - Trophy hunting demand
  - Concession demand (principles relating to concessions, actual practice in dealing with concessions, potential: how can you best deal with concessions)
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# WORK PACKAGE 3

- **Analysis of cross-country implications**
- Given that park visits in the region are substitutes and that there are arguments for regional collaboration in the design of tariffs, the following studies are needed:
  - Theoretical considerations for regional cooperation in tariff design.
  - Experiences from design of related cartels.
  - Analysis of substitution of park visits between countries.

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# WORK PACKAGE 4

- **Ecological sustainability**
- The primary objective for most park services is to ensure ecological sustainability. Since park tariffs affect number of visitors and modes of utilization it is important to bring in ecological constraints into the design.
  - Review of the conservation biology literature to identify relevant:
    - Carrying capacities of animal stocks;
    - Damage functions related to mode of park use.
    - Damage functions related to visitor concentrations
  - for different kinds of ecosystems
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# WORK PACKAGE 5

- **Multiplicator effects for surrounding communities/society**
  - Exit polls (important to be careful in the identification of spending)
  - CGE model (Tanzania has developed a SAM with a tourism sector)
  - Experiences of “park forums” and participatory revenue sharing.
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# WORK PACKAGE 6

- **Ecosystem services**

- Identification and valuation of ecosystem services provided by parks, such as:

- Biodiversity conservation
    - Watershed management
    - Carbon

# WORK PACKAGE 7

- **Stakeholder analyses**
  - Identification of various stakeholders.
  - Analysis of profitability and entry of tour operators.
  - Corruption analysis
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# WORK PACKAGE 8

- **Design of optimal fees**
  - Theoretical description of optimal tariffs.
  - Park specific tariffs.
  - Multi-park tariffs (including substitution)
  - Theoretical description of optimal concession fees.
  - Optimal combination of entry fees and concession fees (theoretical and simulations).
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# PROJECT OUTCOMES

- Interaction with parks agencies
  - determine the threshold of parks for inclusion in the study for the results to be usable
- Framework for optimal park pricing
- Some simulation tools to demonstrate how cartelising the parks agencies in the participating countries can be beneficial to them all
- Workshop of senior park managers on how they can form a cartel and be better off
- Manual to guide investments in the parks system. When do you introduce a new recreation offering and price instrument? What should be the magnitudes of each of these?
- Journal special issue

# PROJECT

## PARTNERS/COLLABORATORS

- Botswana: Kgomo Moloosiwa, Felistas Maleta?
- Ethiopia: Rahel Deribe Bekele (EfDE), Cherie Enawgaw Beyene (EWCA)
- Kenya: James Njogu (KWS), Mark Yobesia (KWS), Goeffrey Sikei (EfDK), Wilfred Nyangena (EfDK)
- Namibia: Festus Kendenge (UNAM)
- Rwanda? Claudine Uwera?
- South Africa: Edwin Muchapondwa (EfDSA), Johane Dikgang (EfDSA), Jane Turpie (EfDSA), Louise Swemmer (SANParks), Joep Stevens (SANParks), Eric Mungatana (UP)
- Tanzania: Emilian Kihwele (TANAPA), Razack Lokina (EfDT)
- Uganda: Margaret Banga (EfDT), Moses Chelibei UWA), Stephen Masaba (UWA)
- Zimbabwe: Liberty Nyaguse (ZimParks), Carren Pindiriri (UZ), Munyaradzi Mavesere (UZ), Emily Janhi (UZ), Rumbidza Tizora (UZ)
- International: Gunnar Kohlin (EfD), Gardner Brown (WSU), Francisco Alpizar (EfDCR), Allen Blackman, Roger Madrigal, Carolyn Fischer, Jo Albers, Thomas Sterner, Peter Berck, Wisdom Akpalu

# POTENTIAL DONORS

- EfD
- GEF
- SIDA
- ACBF
- AfDB
- WWF
- AWF
- World Bank
- Larry Linden
- Tourism Research
- World Tourism Organisation
- VW Foundation

# Expectations on second workshop

- That we know what data exists and has been collected (**end of May**);
- That we collect views from the parks agencies represented on the need for a regional park tariff reform for sustainable park management.
- That we get fleshed out proposals for research projects to be conducted by country teams (**end of July**)
- That we share results of preliminary research
  
- Will send out all docs (**end of tomorrow**)
  
- Invite us to the great Indabas especially for institutional buy in/ we are happy to eventually facilitate park agency meetings
  
- Program for today and tomorrow
  
- Next meeting (**November/December/January/February**)
  
- Thanks: donor, all, parks agencies, Gardner, Liberty, hotel