Determinants of demand for participation in elephant hunting in Zimbabwe

By Emily Janhi and Munyaradzi I Mavesere: A Proposal for park pricing workshop; Victoria falls 27-29 April 2011
Develop an economic demand model for elephant hunting
introduction

• Hunting should be done conservatively, for example there is a wildlife management scheme, whose main strategy is to include the local people to gain their co-operation and support.

• Thus, conservation managers will be eliminating overexploitation and limiting or preventing uses that endanger wildlife.
This resulted in the Integrated Conservation and Development Projects (ICDPs).

The projects aim to conserve protected areas through promoting economic development and providing local people with alternative income sources which do not threaten to deplete wildlife.
• This is aimed at letting local communities benefit economically and improving their welfare, for example in Zimbabwe there is a CAMPFIRE.

• Hunting is source of revenue for the National Parks authorities, if well priced the authorities can maximise revenue. It contributes 16% of the National Parks revenue as compared to Zambia which contributes 45%
objectives

• The study is aimed at developing an economic demand model for elephant hunting in Zimbabwe. Specific objectives of the study are;

• To investigate whether socio-demographic and ecological characteristics in Zimbabwe are strong predictors of the demand for elephant hunting.
Objectives Cntd....

• To determine whether there exists a cross price elasticity of demand in elephant hunting licencing, for example, with hunting licences in Zambia
Research Questions

• Is it possible to model a demand function for elephant hunting in Zimbabwe?

• Is elephant hunting popular among the older or younger generation, local or foreign nationals?

• Do elephant hunting licence fees in Zambia affect the demand for elephant hunting in Zimbabwe?
Problem Statement

- There is no economic model used to determine hunting fees by the national park authorities in Zimbabwe. Permits and licence fees for 2011 are:

<table>
<thead>
<tr>
<th>Permit and licence</th>
<th>fee</th>
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</thead>
<tbody>
<tr>
<td>Dealers and breeders application fee (non-refundable)</td>
<td>10</td>
</tr>
<tr>
<td>Ivory Manufacture’s Initial Inspection Fee</td>
<td>200</td>
</tr>
<tr>
<td>Ivory Manufacturers Licence per annum</td>
<td>1200</td>
</tr>
<tr>
<td>Ivory carver’s Licence per annum per person</td>
<td>800</td>
</tr>
<tr>
<td>Fee for approved quotas</td>
<td>330</td>
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</tbody>
</table>
Problem Statement cntd....

• There are also special hunting permits charged depending on whether you are going to use an arrow, handgun or dogs.

• There is a national parks tariff committee that sets up the prices on an annual basis.

• This committee is chaired by a member of the Commercial Committee
Problem Statement cntd....

- In setting up the tariffs the Committee liases with the Zimbabwe Tourism Authority and then the Board approves the fees.
- Once the Board has approved the tariffs the Minister then takes this to Cabinet for approval and gazeting.
- Tariffs are set up by looking at the prevailing circumstances and by making comparisons with regional prices.
Thus, this study is an attempt to investigate the determinants of elephant hunting which can be used in setting up licence fees and thereby maximising revenue collection by park authorities.
Empirical model

- The proposed model will make use of cross-section data analysis of elephant hunting licence demand in Zimbabwe. (there are eleven safari areas where hunting takes place)
- It will include both the demand and supply related factors that determine the equilibrium level of licence demand and supply in Zimbabwe.
Data requirements

• There is need for economic and demographic variables such as age, education, income, nationality, race, residence, among others.
Data sources

• We intend to get data from the national parks authority which is responsible for licensing and sales records

• The other source on demographic and economic variables will be obtained from ZIMSTATS

• Ecological information where we will be capturing the availability and absence of hunting species will be obtained from national park authorities
Thank you
Tatenda
Siyabonga