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# Society's perceptions of African elephants and their relative influence towards the conservation of elephants

Taruvinga A<sup>a,\*</sup> and Mushunje A<sup>b</sup>

<sup>a,b</sup>*Department of Agricultural Economics & Extension, University of Fort Hare Bag X1314, Alice 5700, South Africa*

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## Abstract

Africa's elephant population continues to decline towards extinction in the face of globally crafted elephant conservation policies. Thus far, society questions the initial design structure, contribution of local communities and relevance of these policies. Using cross-sectional survey data from Zimbabwe the paper investigates local communities' perceptions of elephants and their relative influence towards conservation of elephants using the multinomial logistic regression model. Results indicate that, high human-elephant conflict and low revenue from elephant farming promote elephant decimation while, observable positive direct returns from elephants to local communities promote conservation. The paper therefore concludes that to save African elephants, it may be necessary to engage local communities as active main stakeholders in the policy formulation so as to internalise local interests - thus avoiding errors of omission and commission.

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## 1. Introduction

The African elephant (*Laxodonta africana*) is perceived differently across and within various societies in Africa (Edwards, 2001). In areas where human-elephant conflict is high, elephants are seen as pests/predators (Edwards, 2001) worth eradicating to reduce predation and crop damage which according to Barnes, (2006) could as high as 100% under small scale rain fed agriculture. Also, elephants have emerged as significant competitors for land in rural areas with several evictions reported in areas where Game Parks are created

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\* Corresponding author. Tel. +27-79-2421194

E-mail address: [ataruvinga@ufh.ac.za](mailto:ataruvinga@ufh.ac.za)

(Muchapondwa, 2003; Redford and Fearn, 2007). Contrary, in other areas elephants have been sustainably exploited under the banner of ecotourism ventures positively contributing to rural livelihoods (Jones and Barnes, 2007; Libanda and Blignaut, 2007). Thus far, Novelli *et al.* (2006) argued that these perceptions may shape and define society's attitudes towards conservation or decimation of African elephants. Sadly, against this background, Africa's elephant population as a whole continues to decline (Wesser *et al.* 2010) a scenario which may suggest errors in commission and omission in the way elephant conservation policies are formulated. This paper therefore investigates society's perceptions of elephants and determinants of elephant conservation choices among rural communities who share boundaries with Game Parks given their potential to conserve or destroy them.

### 1.1. Problem statement

Most African elephants share boundaries with rural communities presenting several social costs and benefits (Muchapondwa, 2003; Novelli *et al.* 2006). As a result of their location, these communities have a much greater potential to conserve African elephants (Muchapondwa, 2003) or assist in their extinction (Child *et al.* 1997), depending on the available shared perceptions (Twyman, 2001). The observed decline in elephant population in Africa (Wesser *et al.* 2010) suggests errors of commission and omission in the initial elephant conservation policy design – the role of local communities as active stakeholders in elephant conservation policy formulation as inspired by their shared perceptions.

## 2. Related literature

Research has focused more on ivory trade ban, elephant poaching and listing of elephants by CITES (Wasser *et al.* 2010) at the expense of local society's perceptions towards elephants conservation. Interestingly, conclusions from these studies have been used to shape and define the direction of elephant conservation policies across all elephant rangelands in Africa [Foundation for Environmental Conservation (FEC), 2009]. More importantly Twyman (2001) notes that, in order to understand the links and the conflicts between nature, wildlife utilisation and community development, it is necessary to gain a deeper understanding of people's relationships with nature. These are critical missing links in literature worth understanding for the purpose of inspiring elephant conservation policies, thereby involving the masses of local communities as active stakeholders in elephant policy formulation.

## 3. Methodology

The study was conducted in the Rushinga, Mudzi and UMP communal areas of Mashonaland Central and East Provinces of Zimbabwe using cross sectional survey data (N=150). These communal areas surrounds Nyatana Game Park. For the purpose of capturing all the spectrum of preferences in society, with regard to how societies view elephants, respondents were split into three sub-samples according to their stated preferences for Nyatana elephants. Following an approach used by Muchapondwa (2003), the spectrum of preferences for Nyatana elephants were obtained by first asking respondents to weigh the costs and benefits their households would assign to the current elephant populations in Nyatana Game Park. Three responses emerged as follows; (1) Benefits exceed costs (positive WTP for elephant conservation;  $WTP > 0$ ); (2) Benefits equal costs (indifferent group;  $WTP = 0$ ) and (3) Benefits are lower than costs (negative WTP for elephant conservation;  $WTP < 0$ ). Using stratified random sampling, based on a spectrum of preferences created for Nyatana elephants from the initial sample three homogeneous mutually exclusive strata were created for independent analysis using a multinomial logistic regression model. Non participation (indifferent;  $WTP = 0$ )

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