

# Wildlife tourism, community-based natural resource management, wildlife value orientations, and quality-of-life indicators in indigenous Namibian villages

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## Introduction

With support from World Wildlife Fund, other non-governmental organizations and the U.S. Agency for International Development, the government of Namibia is testing community-based natural resource management (CBNRM) as an alternative to traditional top-down economic development models in indigenous villages that depend, in part, on wildlife tourism (App et al. 2008, Weaver & Skyer 2003). We investigated the impact of CBNRM on indigenous villages by comparing CBNRM communities and non-CBNRM communities in regard to wildlife interaction, wildlife value orientations (WVOs), and two quality of life indicators: subjective well-being and self-determination.

## Conceptual Background

WVOs are value-laden beliefs about how humans should relate to wildlife. Cross-cultural research has identified dimensions of WVOs that include materialism, mutualism, symbolism, caring, safety and security, attraction, and repulsion (e.g., Kaczensky 2007, Zinn & Shen 2007), and WVOs have been used to predict and explain responses to wildlife attacks on humans; wildlife damage and disease transmission to domestic animals and humans; wildlife-related tourism and recreation; and the acceptability of wildlife management actions.

Subjective well-being has been defined as the balance between positive and negative events and conditions in life, and, to the degree that individuals experience high subjective well-being, the report of a sense of happiness, peace, fulfillment and life satisfaction (Diener 1984). We operationalized subjective well-being by explaining to study participants that “people’s overall happiness is affected by the combination of good and bad things in life,” and then asking them to help us make a list of things in their lives that make them happy and a list of things in their lives that make them sad.

Self-determination has been defined as people’s ability to pursue goals that are meaningful (Ryan & Deci 2000) at both the individual and the aggregate level (e.g., indigenous group, village, sub-segment of a community). Self-determination theory (Ryan & Deci 2000) posits that fulfilling the psychological needs of competence, autonomy and relatedness enables humans to achieve optimal development. Accordingly, social contexts that facilitate competence, autonomy, and relatedness facilitate intrinsically motivated behavior, whereas contexts that hinder these needs result in diminished motivation and well-being.

## Methods

Using a controlled comparison method (Eggen 1954, Nyaupane et al. 2006), two pairs of CRNRM-participating and CRNRM-non-participating communities were selected for comparison on the basis of physical proximity, size and ethnicity. In each village, we used Nominal Group Technique (NGT) to interview three to five small groups of homogeneous age, sex and social status. Using NGT has been shown to be less intimidating than individual interviews while mitigating problems associated with unstructured group interviews (Ritchie 1985, Nyaupane et al. 2006).

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## Results

Content analysis of interview responses demonstrates that residents of CBNRM and non- CBNRM villages interact with similar wildlife, experience similar conflicts with wildlife, and hold similar materialistic (i.e., instrumental) WVOs, and share similar beliefs about the benefits of participating in CBNRM. Compared to residents of nonparticipating villages, however, residents of participating villages express a richer sets of mutualistic WVOs (e.g., benefits of balanced co-existence) and symbolic WVOs (e.g., traditional ritual uses of wildlife). Residents of participating villages report being more prosperous and perceiving harmony between themselves and the natural world. Conversely, they report more problems related to health and social relatedness; however, their general well-being depended increasingly on prosperity factors, rendering health and relatedness less influential. In addition, males in participating villages appear to have internalised wildlife conservation behaviors, while other men and all women reported that they refrained from poaching only as a result of externally imposed prohibition.

## Discussion

Results demonstrate that implementing CBNRM among indigenous Namibian villages is associated with an elaborated set of WVOs, higher subjective well-being and an enhanced sense of self-determination, suggesting that opportunities for indigenous communities to practice CBNRM may contribute to quality of life, enhance wildlife conservation, and support for sustainable wildlife tourism. Importantly, this study does not establish causation between participation in CBNRM and the dependent variables. To determine causal effects, relationships will need to be explicitly tested in larger-scale longitudinal research.

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