

management, and an integrated approach that recognizes and accommodates the interests of various NBT stakeholders in the Serengeti ecosystem. Specific actions of high priority include developing and implementing effective management plans, adopting LAC in PA planning, capacity building for communities to participate in the tourism industry, and participation and collaboration of NBT stakeholders in the ecosystem.

Publications

1. Banham, W., Chambegga, O.A., Kahana, L.W., Machange, J.H., Manongi, F.S., Masuruli, B.M. and Mwaya R.T., (2006). Capacity Building for Conservation in the Albertine Rift Highlands, Africa: Conservation Training Needs Assessment. College of African Wildlife Management, Mweka, Tanzania. January 2006.
2. Kaswamila, A.L., and Masuruli, B. (2005). *Role of Chamazi Farming Systems in Alleviating Poverty in the Semi-arid Areas of Lushoto District*, REPOA Research Report. Mkuki na Nyota Publishers, Dar es Salaam.
3. Mwaya, R.T., Masuruli, B.M., and Kabana, L.W., (2004). Gender Inequality in the Administration of Wildlife Resources within the Wildlife Management Areas (WMA's) Framework in Tanzania. In: Merete (ed) Second Worldwide Symposium on Gender and Forestry. CAWM, Mweka, pp. 16.

Presentations

1. Masuruli et al., (2013). Costs and benefits of nature-based tourism to communities in the Serengeti ecosystem, Tanzania. Congress of the Humanities and Social Sciences. University of Victoria, BC Canada. June 1 - 8, 2013.



University
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Graduate Studies

PROGRAMME

The Final Oral Examination
for the Degree of

DOCTOR OF PHILOSOPHY
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“Costs and Benefits of Nature-Based Tourism to Conservation and Communities in the Serengeti Ecosystem”

Tuesday, December 2, 2014
2:00pm
David Turpin Building, B215

Supervisory Committee:

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Victoria (Co-Supervisor)
Dr. Rick Rollins, Department of Geography, UVic (Co-Supervisor)
Dr. Leslie King, Department of Geography (Member)
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Dr. G. David Twynam, Dean
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Dr. Robert Gifford, Department of Psychology, UVic

Abstract

People visit protected areas (PAs) for enjoyment and appreciation of nature. However, tourism that is not well planned and managed can significantly degrade the environment, and impact negatively on nearby communities. Of further concern is the distribution of the costs and benefits of nature-based tourism (NBT) in PAs, with some communities experiencing proportionally more benefits, while other communities experience more of the cost. This distribution is complex and differs considerably amongst PAs. This thesis examines the flow and distribution of the costs and benefits of the NBT supply system to conservation and communities in the Serengeti ecosystem, Tanzania. The Serengeti ecosystem, a World Heritage site and a leading global wildlife tourism destination, was selected for this study because of high biodiversity, high poverty, and a high level of NBT activity. The research was guided by four main questions: (1) what is the nature of the supply system of NBT in the Serengeti ecosystem; (2) how do the management plans allow for and guide tourism in the Serengeti ecosystem; (3) how is conservation impacted by the NBT supply system; and, (4) how are communities impacted by the NBT supply system?

A qualitative approach was used, combining document analysis, key informant interviews, and focus group discussions. This involved collecting data from a number of participants: PA agencies; the tourism industry; nearby communities; and non-governmental organizations. These people were recruited through purposive and snowball sampling techniques.

The findings offer an ecosystem-scale perspective rather than the common focus on a single PA. The study uses complex systems theory to help frame the NBT supply system in the Serengeti ecosystem, which is comprised of numerous agents that can be grouped in four major components – PAs, communities, tourism operations, and elements of the wider environment. The agents, such as tour operators, park management, and communities, vary across the ecosystem, and have multiple roles in NBT, including management of attractions, tourism planning and management, and provision of accommodation, transportation, accessibility, information, security, and utilities. There are complex interactions and relationships among these components across the ecosystem, and at regional, national, and international scales. These components of NBT supply systems

interact dynamically in a non-linear manner, resulting in mixed outcomes for conservation and communities. Thus, NBT in the Serengeti ecosystem calls for an integrated management approach that is more adaptive and ecosystem-based than currently exists. The wildlife legislation requires all PAs in the Serengeti ecosystem to have management plans, but some do not. The management plans in the ecosystem vary among PAs, with a number of flaws, including inadequate participation of stakeholders, insubstantial zoning, and ineffective application of the “Limits of Acceptable Use” (LAU) as a main framework for controlling use.

NBT in the Serengeti ecosystem is growing, and delivers a range of conservation benefits and costs that vary across the ecosystem. These conservation benefits include: financial support for conservation, improved biodiversity conservation and PA management, raising conservation awareness, and public support for conservation. Conservation costs include financial costs, wildlife disturbance, shifting priorities from conservation to tourism, habitat destruction, and pollution.

Likewise, NBT delivers many benefits to communities, such as income, employment, social services and infrastructure, scholarships, and school fees. NBT results in many costs to local communities, such as loss of grazing land and farmland, conflict (tourism stakeholders, and human-wildlife conflicts), stress to local residents due to increase of human populations, and unintended consequences.

The flow and distribution of these costs and benefits to conservation and communities also varies across the Serengeti ecosystem. Overall, NBT generates substantial benefits to PAs, although considerably less revenue is allocated to conservation activities than is accrued from NBT. On the other hand, local communities experience considerable costs and receive inadequate benefits that are not sufficient to address poverty. Inadequate mechanisms that govern the flow of the costs and benefits, poor governance, and poverty are some of the main factors contributing to the imbalance of the flow and distribution of the costs and benefits of NBT.

Finally, a complex systems perspective was shown to be a useful tool in understanding the NBT system as a whole, the dynamic interaction within the system and beyond, and associated costs and benefits delivered by that system. Overall, this study recommends adaptive management, ecosystem-based