Spatial analysis of tourism income distribution in the accommodation sector in western Uganda

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Abstract
In the ongoing debate on the connection between tourism and poverty alleviation, tourism is often presented as a tool for poverty alleviation and the improvement of socio-economic conditions of rural communities in developing countries. Findings of prior research suggest that nature-based tourism has a positive impact; however, existing models tend to understate the spatial differentiation of impacts in different contexts. Little is known about the spatial range and scale of the benefits from tourism development at a certain location. Previous studies have shown that employment in accommodation facilities is responsible for the largest share of pro-poor impact in Ugandan tourism. This paper focuses on the spatial dimension of the impact of employment in the tourism accommodation sector on the local livelihoods, with nature-based tourism around Kibale National Park (KNP) in western Uganda as a case study. Semi-structured interviews with employees were undertaken to delineate the geographical sphere of influence (SoI) of tourism employment in the accommodation sector. Results show that tourism accommodations recruit from a small geographical sphere of influence (5–10 km) in rural settings, while in urbanized settings the sphere of influence is larger (30–40 km). Understanding spatial differences of the distribution of tourism benefits in developing countries can lead to better informed policies on poverty alleviation. Policies to promote tourism as a poverty alleviation strategy have shown some successes, but there is a danger that the spatial scale of the impact is smaller than anticipated. Furthermore, for more than 80% of households, tourism is the principal source of income. In addition, tourism employment can provide initial capital for supplementary activities, which gain in importance to the extent that their profits surpass the income from tourism employment. Tourism employment does not represent a final perspective but a stage for gathering resources and skills.

Keywords
Tourism development, employment, sphere of influence, accommodation sector, western Uganda

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Introduction

According to United Nations World Tourism Organization (UNWTO) (2013), tourism in Sub-Saharan Africa (SSA) comprised 3.5% of the international tourism-related arrivals in 2011. Although this number is still low, tourism in SSA has grown with 6% in the first half of 2012, higher than the world average of 4.3% in the same period (UNWTO, 2013). Moreover, it is expected that tourism in SSA will continue to grow faster (5.5–6%) than the world average (4.1%) in the next decade (Twining-ward, 2009). In 2011, SSA-tourism generated US$ 93.3 billion and 11.6 million jobs in total, which corresponded to 7.9% of the total GDP of the SSA-countries and 5.6% of the total SSA employment (World Travel and Tourism Council (WTTC), 2011). Moreover, tourism is important for many sub-Saharan countries as a leading source of foreign exchange and as an important export sector (Mitchell, 2007; Gartner and Cukier, 2011; Mitchell, 2012). To address this issue, the United Kingdom Overseas Development Institute (ODI) developed a conceptual framework to ‘follow the tourist dollar’ through the tourist value chain and associated value chains. Value chains describe ‘the full range of activities required to bring a product or service from conception, through different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final dispose after use’ (Kaplinsky and Morris, 2000: 4). In reality, a value chain contains a complex web of links and activities that are performed by primary and secondary actors, whereby each value added link of the chain encompasses a range of intra-link activities. Moreover, intra-link activities of one value chain can be part of another value chain. Therefore, the boundaries of a certain value chain are not always clear because of its intangible character and complex multi-layered dimension (Kaplinsky and Morris, 2000; Mitchell, 2012). The framework of ODI captures the three-pronged imprint of tourism activities on households1 in the host economy: via direct, indirect and induced impacts (Ashley and Mitchell, 2007; Lejarraga and Walkenhorst, 2010; Mitchell, 2012; Spenceley and Meyer, 2012). This framework is in agreement with current shifts in tourism literature towards applying value chain analyses (VCAs) (Mitchell, 2012; Mitchell and Faal, 2007, 2008; Snyman and Spenceley, 2012). Although value chain-based analyses (known inter alia as value networks, value systems, global commodity chains and production networks) are conceptually robust methodologies, they have their weaknesses (Harrison, 2008; Meyer, 2007; Mitchell, 2012).

Incorporating geographical concepts

First, VCAs do not systematically take into account contextual aspects of tourism areas (Harrison, 2008). The concept of tourism ‘context’ refers to the complex factors that shape tourism development (Heap and Williams, 1999). Every region has its unique set of cultural, socio-economic, physical and political characteristics; factors influencing the spatial organisation and its links with the local economy and community (Ashley and Mitchell, 2005; Gartner and Cukier, 2011; Kontogeorgopoulos, 1998; Marcouiller and Xie, 2008; Roe et al., 2004; Sandbrook, 2010; Wall and Mathieson, 2006). According to Scherl et al. (2004) ‘protected areas should not exist as islands, divorced from the social, cultural and economic context in which they are located’. In addition, two different regions in one country can reveal dramatically different results after the implementation of similar policy measures (Ellis, 1998). Therefore, tourism cannot be considered as a one-size-fits-all panacea for development, and local policies should be tailored to local contextual circumstances (Ellis, 2008;
Fortanier and van Wijk, 2010; Gartner and Cukier, 2011; Roe et al., 2004; Shen and Hughey, 2008).

Second, people living adjacent to conservation areas bear disproportionate costs of wildlife conservation in developing countries (Archabald and Naughton-treves, 2001; Naughton-treves, 1997). Exchange theory implies that tourism benefits can compensate communities for the conservation costs and the negative impacts on local livelihoods near protected areas (Adams and Hutton, 2007; MacKenzie, 2012). Linking these benefits to conservation is problematic due to stakeholder conflicts, human–wildlife conflicts and limited livelihood options in surrounding villages (Archabald and Naughton-treves, 2001; MacKenzie, 2012). In addition, existing compensation policies mostly focus on giving small percentages of tourism revenues to entire surrounding parishes, generally as conditional grants for public utilities, such as water, roads, bridges and health centres (Ahebwa et al., 2012; Archabald and Naughton-treves, 2001; MacKenzie, 2012). However, existing VCA models tend to concentrate on cash flows and their economic impacts, without taking into account the spatial dimension of tourism-generated revenues. Moreover, tourism development induces power relations that are neither socially nor spatially equally distributed (MacKenzie, 2012). This has often caused inter- and intra-community frictions and conflicts (Agrawal and Gibson, 1999; Archabald and Naughton-Treves, 2001; Mackenzie, 2012). The use of geographical concepts can provide useful assistance to decision-makers engaged in tourism planning processes (Hall and Page, 2009).

Several tourism scholars have recently explicitly incorporated the spatial dimension in their tourism impact research. For example, Mitchell (2012) argues that first-order direct impacts of tourism mostly focus on communities at the destination on a local scale. However, communities further away from the location can also benefit, for example, via commuting or remittances by migrant workers. Rogerson (2012) and Pillay and Rogerson (2012) explored the spatial pattern of luxury safari lodges and the corresponding tourism–agriculture linkages in South Africa and concluded that spatial patterns of food sourcing differ between clusters of safari lodges according to their location.

The spatial dimension of tourism impact research was also explored by some scholars in Uganda. Hartter (2007) studied the spatial extent of diminishing resources within 5 km of Kibale National Park (KNP) and concluded that distance from the park’s boundary was an important parameter for resource availability and livelihood options. In a related study, MacKenzie (2012) determined the spatial distribution of all direct tourism-related benefits and costs associated with KNP in a range of 3 km from the park boundary. The study confirmed the existence of spatial inequality: households close to the park (<0.5 km) fared worse off compared to households located further away (MacKenzie, 2012). The spatial range of the diffusion of several benefits (e.g. employment and income) and costs (e.g. environmental pressure) has not yet been addressed on different scales (Marcouiller and Xia, 2008).

In tourism impact research, the concept of geographical spheres of influence (SoI) can be introduced. This concept originates from central place theory, which focuses on how tertiary activities are unevenly distributed in space and how central places are allocated in the landscape (Christaller, 1966; Lösch and Woglom, 1954; Mulligan, 1984). The concept of SoI is commonly used in urban geography and urban economics to describe centre–hinterland relationships and the scope or the influence of an activity (Huff and Lutz, 1979, 1989; Mulligan, 1984; ReVelle, 1986; Wang et al., 2013).

This paper focuses on the spatial dimension of the impact of employment in the tourism accommodation sector on local livelihoods, with nature-based tourism around KNP in western Uganda as a case study. This line of argumentation follows the findings of the International Trade Centre (2011) that employment in the accommodation sector accounts for the largest share of the sector’s pro-poor impact in Uganda’s tourism value chain. Whether the impact changes in different tourism contexts on a subregional scale is not known (Marcouiller and Xia, 2008); therefore, it cannot be taken for granted that the pro-poor impact of the accommodation sector is equally spatially distributed. Moreover, Gartner and Cukier (2011: 548) proposes to address employment as a separate tourism development process in the tourism-poverty nexus. The paper hence addresses the following research questions:

a. What is the spatial spread of income from tourism accommodations in different contexts in western Uganda?

b. How important is income from tourism jobs in the accommodation sector for the livelihoods of local households?

KNP and the environs was selected as a case study because tourism in this area is strongly developing in
distinct spatial contexts: an urbanized context (e.g. Fort Portal) and in villages in a rural diffused context (e.g. Bigodi) (Harter, 2007; Mackenzie, 2011; Nyakaana and Ahebwa, 2011). This offers an interesting scenario for the spatial analysis of distinct contexts.

Furthermore, the Ugandan government is promoting sustainable tourism development in rural areas surrounding the national parks to improve rural livelihoods and local development. Hence, the selected case has strong policy relevance. Lastly, Fort Portal (a major town adjacent to KNP) has been earmarked as the ‘tourism city’ in vision 2040 for Uganda (Ministry of Tourism, 2013; National Planning Authority, 2010).

The rest of the paper is organized as follows. The third section elaborates concepts of livelihoods and livelihood diversification, and it further defines the scope of the research. The fourth section introduces the research methods and presents the study area in depth. The fifth section presents the results and discusses the findings within the context of the academic literature. The final section outlines the conclusions of the study and proposes several topics for further research.

**Income as an aspect of livelihoods**

Although income from agricultural activities is the base of livelihood strategies for rural households in developing countries (Ashley, 2000; Dolan, 2004; Ellis, 1999; Sandbrook, 2006), empirical evidence suggests that households regularly engage in non-agricultural activities as a source of income (Ashley, 2000; Ellis, 1998, 1999; Harter, 2007; Kaag et al., 2008; Lepper and Schroenn Goebel, 2010; Smith et al., 2001). It has been found that high levels of non-agricultural income are often associated with higher levels of agricultural productivity and higher overall household income (Dolan, 2004; Ellis, 1999; Ellis and Bahigwia, 2003; Evans and Ngau, 1991). In this context, nature-based tourism is often proposed as a tool for improving the socio-economic conditions of households with limited livelihood options in developing countries (Ahebwa, 2012; Fortanier and van Wijk, 2010; Mbaiwa, 2008; Mitchell and Ashley, 2006; Spenceley and Meyer, 2012; Yunis, 2004; Zhao and Ritchie, 2007).

According to Ellis (1999: 2) livelihoods are defined as ‘the activities, the assets and the access that jointly determine the living gained by an individual or household’. The concept of livelihoods was originally coined in the 1940s to describe people’s strategies of making a living (Kaag et al., 2008). However, with the macroeconomic development literature of the 1980s and the pioneering literature of Robert Chambers, the livelihood approach transformed into its current meaning by including the complex dimension of poverty (Ahebwa, 2012; Brocklesby and Fisher, 2003; de Haan and Zoomers, 2005; Kaag et al., 2008). Addressing poverty necessitated livelihood diversification through new approaches such as tourism. Ellis (1992: 2) defines livelihood diversification as ‘the process by which households construct a diverse portfolio of activities and social support capabilities for survival and in order to improve their standard of living’. The result of this diversification strategy in livelihood activities is the outcome of an economic model by which the households compares – given an asset base such as land, capital and labour time – the returns on the extra labour in agricultural activities with the returns of extra labour time invested in other income-generating activities (Ellis, 1999). This model is driven by motivations for undertaking a range of livelihood activities which are divided in two categories in development literature (Dolan, 2004; Ellis, 1999). On the one hand, the inability to solely rely on subsistence agriculture as a means of survival forces rural dwellers to undertake a range of different activities in an attempt to escape from rural poverty, withstand economic shocks and enhance livelihood options (Ashley, 2000; Dolan, 2004; Ellis, 1998, 1999; Smith et al., 2001). This is seen as diversification in response to economic necessity (Dolan, 2004; Ellis, 1999). On the other hand, households are also diversifying in order to accumulate capital or to invest in other activities. This is seen as diversification in response to economic choice (Dolan, 2004; Ellis, 1999). In reality, it is crucial to note that diversification occurs due to a continuity of motivations, restrictions and causes, whereby these can change through time (Ellis, 1999).

Employment in tourism could be an additional income-generating activity for rural households in developing countries, enhancing human, natural, financial and social capital of rural dwellers (Ashley, 2000; Ellis, 1999; Mitchell and Ashley, 2007; Novelli and Gebhardt, 2007). It can also decrease the dependency on activities based on exhaustible natural resources (Snyman, 2012; Stronza and Gordillo, 2008). Tourism is an important growing sector in developing countries because it directly and indirectly creates jobs for skilled, semi-skilled and unskilled local workers (Ahebwa et al., 2013; Marcouiller and Xia, 2008). Direct tourism employment encompasses all occupations ‘directly derived from and dependent upon tourism and includes employment in accommodation establishments, shops, restaurants, night clubs, bars, government tourism administration, transport and tour companies.’ (Kontogeorgopoulos, 1998: 315; Lea, 1988). Sometimes, it is the only alternative in areas with high rates of unemployment and poverty (Ashley and Mitchell, 2005; Kontogeorgopoulos, 2007).
1998; Vanhove, 2012; Yunis, 2004). Moreover, the tourism sector is characterized by a high share of female workers (Mitchell and Ashley, 2007; Vanhove, 2012).

In Uganda, the majority of rural dwellers secure their livelihoods primarily through small-scale subsistence agriculture (Dolan, 2004; Hartter, 2007; Mackenzie, 2011; Plumptre et al., 2007; Smith et al., 2001; Ugandan Bureau of Statistics, 2006). Most Ugandan households (87%) are dependent on small-scale agriculture for their livelihoods (Ugandan Bureau of Statistics, 2006). Typical examples of cultivated staple crops are bananas, maize, sweet potatoes, beans, cassava, yams, millet, groundnuts and some fruits (Mugisha, 2002; Sandbrook, 2006). Food surpluses are sold on the local market to generate cash income. More affluent households tend to grow at least one cash crop (e.g. tea or coffee) or tend to breed livestock for commercial purposes (e.g. selling milk). Livestock is also used as savings for covering difficult periods or extraordinary expenditures for celebrations or holidays, such as the payment of dowries (Sandbrook, 2006). However, the literature indicates the need for livelihood diversification in Uganda due to limited non-agricultural activities (Butler and Mazur, 2007; Dolan, 2004; Ellis and Bahiigwa, 2003; Hartter, 2007; Mackenzie, 2011; Rahman et al., 2007; Sandbrook, 2006; Smith et al., 2001; Vermeiren et al., 2013). Drawing on the country’s abundant biodiversity, the Ugandan government is stimulating the development of tourism to improve rural livelihoods (Ministry of Tourism, 2013; National Planning Authority, 2010). As a result of government’s efforts, Uganda is a growing tourism destination with a significant increase in international visitor arrivals in the last decade. The total contribution of tourism to the Ugandan economy in 2012 was estimated at 7.6% by the WTTC (Weiss and Messerli, 2012). Currently, the tourism industry in Uganda creates 225,500 direct jobs, corresponding with 3.4% of total national employment (Weiss and Messerli, 2012).

The central role of the accommodation sector

The accommodation sector is pivotal in tourism employment in many developing countries. It has a central position in the tourism value chain of rural economies in the developing world (Meyer, 2007; Vanhove, 2012). In Uganda the accommodation sector is responsible for the largest part (44%) of visitor expenditures in the Ugandan tourism value chain (International Trade Centre, 2011). Moreover, in terms of pro-poor jobs, employment in accommodation facilities accounts for 78% of the pro-poor jobs of the Ugandan tourism industry. Therefore, employment in the accommodation sector in Ugandan tourism accounts for the largest share of the sector’s overall pro-poor impact (International Trade Centre, 2011).

Lessons drawn from Southern Africa (Zimbabwe, Botswana, Namibia and South Africa) reveal that tourism accommodations are mainly situated in rural and remote areas, marred by poverty, limited livelihood options and few employment opportunities (Ahebwa et al., 2012; Snyman, 2012). Tourist accommodations can provide a viable rural development strategy in these settings. In addition, local wages are considered as the most visible link between employees in tourism and the tourism industry (Ashley et al., 2005). Employment is a crucial factor as wages hardly leak outside the host economy, except for hired foreign management staff (Ashley and Mitchell, 2006; Lacher and Nepal, 2010).

Indirectly, the sector can play an important role via procurement of supplies locally and dynamic impacts (e.g. enhancing the skills of local labourers through training of hotel staff) (Ashley and Mitchell, 2006; Meyer, 2007; Mitchell, 2012). These non-income benefits include: expertise, knowledge, skills and a better access to markets and contacts (Ashley, 2005). It is important to note, however, that these elements are beyond the scope of this paper.

Materials and methods

Data collection

By means of semi-structured interviews with employees of the tourism accommodations, different geographical SoI were delineated. In total 126 employees were interviewed from July 2012 to September 2012, and the 32 accommodations covered by the survey represent most of the establishments around KNP (see Figure 1 and Table 1).

A representative sample of respondents was collected, following a two-stage sampling design. First, a complete list of tourist accommodations in the four districts surrounding KNP was composed based on a recent tour guide (Briggs and Roberts, 2010) and the tourist map ‘Fort Portal and Kibale Forest’ of the Uganda Map Series. Non-tourist accommodations (i.e. locally setup rooms and guesthouses that mainly target local inhabitants and workers) were not taken into account. In addition, local authorities and accommodation owners provided names from new establishments that were not yet listed in the tour guide or on the map. For each establishment the number of staff was determined by contacting the hotel manager or owner.

Next, the establishments were divided into four different budget classes: shoestring (US$ <10), budget
(US$ 10–40), moderate (US$ 40–120) and upmarket (US$ >120). In the selected study area, three (non-administrative) tourism zones (Table 1) were delineated based on cross-checking the division of these zones in the sixth edition of the Bradt tour guide (2010) and the latest tourist map ‘Fort Portal and Kibale Forest’ of the Uganda Map Series (Briggs and Roberts, 2010). A tourism zone refers to ‘a larger geographical grouping of smaller actual and potential tourism destinations (such as districts) that are close to one another and can enable development of effective and feasible tourism circuits.’ (Korutaro et al., 2013: 6). Although the three non-administrative tourism zones show a unique profile, they are characterized by the presence of accommodations and attractions related to tourism in KNP. The zones are located in four administrative districts. In each of the three tourism zones, the sampling of establishments reflected the proportional distribution of different budget classes per location. The number and characteristics of the respondents were systematically cross-checked through in-depth interviews with the establishments’ managers or owners to ensure the quality of the dataset.

Table 1 shows the increase in number of accommodations since 1993 in the three tourism zones. In 2012, there were 23 tourism accommodations in Fort Portal employing ca. 300 permanent staff (79 interviewed), 9 tourism accommodations in the Crater Lake area employing ca. 100 permanent staff (22 interviewed) and 6 tourism accommodations in Bigodi employing ca. 100 permanent staff (25 interviewed) (Table 1).

Before conducting the interviews, the establishment’s manager or owner provided the number of employees in the following categories: management, senior staff, junior staff and maintenance personnel. Through the semi-structured interview approach, the interviewer was able to investigate the same topics with each respondent, while new topics could be discussed according to the respondent’s answers to open-ended questions. Respondents could choose the language of the interviews to ensure the free character of the interview. In each accommodation, an English-speaking respondent was chosen first for an interview. At the end of the interview, subsequent respondents were chosen by a snowball sampling method, taking into account the distribution of positions in the establishment. If the subsequent respondent did not speak English, the preceding respondent was used as a translator. Informal discussions after the interviews could provide additional qualitative data. A single semi-structured interview typically lasted 30–45 min, depending on the education level of the respondent. Each respondent was informed that her or his answers would remain anonymous.

No employee refused to cooperate (after approval of by their supervisor). After a sufficient number of staff members were interviewed in a certain establishment, an in-depth interview with the establishment manager or owner was conducted. A single in-depth interview lasted between 30 min and 2 h. Table 2 shows the themes discussed during the semi-structured interviews.

In order to map the SoI of direct employment in the tourism accommodation sector, respondents’ household residences were recorded at the village level. The more commonly used level, the parish level, could not be used due to lack of relevant GIS data. First, the SoI was mapped using data on the village of residence of the respondent’s household. Subsequently, regional employment rates (RERs) were calculated as the ratio of the number of respondents with household in one of the four study districts and the total number of respondents. This was done for each zone separately. For example, a RER 63/79 for Fort Portal means that 63 of the 79 interviewed respondents have their household in one of the four districts of the study area. Hereby, it is assumed that (1) the respondent visits his or her household in the respondent’s village on a regular basis and that (2) the respondent shares his or her income and expenses with the household. All respondents validated these assumptions during fieldwork. If the respondent’s household was located outside one of the four study districts, the employment was considered to be superregional. In case the respondent did not have an extended household (e.g. orphans), the calculation of regional employment was based on the location of the respondent’s native village.

Next, the effect of type of ownership (Ugandan versus foreign owners) and type of budget class (shoe-string, budget, moderate and upmarket) of the tourism

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<td>Fort Portal</td>
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<td>9</td>
<td>19</td>
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<td>79</td>
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<td>Crater Lakes</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>9</td>
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<td>22</td>
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<td>Bigodi</td>
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<td>5</td>
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<td>Total</td>
<td>3</td>
<td>8</td>
<td>14</td>
<td>32</td>
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accommodations on the SoI was analysed. These factors can influence local employment and other local tourism linkages in developing countries (Kontogeorgopoulos, 1998; Lacher and Nepal, 2010; Mbaiwa, 2005). Finally, to determine the importance of tourism income (TI) for the total household income, monthly income categories were defined based on local living standards: low (US$ < 60), lower middle (US$ 60–$120), upper middle (US$ 120–400) and high (US$ > 400). The salary of the respondents was compared with other income-generating activities by the respondent’s households. The households of interviewed staff were split up into two groups: households with only a TI (TI households) and household with additional incomes (AI households).

Study area

Figure 1 shows the location of KNP in western Uganda. KNP (795 km²) is a medium-altitude tropical moist forest. The selected study area (11,708 km²) consists of the four districts that surround the national park: Kabarole District in the northwest, Kyenjojo District in the northeast, Kamwenge District in the southeast and Kasese District in the southwest. Kibale Forest was demarcated as Crown Forest in 1932 but as a result of economic and political reforms after the start of the Museveni Government in 1986, it was upgraded together with several other Protected Areas from Forest Reserve to National Park in November 1993 (Ahebwa, 2012; Lepp, 2008; Obua and Harding, 1996).

The park is well-known for its extensive floral and primate biodiversity; it is also home to the largest known community of chimpanzees in East Africa (Chapman et al., 2005; Hartter and Southworth, 2009; Obua, 1997; Plumptre et al., 2007). Since its opening for tourists in 1993, the number of park visitors has been increased steadily, reaching 10,443 visitors in 2011 (Asalu, 2012; UBOS, 2012). This represents approximately 15% of all tourist visits to all Ugandan national parks (UBOS, 2012). In 2011, KNP was the fifth most visited of Uganda’s 10 national parks (UBOS, 2012; Weiss and Messerli, 2012).

Many more tourists visit the area around KNP without entering the park, since Fort Portal is frequently used as a stopover on the itinerary between the two most visited national parks of Uganda: Queen Elisabeth (120 km to the south) and Murchison Falls (350 km to the northeast). The region around KNP is one of the most densely populated areas on the African continent, between 270 and 315 inhabitants per km² (Hartter, 2007; Lepp and Holland, 2006). The area is characterized by high unemployment rates, informal employment, day labourers and many micro enterprises (Ugandan Bureau of Statistics, 2006). Paid employment opportunities are scarce and mostly involve micro businesses, such as trading centres, grocery shops or bars (Sandbrook, 2006; Ugandan Bureau of Statistics, 2006).

The population in the area around KNP is characterized by male-headed households primarily affiliated with one of the two main ethnic tribes (Ugandan Bureau of Statistics, 2006). Most households rely on small-scale farming for their food supply (Hartter, 2007; Plumptre et al., 2007). In Kabarole District, west of KNP, 95% of the population sustains its livelihood through agricultural activities (Hartter, 2007). Tourism activities in the area are organized in three different zones that correspond to the location of three geographical zones of tourism accommodations.
(indicated as zone A, B and C on Figure 1). As mentioned above, each zone contains a unique tourism ‘context’. The first context of nature-based tourism activities is found in the Fort Portal area (A), an urbanized centre (47,100 inhabitants) in the northern foothills of the Rwenzori Mountains, located 35 km northwest of the park entrance. From Fort Portal, tourists can make different daytrips to KNP and other attractions, such as the Amabere Caves. The accommodations in the Fort Portal area are very heterogeneous in size and budget class (Figure 1).

The second context of tourism activities in the study area is a field of volcanic crater lakes, 25 km south of Fort Portal. Tourists typically stay in this area to take nature walks and enjoy hilltop views. Accommodations in the Crater Lake area (B) are a mix of luxury safari lodges, with a limited number of cottages, and some low-budget campsites and guest-houses of a moderate budget class.

The third context captures the southeast fringe of the national park and is characterized by small villages and dispersed rural settlements. The accessibility is low and therefore, only few settlements near the main dirt road offer accommodation, most notably Bigodi (C). A community-based project founded in 1992 by the cooperative venture Kibale Association for Rural and Economic Development (KAFRED) seeks to secure benefits from tourism for the local population in Bigodi (Lepp, 2008). One of the activities offered by the community-based project is a guided swamp walk during which visitors can view rare exotic bird species. The entrance fee is US$ 10, and the proceeds are used to support the local community. Accommodations in Bigodi consist of a few luxury safari lodges with a limited number of cottages and one homestead.

Results

Table 3 shows the key characteristics of the research sample. Looking at the data, it is clear that the age category of less than 20 years old is under-represented (4% vs. 13% national average) and that the cohort 20–30 year is over-represented (68% vs. 36% national average).
This deviation can be partly explained by the respondents’ high average education levels. Ninety per cent of respondents have at least a lower secondary degree, which is extraordinarily high compared to the national average of 5.5% (Ugandan Bureau of Statistics, 2006). The average number of people in the respondent’s household was lower than the national average (avg: 3.9, min: 1, max: 15). Previous studies revealed a correlation between high education level of the household head and household size (Ugandan Bureau of Statistics, 2006).

Spatial patterns

Figure 2a presents the SoI of households dependent on direct employment in tourism accommodations around KNP. Figure 2b, c and d display the SoI of households dependent on direct employment in tourism accommodations differentiated to context. Figure 2e and f show the SoI of households dependent on direct employment in Ugandan-owned versus foreign-owned accommodations. Figure 3 shows the SoI of households dependent on direct employment differentiated according to budget class of accommodation. RERs per context, per type of ownership and per budget class are presented in Table 4.

The average RER is around 80% (Table 4). The SoI of the tourism accommodation sector in the KNP area is mainly concentrated in Kabarole District (northwest of KNP) whereby households living at a distance of 30 km from the accommodations still benefit from direct tourism employment. Communities located to the northeast and southwest of KNP are not benefiting as much from employment in the accommodation sector (Figure 2a).

The SoI of the Fort Portal area (Figure 2b) and its RER (Table 4) are similar to the overall SoI and overall RER (Figure 2a). The SoI of the rural, spread out Crater Lake area (Figure 2c) is quite localized, whereby only households 5–10 km away from the park benefit from direct employment in tourism accommodations. The RER of the Crater Lake area (95%) is higher than the overall RER. Finally, the SoI of the rural concentrated community-based context with Bigodi as a central village (Figure 2d) is scattered, and the RER (64%) is lower than the overall RER.

The RERs according to locally owned and foreign-owned tourism accommodation (Table 4) are not significantly different. However, the SoI of both groups have different distributions. The SoI of foreign-owned accommodations (Figure 2f) looks elongated and follows a line from Fort Portal to the KNP entrance. The SoI of locally owned accommodations (Figure 2e) shows a more diffused pattern. The RER of shoestring accommodations (Table 4) is very high (>99%). The RERs of the higher budget classes are all around 75%. The SoI of shoestring accommodations (Figure 2d) is smaller than the SoI of the other three higher budget class accommodations. The households of staff working at shoestring accommodations are situated in the immediate vicinity (<5 km) of the establishment. The SoI of budget accommodations (Figure 3b) shows a more diffused pattern compared to higher categories (moderate, Figure 3c, and upmarket, Figure 3d).

The overall SoI (Figure 2a) mainly covers Kabarole District which can be explained by the fact that this district contains the highest number of the most accommodations (Table 1 and Figure 1). The most important towns of Kasese District (Kasese town) and Kyenjojo District (Kyenjojo town) are also present in Figure 2a. The SoI contains few villages northeast and southwest of KNP, because there is simply a lack of accommodations in these regions. One could suppose that there might be an accessibility problem, but this is only partly the case since the northeast is close to the main road from Kampala to Fort Portal while the southwest is served by the main road from Fort Portal to Kasese (Figure 1). However, the tea estates in the very northeast along with the Mpanga River in the east create a clear delineation between KNP and the surrounding communities. The main attractions of KNP are concentrated in the southeast. This shows

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<th>Gender</th>
<th>Age category</th>
<th>Education level</th>
<th>Household size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male [59%]</td>
<td>&lt;20 years old [4%]</td>
<td>&lt;P7 [1%]</td>
<td>1 [26%]</td>
</tr>
<tr>
<td>Female [41%]</td>
<td>20–30 years old [68%]</td>
<td>P7 [5%]</td>
<td>1–4 [39%]</td>
</tr>
<tr>
<td></td>
<td>30–40 years old [16%]</td>
<td>P7–S4 [4%]</td>
<td>4–8 [28%]</td>
</tr>
<tr>
<td></td>
<td>&gt;40 years old [12%]</td>
<td>S4 [59%]</td>
<td>&gt;8 [7%]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S6 [17%]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;S6 [14%]</td>
<td></td>
</tr>
</tbody>
</table>
that, in tourism development, assets and attractions go together with accessibility. The overall SoI confirms Mackenzie's (2011) assessment of an existing spatial inequality of benefits on a local and regional scale around KNP.

There is a strong spatial difference in observed SoI and RERs between different contexts. In the Crater Lake area, accommodation owners invest more in linkages between tourism and the local community, especially in terms of employment. This strategy serves to

Figure 2. Spheres of influence [SoI] of direct employment of all establishments [a], in the urban Fort Portal area [b], in the rural Crater Lake area [c], in the rural Bigodi area [d], for Ugandan-owned accommodations [e] and for foreign-owned accommodation [f] in the Kibale National park area.
enhance the establishment’s brand visibility as a marketing strategy and to generate greater support from the local community. Good community connections have been identified by Ashley (2006) to provide a business benefits for accommodations in developing countries. The SoI and RER of the Bigodi area hide a duality. On the one hand, the SoI concentrates on the parish of Bigodi resulting in local employment of adjacent households (<5 km) due to the involvement a community-based project in which people receive training. On the other hand, the RER reveals that 36% of staff is recruited at a superregional scale (>50 km). This can be explained by the fact that some accommodations are not integrated in the

![Figure 3. Spheres of influence (SoI) of direct employment of 'shoestring' priced accommodations (a), 'budget' priced accommodations (b), 'moderate' priced accommodations (c), 'upmarket' priced accommodations (d) in the Kibale National Park area.](image)

**Table 4. Regional employment rates for the different contexts, types of ownership and types of budget class.**

<table>
<thead>
<tr>
<th>According to context</th>
<th>According to type of ownership</th>
<th>According to budget class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fort Portal</td>
<td>79.7% [63/79]</td>
<td>'Shoestring' 100% [15/15]</td>
</tr>
<tr>
<td>Crater Lakes</td>
<td>95.4% [21/22]</td>
<td>'Budget' 78.9% [30/38]</td>
</tr>
<tr>
<td>Bigodi</td>
<td>64% [16/25]</td>
<td>'Moderate' 74.3% [26/35]</td>
</tr>
<tr>
<td>Overall</td>
<td>79.4% [100/126]</td>
<td>'Upmarket' 76.3% [29/38]</td>
</tr>
</tbody>
</table>

- Overall 79.4% [100/126]
community-based organization as well as by the management’s strategy to employ trained staff with experience in the tourism sector to meet the tourists' high expectations.

Table 4 shows that locally owned accommodations do not employ more local staff than foreign owned accommodations. This finding contradicts the findings of Kontogeorgopoulos (1998) and Lacher and Nepal (2010), who reported higher RERs for locally owned accommodations. Honey (2008) states that the majority of foreign-owned accommodations recruit foreign middle management in Zanzibar. It should be mentioned that the study of Kontogeorgopoulos (1998) took place in another context (Thailand), which proves the importance of the unique set of cultural, socio-economic, spatial and political characteristics of a region in tourism impact research. In our study, foreign owners confirmed the importance of employment as a local linkage in the development of their establishment. It has to be mentioned that ‘foreign’ does not mean big international tourism companies but rather small-scale, individually owned units, which are mostly managed by the owners. They also tend to employ local people in the inception phase of the establishment to enhance the brand of the establishment as a marketing strategy and generate greater support from the local community. The elongated SoI of foreign-owned accommodations (Figure 2f) along the line from Fort Portal to the entrance of KNP corresponds with the location of foreign-owned luxury safari lodges. Employment in shoestring accommodations is characterized by a small SoI and a high RER because these accommodations do not have the financial means to employ well-trained people from outside the region, to provide them housing or to compensate for commuting costs. This implies that benefits of direct employment in shoestring accommodations are located in the immediate surroundings of the establishment. Higher budget class accommodations tend to have lower RERs because they also employ well-trained management staff with experience and high education levels from outside the region to meet present high expectations of tourists. At the same time they provide accommodation for more qualified staff, originating from more distant areas.

Similar findings were found by Kontogeorgopoulos (1998) in Thailand, where local staff representation was negatively related to higher room rates. Distribution patterns of management staff showed comparable results to non-management employment (Kontogeorgopoulos, 1998). Proper education, training and experience remain three important requirements for meeting the operational responsibilities of higher budget class accommodations (Kontogeorgopoulos, 1998; Mitchell and Ashley, 2007).

At the moment, Uganda has only one national tourism training institute, and the quality of the trainings needs to be improved (UNTCAD, 2008).

The importance of tourism income (TI)

Figure 4 shows the calculated ratio of TI on the household level for all respondents. For more than half (53%) of respondent households, tourism is the only source of cash income. TI represents the most dominant (>50%) cash flow in the household budget for more than 85% of households.

Figure 5 gives an overview of monthly income according to different income sources. Figure 5a shows the distribution of income earned from tourism. Households without additional incomes are further referred to as TI households. More than half (58%) of the respondents earn a tourism salary of less than US$ 60 per month. Three respondents were not being paid a salary but the establishment’s owner covered their school fees and accommodation instead. Figure 5b shows the income distribution from additional non-TIs. Households with additional non-TIs are further referred to as AI households. Almost half (47%) of the respondents belong to an AI household. Figure 5b shows that income characterized by an additional non-tourism activity is in general higher than income from tourism (Figure 5a).

Figure 5c and d show the income distribution from tourism for TI households and AI households, respectively. The results show that AI households receive an average higher income from tourism than TI households. This observation was confirmed by a Fisher’s exact test (alpha value = 0.05, p < 0.001). The additional non-TI-generating activities can be subdivided into agricultural and non-agricultural activities. An AI household can engage in both types of activities.
Figure 5e shows the income distribution of agricultural activities for AI households. The majority (65\%) of agricultural incomes obtained was smaller than US\$ 60 (Figure 5e). In 74\% of AI households, at least one member is selling the surplus of at least one agricultural product. Figure 5f shows the income distribution of non-agricultural activities for AI households. A high portion of these activities monthly generate between US\$ 120 and US\$ 400 monthly, another high share of respondents was not willing to tell us the income of these activities. In 47\% of AI households, at least one person is engaged in a non-agricultural activity such as selling charcoal, renting rooms and providing motorcycle taxi services.

Results show that monthly TIs are low; particularly for TI households, and that additional non-TIs for AI households (Figure 5b) are higher than the incomes from tourism (Figure 5a). These results confirm prior findings that tourism is a low-paying industry in developing countries (Christensen and Hampton, 2005). Previous research has also found that tourism is a low-paying industry in developed countries.
Marcouiller and Xia (2008) showed that tourism earnings are lower than the average earnings in non-tourism sectors in Wisconsin, USA. Tourism income is higher for AI households (Figure 5d) than for TI households (Figure 5c). A Fisher exact test (alpha value = 0.01, p < 0.001) shows that as the share of TI in the total household budget rises, the total value of the TI decreases. This, at first sight, contradicting finding can be explained by two underlying processes. First, the sample contains a large number of persons who are just getting started in full-time tourism jobs, and thus earn less than experienced employees. Second, experienced and skilled employees diversify their livelihood strategies by investing their TI in profitable non-agricultural activities, as shown in Figure 5f (Dolan, 2004; Ellis, 1999).

In 74% of AI households, at least one member is selling the surplus of at least one agricultural product. This percentage is lower compared to the percentage for the overall region (95%) (Hartner, 2007; Ugandan Bureau of Statistics, 2006), which can be explained by the large share of young respondents (Table 3) and local cultural traditions. Poor people in the age category of 20–30 years old try to save money to purchase private land for non-profitable agricultural activities (Figure 5e) in western Uganda. The low percentage of households that sells agricultural surpluses suggests that young employees in tourism do not have the resources to buy a plot of land. In many cases they rent a plot, whereby part of the harvest goes directly or indirectly to the plot owner. This group diversifies their livelihood strategies in response to economic necessity (Dolan, 2004; Ellis, 1999).

Incomes obtained from farming activities are generally lower compared to tourism wages. Although monthly incomes obtained from agriculture are low, respondents underline the importance of agriculture since they can save money by producing their own staple food. More than 80% of AI households were cultivating crops for home consumption, without strong commercial motivation. After home consumption needs are met, the agricultural surplus can be sold. Most staple food crops only have two harvesting seasons per year, which results in a low monthly income distribution (Figure 5f). Interviews learn that people who work in tourism have to opt for rather extensive crops since they lack time to deal frequently with their farming activities. These results confirm the literature’s findings concerning the importance of subsistence agriculture for livelihood strategies of rural households (Ellis and Bahiigwa, 2003; Plumptre et al., 2007).

However, for the large majority (85%) of the interviewed households, TI represents the dominant cash flow in the household budget. Eighty-five per cent of respondents stated that tourism had significantly changed the households ‘way of life’, underscoring the importance of TI in their livelihood strategies. These results correspond with previous research on the importance of TIs for the total household budget in SSA. For example, Snyman (2012) found that TI provided the dominant cash flow into the household budget for 93% of staff households in six Southern African countries. Moreover, tourism was the only income-generating activity for 53% of staff households. These findings confirm the limited income-generating opportunities available to households in SSA (Ahebwa et al., 2012; Scherl et al., 2004; Snyman, 2012; Spenceley and Goodwin, 2007).

Taking into account different contexts, we found that the odds (alpha value = 0.05, p < 0.01) of TI being the dominant income activity in a household are nine times (1.145; 71.696) higher in a rural context (Bigodi or Crater Lakes area) than in an urban (Fort Portal area). This contextual difference is confirmed by respondents in their perception whether or not tourism changed the livelihood strategies of the household. It is found that the odds (alpha value = 0.05, p < 0.01) of a perceived change of the livelihood strategies by tourism employment are six times (1.357; 28.056) higher in a rural (Bigodi or Crater Lakes) context than in an urban one (Fort Portal). These results imply not only that spatial patterns of employment differ according to context (Figures 2 and 3) but also that the importance of TI for total household income varies according to context. This corresponds with the findings of Marcouiller and Xia (2008), who found spatial differences in income inequalities between rural and urban tourism contexts in USA. The spatial inequality was explained by higher levels of competition for skilled labour in urban contexts compared to rural contexts, which results in upward pressure on tourism wage rates in urban areas (Marcouiller and Xia, 2008). In western Uganda, however, the high importance of engagement in tourism can be explained by the scarcity of paid employment opportunities in a remote context. This finding confirms the previous results of Ashley (2000), Snyman (2012) and Spenceley and Goodwin (2007) who also demonstrate the importance of tourism for remote, rural areas, which offer limited employment opportunities in other sectors.

Conclusion

In the presented research on the spatial dimension of direct employment in the accommodation sector, livelihood strategies of the local population were analysed in different contexts within three tourism zones around KNP (western Uganda). Semi-structured interviews were conducted with employees of tourist...
accommodations to (1) delineate the geographical SoI of the tourism accommodation sector and to (2) assess the importance of TI for the involved households.

First, a comparison of SoI in different contexts showed that the spatial extent of regionally embedded employment in tourism accommodations strongly vary according to the context. For tourism accommodations around KNP, beneficiaries are predominantly located in the northwest, around the urbanized centre of Fort Portal. The combination of tourism assets and accessibility is of utmost importance in explaining this differentiation. Moreover, findings show that type of ownership did not have a significant effect on the degree of regionally embedded employment. This contradicts the findings of authors who see tourism development in SSA along a neo-colonial model (see Akama, 1999). Our results confirm Meyer’s (2013) view that the ‘North-South’ control paradigm is not universally applicable – especially not in the case of small-scale, owner-run foreign investments with explicit and deliberate ties with the local communities. In many cases, foreign owners were involved in development cooperation earlier in their careers. The similarity of employees’ characteristics in foreign-owned and Ugandan-owned accommodations is confirmed on the national level (UNTCAD, 2008).

Second, the assessment of the importance of TI within the total household income shows that employment in tourism accommodations is of crucial importance. For more than half of the respondents, employment in tourism accommodations is the only contributor to the household budget. Furthermore, TI is the most important source of income (>50%) in the total household budget for the large majority (86%) of respondent households. The results show that both the spatial distribution patterns and the importance of TI differ according to type of context – rural versus urban. Particularly in the rural context, TI is a very important livelihood strategy for securing cash and accumulating financial capital. Furthermore, AI households enjoy two key advantages over TI households: (1) higher TI and (2) additional non-TI, which were higher than their TIs. Almost half of the respondents support an AI household.

These results can be interpreted in two ways. On the one hand, there is the optimistic interpretation, which asserts that tourism has the potential to improve the household’s livelihood strategies and help them escape rural poverty. Tourism provides a means for livelihood diversification in response to economic choice (Dolan, 2004; Ellis, 1999), whereby tourism stimulates local entrepreneurship. On the other hand, the conclusion can be seen as pessimistic, because those households that relied on tourism accommodation employment as their primary livelihood strategy had the lowest incomes. The conclusion is that to escape from rural poverty households should also explore additional non-tourism livelihood strategies (Dolan, 2004; Ellis, 1999).

It is striking that despite their lower incomes TI households are still managing to save money, with the goal of diversifying their livelihoods and becoming an AI household. Tourism employment provides the initial capital for agricultural and non-agricultural supplementary assets and activities, which gain in importance to the extent that their profits surpass the income from tourism employment. In this context, employment in tourism accommodations does not represent a final perspective but a stage for gathering resources and skills. Often one may move in and out of wage jobs in tourism accommodations depending on the household’s financial needs and goals. Our findings support Ashley (2000) as well as Mitchell and Ashley (2007) who stated that tourism employment can be a catalyst for cash crop agriculture and service activities. Moreover, the results correspond with the work of Mitchell and Ashley (2007) and Snyman (2012), who suggest that tourism employment is important for improved social capital. Further longitudinal research on the career paths of local tourism entrepreneurs could clarify whether the surpluses from tourism employment are in turn invested back into the tourism industry.

At the moment, one-fifth of the revenue from KNP entrance fees is spent on crop protection measures and additional income-generating activities for the benefit of local communities (Mackenzie, 2012). These projects are located in a spatial range up to 7 km from the park boundary. In this study, it has been proven that tourism can be an important activity for generating additional income. However, it is important to get insight into the spatial spread and the location of households that benefit – and especially those that do not benefit – from projects that stimulate income-generating activities. Since communities in the northeast and southwest of KNP also bear the burden and conservation costs of KNP – while not benefiting as much as other areas from the ongoing private tourism activities – government policies should focus on leveraging tourism as a tool for community development in these areas. Developing networks that incorporate these zones into ongoing tourism initiatives and community-based projects like in Bigodi are good examples. The Uganda Wildlife Authority (UWA) is currently trying to habituate a group of chimpanzees at the northern side of KNP. If this habituation process is successful, it will provide another attraction with good accessibility through the Fort Portal–Kampala road. As a result, private tourism investments might
be attracted at the northern side of the park, bringing long-term benefits to adjacent communities and reducing the ecological pressure on existing, vulnerable sites. Moreover, policy could stimulate local employment investments in proper education and training facilities, in cooperation with the local accommodation sector (UNTCAD, 2008). A shortage of skilled workers can discourage potential investors and lower the competitiveness of established accommodations (Weiss and Messerli, 2012).

This study show that the spatial extent of tourism-driven benefits from employment are not spread out equally in space and are dependent on the context (rural vs. urban). Utilizing tourism as a tool for community development on a regional or even national scale may result in spatial inequalities. Furthermore, as also suggested by other authors, the contextual circumstances need to be taken into account for a comprehensive assessment of the impact of tourism (Kontogeorgopoulos, 1998; Marcouiller and Xia, 2008; Roe et al., 2004; Sandbrook, 2010).

Notes
1. In this study, a household is defined as a group of people living together and sharing income and expenses (Mohr and Fourie, 2003 in Simelane et al., 2006).
2. The classes represent rates for a single night in a double room including breakfast (Briggs and Roberts, 2010).
3. The author intended to interview at least 20% of the employees in each selected establishment, taking into account their positions. By doing so, an effort was made to stratify the sample according to job categories. This goal was reached in 30 out of 32 accommodations. The smallest sample size was 14% (3 out of 22 employees) due to the absence of the other staff during the interview period.
4. We defined categories in the local currency and converted the values to US dollars. During the fieldwork period (July–September 2012) US$1 was worth approximately UGX2,500. The respondents felt that the minimum monthly wage for escaping poverty was around UGX 150,000 (US$ 60).
5. Enterprises that comprise 1 to 4 persons (Ugandan Bureau of Statistics, 2006).
6. Primary 7 (P7) is completed 7 years of primary school; S4 (Secondary 4) is completed ‘ordinary level’ of secondary schooling; and S6 (Secondary 6) is completed ‘advanced level’ of secondary schooling. The educational system in Uganda is structured as follows: 3 years of nursery education, 7 years of primary education, 6 years of secondary education divided into 4 years (lower secondary school or ‘ordinary level’) and 2 year (higher secondary school or ‘advanced level’), and 3 or 5 years of tertiary education.
7. Local staffs are those employees who live with their household in one of the four study districts.

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