Benefits to the poor from gorilla tourism in Rwanda

Anna Spenceley, Straton Habyalimana, Ritah Tusabe & Donnah Mariza

Tourism is currently the leading export sector in Rwanda and is growing. The country is famous for the rare mountain gorillas of the Parc National des Volcans. This paper uses information from value chain analysis studies, complementary research and stakeholder testimonies to reveal the benefits that accrue to people living around the Park. It quantifies pro-poor income and non-financial benefits from gorilla tourism, and describes the opportunities for the poor to become economically involved in the value chains relating to accommodation, food and beverages, excursions and shopping, and the barriers to their involvement. To increase local benefits from gorilla tourism and other tourism activities around the Park, the authors recommend stimulating the activities of the private sector, increasing the number of joint venture agreements, enhancing opportunities for local employment and career progression, and improving business linkages with entrepreneurs and entertainers.

Keywords: value chain analysis; pro-poor tourism; gorillas; Rwanda

1. Introduction

An agreement signed at the 1992 Rio Earth Summit stated that goals of environmental protection and economic development would be integrated into an action plan for sustainable development, but that the plan would be based on free market principles (Stabler, 1997). Worldwide, an estimated 1.2 billion people live in extreme poverty, of whom about a quarter live in sub-Saharan Africa and three-quarters work and live in rural areas (United Nations Development Programme [UNDP], 2003). The 7th Commission on Sustainable Development urged governments to maximise the potential of tourism to eradicate poverty by developing appropriate cooperative strategies with major groups, and indigenous and local communities (Commission on Sustainable Development [CSD], 1999). The Millennium Development Goals aimed to halve the population of people living on less than $1 per day, achieve decent employment for men, women and youth, and also to halve the number of people who suffer from hunger, by 2015 (United Nations [UN], 2008). The extent to which tourism addresses poverty in a tourism destination in Rwanda is the subject of this paper.

‘Pro-poor tourism’ is a term that first emerged from a desk-based review which explored the role of tourism in reducing poverty (Bennett et al., 1999; Sofield et al., 2004). The term ‘pro-poor tourism’ is described as tourism that generates net benefits for the poor and aims to ensure that tourism growth contributes to poverty reduction. It is not a specific tourism product, or sector of the industry, but an approach to developing and implementing tourism activities. Its strategies aim to provide opportunities and break down barriers for the poor to gain in terms of revenue, livelihood or participation in decision making (Ashley et al., 2001). Pro-poor tourism is a concept that has been...
adopted by key tourism and donor institutions, including the UN World Tourism Organisation (UNWTO), the Overseas Development Institution (ODI) the Netherlands Development Organisation (SNV) and the Asian Development Bank (Meyer, 2007).

It has been suggested in some critiques that the research methodologies and outputs are dominated by a small number of affiliated researchers, and are documented in reports and on institutional websites rather than in peer reviewed publications (Van der Duim, 2008). There has also been a call to establish a body of credible empirical work assisting different pro-poor impacts of contrasting tourism in different contexts, at the level of a destination (Ashley & Mitchell, 2005). Further research debate about the credibility and extent of evidence demonstrating that tourism reduces poverty has been aired in journals on pro-poor tourism (Harrison, 2009; Meyer, 2009; Peeters, 2009; Scheyvens, 2009). This paper, considering the Parc National des Volcans as a tourist destination, is an attempt to add to the body of evidence.

1.1 Rwanda, tourism and gorillas

The UNWTO considers that Rwanda is endowed with excellent tourism assets for a small country. Tourism has been identified as a priority sector to achieve the country’s development goals, which are set out in its ‘Vision 2020’ strategy (Government of Rwanda [GoR]/UNWTO, 2009). Rwanda has made significant progress in developing and managing its tourism sector in recent years, having increased tourism revenue impressively from US$26 million in 2005 to US$200 million in 2008 (GoR/UNWTO, 2009; Ministry of Trade and Industry [MINICOM], 2009).¹

The mountain gorillas in particular give the country a world class attraction, as they live in just two other countries (Uganda and the Democratic Republic of Congo [DRC]). The Virunga mountain gorilla (*Gorilla beringei beringei*) is a highly endangered African ape subspecies, with a total estimated population of 380, in eight groups (Gray et al., 2009). Its distribution is limited to an area of approximately 447 km², which encompasses the Mgahinga Gorilla National Park in Uganda, the Parc National des Volcans in Rwanda and the Mikeno sector of the Parc National des Virunga in the DRC (Gray et al., 2009) (see Figure 1). There are eight groups of gorillas in the Parc National des Volcans.

Gorilla trekking is the most popular tourism activity for international leisure tourists in Rwanda. Those visiting the gorillas in the Parc National des Volcans tend to overnight in local hotels (Sandbrook, 2009). There were 19 783 park visits in 2008, of which 16 937 were to see the mountain gorillas (Office Rwandais du Tourisme et des Parcs Nationaux [ORTPN], 2009; see Figure 2). Market research carried out by SNV-Rwanda with 533 Rwandan residents and 210 international tourists indicates that 25 per cent of domestic, and 25 per cent of international tourists do gorilla trekking. In terms of demand, 19 per cent of domestic and international tourists say they would be interested in trekking again (Spenceley et al., 2009b).

1.2 Value chain analysis

The main approach used in this paper to establish local benefits from gorilla tourism is value chain analysis (VCA). A value chain is defined as ‘a sequence of related business activities (functions) from the provision of specific inputs for a particular product to

¹All amounts in dollars in this paper refer to US dollars.
primary production, transformation, marketing, and up to the final sale of the particular product to consumers’ (German Technical Cooperation [GTZ], 2007:6). The value chain also includes ‘the set of enterprises (operators) performing these functions, such as producers, processors, traders and distributors of a particular product’ (GTZ, 2007:6). VCA is about mapping out the value chain, and understanding how actors or
stakeholders interact, who captures value, and why. The VCA process has been extensively described by a number of researchers (Kaplinsky & Morris, 2001; Vellema & Boselie, 2003; Humphrey, 2005; Freeman, 2005; Joosten et al., 2006; Vellema, 2006; Vermeulen et al., 2006).

Development organisations and think tanks increasingly use VCA. Agencies using it include the World Bank, USAID and the International Trade Centre (ITC), ODI and SNV. The early attempt to develop tourism-specific tools for VCA can be traced back to ODI publications from the middle of the decade and on (Ashley, 2006; Mitchell & Ashley, 2007; Ashley et al., 2009). The driving objective in pro-poor tourism VCA is to identify where and how the poor can participate, in order to foster increased potential for tourism to provide net benefits to the poor (Ashley et al., 2009).

The shift to a value chain approach among many international practitioners comes partly from the need to scale up the impact on poverty, beyond a few high-input local projects, and from recognition that a major focus should be on helping the poor to access markets (local and international). SNV has adopted a value chain approach to a number of productive sectors, including tourism. This has two immediate implications: firstly, a good understanding of the current value chain is needed, to act as both a diagnosis (to determine what to do) and a baseline (for measuring future impact); and, secondly, all options are open. There is no prior assumption that a certain kind of tourism intervention is best for the poor. Interventions may be at any point in the chain, in any sub-chain and with any stakeholders, if they increase access and returns for the poor (Ashley, 2007).

The aim of this paper is to describe benefits that accrue to people living around the Parc National des Volcans by using information from VCA studies, complementary research and stakeholder testimonies. The purpose of the analysis is to see what interventions might enhance net benefits to the poor.

2. Research methods

This paper was developed through synthesising information from a literature review, stakeholder consultation and primary data collection and VCA. The key papers reviewed were Ashley (2007) and Sandbrook (2009), both of which used a VCA approach to establishing local benefits from the tourism industry in the Volcanoes area of Rwanda. Additional material on mountain gorilla research was provided by the Karisoke Research Centre and the International Union for Conservation of Nature (IUCN)/Species Survival Commission Primate Specialist Group. Information on the park revenue sharing process and its impact were provided by the Rwanda Development Board – Tourism and Conservation (RDB-TC): the government agency responsible for tourism development. A number of key stakeholders were consulted for information on mountain gorilla tourism, including representatives of the Parc National des Volcans, the IUCN Species Survival Commission Primate Specialist Group, the Woods Hole Research Center and the World Bank.

In Rwanda, the Government’s upper poverty line is RWF 250 (Rwandan francs) per adult per day, equivalent to just under $0.50 per person (Ashley, 2007). However, to define ‘the poor’ in Rwanda for the purposes of this paper, interviewees were asked to indicate people who were from a poor background using the international poverty line of $2 per day, and who, since they were receiving a salary from tourism, might no longer be poor.

To supplement existing data, the SNV did a new VCA around the Park, in 2009, adapting the approach described by Ashley et al. (2009). The sample sizes of the studies by
Table 1: Sample sizes of VCA studies around the Parc National des Volcans (PNV)

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Accommodation enterprises</td>
<td>18</td>
<td>6</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Restaurants</td>
<td>2</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Tour operators</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SMMEs</td>
<td>14</td>
<td>1</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Tourists</td>
<td>27</td>
<td>?</td>
<td>20 000 per year</td>
<td></td>
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</table>

Ashley (2007), Sandbrook (2009) and SNV-Rwanda (2009b) are indicated in Table 1. Semi-structured questionnaires were adapted from survey tools developed by the ODI and the ITC (Ashley et al., 2009). In the SNV survey, separate questionnaires were devised for each sample group, and were used to evaluate direct earnings and indirect supply chain earnings in 2009.

There were a number of constraints to the data collection, including the lack of proper records maintained, and the fact that some interviewees were not willing to supply details about their turnover or their employees’ earnings, as these were viewed as confidential. The results of this research have not been published elsewhere, and are presented here for the first time.

3. Results

The value of the tourism industry around the Parc National des Volcans in 2009 was estimated at $42.7 million in terms of turnover for the accommodation, tour operator, excursions and shopping value chains. Most of this turnover came from the accommodation sector. There was an associated $2.8 million in expenditure on wages, fruit and vegetables and non-food purchases (SNV-Rwanda, 2009b). The pro-poor income was an estimated $1.8 million, equating to 4.3 per cent of destination turnover, and 65.7 per cent of destination expenditure (SNV-Rwanda, 2009b). Local people benefit financially from the tourism industry in six main ways: employment and wages (from the Park and from accommodation and restaurant enterprises), procurement of fruit and vegetables, direct income from joint ventures, cultural tourism excursions, shopping and craft, and donations. In addition, the main non-financial impacts include social projects from the Park’s revenue sharing process and access to land and natural resources. The magnitude of these impacts is described in this section.

3.1 Direct benefits from employment and wages

3.1.1 Employment by accommodation enterprises

The 18 hotels surveyed by SNV employed a total of 514 people, of whom 49 per cent were from a poor background (SNV-Rwanda, 2009b). It was estimated that annual wages to those from a poor background was $796 935, or an average of $8.70 per day (see Table 2). The number of staff per room varies considerably: it is less than one in the budget market hotels or hostels and just over two in mid-market or up-market lodges, but reaches a surprising four in one new luxury lodge (Ashley, 2007). Some of the lowest paid workers (e.g. cleaners, gardeners) earn around RWF 20 000 per month.
Although some hotels pay considerably more even for the most menial jobs (Ashley, 2007).

### 3.1.2 Employment by restaurants

SNV-Rwanda (2009b) found that of the two restaurants surveyed, the majority of staff was from a poor background (71 per cent), but that they accrued only 64 per cent of the wage bill (indicating that they tended to be in lower-level positions in general). Extrapolating to the entire population of restaurants, this would imply employment of 75 people from poor backgrounds, earning a total of $83,787 per year, or an average of $3 per person, per day (see Table 3).

### 3.1.3 Employment by Parc National des Volcans

The Park employs at least 180 people, working as guides, as trackers who take people to see gorillas (both for tourism and research groups) and anti-poaching teams deployed in five protection sectors of the park (personal communication, Prosper Uwingeli, Chief Park Warden, Volcanoes National Park, 3 November 2009). Ashley (2007) also found that the Park employees included about 63 unskilled employees, earning about RWF 69 000 each ($124) net per month, making a total wage injection of $94 000. This is equivalent to local wages from a substantial hotel. In addition, an estimated 800 community members around the Park are involved in day-to-day Park management activities and get benefits from opportunistic and temporary employment and revenue

### Table 3: Employment in restaurants

<table>
<thead>
<tr>
<th>Sample characteristics</th>
<th>Budget</th>
<th>Mid range</th>
<th>Luxury</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of restaurants</td>
<td>2</td>
<td>35</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Total wages per year</td>
<td>$43 800</td>
<td>$27 929</td>
<td>$241 781</td>
<td>$555 155</td>
</tr>
<tr>
<td>PPI wages per year</td>
<td>$241 781</td>
<td>$555 155</td>
<td>$796 935</td>
<td></td>
</tr>
<tr>
<td>Percentage PPI</td>
<td>64%</td>
<td></td>
<td></td>
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</tbody>
</table>

**Note:** PPI, pro-poor income.  
**Source:** SNV-Rwanda (2009b).
sharing support. These include volunteers working on human–wildlife conflict, conservation teams and a porters’ club (personal communication, Uwingeli, 3 November 2009).

Ashley (2007) found that the porters were often former poachers. They are not paid a regular salary but earn $8 for each trip they do. Each of the eight gorilla groups has a group of porters allocated to it (e.g. one group has 17 porters), and porters within the group take turns to guide people. This implies an estimated 136 porters guiding people to the eight gorilla groups. The tourist pays $10, of which $2 goes to the group of porters and $8 to the individual porter. Estimating that 10 per cent of tourists use a porter, this would amount to $8 800 per year. So in summary, Ashley (2007) found that the total unskilled wages from the Park are around $100 000 per year (or $10 per tourist) at the level of around 10 000 tourists visiting the Park per year.

3.2 Procurement of fruit and vegetables

Sandbrook (2009) asked hotel managers in the Park area what quantities of fruit and vegetable products they purchased for the typical low season and high season and used these amounts to calculate annual consumption and spend, on the assumption that there were six low and six high season months per year. Records kept by many of the hotels were very poor, so the results must again be considered an indication of the true market size rather than an accurate measure (see Table 4). He calculated that the annual fruit and vegetable sales to tourist hotels in the area were worth $110 564, but acknowledged that his analysis excluded several smaller hotels from which no data were collected, and that there were some gaps in the data from some hotels that did return data. Despite this, his figure is similar to the estimated value of the same food market made by Ashley (2007), which was $114 000. The SNV-Rwanda (2009b) study, which includes interviews with all of the tourism enterprises around the Park, estimated a far higher pro-poor spend per year on local fruit and vegetables, of $266 853 per annum, and links with 41 small, medium and micro enterprises (SMMEs) in the local area.

Sandbrook (2009) states that the supply chain for vegetables used by hotels in and around Musanze town is very simple. Small-scale farmers grow crops, largely independently and on small farms, and transport them using their own labour to town or village markets, where they sell them to traders at a price up to a third lower than the final market

<table>
<thead>
<tr>
<th>Hotel</th>
<th>Low season monthly spend</th>
<th>High season monthly spend</th>
<th>Annual spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gorilla’s Nest</td>
<td>350</td>
<td>1 028</td>
<td>8 264</td>
</tr>
<tr>
<td>Sabyinyo Silverback Lodge</td>
<td>754</td>
<td>754</td>
<td>9 050</td>
</tr>
<tr>
<td>Mountain Gorilla View</td>
<td>754</td>
<td>1 110</td>
<td>11 190</td>
</tr>
<tr>
<td>Kinigi Guest house</td>
<td>508</td>
<td>905</td>
<td>8 475</td>
</tr>
<tr>
<td>Virunga Hotel</td>
<td>235</td>
<td>460</td>
<td>4 160</td>
</tr>
<tr>
<td>Ishema Hotel</td>
<td>880</td>
<td>2 025</td>
<td>17 430</td>
</tr>
<tr>
<td>Fatima Hotel</td>
<td>730</td>
<td>1 285</td>
<td>12 115</td>
</tr>
<tr>
<td>Muhabura Hotel</td>
<td>1 183</td>
<td>5 464</td>
<td>39 880</td>
</tr>
<tr>
<td>Total</td>
<td>5 394</td>
<td>13 031</td>
<td>110 564</td>
</tr>
</tbody>
</table>

Source: Sandbrook (2009).
price. Traders then sell the vegetables on to buyers, who in most cases are hotel staff, but in some rare cases are contractors who supply hotels at the door. Hotels usually use their own transport to collect vegetables from the market. As most of the crop growers are poor, Sandbrook (2009) argues that the existing supply chain is fairly pro-poor. However, farmers lose a lot by selling their products to market traders, who capture much of the final value of the product. This could be avoided by helping farmers to bulk their produce and sell directly to the hotels at a better price.

3.3 Direct income from joint ventures

There is only one joint venture lodge in Rwanda so far, the luxury Sabyinyo Silverback Lodge, at the periphery of the Park, which has eight guest rooms and can accommodate 16 people at full capacity. The rack rates, or non-discounted rates, for the lodge range from $400 to $1000, on full board. The lodge is a joint venture between the local Kinigi and Nyange communities (represented by the Sabyinyo Community Livelihoods Association [SACOLA]), the private sector (Governors Camps Ltd), international non-governmental organisations (the International Gorilla Conservation Program and the African Wildlife Foundation) and government (RDB-TC) (Makambo, 2009). Some initial funding was obtained from USAID (personal communication, D Verdugo, Tourism advisor, SNV, Rwanda, 2009). The joint venture agreement includes a 15-year lease agreement between Governors Camps Ltd and SACOLA. The private sector operator built and operates the lodge, and pays the community a $50 per bed-night fee and also 7.5 per cent of net sales (Makambo, 2009).

This joint venture allows people who live close to the Park to benefit from tourism in four main ways: equity in the tourism business, employment at the lodge, the supply of goods and services, and dividends from profits. The lodge employs 45 local people, who receive training in hospitality and tourism. Local agricultural produce is purchased for the lodge, and there are plans for traditional dancing, a cultural centre, a community walk and handicraft sales. The joint venture plans to use funds from the lodge to finance social infrastructure in the area, including roads (Makambo, 2009).

Ashley (2007) estimates that once the lodge is achieving 50 per cent room occupancy, the bed-night fee alone will generate around $110,000 per year. Until the loan is paid off (repayment starts only when community income flows), around $17,000 of this will go towards repayment, but the community will nevertheless be earning over $100,000 per year from its investment (before any local employment is included) (Ashley, 2007).

3.3.1 Cultural tourism excursions

Cultural tourism includes tourists watching local dancing (dancing, drumming and singing, sometimes by Batwa people), visiting villages to learn about rural life (such as banana brewing, basket making), and visiting local schools and orphanages. A number of hotels and tour operators mentioned that their tourists get to see a traditional dance in the evening after gorilla trekking, but very few offer specific tours to villages (Ashley, 2007). Lodges and tour operators report that the price paid by tourists for a traditional dance is often around RWF 100,000 (nearly $200). Some lodges maintain a regular dance troupe, made up of staff and nearby residents. The dancers then earn either a retainer or a fee per dance. At one upmarket lodge, 20 local dancers get a small fixed monthly salary of RWF 10,000 (nearly $20). This suggests that dancers’
wages could be around $5000 per year plus tips (Ashley, 2007). Several hotels or lodges have informal arrangements where tourists visit nearby villages or schools. Grosspietsch (2007) reports that 10 out of 15 Rwandan tour operators regularly offer their clients the possibility of visiting a school or orphanage. These visits tend not to be for a fixed fee, but often lead to philanthropic donations, as outlined above (Ashley, 2007).

3.3.2 Shopping and craft
Ashley (2007) suggests that, in an ideal world, the 20 000 tourists who enter the Park region each year would spawn a network of small enterprises catering to their needs. This would provide local entrepreneurs with customers who are usually keen to try new tastes and buy souvenirs and have much more purchasing power than local residents. Grosspietsch (2007) found that 21 per cent of holiday tourists in Rwanda had bought handicrafts. Budget tourists bought more items, but in terms of spend per person on all souvenirs the average was $57 for upmarket tourists and $28 for budget tourists. The main products were coffee, banana leaf art, weaving products and wood carvings. Market research by SNV-Rwanda among 374 domestic and 146 international tourists found that the average spend per trip on shopping was $27.81 for domestic tourists, and $28.44 for international tourists (Spenceley et al., 2009b).

Currently there is a community-run craft shop at the main Park headquarters. There are also small informal craft shops in the car parks where tourists start their gorilla hikes, and some hotels sell crafts in small shops. These crafts, which include small wooden sculptures of gorillas, baskets and some paintings, are of very limited quality and diversity (particularly when compared with those from other East African countries).

3.3.3 Donations
A number of hotel managers and tour operators interviewed by Ashley (2007) took guests to visit schools, orphanages or community groups. A good third or more of these guests (30 to 40 per cent) leave donations. Given that these donations range from $10 to $300, and even include long-term sponsorship of specific children or classes, these are not just ‘loose change’. Grosspietsch (2007) undertook an expenditure survey of over 500 departing or recently-departed tourists. He found that 31 per cent of all tourists made donations. The average amount for cash donations was $61 per tourist, and the average total value for cash and in-kind donations was $118. In practice the averages are likely to conceal a few very large donations and many smaller ones. Budget tourists contributed more than upmarket tourists in cash ($70 compared to $31) but less in total ($80 compared to $128). More recent market research by SNV-Rwanda found that on average domestic tourists spent $19.37 per trip on donations to the community (n = 112) and international tourists spent $32.14 (n = 62) (Spenceley et al., 2009b).

3.4 Non-financial impacts
3.4.1 Community projects from revenue sharing
Five per cent of tourism revenues from the protected areas in Rwanda are put into a fund for community projects in administrative sectors that neighbour national parks. The Rwanda Development Board issues calls for proposals, and a project selection process is made at sector and district levels (Tusabe & Habyalimana, 2009).
RDB-TC disbursed $428,248 on community projects around the Park between 2005 and 2009. The projects include environmental protection, education, water and sanitation, basic infrastructure, and food security (see Figure 3). In both 2007 and 2008 the annual value of the disbursements was over $115,000. The value of these equates to a total investment only $3.4 per person since its inception and an average of $0.85 per person year (personal communication, Glenn Bush, Woods Hole Research Center, 30 November 2009).

The projects that the funds have been used to implement are the following (personal communication, Uwingeli, 3 November 2009; Tusabe & Habyalimana, 2010):

- **Education**: Ten schools constructed, with 56 classrooms.
- **Environmental protection**: Tree planting, soil erosion control, and fencing in protected areas to limit access by poachers.
- **Water tanks**: Thirty-two 25,000-litre water tanks constructed since 2005, providing 20 litres per person per day, and each serving at least 1250 people.
- **Income generating activities**: Ten community associations supported directly through the revenue sharing scheme and a number of other projects implemented, such as beekeeping and basket weaving.

To date no study has been published that assesses the impact the scheme is making on the livelihoods of people living near the Park (Spenceley et al., 2009c).

### 3.4.2 Access to land and natural resources

Stoinski et al. state that the Virunga mountain gorilla represents ‘an isolated island population in an upland area surrounded by a sea of humanity at some of the highest human densities found on the African continent with extremely poor, agricultural based local economies’ (2007:21). The high population density in some areas reaches 820 people per km² (Plumptre et al., 2004). Stoinski et al. observe that these gorillas are ‘severely threatened by anthropogenic disturbance, such as agricultural conversion and illegal extraction of resources (for example, snare setting for smaller mammals that entrap young gorillas, cattle grazing, etc.)’ and that ‘[w]hile these gorillas are no longer
hunted for their meat in this region, they are, however, the focus of illegal animal trafficking’ (2007:21). They say that ‘[t]his threat, in which members of a group are killed and wounded (with the group sometimes disintegrating as a result) in an effort to trap infants for the black market, is particularly severe for the Virunga population’ (Stoinski et al., 2007:21). Illegal hunting is mainly focused on meeting subsistence needs for the poorest people around the Park (Plumptre et al., 2004) and this pressure at present represents the greatest threat to the survival of the mountain gorilla and the integrity of their habitat. This has implications for biodiversity conservation and for tourism.

Tourism can have a number of long-term negative effects on poor people’s livelihoods, particularly their access to natural resources. Regarding a loss of access to natural resources in the park, Ashley (2007) states that the key question is whether this opportunity cost of maintaining protected areas is outweighed by benefits that neighbours receive, financially and otherwise, from the ecosystem. The Park warden recognises that there is widespread poverty around the parks, and increasing pressure for agricultural land from a growing rural population. When people are poor they will look for natural resources to supplement their needs (e.g. killing animals for food, bamboo cutting for baskets etc., honey collection without direct intervention) (personal communication, Uwingeli, 3 November 2009).

Figure 4 summarises the benefits tourism brings to the poor around the Park. Note that this diagram only includes the benefits that have been quantified, and not benefits such as infrastructure or environmental impacts.

4. Conclusions

The research collated in this paper has found that there are considerable benefits to the poor from gorilla tourism and associated tourism activities around Rwanda’s Parc National des Volcans. The overall value of the accommodation, food and beverage, tour operator and shopping value chains around the Park is estimated at $42.7 million in turnover, with an associated $2.8 million in expenditure on wages, fruit and vegetables and non-food purchases (SNV-Rwanda, 2009b). The pro-poor income was an estimated
$1.8 million, equating to 4.3 per cent of destination turnover, and 65.7 per cent of destination expenditure (SNV-Rwanda, 2009b). This means that in relation to the destination figures compared in Figure 5 by Mitchell & Ashley (2010), the proportion of pro-poor income is higher than any other destination.

The benefits to local people from tourism include full-time employment for at least 455 people, and casual employment for at least 136 from poor backgrounds. The wages for these people have been estimated at just over $1 million per annum. In addition to employment, people also benefit from payments for cultural tours (an estimated $14 000 per year), traditional dancing ($30 000 per year) and informal guides and transport ($26 000 per year). Estimates of the benefits from purchases of fruit and vegetables vary, but seem to fall between $110 000 and $266 000 per year. In terms of collective benefits, a joint venture tourism operation provides an estimated $100 000 per year to its community organisation partner, while the revenue sharing of 5 per cent of the Park’s turnover generates $115 000 per year for local community projects. Donations from tourists to local initiatives contribute an additional $300 000 per year, while shopping for crafts is estimated to provide an additional $91 000 per year (SNV-Rwanda, 2009a; Ashley, 2007; Sandbrook, 2009).

There are a number of ways that the proportion of benefits accrued by the poor could be increased, through interventions by development agencies, the private sector and government. These include:

- **Private sector interventions:** Compared to other destinations, there appears to be relatively fertile ground for engaging with the private sector on pro-poor action. Many hoteliers or lodge owners are already doing something they have developed on their own. Many of the initiatives are philanthropic ‘add-ons’ to core business, rather than an attempt to restructure core functions of staffing and procurement (Ashley, 2007)
- **Joint venture arrangements:** Such an arrangement, where the community owns the land, and ideally the lodge, is the single most powerful way to substantially increase financial flows to the poor. For example, the Sabyinyo Lodge can generate roughly three times as much community benefit per bed-night as other forms of accommodation (Ashley, 2007). RDB-TC reports that a new public private partnership unit will be established in 2010, in the Ministry of Commerce. It was reported that a concessions policy had been developed by legal professionals, but at the time of writing the document was not available for review.
Employment of local staff: This is one of the largest flows of income to poor people around the Park, but it is also the flow per bed-night that shows highest variability between enterprises (Ashley, 2007). Improving opportunities for local people, and people from poor backgrounds, to gain employment in tourism would quickly increase the pro-poor income. Improving vocational hospitality training in Rwanda is a priority in the new Sustainable Tourism Masterplan for Rwanda (GoR/UNWTO, 2009), and implementation planning workshops have already highlighted the role of key stakeholders in improving skills in this area (Spenceley et al., 2009a). SNV has been working with vocational training institutions in Rwanda to improve their curriculums and teaching methods, in collaboration with other agencies, and to ensure that training is more closely related to the needs of the market.

Business linkages with local entrepreneurs and performers: The smaller upmarket and budget ventures cannot hope to match the larger or partnership ones for local revenue flow, but the examples indicate that hotels can multiply their own local economic impact by developing enterprise linkages, and by supporting positive dynamic change in the economy (Ashley, 2007). With regard to fruit and vegetables, Sandbrook (2009) states that helping local farmers to gain market access could greatly boost incentives for conservation around the Park, while having minimal impact on other farmers because the hotel vegetable market accounts for less than 1 per cent of the overall market trade.

A number of constraints face Rwanda in reaching its goals. In addition to an over-reliance on a single tourism product for international leisure visitors (the mountain gorillas), these include an acute shortage of trained manpower, with a gap of 69 per cent in the tourism and hospitality private sector (Human Resources and Institutional Capacity Development Agency – Multi Sector Capacity Building Program/Ministry for Public Service and Labour [HIDA – MSCBP/MPSL], 2009). This is coupled with a limited number of quality tourism training institutions in the country, and limited coordination between agencies in training requirements. There is also limited expertise in planning, product development, market research, marketing, publicity and promotion in the country. There is a low level of new SMME formation and growth, there are few linkages within the sector, and creativity or innovativeness among tour operators is limited. The lack of real business opportunities constrains local tourism enterprises and businesses within their supply chains (GoR/UNWTO, 2009). There is also limited awareness of sustainable and responsible tourism that considers the triple bottom line (i.e. environmental, social and economic sustainability) in the industry as a whole, aside from a handful of notable private sector exceptions and some parts of government (SNV-Rwanda, 2009a).

Through the collaboration and constructive dialogue between government, the private sector, research agencies, non-governmental organisations and development agencies, and civil society, tourism in and around the Park has considerable potential to reduce poverty. Stakeholders need to shift from the usual way of doing business, to an approach that promotes local economic development, and increases opportunities for the local labour force and entrepreneurs. Providing mechanisms to reduce leakage and increase retention of tourism spend in the destination will enhance the livelihoods of the people living in and around the Park destination.

Acknowledgements
The authors wish to thank Dr Chris Sandbrook (Cambridge University) and Inge Neven (SNV-Rwanda) for reviewing a draft of this paper. They also thank Prosper Uwingeli.
(chief warden of the Parc National des Volcans), Liz Williamson and Bill Weber (IUCN/Species Survival Commission Primate Specialist Group) and Glenn Bush (Woods Hole Research Center) for information on mountain gorilla tourism, and Dieudonné Mushabizi for helping with the data collection for SNV.

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