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5.5 Financing forest conservation in Uganda

MIRIAM VAN HEIST, DOUGLAS SHEIL, ROBERT BITARIHO AND AVENTINO KASANGAKI

Perspectives from the Institute of Tropical Forest Conservation

The Institute of Tropical Forest Conservation (ITFC) is a small but dynamic research station of Mbarara University of Science and Technology and is located on the edge of Bwindi Impenetrable National Park (BINP or Bwindi), a World Heritage site in southwest Uganda. The area has numerous endemic species and half the world's mountain gorillas (*Gorilla berengei berengei*), which have attracted a valuable tourist trade. The wider region is poor and densely populated (about 600 people per km²); people mainly depend on subsistence agriculture. Forest cover stops abruptly at the park boundary — most forest outside the park has been lost.

Bwindi was gazetted as a national park in 1991.

Inadequate consultation with local people led to protest and resentment about diminished access to resources (Hamilton et al. 2000). To reconcile conservation and community needs, a range of often costly Integrated Conservation and Development (ICD) strategies were implemented, with support from international NGOs.

Programs for sustainable agriculture and on-farm substitution were intended to reduce the demand for park resources while providing limited and controlled access to the forest (for bee-keeping and non-timber forest products); revenues from tourism would provide communities with direct benefits from the park. How successful these strategies have been in reducing threats to the forest or in improving local livelihoods is not yet clear.

ITFC was established in the early 1990s as a centre of research and guidance for park management. Since its inception, 40 master's and 15 doctoral projects have been completed (four by foreign students) on a wide range of subjects. Some have estimated the specific costs and benefits of PAs accruing to local, regional and global stakeholders, but few have examined financing directly.



USEFUL EXPERIENCE
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FINANCING OF CONSERVATION AND
DEVELOPMENT ACTIVITIES IN Bwindi
IMPENETRABLE NATIONAL PARK,
UGANDA.

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Financing

The cost of conservation

Park management, along with various other ICD activities, costs money. For a long time, park conservation in Uganda has been unprofitable and was subsidised by foreign aid. For example, the World Bank supported the restructuring and institutional strengthening of Uganda's Wildlife Authority (UWA) through the Protected Areas Management and Sustainable Use Project (1997–2007). In the case of BINP, various integrated conservation and development activities managed by CARE (an international NGO) helped UWA in managing local concerns and expectations.

Gorilla tourism

Local profitability has been realised with increased tourism revenues. A single gorilla-viewing permit now costs €317, excluding park fees. Four gorilla groups in Bwindi have been habituated so far and each may be visited by eight tourists daily. This contributes a potential additional €3 million per year to the income of UWA. Two more gorilla groups are being prepared for tourism, which increases UWA's potential annual revenues to more than €4.4 million by 2009. Unfortunately, these funds are needed for other Ugandan national parks as well, which cannot generate sufficient revenues on their own. In addition, "financially viable" tourism can be seen differently by different stakeholders; although UWA may be making profits from Bwindi the benefits for many other local actors who influence the park remain limited.

Bwindi and Mgahinga Conservation Trust

Sustainable financing remains a crucial aspect of ensuring viable conservation. In 1994, the innovative Bwindi and Mgahinga Conservation Trust (BMCT) was established, with a capital endowment of €2.7 million from the Global Environment Facility (GEF), administered by the World Bank. The aim of the trust fund was to use its annual interest to sustainably fund local community projects, park management and research and monitoring activities. BMCT is controlled by a board consisting of stakeholders such as UWA, the Ministries of Tourism, Finance and Justice, community representatives, ITFC and several NGOs active in the region.

In 1997, BMCT received €1.6 million from a group of donors led by the Netherlands to kick-start trust activities while allowing the fund to grow; 40% of money disbursed by the trust was used for community projects, another 40% for a five-year Ecological Monitoring Programme (EMP) for the parks, implemented by ITFC, and 20% for improving park management (operating expenses were around a third of all expenditures in 2001). From 2004, when the Dutch funding ended, BMCT started using the annual interest from the fund for community projects (60%), research (20%) and park management (20%). Though intended to be a sustainable source of finance, the fund has been affected by severe market fluctuations. Because of these instabilities, the board has been cautious and has limited expenditures. For the year ending June 2006 the fund reached a high of €4.4 million, but only €71,000 was made available to support the trust's costs and activities. Earlier this year, 14 years after its initiation, the fund stood at about €3.4 million.

Revenue sharing

The UWA revenue-sharing programme is another source of local finance, used specifically for community development projects; 20% of gate collections (excluding gorilla fees) for the Bwindi and Mgahinga national parks is earmarked for revenue sharing and is used to fund schools, dispensaries and income generating projects such as agro-forestry.

Before the Uganda Wildlife Statute of 1996, each park shared 12% of its total revenue. In 1996 this changed to 20% of gate fees only. While this increased local benefits from some Ugandan parks, it caused a sharp decline in BINP's income, since most tourist payments are not gate fees but gorilla-viewing permits. Various local stakeholders resent this change in regulations and feel that they have been excluded from the successes of increased tourism.

In any case, these revenues are not wholly reliable. Income fluctuates with tourist numbers and these are vulnerable to political factors and associated perceptions, such as the recent troubles in Kenya. In 2007, the proportion of revenues from Bwindi that was shared with communities amounted to about €26,000; in 2006 it was €44,000. Additional benefits from tourism for the local economy include income from accommodation, restaurants and sale of handicrafts, although many of these are effectively captured by businesses run by immigrants or owned by outsiders. A study into total benefits (direct and indirect) from gorilla tourism in Uganda suggested that only 3% were realised locally. Most benefits (55%) occur at the national level, and 42% of benefits were at the international level (Hatfield 2004).

Multiple-use zones

One of UWA's early attempts to compensate local people for their loss of access to BINP and reduce conflict was the development of multiple-use zones (MUZs) in the park. MUZs are delineated areas where specific collectors from a limited number of villages are allowed to harvest given amounts of selected species from the forest, or are allowed to keep beehives. This approach was presented as a conservation strategy, but its sustainability has been hard to prove (although long-running research by ITFC provides valuable data — Bitariho et al. 2006). There are ongoing discussions about increased access to more resources in more areas (Byarugaba, Ndemere and Midgley 2007). Arguably the MUZ programme has generated good will, and allows for some cultural links to be maintained between people and the forest. Monetary gains for local people are very limited, however, and while the need for financial compensation has been reduced, there are high long-term costs in the commitment to manage these arrangements and perhaps in the consequences for the forest.

Other funds

A number of government and non-government programs have targeted the area with projects that seek to support conservation by improving local people's livelihoods. Examples include the provision of improved health care services, gravity water schemes, and special support for the Batwa, a local indigenous group. Financing for these projects derives from various sources, usually international aid donations that are not inherently sustainable.

Clearly the best model for sustainable finance depends on finding a means to match needs with opportunities. With limited resources available, the choices can be difficult. For example, protection against fires could be provided by trained and equipped staff, or by voluntary local support. The first option requires significant long-term financing to be effective; the second is less financially demanding but may prove to be less successful in the long term. Current budgets to combat fire directly are low and appear to be insufficient to allow UWA alone to deal with the multiple fire events that may occur in a prolonged dry season. The (2008–09) annual budget for fire control in BINP was only €654 for equipment and allowances and €1,900 for boundary patrols. These sums seem inadequate to protect such an important and vulnerable national park encompassing 330 km² of rugged terrain.

Other activities to gain local support for the park have born fruit; at BINP the incidence of fires has decreased over the last decade, while the willingness of local people to help has increased. Indeed, on several occasions community members have helped park management locate and extinguish fires within the park (Kasangaki et al. 2001).

Goods and services

Recently, the Wildlife Conservation Society (WCS) carried out a quantitative assessment of individual forests' values to the local, national and global economy (Bush et al. 2004). The forests were located in four areas representing different ecological zones. The study concluded that forests still provide an important backstop of resources in times of low food availability and that average household incomes from forests varied between forests but ranged from 8–35% of total household income. Bwindi was not one of the forests studied, but a similar approach could be followed to assess its value.

The same WCS study looked into assessing the value of the four forests as watersheds, for soil erosion protection, biodiversity conservation and carbon sequestration. Extrapolation of the total of these values for all Uganda's forests amounted to 5% of GDP.

There is considerable interest in recognising and compensating the role of Bwindi and other forests in the maintenance of environmental services such as carbon, water and biodiversity. Payments for ecosystem services (PES) from tropical forests have a high potential for SFM and conservation, through giving incentives for keeping forests and ensuring good agricultural practices on surrounding slopes. For example, Bwindi is an important water catchment. Indeed, some estimates suggest that access to clean fresh water for more than a million people may be affected by the park, including park neighbouring communities and people living close to the many river systems that drain the region. These people have a limited ability to pay for water, potential buyers might include business interests dependent on water from the park such as local tea processing factories, and, perhaps in the future, a proposed hydro-electric dam on the Ishasha River.



PES schemes are new in Uganda and are just beginning to be explored. Basic questions need to be answered, such as “who can guarantee the water flow and quality required?” and “who will be paid?”. There is still considerable theoretical discussion about the merits and limitations of a PES approach (Ferraro and Kiss, 2002; Wunder 2005), and there are few clear examples of positive outcomes in tropical conservation. Fair property rights, good governance and supportive policies from outside the forestry sector seem to be crucial conditions for success. Bwindi may offer the potential for developing these concepts further.

Institutional context

The management and allocation of financing for conservation remains a major challenge, especially if management is conceived of as collaborative and national parks are recognized as part of the nation’s and the world’s heritage. There is no one right way to define and implement suitable institutional roles and responsibilities to allocate funds.

Competition for funds is inevitable.



Adams and Infield (2003) examined revenue-sharing in Mgahinga National Park and found many local, national and international stakeholders who could ethically claim some rights over tourist revenues and how they should be used (see Table 1). But they also noted that the high costs of park creation might surpass the revenues available. So what can be done? Who should be in control of what and how should priorities be set?

As Adams and Infield (2003) concluded, “If institutions cannot be devised such that the mountain gorilla in Uganda can pay its way to the satisfaction of all parties, then the argument that conservation more widely can be based on this approach, let alone that it provides a ‘win–win’ solution of ‘development-with-conservation’ must be weak. This is especially true for the many species without the global interest that gorillas attract, and for countries or environments less suitable for tourism than Uganda’s Mgahinga volcanoes.” More work is needed before any financial system can be considered truly sustainable.

Looking ahead

ITFC would like to start exploring other important financial questions. For example, can markets for carbon, water or biodiversity be viable options for conservation financing in the region? How are local land prices, land markets and population movements affected by current policies? How will changes in climate, population dynamics and global markets influence the balance of costs and benefits from tropical forests like BINP? The authors welcome ideas for collaboration on research and capacity building that will help to develop these topics further.

Table 1. Stakeholders with interest in revenues from gorilla tourism, Uganda

Selection criteria	Groups with potential claims on revenue from gorilla-viewing fees
Local	
Proximity	People residing in villages, parishes, sub-counties or districts immediately adjoining the park
Historical rights	Everybody within villages, parishes, sub-counties or districts from which evacuees came and to which they went
Need	Destitute and landless Batwa people around the park Poor Bufumbira land-holders farming around the park Any poor or needy local people Village or parish councils representing poor people of the district
Regional mandate for socio-economic development	The Kisoro District Council, on behalf of villages, parishes or sub-counties bordering the park The Kisoro District Council, on behalf of the whole district
National	
National mandate for biodiversity preservation	UWA centrally on behalf of their national mandate for conservation UWA for redistribution to other national parks with less tourist earning potential UWA on behalf of the people living around other national parks Other Ugandan conservation organizations
National mandate for socioeconomic development	The Ugandan government, for the welfare of its citizens The Ugandan Government to meet the costs of the Uganda Wildlife Authority Ugandan development organizations on behalf of local people
Mandate to promote understanding of conservation	Ugandan scientific or educational organizations
International	
Mandate for socio-economic development	People living around those parks in Rwanda and Democratic Republic of Congo (DRC) providing contiguous gorilla habitat
Intrinsic values of gorillas	Park managers or national governments in Rwanda and DRC which share the range of the Mgahinga gorilla groups International organizations working to support the conservation of contiguous gorilla habitat in Uganda and elsewhere

Source: Adams and Infield (2003)

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