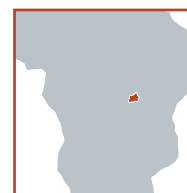


From Poachers to Park Wardens: Revenue Sharing Scheme as an Incentive for Environmental Protection in Rwanda



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Rususa Secondary School. Photo: Straton Habyalimana.

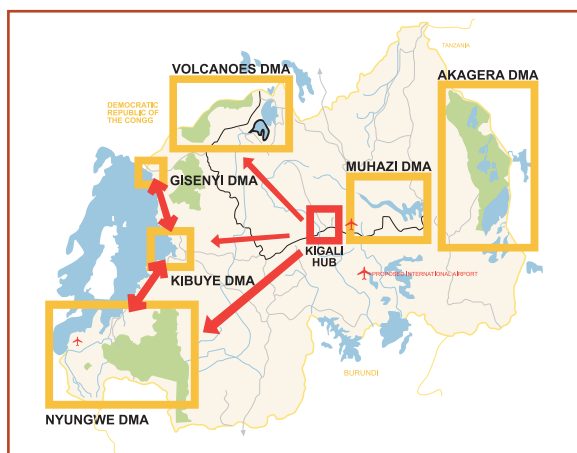
Abstract

Rwandan tourism is growing very quickly. Labelled “The Country of a Thousand Hills”, tourism activities are mainly based in three national parks including Nyungwe and Volcanoes, which are both located in mountainous regions of the country. The national government agency responsible for tourism and protected areas is the Rwanda Development Board of Tourism and Conservation (RDB-TC). RDB-TC has recently initiated a revenue sharing scheme that aims to increase the benefits to communities surrounding the two parks, and to ease the conflict caused by crop-depredation by wild animals and lack of access to natural resources. This article discusses the outputs of the scheme four years after its inception, and some preliminary impacts on biodiversity conservation.

Background

Rwanda is a small landlocked mountainous country (26,338 square km). There are now nearly ten million people in Rwanda, the densest population in continental Africa. Three quarters of these live below the international poverty line of US \$1.25 a day; most are dependent upon subsistence agriculture. Tourism is among Rwanda’s major foreign exchange income earners (the highest in 2008); the most popular destinations are the national parks of Nyungwe (NNP) and Volcanos (Parcs des Volcans, VNP). As well as aesthetic beauty, these parks harbour high biodiversity with a number of species endemic to Rwanda and/or the Albertine Rift; serve to regulate the climate, and provide water for the Rwandan people.

Africa



The six Rwandan destination management areas (source: Government of Rwanda/UNWTO)

- At 970 square km, the Nyungwe Forest Conservation Area is one of the largest mountainous rainforests remaining in Africa (1600m -2950m above sea level). Established in 1933, it is located in the Albertine Rift in the South-West of Rwanda, a series of mountain ranges that stretches from western Uganda to the eastern Congo. It harbours 86 mammal species (including 13 primates), 280 birds and around 200 varieties of orchid.
- The Volcanoes National Park was the first national park to be created in Africa in 1925, although activities were stalled in 1992 for a seven year period during the Civil War. Situated in the north-west of the country, it contains five of the eight volcanoes of the Virunga Mountains (2400 to 4507 meters above sea level). It is most famous for being a haven for the mountain gorilla (*Gorilla beringei beringei*) of which around 230 survive (2007): this is where the celebrated American primatologist Dian Fossey conducted her research in the late twentieth century.

The problem: threatened biodiversity

Rwandan protected areas have been exposed to significant pressure on resources, as the ever increasing population forces people to look for additional land for cultivation. The problem became still more serious after the 1994 genocide when many returnees needed land for settlements: VNP, for instance, has been reduced to under half its original size (Dept of Forestry 2001, ORTPN 2004). The conflict also reduced protection in the national parks, leading to

increased poaching of rare, endangered and valuable flora and fauna for wood, meat to be sold in the local market, and trafficking.

Aware of the importance of tourism in raising its economy from the ashes, the Rwandan Government extended its efforts to protect the three national parks. This renewed focus on conservation created three key problems for people living around the parks:

- Some were deprived of cattle grazing land, of cultivating land, and game meat.
- Crop-depredation (wheat, potatoes, beans) by wildlife became an issue near national parks, increasing the frustration of local communities.
- Community access to the parks was limited, and benefits such as cooking wood fuel, wild fruits, honey and traditional medicinal plants were foregone.

The Government of Rwanda has now put in place a scheme that provides alternative livelihoods to people excluded from these protected areas.

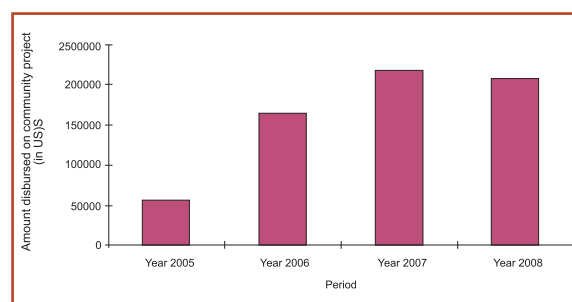
Description of the scheme

Five percent of tourism revenues from the protected areas 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. Selection criteria include positive impacts on conservation of biodiversity in protected areas and on the local community. According to the results of the Ranger-Based Monitoring (a system used by RDB-TC to monitor biodiversity), areas that register more cases of conflict between protected areas and the community have preferential access to funds, as do those which are located closer to the protected areas. Sustainability of the project (gauged through economical, social and environmental indicators stated in the proposal) and the proportion of community contributions are also considered. Once the projects are selected, contracts of 1-15 months are signed between district authorities and the community. The community is often grouped into cooperatives or direct specific target groups.

Outputs

Since 2005, RDB-TC has disbursed US \$918,959 on community projects in seven districts (23% of the country) around NNP and VNP. The projects cover environmental protection and other income generation activities. The amount disbursed is directly correlated to the tourism revenues collected in the previous year. In 2007, projects around both parks were estimated at a value well over US \$200,000.

Table 2: Amount disbursed on community projects per year



Source: Interview with Ngoga Télesphore (RDB-TC), September 2009



Nyabitsinde Primary School. Photo: Straton Habyalimana.



Ngange Health Centre. Photo: Straton Habyalimana.

Emerging outcomes

No study has been carried out so far to assess the impact of the scheme on the livelihoods of people living near NNP and VNP. However, combined with extensive sensitisation efforts from RDB-TC and local authorities, there are indications that the scheme has contributed to an increased awareness of tourism benefits, as well as protection of biodiversity in NNP and VNP. It has also been noticed that community participation in tourism activities has increased: the number of porters, traditional dancers groups, small and medium enterprises owners, guides and interpreters from the local area are becoming more and more visible in the communities neighbouring the parks.

Clear steps have been made to invest in participative approaches to environmental protection and sustainable resource use, including activities to control soil erosion on ravines in the Volcanoes area and hills in Nyungwe; tree planting, especially with agro-forestry species in community spaces, and the introduction of modern stoves that use less cooking wood fuel. Such initiatives absorb almost three percent of the budget devoted to community projects in the two national parks. Several different partners have taken part in these initiatives, such as the IGCP (International Gorilla Conservation Programme), the Gorilla Organisation, the World Conservation Society, the Association of Ecologists (ARECO) and the PAB (Protected Areas Biodiversity) Project.

Poaching

One of the most interesting programmes has focused on providing ex-poachers with alternative income generating activities (e.g. food production and commercialisation, tile making, beekeeping, rabbit rearing). A number of associations and cooperatives constituted by former poachers have been formed: 12 of these were created around the Volcanoes Park (250 members), and three around Nyungwe (80 members). These associations publicly share their experiences of poaching and show locations, hiding tricks and techniques to park wardens. They also help to identify and bring poachers before community '*inyangamugayo*' (community judges) when they are caught. In a parallel move, active teams of community awareness volunteers (Animateurs de Conservation - ANICO) collaborate in conservation activities. According to RDB-TC, cases of poaching and infringement of access restrictions have decreased by 10% since the scheme's implementation in 2005.

The Iby'Iwacu Village Experience in the VNP showcases the incentive-based approach to conservation. Around 30 former poachers (men, women and youth) are employed part-time as dancers, interpreters, basket weavers etc. Visitors to the area pay US \$20 to enter the cultural village, 40% of which is paid to the ex-poachers and 60% to the village fund. This part time employment provides the ex-poachers with an average monthly income of US \$100 each from visiting tourists: a high income by local standards, but still low compared to what was once obtained from poached game meat.

Challenges

It is difficult to accurately track the impacts of the five percent revenue sharing scheme. There have been no deliberate efforts to collect baselines against which to measure improvements in biodiversity conservation and community livelihoods. In addition, due to high demand the projects that are funded are small in nature, which makes the scheme less interesting for local authorities who are more concerned with large infrastructure development.

Moreover, some community members are still weighing individual benefits from poaching against the possible benefits from the collective projects, which tend to be medium to long term in nature. Due to high opportunity costs cases of poaching (of buffalo, wild birds such as partridges and bamboo) are still common in some sectors, although in reduced numbers.

Conclusion

The revenue sharing scheme initiative has started to positively affect the livelihoods of those living near national parks. In most activities funded through the revenue sharing programme, RDB was led by the annually established performance contracts by the districts. This is the case especially for infrastructure (schools, health facilities, water tanks and roads). However, only 20% of the projects submitted by districts have been selected to receive funding. The 'pie' is still small, and will grow larger only when the country registers larger numbers of tourists. Due to limited resources and many pressing public demands on tourism revenues, the likelihood of increasing the proportion received from the revenue sharing scheme is low. A request to double the budget allocated to the scheme is yet to be adopted by RDB-TC.

The extent to which the scheme contributes effectively to environment conservation needs to be more fully researched and documented. Whilst the incentive-based approach to discourage poaching is showing early signs of success, community based education will need continuous attention to ensure longer-term sustainability.

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