

African parks: combining fiscal and ecological sustainability

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Conservation is only possible with sufficient finance. Throughout Africa the fiscal arrangements of most parks and protected areas do not provide enough income for sustainable park management or for building support in local communities. This results in an uncertain future for many parks, as growing local community needs force much of the land to be turned over to agriculture. This paper argues that far higher visitor numbers, greater financial returns and more efficient financial management structures are needed in Africa if its parks and reserves are to survive in the long-term. The most ecologically-appropriate fashion to earn this income is through much better managed nature-based tourism.

TOURISM IS ONE OF THE MOST IMPORTANT export industries in Africa (Dieke, 2001). Given the nature of the development of the Western world with its efficient industries and sophisticated information technology, Africa is unlikely to be able to compete in these fields in the near future. The economic survival of most African countries depends on foreign exchange earnings from the export of raw materials and tourism. Without this income they cannot repay their loans to Western banks or purchase new capital equipment to help increase exports. Tourism is an exceptional African export industry in that it is (theoretically) sustainable, based on renewable natural resources – most notably the continent's impressive wildlife (Wade *et al.* 2001). This contrasts with the mineral export industry, essentially founded on finite supplies of oil, gold and diamonds.

In Africa, vast tracts of land have been set aside as national parks, game reserves, and other forms of protected area. In several countries these reserves cover over 25% of the country's total area. This is a substantial sacrifice considering a very high proportion of the population relies on agriculture for survival – setting aside so much land can cause life-threatening hardship. Sensibly, some reserves permit locals limited grazing or farming, where this does not compromise the ecological goals of the park. Nevertheless, the existence of reserves sometimes has a significant negative impact on the ability of the local communities to feed themselves.

The situation is exacerbated by the demographics and predominant communal structures of Africa. Village populations are rarely static and need a steadily increasing area of land to support themselves. As the majority of the most economically viable land is already being farmed (albeit not always intensively or effectively), locals are looking to the wetlands and forests (often areas of crucial ecological importance) to provide for their needs. Equally, until they derive sufficient benefit from them, communities will continue to demand the return of reserves to subsistence agriculture. Parks find it incredible difficult to withstand such pressure.

At the same time, maintaining (let alone defending) a protected area system is expensive. Park financing typically comes from government grants, foreign aid or tourism. But throughout Africa grants are small and declining and foreign aid, although useful for capital construction, is rarely effective for daily operating costs. Tourism, therefore, seems the best source of long-term finance for park operating expenses (Eagles and Higgins, 1998), whilst also having the potential to generate income for and thereby appease disgruntled local communities.

However, at present revenues and benefits to local people are limited by the reluctance of reserves to allow effective tourism competition – almost all provide exclusive licenses to operators to build lodges or run tours. There is an obvious niche for larger tour groups and for more budget-oriented tourists, but to exploit this gap in the market, parks must sacrifice exclusivity to open competition. South African National Parks have recently gone through a

major tendering process for park facilities and programmes and now have at least nine levels of pricing for accommodation, thereby allowing use by a wider sector of the public. The success of this programme should be carefully evaluated and its positive features emulated elsewhere.

Throughout Africa, with the exception of South Africa and Tanzania (see below), the running of safaris and other organised tourism activities is often the monopoly of foreign companies. Consequently, the majority of tourism income stays with the foreign company and quickly leaks out of Africa. Even where a national or local company runs a tourist operation, profits tend to end up in major cities with pitifully little going to the local community. While some locals may earn some money from tourists, they do not gain as much as they could or as politically desirable. Usually they are involved only in developing campsites with basic facilities, rarely in establishing and running higher-value tourist accommodation. This combination of high leakage from park tourism and low income to local people turns the community against the reserve.

There are many reasons for the foreign domination of the African tourism industry: the predominance of hotels and other tourism services in foreign ownership; the generally low level of tourism training and expertise in African park agencies versus the high degree of expertise necessary to service nature-based tourists; the lack of foreign confidence in the legal system of African countries to handle disputes; the availability of trip insurance coverage to Western tourism corporations and the high profile of many European and North American ecotourism and nature-tourism operators.

In some areas government park agencies manage reserves and park tourism facilities. Unfortunately, more often than not, the local community is still excluded from contributing to park management. In addition, where governments are responsible for all aspects of the reserve, it is generally not run on a genuinely commercial basis, resulting in a further economic drain. Hence few parks and game reserves in Africa can support themselves let alone a protected area system.

Elephant viewing in the Sabi Sabi Private Game Reserve in South Africa. Ecotourism is an important economic activity to most of the countries of eastern and southern Africa. Photo: Paul F.G. Eagles.



In some countries foreign or central government domination in the tourist sector is beginning to be challenged. However, this is far from straightforward and requires substantial capital, training and institutional change. Nevertheless, Tanzania is a notable exception to the typical scenarios described above. The national park system runs an operational surplus each year, with a substantial amount of money devoted to local community development. Each park has a community officer, whose job it is to liaise with local communities and ensure the park grants are applied to tangible and worthwhile local needs.

If African parks are to be conserved, they should be run with the Tanzanian model in mind. They must benefit local communities and encourage local involvement in tourist infrastructure development (as often advocated by foreign-funded aid projects). This could range from employing locals as reserve staff; using local labour to build offices, staff accommodation and construct roads; to encouraging locals to act as guides.

Recent observations in eastern Africa

Recent dramatic drops in park tourism in some parts of eastern Africa highlight the importance of the economics of tourism to conservation. The following examples demonstrate that park and community income from tourism must be given much higher priority in park management throughout Africa.

One of us, Mulholland, lives in South Africa. In 1995 he toured Uganda and Rwanda, and subsequently all the other southern and eastern African countries. During June and July 2001 another visit to Rwanda and Uganda helped develop further appreciation of the relationship between tourism and conservation in Africa. The other author, Eagles, visited Kenya, Tanzania, South Africa and Lesotho, on various trips throughout the 1990s.

Recent events have created a tourism crisis in some parks of eastern and southern Africa. Volumes of park tourists are down substantially. Civil unrest in Kenya (and Zimbabwe), civil wars in Rwanda and Uganda have all contributed to a national decline in tourism and to a regional image of insecurity. It is true that in many areas parks and reserves have provided cover for guerilla fighters at one time or another. The terrorist attacks in the USA on 11 September 2001 and resultant drop-off in global tourism has served to compound the problem. The authors' observations trace the on-the-ground impacts of this downward trend.

A visit to Rwanda and Uganda in 2001 found a significant lack of tourists at some of the most impressive parks. The Nyungwe National Park in Rwanda is the largest remaining tract of montane forest in the Albertine Rift valley, yet was averaging only one overseas tourist per week. The Bwindi-Impenetrable Forest in Uganda, now the only place that habituated mountain gorillas can be seen, had fewer than 10 visitors per day. In Murchison Falls National Park one of the main lodges was empty, and Mulholland was the only tourist in the Kidepo National Park for the two days he spent there.

Through much of Rwanda, as well as to the Bwindi Forest, Semuliki NP on the border of the Democratic Republic of Congo and the Kidepo NP Sudanese border, Mulholland experienced no security problems. The Rwandan government allocated troops to patrol the main tarred road through the Nyungwe Forest to the DRC border to ensure safety. Uganda provided a small escort in Bwindi, the location of a widely-publicised massacre of foreign tourists by armed guerillas in 1999. In Semuliki, Mulholland and his guide had ten soldiers accompany them on a walk into the forest because of an attack on the army six months previously. It was clear that these governments were doing everything practicable to ensure the safety of tourists. Realistically, the chance of a tourist being attacked or injured in either of these countries is probably as low as anywhere in the world, and certainly safer than most cities.

Yet Ugandan tourism has still not recovered from the 1999 incident, and parks and government officials are well aware of the implications of further incidents. This situation has created a fiscal crisis in Uganda that has hit the parks particularly hard – the long-term prospects for the survival

of the park agency currently look rather bleak. Simultaneously the local and regional economic benefits of parks have declined making the alternative – agriculture – appear much more attractive to national governments and to local people.

The roles of parks and game reserves

Ideally, reserves should be created to conserve a specific ecosystem, or perhaps a specific assemblage of species of fauna and flora. However, in most cases, they are established in areas where it is practical to do so, often to fulfil specific political needs. Nevertheless, an important role is still species conservation and, wherever possible, augmentation.

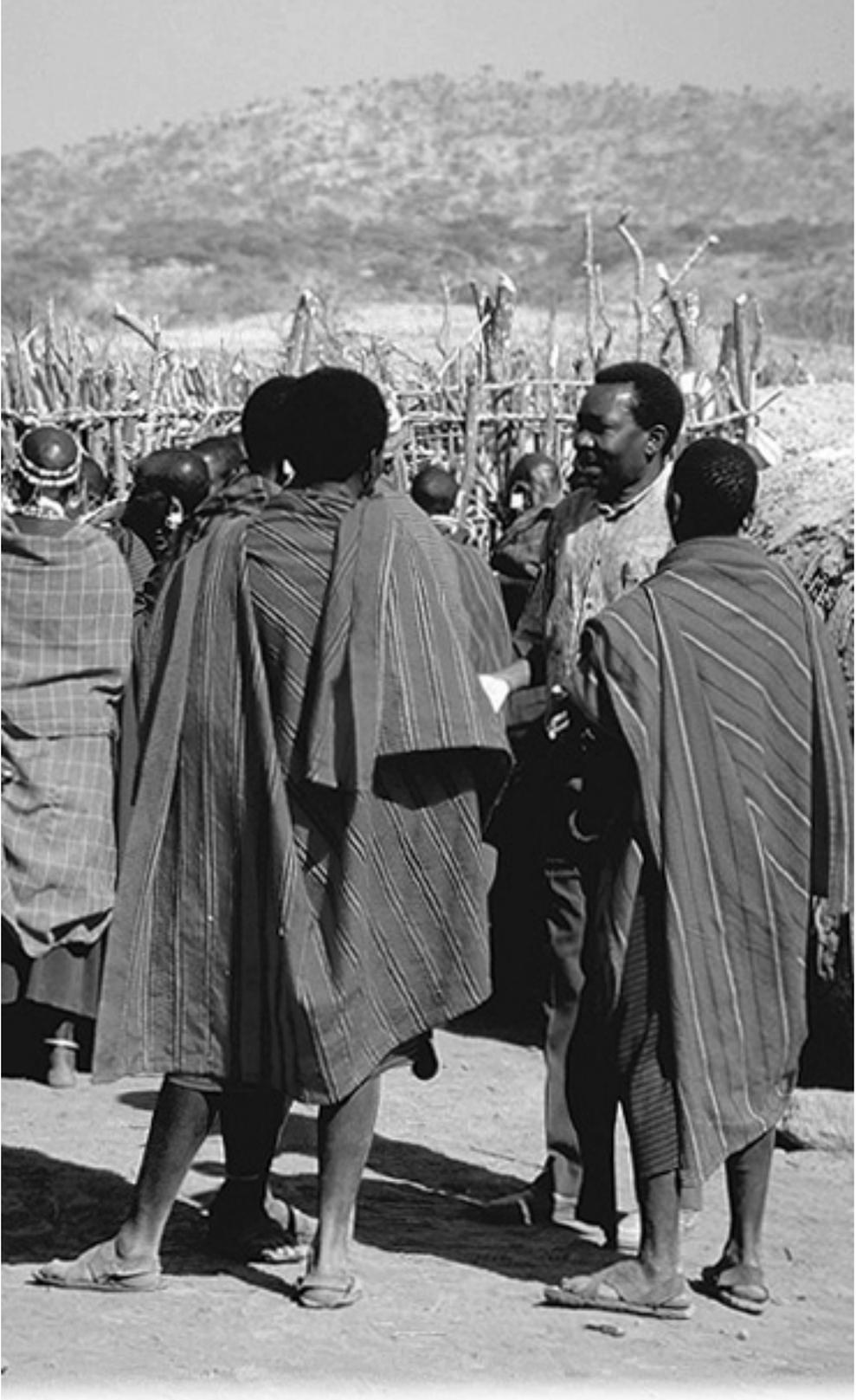
Another role of reserves is to provide employment for locals through the provision of visitor services. However, when the reserve's primary focus is ecological protection, tourists are sometimes viewed by park staff as little more than a nuisance. They are resented by administrators for increasing workloads and by ecologists for impeding conservation goals. This is illustrated by Mulholland's experience in Bwindi National Park. The new reserve manager instructed him to stop birdwatching in a certain section of the park insisting it was against regulations, when in fact, it was not. What was the manager trying to achieve? He was certainly not facilitating visitor satisfaction or encouraging more tourists. Unfortunately, this small incident seems indicative of the general attitude of park management authorities towards tourism.

It should be obvious to all (including park managers) that Africa cannot afford to protect the environment for the global common good. Any surplus money needs to be spent on repaying foreign debt, basic infrastructure and trying to raise the standard of living in the continent as a whole. Parks and reserves must therefore pay their own way and, in general, one reserve cannot be expected to subsidise another. In Africa there are only two aspects of an eco-reserve that can generate income, namely tourism and the sale of resources. The alternative is to turn it over to agriculture. From an ecological perspective, tourism must be the preferred option but low volume high-cost ecotourism alone is unable to generate the revenues required to alleviate community pressure on reserves.

If the survival of African parks and game reserves depends on their capacity to provide for the local population, there is going to have to be a shift in focus to the high-number, low-budget tour parties discussed earlier. A small African reserve is usually several hundred km² in size and there are quite a number that reach into the tens of thousands km². Many, if not most, reserves substantially under-perform in terms of what they offer tourists. Few more than ten National Parks in Africa have even a single tarred road (other than trunk roads passing through) and many have a road use policy not permitting more than one vehicle per kilometre of road. Constructing large rest camps able to accommodate a thousand people would have a minimal environmental impact in such large undeveloped areas.

Yet despite the fact these reserves probably see far less than one per cent of the tourist numbers handled by most European parks (on a visitor per km² basis), Western conservationists continually warn of the threat tourism presents to Africa's protected areas. They seem unable to comprehend that maintaining African parks as total wilderness areas is not realistic (although larger reserves may be able to afford to set aside certain 'core zones'), any more than it is in the West. African conservation needs tourism and even if it were to increase ten-fold, the damage caused by tourists would still be less than that caused by the impact of insufficient financial resources. The environmental degradation resulting from a reversion to agriculture would be much more serious.

Far from only negatively affecting conservation, the private tourism sector can be seen as a robust supporter of reserve protection. Firstly, it has an interest to preserve the natural resource that draws its clients (namely reserves' fauna and flora). Secondly, it contributes to the local economy, thereby indirectly winning community support for the reserve. On the other hand, it is to the advantage of individual tour operators to maximise their own financial returns. This



Tanzanian National Parks Director, Lota Melamari, talks to local men in the Ngorongoro Conservation Area, Tanzania. Good relations with local people are important to park tourism success throughout the world.
Photo: Paul F.G. Eagles.

sometimes results in a focus on immediate income generation, with little concern for other tourist operations, general environmental impacts or the sustainability of the operation. The result may be a 'tragedy of the commons' effect. It is therefore critically important that reserve managers retain overall responsibility for balancing the financial and conservation goals and hence the ability to regulate tourist operations.

Some intervention may also be necessary to ensure any tourism does bring benefits to the local community. Unfortunately, as noted above, current local involvement often contributes little real income (especially true if the foreign tour operators keep the numbers down and the low-income tourists away). The decrease in tourist numbers from 1999 through to 2001 seems to have been sufficient for most community-run projects in Uganda to stall and for locals to begin reconsidering their options. During Mulholland's visit, none was making a profit, and so will not be able to continue providing tourism programmes or facilities.

This does not mean that community-based tourism is a bad thing, quite the opposite. But one wonders if those advocating it ever carried out a proper economic feasibility study beforehand. Too many failures give the concept a bad name. Greater emphasis needs to be placed on the economic viability of the projects before the local community is encouraged to participate – even well-designed community-based tourism operations can only succeed if tourist numbers are sufficiently large.

Other proven methods of getting the locals on side are permitting, controlled grazing, collection of water and firewood and even limited logging where it does not have a negative impact on the reserve. Tanzania's example of providing grants (to the local community) when money is available, is a particularly good one.

Bamburi Beach, Mombasa, Kenya. One of the many local people who strive to make a living by selling art and craft items to tourists. They need a permit to sell their wares on the private beaches belonging to the hotels.
Photo: Brian Peart.



The financial carrying capacity

Conservationists and natural resource administrators often assess the ecological carrying capacity of reserves in terms of wildlife and other natural resources. Seldom is this discussion extended to the financial viability of the reserve.

It might be useful to consider a minimum financial carrying capacity, below which the park management is not viable. This minimum will depend upon the number of tourists and the financial benefit they provide. Funds from donors and aid agencies, when available, can supplement the tourism income. This will complement the maximum capacity (purely theoretical in Africa, but an issue much debated in the developed world) at which point the negative damage done by tourists becomes unacceptable. The acceptable range of park-use level is the difference between the between minimum financial return necessary and maximum environmental impact allowable (Figure 1). We make the argument that throughout most of Africa the present situation sees much too little positive financial impact, therefore much more tourism income is needed.

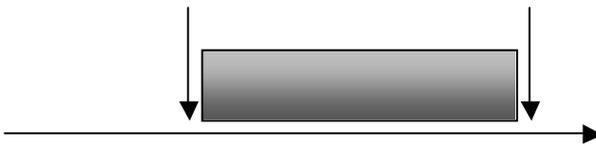
Having identified this fiscal carrying capacity, one must consider how to handle the increased number of tourists in terms of flights from overseas, internal transport, accommodation and guides. If the numbers cannot be increased to allow the reserve to achieve its optimal fiscal carrying capacity (or at least bring it up to a profitable level), then the core issue must be faced: can the reserve survive in the long term? In Tanzania the entire national park system runs a single operational profile, with the lower-earning reserves being subsidised by the higher-earning ones. Tanzania's success and experience could be a model elsewhere in Africa (Eagles, 2002). South Africa's successful mix of public and private involvement in nature tourism also provides useful and innovative examples.

A country must examine all its reserves, and look hard at the option of closing some, to allow the remaining reserves and overall system to become economically viable. If management fails to concentrate on the long-term financial sustainability of the reserve system as a whole, fewer reserves will have a long-term future.

This is not a typical way of looking at African nature protection, but it appears that conservation interests want to preserve 'wilderness' without providing sufficient resources to do so. Considerable aid goes into research and community projects – both essential – but an insufficient amount contributes to normal operating expenses of parks. A greater proportion of grants should be directed towards park tourism development and management.

Given the opportunity, virtually every visitor to Africa's magnificent national parks and game reserves would return again, although many would prefer better facilities. This is a positive sign of an industry with potential. The large increase in foreign tourism visits to South Africa in the last decade shows the potential of a professionally-operated tourism industry

Figure 1. Model of financial and ecological sustainability.



working closely with park management agencies. Much better fiscal operation of parks and park tourism is needed and Africa should draw lessons from the experience of other countries such as the emerging operations in East Asia (Athanas, *et al.* 2001).

Conclusion

In much of the park literature, a dominant management issue is one of parks and reserves being damaged by tourism, yet in Africa many reserves are in danger of being destroyed by its absence. Too little tourism has been proven to be far more damaging to the African environment, than too much.

Hence, the best conservation for the national parks and game reserves of Africa in the long-term will be effective tourism management. Furthermore, unless these reserves can attract sufficient money, local communities will ultimately convert them to a more productive use – typically agricultural. It is essential that better relationships are forged between park tourism and park finance. In the immediate future we need to see much higher domestic and international emphasis placed on the development of financially-viable park tourism industries throughout Africa.

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