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# African Wildlife: Must It Be Subsidized?

## A Contribution to the Discussion on Sustainable Financing of Protected Areas

### Conclusion

Conservation of biodiversity in Africa is desirable for a variety of ecological, economic and other reasons. Whereas economics do not necessarily rank top of the list, the neglect thereof will inevitably lead to the failure of achieving conservation objectives. If wildlife and protected areas do not contribute to poverty reduction but instead limit available resources which otherwise could be used to alleviate poverty, then their conservation has no political future. They will not be able to compete with other forms of land use. Sustainable financing should mainly be self-generated, as wildlife is a productive renewable resource. Permanent subsidies by outside sources should remain the option only in well-justified individual cases when all other income-generating possibilities have been exhausted.

### Finance as Core Conservation Problem

The upkeep of national parks, game reserves and similar protected wildlife areas goes hand in hand with a considerable effort. Depending on the objectives for protecting an area, the costs of developing infrastructure and keeping a reasonable management regime average between 50 and 300 US-$ per sq km annually. In small protected areas the costs per unit area can even be much higher[1].

Considering the total size of areas under protection in Africa the effort of upkeep adds up to enormous sums, which are usually neither covered by income nor, because of other priorities, by public budgets. Some countries in Africa have placed 10 to 25% of their land surface (in Tanzania about 150 000 sq km) under strict protection. The positive economic impact of such areas on the economy are significant in countries such as Tanzania and South Africa, but low in others, which have little tourism such as Mozambique and Uganda.

Empirical studies prove a distinct correlation between financial investment and successful protection. On the other hand practical experience shows that inefficient and corrupt administrations can also easily consume high financial inputs and investment without tangible results. It is not necessarily true that a lot of money helps a lot! Adequate financing is therefore a prerequisite but not in itself sufficient.

It should also not be forgotten that finance is only "*a*" and not "*the*" core conservation problem as it is so often assumed to be but seldom queried. In many practical cases much more could be achieved with the available finance if only the money was spent more wisely and if the management was more efficient.

Nevertheless in reality many protected areas in Africa are seriously under-funded and cannot meet their goals. Surveys show that only a few are raising even close to the income required to cover expenditure. Most aid projects have not managed to change this. Presently there seems to be a general consensus that there is little hope that Africa's wildlife protected areas will ever be self-supporting.

However, there are examples to the contrary. For example, the Selous Game Reserve in Tanzania generates ca. 3.9 Mio. US-$ per annum from tourist hunting (92%) and photographic tourism (8%) and is allowed to retain half of this amount to sustain its management[2]. This is sustainable finance in the true sense of the word. Another example is the Tanzanian National Parks system (TANAPA) where four profit-generating parks subsidise nine loss making ones.

In many countries, significant wildlife populations (about half within Tanzania) continue to exist outside protected areas. Basic protection of this wildlife by the respective authorities entails further expenditure over and above that of the protected areas.

Unfortunately the reality of most countries is that these means are lacking, and effective anti-poaching outside protected areas is even less of a reality than within. Commercial poaching ("bushmeat") is therefore a common phenomenon throughout Africa, as empirical studies prove[3].

## "Use It or Lose It"?

Just as development cooperation followed the principle of "help for self-help", so too was it undisputable to economists that conservation of wildlife and other natural resources should also orientate itself on basic economic principles. Wildlife and protected areas can be economically used and con-sequently have the potential to generate income in a sustainable manner which can finance their upkeep and contribute at the same time to the welfare of people, in particular of the rural dwellers sharing the same areas. Income, so the doctrine goes, was to cover expenditure as much as possible. Natural resources, which generate income, have a higher chance of being conserved by people, perpetually striving to meet their needs, than those resources, which solely entail costs. Despite simplifying it a bit too much, the slogan "use it or lose it" sums it up nicely.

Of course such a principle cannot be applied in absolute terms. It is not valid in each and every case. Not every protected area, not every type of biodiversity, can be utilized or is able to finance itself.

As a general rule protection and utilization are not fundamental contradictions. The World Conservation Union (IUCN) defines "conservation" to mean both the protection and sustainable use of natural resources including wildlife. International conventions and declarations, such as the Convention on Biological Diversity, give nations the right to utilize their natural resources including wildlife in all consumptive and non-consumptive forms. At its World Congress in Amman three years ago the IUCN reconfirmed the legitimacy of consumptive use of wild living resources[4].

Sustainable use options for game are many and varied. These include photo tourism, hunting, game ranching, meat production, use of by-products and live capture. Empirical experience shows that a combination of different forms of utilization usually renders the highest income. In some instances environmentally friendly game utilization can bring equal or even greater revenues per unit area than other land use options, e.g. agriculture.

It is possible to design all these forms of use in an environmentally friendly or – in the case of over-utilization – an unsustainable manner. Overshooting of a hunting quota is as unsustainable as is too high a visitor pressure in a national park. And while in Southern Africa capture and resettlement of large mammals make up a large industry which has contributed to higher wildlife numbers on the land, live capture in other parts of Sub-Saharan Africa tends to take place in the murky realms of illegality, animal abuse and over-use.

Where organized properly, however, the so-called consumptive use of game has contributed to the protection of species and habitats and increase of wildlife numbers. In this way, endangered or near-extinct species have been saved through a combination of protection and utilization. Crocodiles and white rhinos are examples of species brought back from the brink of extinction by means of pragmatic conservation.

Controlled tourist hunting is an especially revenue-rich form of utilization, which impacts relatively little on the environment. For emotional and ideological reasons, however, hunting is often excluded as an option for income generation. Opponents of utilization have joined together in large and financially powerful groups that are able to exert wide public and political influence.

In systems in which utilization is not permitted, wildlife represents costs only to the landowner and not any income. Those however who inflict only costs on the proprietor or user of land and yet deny them the benefits are with certainty contributing to the extinction of wildlife.

By putting a value on a resource, an incentive is created to protect it in order to be able to reap benefits in the long-term. In any case the ban on use has always been fictional in Africa as it has not been able to halt the on-going massive illegal utilization ("bushmeat", rhino horn and ivory). Empirical data from countries with hunting bans show that these have by no means contributed to the protection of wildlife. On the other hand in Southern Africa the fact that game has been given a value has led to environmentally friendly game ranching in many areas.

A precondition for the long-term success of any system of utilization is that a considerable share of the income is reinvested into protection and management and further that the landowner can profit from the game on the land.

Protected areas go hand in hand with considerable opportunity costs, i.e. income foregone by not using the area otherwise. These opportunity costs have, on the basis of agricultural revenues foregone, been estimated for example for the Ugandan National Parks to be 110 Mio. US-$[5]. This is an important political argument to revise the status of protected areas. In many places it has been shown that sensible "wildlife management" can however compete with agriculture and livestock.

## How to Reduce the Deficits

In principle the system "use it or lose it" has had a high degree of success. Nevertheless the income to be realized in many areas does not suffice to protect wildlife and its habitats and to additionally generate revenues for landowners and the state. As was mentioned earlier, it is also important to take into account that some species or biospheres are so rare, endangered or sensitive that they are not suitable for utilization.

In such cases it is inevitable that ways be sought to close the financial gap between income and expenditure. Once again, the aspect of cost should be considered first. More often than not, one should start by improving financial planning and spending and by lowering expenditure. Under a strict financial management regime, less external finance is needed to close the deficit. The same applies to spending levels. If funds are scarce, not everything that might be desirable in such fields as research, monitoring or infrastructure should be financed. Economic investment has to be subjected to cost-benefit considerations. "Can we afford tourism?" asked the late Richard Bell in relation to the South Luangwa National Park when I met him there in 1988[6]. Sometimes the entire revenue from tourism is not sufficient to finance a fraction of the road network put in by a donor for the use of the tourists. This may all sound blatantly obvious, however there are many real life examples where such simple principles have been ignored.

Many governmental and parastatal structures assigned with the task of managing protected areas are ineffective. They tend to be overstaffed, lacking in transparency, and are constrained in decision making by excessive bureaucracy. Reforms are needed that, as is well-known, are hard to realize. It may make sense to privatise such structures totally or in part.

State bureaucracies are burdened with many tasks over and above their capabilities that would be best left to the private sector. It is a well-known fact that governmental systems and hospitality go together like fire and ice. Nevertheless, in many protected areas governments try to run the hotels and similar economic establishments. Often, these responsibilities are not relinquished, simply to hold on to sources of money and wages.

This was the situation in the South African parks, where the Department managed hotels, campsites, shops etc. Often figures were in the red, but no one was aware of the actual balance due to deficient accounting. When the lush subsidies were cut drastically after 1994, hundreds of employees had to be made redundant and privatisation could no longer be avoided.

In many cases it would make sense to privatise entire protected areas. Biodiversity protection need not be compromised if a park, having been badly managed by the state and running at a loss, is managed by the private sector with the intention of earning money. Plundering of the parks by the private sector, as is done frequently by public sector staff, can be prevented if management plans, long-term lease agreements and regular eco-audits are put in place.

If the management and protection of wildlife on communal and private lands is entrusted into the hands of those who own or hold the land, i.e. the communities and the landowners, then this would also lead to a reduction of management costs for governmental institutions. In this way a "Community-based Conservation Programme" can not only increase the conservation status of such areas but can also reduce public spending.

State departments are generally reluctant to privatise, as they would thus be deprived of sources of revenue and lose both influence and power. They much prefer external financing schemes, which after all permit deficits to be covered with few strings attached. There is also minimum pressure to conform, thus allowing those responsible to continue as before.

## Creative Financing to Stimulate without Oppressing Efforts

The question whether wildlife "can pay its way" has often been raised. It probably cannot be answered better than Eltringham did when he asserted "…that under certain conditions, wildlife can make a substantial contribution to its own conservation but there are circumstances in which it cannot…"[7].

The following wildlife areas should be self-supporting under normal circumstances:

- National Parks with attractive wildlife populations suitable for mass tourism and located in politically stable countries.
- Small prime wildlife protected areas in private hands suitable for high price/low volume tourism.
- Relatively small areas offering a special attraction which is in high demand
- Well-managed hunting areas.

Wildlife outside protected areas can equally be sustained, if the population pressure is not too high, some amount of proper control is in place, and rural communities are allowed to use their wildlife in a regulated system and on a sustainable basis for their own benefit.

It has to be accepted that many other wildlife-protected areas need some kind of permanent outside subsidies. The hope to finance them with so-called "eco-tourism" has turned out to be an illusion for a number of reasons.

What form this external funding should take is not a subject of this paper. Different types of innovative conservation funding are presently being developed[8]. The important fact is that such outside funding should only complement and not substitute efforts of self-reliance and that the above-mentioned economic principles are adhered to. Conservation finance must be tied to achievement. It must not bankroll the non-performers. Otherwise they get rewarded and the performers are punished.

This is easy to postulate, but difficult to secure in practise. Whether we like it or not, proper controls by those who provide the funds and therefore have the foremost interest that they are put to proper use, are indispensable. It is presently a trend, mostly borne by frustration over the lack of success of classical project aid, to provide assistance increasingly in the form of budget finance and basket funding. This might be regarded as modern and politically correct by some, however, it is difficult to see how such systems, with their limited and indirect control, could work better. After all lack of funds is not the main conservation bottleneck, but rather organizational and management deficits and bad governance.

There is another issue that should be mentioned here, as it is only a minority of conservationists who seem to be aware of it: Multiple use approaches normally lead to higher revenues from wildlife and protected areas. Without controlled hunting it will not be possible in most cases to earn sufficient revenues for conservation. This does not imply that prime National Parks should be turned into hunting reserves. But in most countries there are enough buffer zones and other areas, many of them neglected, which are suitable. In some cases, it is advisable to protect an area as a hunting reserve instead of a National Park. Even in situations where wildlife populations are relatively depleted, some careful use is possible and wildlife populations will recover fast as long as the habitat is still available for wildlife and some degree of protection against illegal exploitation is put in place with the money earned from hunting.

The hunting areas can be remote. They do not have to be scenic, and they do not necessarily need to have spectacular and abundant wildlife populations. Also, management and infrastructure needs are less than in sophisticated tourist areas. Hunting carried out in this way, if it is well controlled and the off-takes are within sustainable limits, can have more of ecotourism character than many of the photographic ventures[9].

It is difficult to understand why some countries, protected areas or projects complain that they are unable to finance the upkeep of their wildlife, and at the same time do not permit sustainable hunting. But sometimes one has the impression that some wildlife lovers believe in a dogma that "wildlife should not pay its way", even if it can.

*In Germany, a densely populated country, wildlife is used and hunted in a regulated system. Revenues go to the landowners. Every year around 1.4 million large mammals, such as roe deer and wild pigs, are shot by the hunters who pay dearly for this privilege. A hunting ban would result in annual economic losses of around 500 million US-$ and would lead to additional public spending in the range of several hundred million US-$. Despite being relatively wealthy, Germany has decided against bearing these losses and costs. Why then should the German tax payer via development aid subsidize wildlife in those African countries where the Government has taken the deliberate decision to ban hunting and sacrifice the revenue, although wildlife numbers allow sustainable use and land owners even demand it?*

## Finance Funds

Recently Finance Funds of different design are increasingly been looked upon as the panacea for wildlife conservation[10]. This form of long-term subsidization is often called "sustainable finance" – an expression that is a contradiction in itself. The use of "sustainable" in the context of subvention is about as appropriate as its use in reference to food aid[11].

Funds can serve as innovative financing mechanisms for conservation in certain situations. Nevertheless the major deficiencies and dangers of subsidies remain valid. They keep out-dated and inefficient structures alive, prevent incentives for change and pressures to perform, and they lead to an uneconomic allocation of resources. Subsidies thereby contribute to inefficiency and prevent innovation. Apart from the well-known problems of spending money, the conservation agencies are now in addition burdened with fund management. Costs, difficulties and risks of such portfolios frequently tend to be underestimated. Some conservation funds have already lost part of their capital.

For all involved such funds are, however, a simple and welcome solution. First, the conservation agencies gain access to finances without any great efforts on their behalf, with little outside control and obligations to be met in return. As a rule they are neither forced to function effectively nor are they disciplined about expenditure. The control mechanisms are hardly constraining and in any case allow the application of own rules. There is reluctance by outsiders to confront the issues at stake as long as "ownership" is being adhered to.

Especially worrying are funds that are financed by credit. In most cases it is unlikely that principal and interest will be covered by increased productivity. The carelessness with which donors including the World Bank are thus presently worsening the debt crisis of Africa is hard to understand.

Second, the donors are pleased with the new instrument of large environmental funds, as this new measure of conservation financing falls in line with the trend to budget and basket financing and allows easy outflow of funds within development cooperation.

And, thirdly, the various NGOs are content too. Some certainly play an important role in conservation. Others are mainly institutions for the dissemination of certain animal welfare ideologies, and some are primarily "moneymaking machines". Nevertheless they are all regarded as "stakeholders", and they gain influence by being represented within the boards of trustees of the finance funds. They thus take part in the decision-making on areas where they are normally not resident and also not otherwise legitimised. Often they are also direct beneficiaries of the money spent by such funds. Land owners and people living on the land side by side with the wildlife are equally only regarded as "stakeholders" instead of "rightholders" and normally end up as a minority when decisions are taken which affect them directly, contrary to all the other groups. Their influence to decide on their own affairs is reduced, and the role of outsiders with doubtful or questionable legitimacy is strengthened instead. This might actually in the long run be one of the most important social effects of "sustainable" external finance of wildlife and protected areas in Africa: Those who live on the land side by side with the wildlife are increasingly expropriated and alienated from the decision-making.

There are efforts going on in many places in Africa to have the rural population manage and use the wildlife on their land[12]: The aim is to make conservation more effective and at the same time contribute to poverty reduction. Both targets are less likely to be achieved the more outsiders dominate these processes and the more externally controlled subsidies replace self-help.

*This paper reflects the personal views of the author only and not necessarily those of the institutions he works for.*

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### Anmerkungen

[1] Baldus, R.D. (2000) Was haben Elefanten mit Ökonomie und Selbsthilfeorganisationen zu tun? In: Kirk, M. et al., Genossenschaften und Kooperation in einer sich wandelnden Welt. Münster, p. 501 f.

[2] Baldus, R.D., Kibonde B. and Siege L. (2003) Seeking Conservation Partnerships in the Selous Game Reserve, Tanzania. PARKS Vol.13 No.1. p. 53 f. and Baldus, R.D., Hahn, R., Kibonde B. and Siege L. (2003) 15 Jahre Naturschutz im Selous. AFZ – Der Wald. 21/2003

[3] Barnett, R. (2000) Food for Thought: The Utilization of Wild Meat in Eastern and Southern Africa. TRAFFIC East/Southern Africa. Nairobi.

[4] World Conservation Union/IUCN (2000) Resolution on the Sustainable Use of Wild-Living Resources, Res. 2.29, World Conservation Congress, Amman.

[5] Krug, W. (2002) Maximizing Sustainable National Benefits from Nature Tourism in Namibia. PhD thesis, Dpt. of Economics, University College London. p. 40 ff.

[6] Richard Bell, pers. comm. on 22.6.1988.

[7] Eltringham, S.K. (1994) Can Wildlife Pay its Way? Oryx Vol. 28 No.3. p.168.

[8] Mack, R., Kloss, R. and Becker, M. (2002) Guide to Sustainable Financing of Biodiversity and Protected Areas. GTZ/ABS-LISTRA. Eschborn (CD-Rom).

[9] Cf. the position of the German Ministry for Environment in relation to trophy hunting in Africa and Asia: Grosse, C. et al. (2001) Trophäenjagd auf Gefährdete Arten im Ausland. BfN-Skript 40. Bonn (www.bfn.de).

[10] Moye, M. et al. (2000) Preliminary Assessment: The Current Situation and Capacity Building Needs of Environmental Funds in Africa. Interagency Planning Group on Environmental Funds. New York. cf. also the discussions in the finance stream of the World Parks Congress, Durban, September 2003.

[11] There is an inflationary and sometimes ridiculous use and misuse of the word "sustainable". We use the term in the sense as it originally was introduced into science by the German Forester Ludwig von Hartig two hundred years ago: "Forests as a natural resource should be used as far as possible, however, only in such a way that coming generations can at least benefit as much as the present one." Hartig, G.L. (1819) Anweisung zur Taxation der Forste oder zur Bestimmung des Holzertrags der Wälder, Gießen 1819. (Own translation).

[12] cf. Baldus, R.D. et al. (2001) Experiences with Community Based Wildlife Conservation in Tanzania. Tanzania Wildlife Conservation Discussion Paper No. 29, GTZ, Dar Es Salaam.

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