COMPLEMENTARY MANAGEMENT OF WILDLIFE AND LIVESTOCK IN WEST AFRICA-UTOPIA OR DEVELOPMENT PERSPECTIVE?

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ABSTRACT

Income from game viewing and trophy hunting is increasing in eastern and southern areas, game populations are increasing in some countries and programmes like CAMPFIRE have shown the potentials for local communities to benefit from these trends and National Parks. In West Africa, by contrast, there has been a sharp decline in wildlife populations and nature conservation and rural development are still antagonists. In 1999 GTZ started a special project on complementary management of wildlife and livestock in West Africa with the aim of indicating potentials of improving income in rural areas from wildlife management. A workshop in Niamey explored possibilities of enhancing complementarity between livestock and wildlife management and a guidebook has been prepared. Traditionally wildlife was well managed, with some species (e.g. ostriches in northern Niger) even moving with livestock herds, or planned extraction e.g. of hippopotami in Mali. However state ownership undermined traditional rules for wildlife management with no effective institution replacing them. Indiscriminate hunting by state officials or princes from Gulf States contributes more to the destruction of wildlife than local hunting, which is often criminalized.Nevertheless small game, such duikers, grass-cutters or giant snails contribute substantially to local meat supply, yet sustainability is endangered because of high hunting pressure. Some species such as grass-cutters or giant rats are now partly domesticated, giving rural people additional income. The inadequacies of the legal framework in West Africa have been recognised and reforms of the Code pastorale and other laws are under way granting local people more rights to wildlife. Stakeholder platform have been created to include sustainable use of of wildlife as part of natural resource management. Initiatives such as the "Projet des girafes à Koure, Niger" show the potentials of such an approach. Here – outside a national park" – the last giraffes in West Africa are protected. People benefit from giraffes from giraffe tours, sales of curios, get external support for vegetable marketing as compensation for possible crop losses through wildlife, but local people also take increasingly pride in their giraffes, which have over the last 5 years considerably increased in numbers.

INTRODUCTION

In southern and eastern Africa wildlife management is an important complement to livestock keeping on rangelands . Income from game viewing and/or trophy hunting on private ranches can exceed the income from livestock, and a combination of both provides higher income than livestock or wildlife alone (Kiss 1990). In some countries of southern Africa, an increase in wildlife numbers and in wildlife-related economic activities bears witness that strategies of "conservation through use" and mutually complementary management of wildlife and livestock have been successful (e.g. Kiss 1990). Programmes like CAMPFIRE have shown that local communities can benefit from wildlife tourism (but also have shown potential difficulties to obtain a just and equitable use of benefits).

In West Africa, the situation is markedly different. In recent decades, there has been a sharp decline in game populations in most countries, especially in the semi-arid and arid savannas (Chardonnet et al, 1995). In colonial times, the State took over ownership of

wildlife, and the understaffed and under-financed government services have not been able to maintain control over wildlife, which have become, *de facto*, an open-access resource. As an example: hunting was officially closed in Niger in the early 1970s, but wildlife numbers have declined since then by 90% (Seydou 2001). Furthermore, wildlife conservation and rural development in West Africa have been antagonists; when national parks are established, villages are often evacuated, wildlife has rarely been included in development planning in rural areas.

In 1999, GTZ started a special project on "Complementarity of livestock husbandry and wildlife management in West Africa" with the aim of showing a) the potential of wildlife management to improve income in rural areas and b) the possibilities of integrating livestock and range management into the management of national parks. At a workshop held in Niamey, Niger, in January 2001, cases of successful and unsuccessful co-management of livestock and wildlife were presented, and possibilities and limitations of enhancing the complementarity between the two were discussed. A guide indicating some possibilities and limitations of integrating wildlife and livestock development was produced, based on material presented during the workshop, available literature and personal experiences of the authors (Bayer and Ciofolo 2004)

Complementary management of wildlife and livestock

Wildlife and livestock in West Africa had a long time for co-evolution. Although most domestic animals are imports, recent research suggests that cattle was domesticated in NE Africa and possibly in what is now the Sahara some 8000 years ago or earlier (MacDonald 2000). The resource use system changed from “hunter-fisher-gatherer” to “herder-hunter-fisher-gatherer” (Arioti and Oxby 1997). Not only did the holdings of domestic animals increase, with introduction of sheep, goats, camels, equines and chicken, but also institutions for regulating wildlife use developed, such as the “master of the bush”. Some groups had custody of particular animals as described for hippopotamus in Mali (Rouch 1948), where fisherfolks knew the herds, and managed them with planned extraction. Ostriches were kept along with cattle (Ciofolo and Alves 2001) in northern Niger and Chardonnet et al (1995) describe herds of gazelles, being kept by agro-pastoralists in northern Cameroon, but these forms of management are no longer practiced.

Since the beginning of the 20th century, first the colonial powers and later the independent states took over the legal right to wildlife. Traditional hunting was often called poaching and traditional institutions were marginalised. Although strict policing can undoubtedly effectively protect wildlife against poaching, understaffed and underfinanced services cannot do that. It alienated wildlife from local people. Consequences of such alienation are particularly severe during political crises, such as in Togo in the early 1990s. Here, traditional hunters were forced to move out of part of their traditional territory, and the wildlife guards (alien to the area) harassed local people, e.g. by inspecting kitchens and pots when women were cooking. When there was political unrest (and the guards took to their heels), the substantial population of large game animals was all but eradicated within weeks (Schneider 2001). Furthermore, some segments of government do not support wildlife conservation. Reports from Niger and Mauritania suggest that what can be called "official poaching", i.e. indiscriminate hunting by government officials, military personnel and princes from the Gulf of Arabia, has contributed more to the decline in wildlife numbers than has subsistence hunting (Seydou 2001).

Although large game animals are now rare in West Africa, smaller game animals, such as duikers, grasscutters, giant rats and giant snails, contribute substantially to local meat supply (*cf.*. Caspary 1999). In rural areas venison is cheap meat, whereas urban areas offer opportunities from income generating from hunting. As hunting is often indiscriminate (e.g. shooting in the dark at whatever moves, or the use of slings) it is doubtful whether this way of wildlife exploitation can be sustained in the long run.. Furthermore the increasing human population and the expansion of agriculture also put additional pressure on wildlife habitats. Whereas smaller animals, such as rats may even increase, larger animals such as elephants or large ungulates cannot adapt readily to such a change.

Various forms of wildlife management can be found, ranging from a "shoot what you can shoot" approach to full-scale domestication, as is the case with the grasscutter (Schrage and Yéwadan 1995). As in the past intermediate form can be found, like feeding rats and catching and slaughtering them when desired, or catching young animals and fattening them, e.g. hedgehogs or crows (Blench 2000). In a strictly legal sense, much these hunting and catching activities are illegal.

The inadequacies of the legal systems in West Africa are gradually being recognised, and reforms of the *Code pastorale*, *Code forestier* and other laws are underway in most countries, granting the local people more secure rights to use wildlife. In a number of development projects, stakeholder platforms have been created with the aim of including sustainable use of wildlife as part of natural resource management (Drabo, Poda and Yaméogo 2001). These approaches hold promise to overcome the antagonism between livestock keepers and crop farmers, on the one hand, and between wildlife managers and conservationists, on the other.

FORMS OF COMPLEMENTARITY BETWEEN WILDLIFE AND LIVESTOCK

Complementarity of wildlife and livestock can have a spatial dimension. In the wetter parts of the West African savannas, livestock are threatened by disease, whereas wildlife species have developed a high degree of resistance to a number of diseases, such as trypanosomiasis. In the semiarid and arid areas, wildlife species such as the oryx or the addax have developed mechanisms to cope with low and erratic water supply and, therefore, can use pastures that livestock cannot access. Unfortunately, most of the ungulates adapted to arid conditions are close to extinction in West Africa.

Complementarity of wildlife and livestock can also refer to forage use. As an example: giraffe that browse up to a height of 5 m or more can keep the savanna open and thus create more room for shrubs, smaller trees and herbaceous vegetation, accessible for livestock. Grazing by livestock can also be beneficial for wildlife. Moderate grazing favours plant biodiversity. Livestock grazing around wetlands brings additional nutrients into these areas, which can then support higher populations of water birds or fish (Brouwer 2001), and the livestock and birds can co-exist without disturbing each other (Touré *et al.* 2001). In the moister semi-arid and sub-humid savannas, range management practices such as controlled burning can be beneficial for both livestock and wildlife.

Another aspect of complementarity is in terms of food security. Hunting of wildlife tends to be intensified in dry years when crop yields are low and when livestock may also not perform well.

The main potential for complementarity appears to be in economic terms. As mentioned above, in southern Africa, the proceeds from trophy hunting and game viewing can exceed those from livestock. However, tourism is much less developed in West Africa than in eastern and southern Africa. There could be some possibilities for further development in eco-tourism and wildlife tourism, e.g. in wetland niches in dryland areas, where large number of migratory birds can be seen. However, at present the necessary infrastructure (lodges, guesthouses, reliable and affordable air travel) is lacking, and tourism is very sensitive to political instability. There are also other, indigenous interests in wildlife in West Africa. The ongoing process of domestication of the giant rat and the grasscutter is due to the high value of meat from these animals, which reflects strong local tastes in wildlife consumption.

Nevertheless, there are limitations to complementarity. Where wild pigs, carrying African swine fever, occur, keeping domestic pigs is difficult or impossible because of their susceptibility to the disease. For smallholders, livestock keeping is often a secondary activity and their main activity – cropping – may be threatened by large wildlife, such as elephants, if the fields cannot be protected by wildlife-proof hedges or fences. Similarly, smallholders and agro-pastoralists, who keep their animals, sometimes in a fairly extensive way and allow them to roam freely, do not appreciate the presence of large predators. Although pastoral livestock keeping offers the best opportunities for complementary management of livestock and wildlife, this may not be possible, because of low wildlife populations in the pastoral zones.

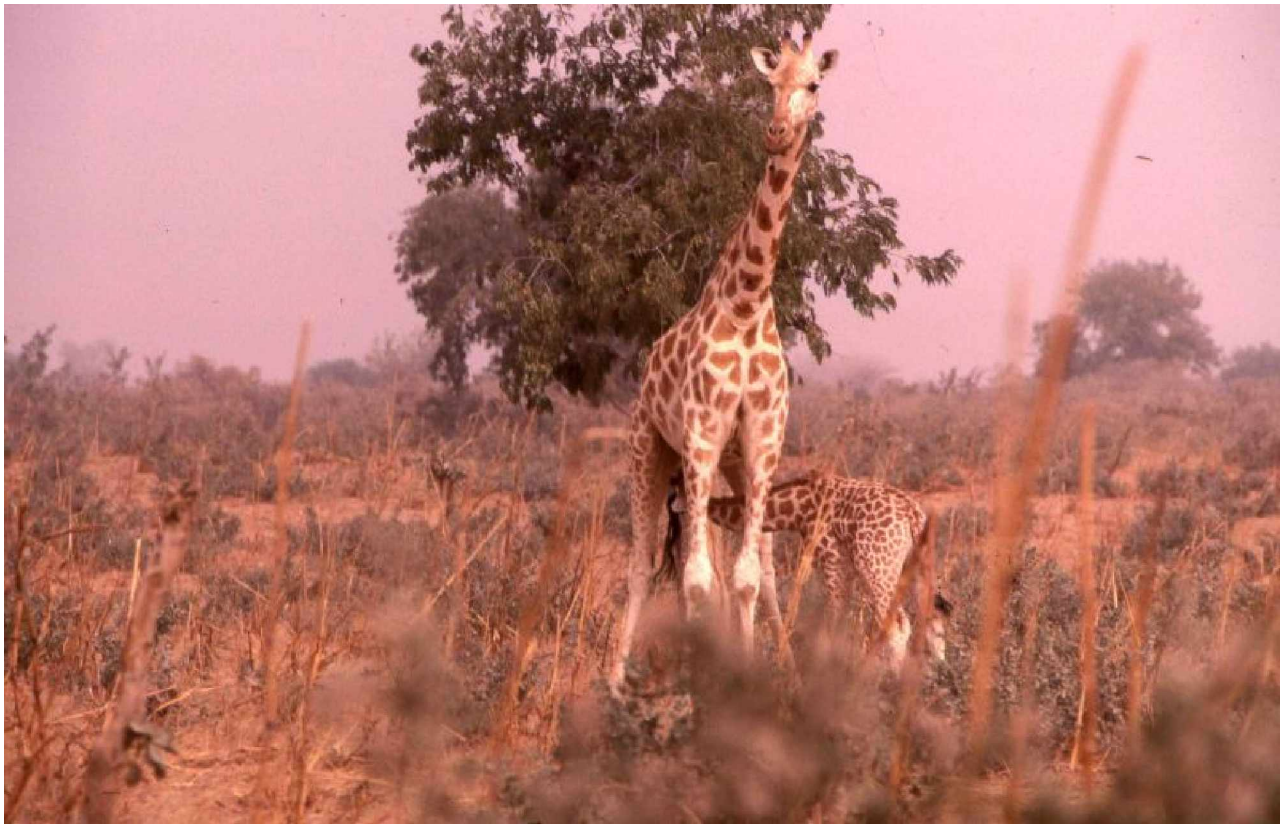

Photo 1: Giraffes on a millet field. They can well survive in the farming areas, in Koure, near Niamey, where the last giraffes of west-Africa co-.exist with agro-.pastoralists.(Photo I. Ciofolo)

The "Project Girafes" indicates, however, what can be done to integrate wildlife and livestock keeping. This project in Niger, was started to conserve the last giraffes in West Africa – not in a park but in a rural area. The project supported market gardening by the livestock-keeping smallholders, as an alternative to poaching. Within the last ten years, the giraffe population increased from 25 to about 100 head. The local people now take pride in "their" giraffes, are eager to act as guides for tourists and realise that selling of a variety of goods to tourists can also generate income.

CONCLUSIONS

At present, the old antagonism between wildlife and livestock management is still strong in West Africa, and some species are so scarce in the wild, that they need to be protected for decades. However, there are some encouraging signs that wildlife managers are becoming more aware of the need to include local peoples' interests and concerns in conservation planning and activities. There are also signs that actors in rural development increasingly see wildlife as an asset rather than as a threat. With respect to exploitation of wildlife for meat, sustainable hunting methods need to be propagated. Stakeholder platforms provide a promising approach. The case of the ongoing domestication of the grasscutter and the giant rat points to opportunities of transforming wildlife into livestock. Possibilities of managing other wild species (e.g. ostriches, bustards, monitor lizards, crocodiles and various antelope species) more intensively are also emerging. In the case of national and other parks, there is a strong need to involve local people in the planning and management, so that a park becomes "theirs", instead of restricting their way of life. This includes rights to use resources, employment and also participation in revenues, which can provide finances for local development or seed money for other projects.

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