ResourceAfrica FACT SHEET – No. 7
Sustainable Use in Southern Africa

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Humans in Southern Africa have always used and managed the resources in their environment. From the earliest hunter-gatherers to modern industrialised society, people have reaped fruits, gathered herbs, hunted animals and harvested or manipulated certain species for special purposes.

Traditionally the people of southern Africa managed these resources within certain social structures and cultural norms, guided by the wisdom of their traditional leaders and healers. A fundamental element of these management systems was a communal approach to access and use of the resources. Ownership was focused on the interest and welfare of the community, whilst individual gain was moderated through social mechanisms. The system worked well at low population levels and allowed a community to regulate use according to the environmental forces prevailing.

Changes to the traditional economic processes in southern African communities through the influences of industrialisation and colonialism alienated people from resources they had depended on for thousands of years. New land-use practices and legislation restricted the rights of access and use, yet offered few alternative means of survival other than cash economy approaches.

Greatest Threat to Biological Diversity

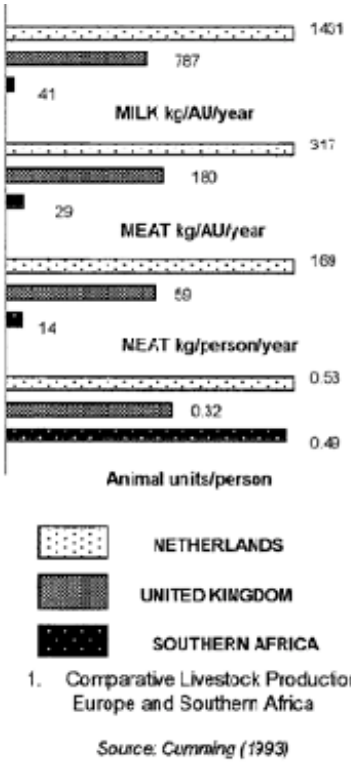
It is a common misconception that overexploitation of wild species poses the greatest threat to conservation in the African continent. In southern Africa today, the greatest threat to the conservation of biological diversity is the conversion of wild habitats to other forms of land use- primarily for agricultural purposes.

Wildlife as a Primary Form of Land Use

The returns from wildlife management cannot compete with those from agricultural crops raised on good soils in areas where rainfall exceeds 500mm per year. However, in the southern African region the proportion of land falling into this category is small - less than 20% of the total regional area. The proportion varies from country to country in the region with Namibia and Botswana having less and Malawi and Zambia having more than the average.

The large areas of non-arable land in the region can be used for cattle and/or wildlife. Cattle production in Africa will never be economically competitive in global markets (see Box 1). At stocking rates which do not result in land degradation the net returns from cattle management are unlikely to reach US$1/ha in current markets. Wildlife management, on the other hand, has the potential to produce high net earnings from land which cannot be used for other purposes (see Box 2) and combinations of cattle and wildlife may be the optimum form of land use, provided the cattle stocking rates are low enough not to compete with wildlife or degrade the range.

The tragedy in large parts of the southern African region is that wildlife has already been eradicated as a result of ignorance of its true economic value. In addition, the range is already so badly degraded as a result of unsustainable domestic livestock farming that it is unlikely that it can be restored in less than several human generations.



1. Comparative Livestock Production Europe and Southern Africa

Source: Cumming (1993)

Various Forms of Wildlife Management

Management	$/ha
1. Mass Wildlife Tourism	50
2. Exclusive Ecotourism	25
3. Safari Hunting	5
4. Sale of Live Animals	2.5
5. Meat Hides Products	1
6. Subsistence Hunting	0.5
7. Cattle Ranching	3

Although the highest returns in the short-term appear to come from mass tourism (Box 2), this form of management may :-

- Be limited to a few sustainable areas;
- Be unsustainable in the long term; and
- Have the least desirable ecological impact on wild areas.

In many state protected areas in southern Africa the status of biological diversity is actually lower than in the surrounding lands directly as a result of overpopulations of elephant and the impact of high density tourism.

For the major part of the southern Africa region, sport hunting offers a relatively high return with the lowest ecological impact. Often several forms of wildlife management can be combined to increase the overall return from the land (e.g. sport hunting, sale of meat, hides and products, and live sales). **There is no major distinction between consumptive and non-consumptive use in southern Africa – the impact on the environment is a more important consideration.**

Subsistence hunting produces a relatively low return and, where communities have been empowered to manage their own wildlife, they seldom pursue this option. **It is difficult to make valid distinctions between commercial and subsistence use** and, in southern Africa, subsistence use is likely to result in undervaluing wildlife and its replacement by alternate land uses.

Species Conservation versus Ecosystem Conservation

Many uses which appear to be non-consumptive of individual animals are highly "consumptive" at the ecosystem level (e.g. mass tourism). Conversely, the sustainable use of individual animals from species population is unlikely to have an impact at the ecosystem level.

- **Concerns in southern Africa lie largely with ecosystem conservation because of the alternate land use threat.**

In many parts of southern Africa, low variable rainfall exerts a greater impact on species populations than any other forms of use by humans. In the frequent droughts, it is a sensible management strategy to take large harvests from populations to enhance the chances of survival for species populations.

- **The ultimate criterion of sustainability is the persistence of species in viable numbers under fluctuating environmental conditions.**

State conservation agencies in southern Africa have frequently declared species as "legally protected" in the hope that this would result in the recovery or increase of species populations which are in lower numbers than they would like them to be. Such measures have seldom resulted in the desired population increase. The black rhino populations in Zambia and Zimbabwe have fallen to low levels directly as a result of the lack of funds to protect them – funds which could easily have been obtained from sport hunting or the sale of their horn. In contrast, the use of crocodiles has resulted in a major recovery of their populations throughout the region and, in communal lands, the empowerment of peoples to use their wildlife despite it being scarce has resulted in significant species population recoveries and ecosystem conservation.

- **Sustainable use can be practised regardless of the size of species populations and, in many cases in southern Africa, recovery of species has only occurred when it has been permitted to use them.**