

## Alternative Protein Sources

**Bushmeat provides approx. 27% (DR Congo) to 70% (Cameroon, Liberia) of the protein supply for the population. In order to cover this requirement and to protect the wildlife, alternatives to wild animal meat have to be offered. In some tropical areas, keeping cattle and pigs is impossible due to the Tsetse fly and other disease vectors. There are trials being carried out to breed wild animals for meat production.**

Breeding wild animals has been successful in many non-tropical areas. However, conditions are not easily transferable to tropical regions. Keeping and breeding species has to be simple and profitable. Solitary, sensitive species are not suitable for those purposes. The choice of species also has to take dietary habits of the population into account.

Large mammals would provide the largest quantities of meat, but they have the lowest reproduction rates. So far breeding attempts have been successful only in the case of small species. Rodents are easier to keep and require low quality food.

**A pilot project on captive breeding of wild animals for meat production was launched by the organisations ECOFAC and Vets sans frontières in Gabon, since meat consumption there is one of the highest in Africa. Approximately 17 kg of bushmeat is consumed per inhabitant per year.**

**The project focuses on breeding brush-tailed porcupines, pouched rats, forest hog and Sitatunga.**



Pure protein: Maggots.

The protein requirement of humans is actually quite low and can be met by plant proteins, insects, molluscs and fish. These alternatives can be used to supplement the protein-poor main diet in the African wet tropics of plantain and manioc. In the Ivory Coast, for example, Giant snails are very popular and their farming is possible.

Long term, the consumption of wild meat can only be decreased by a change of cultural dietary habits, for which the support of political leaders is necessary. The citizens demand bushmeat, since it tastes like "home" in the village. Perhaps the solution lies in the development of bushmeat-flavourings which can be added to domestic animal meat or alternative meat substitutes such as soya.

## Ecotourism

**Especially in developing countries, the conservation of nature has to be considered along with its economic aspects. An alternative to exploitation by industry and hunters is offered through ecotourism. Revenues can be used for conservation measures, payment of rangers and support of communities surrounding National Parks. Former hunters can be retrained as tourist guides or game wardens - "poachers to protectors"!**

Ecotourism has to be nature friendly to limit negative impact on the area. This demands good knowledge of the ecosystem and a well-planned management concept, which finds support by everyone affected.

### Problems

- considerable profit leads to corruption
- dependency on tourism leads to economic break-downs in times of crisis
- socio-cultural influences are being under-estimated
- long-term strategies are missing
- clash of interests by the population, tourism industry, authorities and conservation organisations
- misinterpretation of the impacts on nature

### Gorilla tourism

Mountain gorillas have been visited by tourists since the mid 70s. Along with providing a large revenue (US\$ 250 per tourist now), more gorillas are being habituated to humans - in 1997 it was nearly half of the total population of Virunga and Bwindi Mountain Gorillas (17 groups). Western Lowland Gorillas are also being made accessible for tourists by an EU-supported project.



Not only the spectacular wildlife but other beauties of nature are shown to ecotourists.

The permanent presence of game wardens, the individual identification of gorillas and the returns lead to a substantial decrease in poaching. International interest in these animals and new income sources has increased understanding of the value of these resources among the majority of the population.



This close proximity is dangerous for both parties for disease transmission!

In Rwanda the entire Ministry for Tourism and Conservation was funded by tourist revenues, which in peace times consisted of 2,000 visitors and US\$ 200,000 per year.

In DR Congo, the revenues were even higher since most Mountain Gorillas live there (core population) and more groups could be visited.

Communities surrounding the Park got different shares of the profit (Rwanda 40 %, Uganda 20%). With this money such amenities as schools or water supplies were built.

Tourist gorilla tracking is regulated. Gorilla groups may be visited only once per day for one hour with a max. of 6-8 tourists. The minimum distance from the gorillas is now 7 m in order to minimise the risk of disease transmission.

The onset of war led to a collapse of the economy. When the parks in DR Congo and Rwanda were closed, all tourists rushed to the three habituated gorilla groups in Uganda. This led to illegal tracking, bribes and other incidents.

### Tourism holds direct dangers for the gorillas:

- Disease transmission
- Stress (by too many visitors, disruption of natural daily routine and behaviour)
- habituated groups are killed first by poachers
- natural timidity towards humans has decreased which can lead to raiding of crops close to villages



For this experience (and the opportunity to take such a picture) tourists pay a lot of money!