
7. WILDLIFE DAMAGE IN RURAL AREAS WITH EMPHASIS ON MALAWI

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SUMMARY

Wildlife pests cause losses in production in the agricultural, forestry and livestock keeping sectors and often result in damage to property and human injury and death. It is almost impossible to estimate the cost to human life but the effect on crops is economically significant. Most losses occur in subsistence cropping systems and they are caused mainly by smaller pest species, such as monkeys and rodents. Crop losses due to large animals, such as elephant, often causing conflicts between conservation interests and local populations, is economically less important. A case study in 1992 in Malawi indicated that approximately 8% of the potential agricultural production is lost due to vertebrate pests. However, the contribution of large mammals from protected areas was estimated to be less than 1% of the potential production. Land use changes and the fragmentation of wildlife habitat usually cause an increase in wildlife-human conflict and smaller protected areas contribute more to the problem than the larger protected areas. Producers are not the only component of the economy that are affected by wildlife pests; production losses cause decreased revenues in all dependent sectors and may lead to a reduction in exports and increased imports. Crop losses in Malawi in 1991 were valued at US\$29 million at producer level; US\$54 million at consumer level and US\$58 million in loss of exports and increased imports. The impact of wildlife in rural areas near to protected land is important with regard to wildlife conservation when production loss is not compensated for by legal revenues from wildlife. Compensation for losses due to wildlife

from other sources is generally not considered adequate to solve the wildlife-human conflict. Therefore, the long-term benefits from wildlife for populations in wildlife areas should be maximised. This can be realised by, among others, the integration of crop protection and wildlife exploitation, tourism development, and the facilitation of controlled access to wildlife resources.

INTRODUCTION

Wildlife represents an important value to man, having economic, ecological, scientific and spiritual dimensions (Kula, 1992; Markandya and Richardson, 1992; McNeely, 1988). In contrast, however, wildlife may cause loss of human life, property and income, in which case, the animals involved are often referred to as "pest animals" and the resulting problems as "animal pests". This negative aspect of wildlife is a principal component of the so called "wildlife-human conflict", a confrontation between specific interests of populations living close to wildlife with the less localised interests related to wildlife conservation, which are among others defined in the World Conservation Strategy and the Convention of Biodiversity (Hunter, 1996). Such conflicts occur mainly in rural areas and they are particularly manifested in the agricultural sector. African farmers sometimes lose considerable proportions of their crops to wild animals (Deodatus and Lipiya, 1991a; Simons and Chirambo, 1991). Some of them even face periods of starvation because they produce only enough to bridge the period to the next harvest. For them, wild animals are vermin. The resulting negative attitude towards wildlife leads to decreased co-operation between the farmers and the wildlife services. Other negative repercussions are increasing detrimental activities such as poaching and encroachment into the protected areas, which are set aside for conservation purposes.

The reality on the ground of these problems, from the farmers point of view, is illustrated by the following article, which was published in *Zambia Today*, the Internet pages of the Zambia News Agency, May 16th, 1996:

"A herd of 40 rampaging elephants destroyed crops in southern Zambia, leaving at least 20 families on the brink of starvation, a local leader said on Wednesday. Chief Mukuni, the traditional community head, west of the southern town of Livingstone, said the elephants flattened 'wide tracts' of corn that had promised good harvests after successive years of drought. Villages are dotted along the banks of the Zambezi river on Zambia's southern border with Botswana and Zimbabwe. Desperate villagers had begun the risky practice of sleeping in their fields and attempting to frighten off the elephants by banging tins and gongs. The state wildlife department said in a statement it had only one full-time hunter in the district, about 375 miles southwest of the capital Lusaka, and he was busy scaring off hippopotamus and crocodiles from river bank settlements."

This story shows the danger regarding food and security to which rural communities are sometimes exposed by wildlife. Risks are taken and investments are made by individuals to cope with the problems associated with farming in wildlife areas. Moreover, it appears that governmental structures, in this case the Zambia wildlife services, have their hands full, but they lack the capacity to deal with it sufficiently.