

NYIKA-VWAZA TRUST (UK)

CONSERVATION RESEARCH NOTE No. 6

HUMAN-WILDLIFE CONFLICT: SOCIAL INCLUSION AND ECONOMIC ENHANCEMENT IN PROTECTED AREA BUFFER ZONES

Human-wildlife conflict is defined as "any interaction between humans and wildlife that results in negative impacts on human social, economic or cultural life, on the conservation of wildlife populations, or on the environment" (WWF 2005). Conflicts between humans and wildlife are the product of socio-economic and political landscapes and are controversial because the resources concerned have economic value and the species involved are often high profile and legally protected. While humans and wildlife have co-existed for millennia, the frequency of conflicts involving problem animals has grown in recent decades, mainly because of the exponential increase in human populations and consequential expansion of human activities, expansion of wildlife distributions, and a frequent inability of institutions that are meant to mediate such conflicts to respond effectively. These interactions are especially frequent in buffer zones around Protected Areas, where human and wildlife populations are most likely to overlap.

In Nyika National Park, there are over 95 species of mammal and an estimated 430 species of birds in what is considered an important Endemic Bird Area, the most important of which include the Bustard and Wattled Crane with the largest breeding populations in Malawi. Around 25 of the Nyika Plateau's 33 endemic plant species are associated with the high plateau grasslands, with the remainder mainly associated with the grassland–forest boundary. A recent checklist gives 205 orchid species, of which 7 are believed to be endemic, some of which are under threat from poaching. Maintenance of Nyika Plateau's grassland flora for herbivores is the main biodiversity conservation concern.

In the Vwaza Marsh Wildlife Reserve, nearly one-third of the park is covered by an extensive wetland, which provides habitat for 50 mammal species and 341 species of bird, several endangered or vulnerable animal species are found in Vwaza, including African Elephant, African Wild Dog and Wattled Crane.

Given the presence of potentially destructive large mammals in both the Nyika National Park and the Vwaza Marsh Game Reserve, and growing human populations in the buffer zones, there is considerable potential for human-wildlife conflict. However, limited technical responses to this issue are insufficient. In contrast, water stewardship, food security, financial security, education and skills, improved judicial systems, economic growth, empowerment of women, climate change adaptation and health are some of the socio-socio-economic issues that are considered important to resolving human-wildlife conflict issues here.

Nyika National Park

As there is currently a dearth of research on human-wildlife conflict and flora poaching in the Nyika National Park area, there is a need for a stronger research agenda (from MSc students, post-graduate researchers, university cadres, and National Park staff) to address a number of issues that currently exist in and around the area. In particular, the following research areas would significantly contribute to developing a framework for reducing human-wildlife conflict in the area:

1. Research on the general impacts of poaching, hunting and gathering inside the National Park area and in the surrounding buffer zone.

2. Research into the current status of conservation farming in villages in the 10 km buffer zone surrounding the National Park area, and its impact on poaching, hunting and gathering.
3. Research into the links between new livelihood projects being attempted and adopted in the 10 km buffer zone and their impacts on biological conservation.
4. Studies of hunters and gatherers from within the 10 km buffer zone and elsewhere, and the transformational concepts and methods that can be used to change hunting practices, e.g. alternative finance generating activities, allocation of land for food crop cultivation, technical and vocational training grants, becoming farming group members, etc.

Vwaza Marsh Wildlife Reserve

There is also currently a dearth of research on human-wildlife conflict in the Vwaza area. Assessments of community attitudes towards conservation in general are available in an unpublished report for the area (Imani Development 2017). Local politics, government institutional, and socio-cultural constraints need to be thoroughly assessed, along with the impacts of existing natural resource management projects. Innovative social inclusion strategies and the potential for non-conflicting alternative livelihoods need to be investigated, and the following research areas would significantly contribute to developing a framework for reducing human-wildlife conflict in the area:

1. Research into the impacts of the recently completed electric fencing programme around the Reserve on both wildlife and humans, including the state/quality/integrity of fence completion and any maintenance issues.
2. Research into the rates and trends of livestock depredation in villages surrounding the Reserve, e.g. diurnal patterns of kills, behavioural ecology, fence designs, prey and predator distribution patterns, rainfall conditions, and hydrological trends of Vwaza Marsh itself.
3. Research on crop depredation rates and trends, including analysis of previous studies on forage selection and activity patterns of buffalo and other herbivores. This should include examining how and why wild herbivores leave the Reserve.
4. Depredation can be correlated with human population densities, livestock husbandry practices, farm assets and their security characteristics, livestock enclosure designs, and crop availability and forage quality. there is a need to assess any practical deterrent measures for both carnivores and herbivores to reduce human-wildlife conflicts, e.g. optimal buffer areas, chilli peppers, goat enclosures, etc.

References

- Brandon, A. & Wasambo, J. (2009). *Human-Wildlife Conflict Study Report – Vwaza Marsh Game Reserve, Malawi*. DNPW/CEU/CENSE.
- Ransom, A. & Thorneycroft, J. (2017). *Needs Assessment & Baseline Evaluation: Understanding Human/Wildlife Conflict in and around the Vwaza Marsh Wildlife Reserve in Malawi*. Report by Imani Development for the International Fund for Animal Welfare, UK.
- WWF (2005). *Human Wildlife Conflict Manual*. SARPO, Harare, Zimbabwe.

