Interventions to reduce human–wildlife conflict

Recommendations based on local experiences

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Overview

Various problems are associated with wildlife coming out of protected areas and damaging crops. We studied how local people in western Uganda view and judge interventions intended to reduce such problems. Why are successes rare? What factors determine and maintain local support? What factors lead to apathy or even opposition? The diversity of interventions in the region offers many lessons. We conducted a broad assessment of local people's views that included 687 detailed one-to-one interviews and dozens of community-level meetings. Here we highlight lessons and recommendations for collaborative community projects.

Mountain gorilla (left) and thorn-hedge (right).

Context

Most communities living near Uganda's protected areas suffer from wild animals: crops are destroyed, domestic animals are killed and people are attacked. These are not minor problems. Livelihoods have been undermined, farmlands have been abandoned and lives have been lost. Current laws offer no provisions for direct compensation, and so the victims must bear most of the costs.

A recent study in Uganda highlighted the wider consequences of these chronic problems. In particular, households whose crops are frequently raided by animals tend to have lower food security, reduced health and lower school attendance than otherwise comparable households that are relatively free of the problem. Given such costs, it is unsurprising that failure to satisfactorily address their concerns has turned many communities against conservation. Most local people, given the choice, would prefer to eliminate wildlife and their habitat.

Problem animals are not a new challenge in Uganda. During recent decades, various agencies have expended considerable resources trying to address these problems. Many interventions have been tried – and the spending continues. The Uganda National Development Plan 2009 prioritises the implementation of lasting solutions to human–wildlife conflict. In 2010, a Presidential Directive explicitly tasked the Ministry of Tourism with establishing the funds and mechanisms needed to tackle the problem. Yet, despite such recognition and efforts, it seems that few programmes are effective and sustainable.

Local people offer clear views on these interventions. They know why they support some interventions but not others. Given that their support is necessary for project success, **learning from these local voices is essential** if we wish to avoid further disappointment.

A boy scarred from a hyena attack while guarding crops.

Our approach

We documented how local people in southwest Uganda judge interventions intended to address problem animals. In addition to detailed interviews on local experiences, concerns, views and choices, we conducted numerous community meetings, as well as consultations with many other key actors in the region.

Our study was divided into three phases. The first phase was a scoping exercise to identify diverse and interesting interventions to visit and assess. For this, we consulted widely with conservation and development professionals in the region. In the second phase, we considered the effectiveness and sustainability of interventions, and looked at influencing factors such as project ownership, institutional roles, social relationships and the multiple contributing processes and interactions. During this process, we interviewed 687 people: farmers, leaders and others living around seven different protected areas in Uganda. In the third phase, we shared and discussed our initial results with communities and others concerned with problem animal interventions. This allowed us to check, clarify and refine our results and recommendations.

There are many aspects that we must skim over in a short summary. Different animals and contexts require different interventions. A wall may work reasonably well against buffaloes but will not be effective against baboons. Here we do not dwell on the technical strengths and weaknesses related to specific methods (although we have documented these). We avoid the specific problems of predators (these are relatively minor in our study sites). We also set aside issues relating to compensation. Rather, based on our broad consultations, we highlight factors that contribute to the success or failure of physical interventions to reduce crop losses caused by wild animals. In particular, we focus on interventions that require a collective response.

Interviews at Kibale National Park (left) and with a ranger at Rwenzori National Park (right).

Results

According to our informants, traditional crop guarding remains a widespread practice. Major costs occur in terms of time (important because time spent in the field is time lost on some other livelihood activity). Sometimes, children are employed in this task, and they miss school and risk injury by wildlife. Nonetheless, **guarding remains the most trusted approach** in most areas. Professionally organised guarding also seems effective in some locations, especially against more dangerous animals such as elephants and buffaloes.

Communal project interventions are diverse. They include the introduction of thorn hedges, buffer zones, unpalatable crops (tea, lemon-grass and *Artemisia*), walls (at Mgahinga National Park, against buffaloes), live traps, and ditches, chilli (*Capsicum*)-based repellents and scare shooting (against elephants). There is also some local experience with other approaches such as fencing and dogs. Many people have experience with multiple interventions. Some interventions, such as tea planting, can be adopted by individuals depending on their circumstances, but most interventions require a shared response from those affected.

Successful interventions, despite the variety, were scarce. Viewed from a local perspective, most interventions had failed or suffered major shortcomings. **Interventions were judged more effective when communities had been involved** in choosing, implementing and controlling them.

Common problems: baboons (left) and elephant (right).

Interventions disappoint for diverse reasons, as follows.

In some cases, the **problems are technical** and relatively obvious. For example, a thorn-hedge will not grow on rocky ground or across a stream.

Often, **attention to sustainability** has been insufficient. Inputs must be available beyond project schedules.

Sometimes the benefits are too **disappointing**, too slow to arrive or too demanding to sustain community support.

Sometimes **local concerns are too diverse** to sustain shared interventions. For example, landowners using their land to grow trees or other relatively unaffected crops are often unwilling to support interventions to help protect the food crops grown by others along a shared park boundary. Tenant farmers may be unwilling to invest in interventions that will bring them few direct short-term benefits.

At Mgahinga Gorilla National Park, gaps in the wall allow access for people and for buffaloes.

Distrust and lack of community cohesion were common obstacles to people supporting interventions without direct incentives (usually cash payments or food). This was especially evident in some populations with mixed origins, and also where wealth and landholdings are highly unequal.

Sometimes **interventions are sabotaged.** For example, people make holes in walls or paths through ditches to maintain their access into the protected area.

Often, due to the manner in which a project was devised and implemented, local people lack a sufficient **sense of ownership** and responsibility for an intervention to maintain it. In many cases, communities have become sceptical; they welcome new interventions not as a means to address problem animals, but as a means to gain other opportunities such as cash payments for their labour.

A path through a trench (left). A farmer shows elephant dung from his recently damaged fields (right).

In many communities, there was a clear **sense of injustice and anger** – that they were victims of conservation policies and practices that benefited others. Such informants resented any expectation that they support interventions as they had already 'paid enough'.

Local farmers highlighted shortcomings in intervention management. Frequently raised issues were **limited transparency** and trust. There was a consensus that good management is vital to success and participation. 'Good management' means transparent responses to local concerns. Intervention projects had often side-lined traditional leadership and institutions with established legitimacy among local communities. Consequently, these institutions do not enforce the interventions.

Nevertheless, people were interested in learning about solutions. They demonstrated respect for external expertise and a wish to be better informed about the options available to address the problems caused by wild animals.

Local people judged available resources as inadequate to address the problems. Local government, although mandated to implement problem animal interventions, **lacks sufficient capacity** (manpower, expertise and finance). Many informants said that central government and conservation authorities should take the primary responsibility.

Most of our informants, including those in positions of authority, recommended that more resources be made available to local communities for proper maintenance of interventions. Many informants were adamant that government needed to take more responsibility for addressing and managing these problems – by offering payments or compensation or through direct control and responsibility for the interventions.

Forest boundary at the Bwindi Impenetrable National Park.

Conclusions

Interventions require care and investment if they are to succeed. Currently, many agencies emphasise quantified targets. For example, many organisations' work-plans specify the length of hedges to be planted or of ditches to be dug. Issues that are important in intervention quality, especially community buy-in, roles and long-term support, receive insufficient attention. **Lasting benefits seem likely only when emphasis is placed on the interests and role of the communities themselves, and on the longer-term process of managing and maintaining the interventions.**

Communities will not have a sense of ownership if they are excluded from the processes that select, implement and maintain these interventions. To improve the chances of success, attention must be given to the views, choices and role of the intended local beneficiaries themselves.

The Ugandan government has promised more financial support for interventions, and this offers opportunities for progress. However, to succeed, interventions need more than funds; they require community engagement and support. Our study suggests recommendations to support these goals.

This thorn-hedge has local support and appears effective.

Recommendations

We offer 12 suggestions for improved communal interventions to reduce human–wildlife conflict. Our principle goal is to engage and empower communities.

1. **Community members affected** by problem animals (and thus the intervention) should be clearly identified. They should be the focus of all the discussions.
2. **Community members should actively choose** the most locally appropriate interventions and give consent to the manner in which they will be implemented, managed and maintained.
3. The **requirements, delays and risks** associated with each intervention should be recognised and discussed before any implementation. Cross-site visits can effectively promote such awareness. Such visits create an opportunity for community members to examine interventions elsewhere.
4. In any larger intervention, **formal agreements** on roles and responsibilities should be negotiated, documented and signed. Agreements should allow flexibility (e.g. renegotiation every 3 years).
5. **Mechanisms to ensure the sustainability** of key resources, such as equipment and incentives, need to be developed. Government (or other agencies) should develop, implement and support such mechanisms.
6. **Traditional and local approaches** that are effective should be recognised, promoted and strengthened. Local costs associated with these approaches should be reduced where possible (for example, less pressure for school-age children to contribute).
7. A **combination** of interventions should be encouraged.
8. Local oversight of interventions should be formally **entrusted to small and homogeneous management groups**. Ideally, these groups will consist of individuals who know each other and experience the same problems. Preferably, these groups can be incorporated into traditional institutions that already foster cooperation, such as the stretcher groups in southwest Uganda (these groups carry those too ill to walk to medical attention).
9. Such management groups should have the **ability and authority to enforce the agreement** and penalise those who seek to undermine it. There needs to be a body that can handle disputes and appeals. Community members should agree on all official roles. These roles should be documented and, where possible, recognised and supported by local authorities.
10. There is a need to **monitor, adapt and modify** interventions. Intervention management groups should be monitored and evaluated regularly by an external institution and they should be held accountable to their agreements. Improvements to both the interventions and the agreement should be sought, documented and promoted.
11. Policies to help communities address human–wildlife conflict must be **flexible and adaptable** to local circumstances, including community concerns and needs. Often, sustained help will be required.
12. Communities differ in their ability and willingness to implement and maintain communal interventions. In some cases, success may seem doubtful without major **efforts to increase social capital** (potential for collaboration) or to offer sufficient individual incentives.

We welcome feedback and additions based upon your experiences. **Please send comments to**: DouglasSheil@itfc.org

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