Research results workshop

May, 2016 Kampala, Uganda Event report

Pro-poor responses to wildlife crime

Building capacity for pro-poor responses to wildlife crime in Uganda









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About the project

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Photo: Ugandan kob at Murchison Falls National Park (Tiziana Zoccheddu 2010)

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Executive summary

Poaching and illegal wildlife trafficking has rapidly increased in recent years. But international calls to strengthen wildlife protection can have devastating consequences for the rural poor. So how can we tackle wildlife crime in a 'pro-poor' way that does not unnecessarily penalise poor people and, ideally, generates a better livelihood for them?

'Building capacity for pro-poor responses to wildlife crime in Uganda' is a three-year project from 2014 to 2017. It involves research to improve our understanding of links between wildlife crime and poverty, and then using that information to design and implement 'pro-poor' interventions to tackle wildlife crime in Uganda. It also involves gathering lessons for the international community on preventing wildlife crime by addressing its root causes and improving local livelihoods. The ultimate goal is for policy makers to have the tools and capacity to understand links between wildlife crime, biodiversity and poverty so they can target interventions effectively for both wildlife and people.

This project is funded by the UK government's Illegal Wildlife Trade Challenge Fund. The project partners are the <u>International Institute of Environment and Development</u> (IIED), the <u>Uganda Wildlife Authority</u> (UWA), the <u>Interdisciplinary Centre for Conservation Science at Oxford University</u> (ICCS) and the <u>Wildlife Conservation Society</u> (WCS).

This document reports a two-day results sharing workshop held during May, 2016, in Kampala, Uganda.

Day One was attended by a diverse audience including government and financial institutions, the NGO sector, UWA staff from the organisation's headquarters and from national parks, and communities living near national parks. The aim was to share the research findings and recommendations so as to improve understanding of how wildlife crime and poverty interact. The research was undertaken at the Queen Elizabeth and Murchison Falls National Parks. The main findings and recommendations were summarised as:

- Hunting meat for subsistence and/or to sell is the most common wildlife crime in Uganda's national parks.
- Relatively wealthy people (for these areas) are more likely to hunt than the poorest households.
- Where poor households are arrested for hunting, these hunters typically go to prison because they are unable to pay fines.
- The sheer number of hunters entering national parks challenges effective law enforcement.
- Engaging local communities in schemes that resolve human-wildlife conflicts, create local employment opportunities and establish community wildlife scouts have great potential to reduce wildlife crime.
- Engaging local communities in these schemes also makes UWA much more likely to receive intelligence from them to help tackle wildlife crime.
- The UWA's many interventions to tackle wildlife crime are all in themselves the 'right ones' but are undertaken in isolation and are sometimes conflicting. Interventions should be woven together into a single strategy formalised as a Wildlife Crime Action Plan for each national park.
- The action plans should be implemented in stages, recognising early 'easier wins' and that behavioural change takes time.
- UWA's staff should be trained in community conservation skills to ensure they have the capabilities required.
- All of the UWA's interventions should be under-pinned by actions to build long-term trust and respect by local communities.

The day included presentations on the research, and a panel session which explored how local people can be effectively engaged in efforts to reduce wildlife crime.

Day Two was a planning session with the UWA staff from Murchison Falls and Queen Elizabeth National Parks (where the research was undertaken) and key senior managers within the UWA. Two groups discussed, and then established, a timetable for developing integrated Wildlife Crime Action Plans at Murchison Falls and Queen Elizabeth National Parks. They agreed these would be completed and

implemented during 2016, with lessons learnt to be presented at the project's closing workshop in March 2017. Both groups independently chose 'community wildlife scout' programmes as a new/improved intervention on which to focus within the Wildlife Crime Action Plans, with 'pilot programmes' to be developed and reported on in March 2017.

Presentations from the workshop are available on IIED's SlideShare site, which can be accessed from: http://www.iied.org/building-capacity-for-pro-poor-responses-wildlife-crime-uganda A policy brief that contains a summary of the research findings and recommendations is available from: Nature's stewards: how local buy-in can help tackle wildlife crime in Uganda



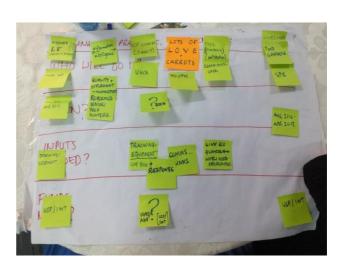


Image 1. Planning for 'pro-poor' interventions to tackle wildlife crime in Uganda during Day Two

1. Introduction

1.1 Wildlife crime and the rural poor

The recent surge in wildlife crime has hit political agendas worldwide. Wildlife crime can threaten developing countries' stability and economic development (especially when organised criminal syndicates and militia become increasingly involved), as well as devastating efforts to conserve wildlife and alleviate poverty.

International calls to tackle wildlife crime have focused on strengthening wildlife protection, but generally wildlife crime is also committed by the rural poor who are seeking natural resources for survival. When enforcement of wildlife protection laws is increased, these individuals can face significant hardships. They may be disproportionally punished for relatively minor actions, or alienated from resources that provide essential subsistence needs.

The Convention for Biological Diversity (CBD) and the Convention on International Trade in Endangered Species (CITES) seek to address this issue. For example, <u>CITES Resolution 16.6</u> (2013) recognises: "Implementation of CITES-listing decisions should take into account potential impacts on the livelihoods of the poor" and that "the implementation of CITES is better achieved with the engagement of rural communities, especially those which are traditionally dependent on CITES-listed species for their livelihoods".

1.2 Building capacity in Uganda

Building capacity for pro-poor responses to wildlife crime in Uganda' is a three-year project running from March 2014 to March 2017. The project is supporting work by the CBD and CITES on livelihoods of the rural poor. Focusing on Uganda, it involves gathering evidence that improves understanding of links between wildlife crime and poverty. The project then uses this information to design and implement interventions that tackle wildlife crime without unnecessarily penalising poor people and, ideally, that generate better livelihood for them. The project also gathers lessons for the international community on addressing the causes of wildlife crime while improving local livelihoods. The ultimate goal is for policy makers to have the tools and capacity to understand links between wildlife crime, biodiversity and poverty so they can target interventions effectively for both wildlife and people.

The project is funded by the UK government's Illegal Wildlife Trade Challenge Fund. The project partners are the <u>International Institute of Environment and Development</u> (IIED), the <u>Uganda Wildlife Authority</u> (UWA), the <u>Interdisciplinary Centre for Conservation Science at Oxford University</u> (ICCS) and the <u>Wildlife Conservation Society</u> (WCS).

2. The workshop

The workshop 'Nature's stewards: how local buy-in can help tackle wildlife crime in Uganda' was held from 25-26th May 2016 in Kampala, Uganda, as part of the 'Building capacity for pro-poor responses to wildlife crime in Uganda' project. The aims and agenda were divided into two days as follows:

Day One shared the project's research findings and recommendations with a wide-ranging audience, and initiated debate on how local people can be engaged in efforts to reduce wildlife crime. Participants included representatives from the Ugandan Ministry of Tourism, Wildlife and Antiquities; conservation NGOs; financial institutions; UWA's Conservation Area Managers; local community representatives from the two national park case studies of the research (Murchison Falls and Queen Elizabeth National Parks); and senior managers from the UWA. The agenda included presentations and a panel discussion with key individuals from Uganda's conservation community.

Day Two was only attended by UWA staff from the case study national parks, key senior managers from UWA's headquarters and representatives leading a new Illegal Wildlife Trade Challenge Fund project in Queen Elizabeth and Murchison Falls National Parks. The purpose of the day was to agree and develop a work plan for implementing research recommendations at Murchison Falls and Queen Elizabeth National Parks during the final year of the project.







Image 2.The panel session chaired by EJ Milner-Gulland (top left); presentation on wildlife crime databases by Andy Plumptre (top right); Presentation on the research findings by Geoffrey Mwedde (lower left)

3. DAY ONE: sharing the research findings

3.1 Opening address

Aggrey Rwetisba (UWA; Research and Monitoring Officer) formally opened the workshop and welcomed participants.

John Mokombo (UWA; Conservation Director) gave the opening speech, describing the Ugandan government's determination to stop wildlife crime because it is a significant threat to wildlife populations, and because it risks Uganda's people being a source of income for terrorists. He stated that while there has been a devastating loss of elephants across Africa because of the illegal ivory trade, Uganda's elephant populations have recently increased, given Uganda's efforts to protect them. But Uganda's elephants remain threatened, as criminal groups find wildlife crime in Uganda easy because, if arrested, the fines and penalties they receive are insignificant compared with the money they earn. And he said that wildlife crime does not only affect the 'big' species including elephants, chimpanzees and gorillas but also trees and plants, noting that it's vital to understand who is involved with all of these crimes so as to identify the interventions that will be most effective. He welcomed the community representatives from the case study national parks. Communities living close to national parks, he said, are often the poorest and the ones being used in wildlife crimes. If arrested, the fines they received are a heavy burden. He also welcomed the project's support for UWA's work to fight wildlife crime, saying "these studies, such as the one we will hear today, are very beneficial to us as a country".

3.2 Project overview

Dilys Roe (IIED) presented an overview of the 'Building capacity for pro-poor responses to wildlife crime in Uganda' project, starting with definitions. She explained that in the context of the project, the term 'propoor' simply means reducing wildlife crime without unnecessarily penalising poor people and, ideally, while benefitting local communities. She defined wildlife crime as: "any harm to (or intent to harm or to subsequent trade) non-domesticated wild animals, plants and fungi, in contravention of national and international laws and conventions".

She said the definition was chosen because it encompasses the full range of wildlife crime that typically occurs within any protected area, from commercial trading of animal 'trophies' to collection of medicinal plants for subsistence needs. She explained that recognising this range was considered vital to fully understanding the links between wildlife crime and poverty.

She stated the project objectives as "to build national capacity in Uganda to deliver pro-poor responses to wildlife crime; and to draw out lessons learned that have international applicability", and then explained that, to achieve these objectives, we are undertaking the following:

Research at Queen Elizabeth and Murchison Falls National Parks, where various wildlife crimes occur, to answer these questions:

- What are the drivers (causes) and impacts (consequences) of wildlife crime?
- What are the socio-economic profiles of individuals who participate in wildlife crime?
- Which interventions are most effective in reducing wildlife crime?

The research team worked with the poorest households living in and around these parks to gather their opinions, especially on the most effective anti-crime interventions. The research also included reviewing the evidence that poverty drives wildlife crime in Uganda, and assessing historical data to identify any trends at the national level between wildlife crime, wildlife populations and poverty.

Capacity development to develop, and then to train the UWA staff to use, the UWA's Wildlife Crime Database. The aim is that, by the end of the project, staff are routinely using the database to better target anti-crime interventions so that they protect wildlife while accounting for local people's needs.

Changes in policy and practice: The project involves both Uganda and the international community. In Uganda, the aims are firstly that wildlife crime policies are re-designed for fairness and are being implemented in at least one of the case study parks. These policies could be national park management plans that are re-designed in the light of research results and detail new 'pro-poor' approaches. Secondly,

and based on local people's selection of interventions to tackle wildlife crime, the project aims for one improved or new anti-crime intervention being implemented at both Murchison Falls and Queen Elizabeth National Parks.

At the international level, the project aims to generate lessons that support conservation managers, development practitioners and policy workers facing similar challenges. These lessons will be disseminated widely, including at a UWA-led side event at the 2016 CITES Conference of Parties.

The project team's 'Theory of Change' (Figure 1) shows how the project components and outcomes fit together.

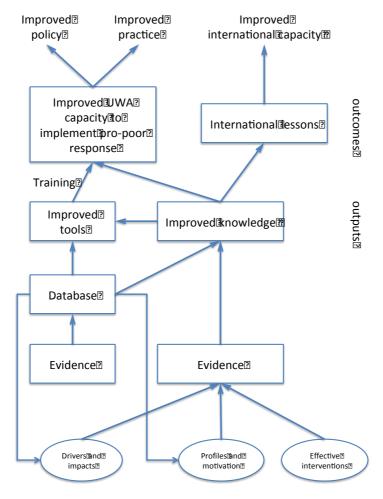


Figure 1. The project team's theory for how the project will change policy and practice for 'pro-poor' responses to wildlife crime both in Uganda and internationally

3.3 Evidence review

Dilys Roe explained that the project team has completed the first two years of the project and, later in the day, Andy Plumptre (WCS) and Henry Travers (Oxford University) would be presenting their work on the database and research respectively. She then presented findings from the project's Evidence Review.

The starting point was to gather evidence on why people undertake wildlife crime. Poverty is often named as a root cause of wildlife crime, but this is not necessarily true. Many studies have shown that demand for illegal wildlife products comes from wealthy people. So it's important to understand the different reasons why people commit wildlife crimes so as to know which intervention will be most effective, and who to target. It's also important to recognise that the relationship between wildlife crime and poverty is complicated. In some situations, poor people benefit from wildlife crime, for example they earn an income or obtain resources such as food and medicine. But in other situations they suffer, for example when they are 'easy' targets for law enforcement agencies and cannot afford to pay what, to them, are heavy fines.

Poor people can also lose resources that they depend on, and face insecurity, when criminal gangs commit wildlife crimes.

The <u>Evidence Review</u> focused on Uganda while also drawing on international evidence. It sought information to help understand the complex relationship between wildlife crime and poverty in Uganda, by answering the following questions:

- · What is the nature and extent of wildlife crime in Uganda?
- · Is poverty a driver of wildlife crime?
- What impacts does wildlife crime have on poor people?
- What impacts do responses to wildlife crime have on poor people?

The full findings and recommendations are detailed in a separate report, available from: http://pubs.iied.org/17576IIED.html. In summary, the findings and recommendations were:

Current international attention on wildlife crime focuses on large-scale trafficking of what are known as 'high value' species, such as elephants, rhinos and pangolins. Trophies from these animals can sell for large sums of money. This commercially-driven wildlife crime is currently less widespread in Uganda compared with other African countries. But while strengthening law enforcement efforts has reduced this threat, incidents do occur and the threat still remains. Uganda's greatest problem at this level is that illegal trophies are smuggled through the country. For example, CITES has identified Uganda as a concern for its role in facilitating illegal ivory trade initiated in other countries, saying: "Uganda, Ethiopia and Nigeria rarely supply ivory from local elephant populations, but frequently function as entrepôt and/or exit countries for ivory sourced elsewhere" (CITES 2013).

Within Uganda, the most commonly recorded wildlife crimes are: bushmeat hunting, agricultural encroachment into protected areas, firewood collection and timber harvesting.

There is evidence that poverty, defined as the need to meet basic subsistence requirements, drives these wildlife crimes. However, it is just one of four main drivers of wildlife crime in Uganda.

The others are: to generate income above and beyond basic needs (commercial); in response to perceived injustice; and to maintain cultural traditions. These drivers are not mutually exclusive, for example someone may hunt bushmeat to feed his family but then sells any surplus. Also, the relationship between poverty and wildlife crime is influenced by many factors including population pressures and environmental stresses. One complication is that commercial wildlife crime arises from demand from wealthy consumers rather than poverty per se, but poor people living close to protected areas might be involved because they lack alternative, legitimate income sources.

There are five main interventions for tackling wildlife crime in Uganda. Each one generates benefits but also negative impacts for local people, as Table 1 shows:

Table 1. Interventions to tackle wildlife crime in Uganda

Intervention	Implementing	Incentive;	Target	Impacts on local people	
	Body	Disincentive; Alternative		Positive	Negative
Law enforcement	Uganda Wildlife Authority or National Forest Authority	Disincentive	Individual	Improved local security	Abuse of power by officials; reprisals for local informants; penalties easier for wealthier to pay; imprisonment exacerbates poverty
Tourism revenue sharing with	UWA (with NGOs)	Incentive; alternative	Individual (e.g. providing goats and seedlings);	Income; social infrastructure; new livelihood opportunities	Inequitable distribution; corruption; benefits do not exceed

local communities			community (e.g. building new schools)		costs of living next to Parks
Regulated resource access by	UWA	Incentive	Individual (direct); community	Access to subsistence resources	Benefits 'taken' by elites within the community
local people			(indirect e.g. a traditional herbalist	Income opportunities	
			serving their community)	Cultural traditions maintained	
Reformed poacher associations	UWA	Incentive; alternative	Individual (direct); community might benefit indirectly from e.g. alternative livelihoods	Some jobs Income opportunities	Loss of access to hunted meat; loss of hunting (the activity in itself & the cultural practice); loss of 'immediate' gain from meat/income
education and	UWA & NGOs	Incentive	Community	Improved relations with park managers	
sensitisation				Improved recognition	

Revenue sharing and regulated resource access are extremely unlikely to reduce commercially-driven illegal wildlife trade. They are important in improving relations between local people and conservation authorities, but such 'improved relations' cannot compete against the income people receive from selling bushmeat, timber or ivory. Instead, the legal system must be strengthened to make penalties a greater deterrent. The current revision to the Uganda Wildlife Act is addressing this.

Evidence suggests that effective revenue sharing and regulated resource access helps to reduce subsistence-driven wildlife crime. However this evidence is anecdotal and we recommend that evaluating the success of such projects should be made a priority.

The evidence shows that revenue sharing helps to reduce wildlife crime that is undertaken as retaliation, i.e. crime committed when people do not receive compensation for their losses and so believe that national park conservation is unfair. But this only works if revenue sharing directly benefits individuals who lose crops and livestock to wild animals. Uganda's Revenue Sharing Guidelines have been revised to reflect this, although changes on the ground are yet to be realised. The project recommends that institutions responsible for implementing the new guidelines should be given support and training to ensure that implementation is effective.

The final recommendation is to improve the evidence base. Evidence on the relationship between wildlife crime and poverty in Uganda is patchy and difficult to interpret. Filling this 'gap' is vital, as the root causes of wildlife crime can only be tackled effectively when this relationship is fully understood.

3.4 National level analysis

Julia Baker (IIED, Consultant) described how Uganda is at the forefront of community conservation interventions, having piloted and rolled out schemes such as sharing tourism revenue with local communities and regulating access for local people to resources within national parks. This has generated a wealth of information that helps to better understand the relationship between wildlife crime and poverty, and the effectiveness of anti-crime interventions.

The project completed a 'National level analysis' using data from all of Uganda's national parks and wildlife reserves from the last ten years. The aims were firstly to identify broad correlations between anti-crime interventions (both community conservation and law enforcement) and levels of wildlife crime, poverty and biodiversity. Secondly, the project used this information to direct field-based research to understand who is undertaking wildlife crime and why.

Good data were not available on poverty or development interventions at the spatial and temporal scales required. Biodiversity data were also limited, although some were available from Queen Elizabeth, Murchison Falls and Lake Mburo National Parks. Data on levels of wildlife crime and conservation interventions were available from UWA's Conservation Area Managers. From these sources the project summarised broad trends over the past ten years (Table 2, Figure 2).

Table 2. Summary of the broad trends from the National level analysis

Protected Areas	Trend over the last ten years	Notes
Budgets	Overall an increase, but community conservation budgets have only increased at Bwindi and Kibale	Mgahinga has the highest budget per km²
Staff numbers	Law enforcement and tourism staff increased, but community conservation staff have not and remain extremely few (for example see Figure 3)	In 2014, law enforcement rangers in Mgahinga had less than 1km² to patrol each whereas those in Queen Elizabeth had 21km²
Tourists	Foreign tourists increased in all protected areas; Ugandan tourists only increased at Murchison Falls, Lake Mburo and Semliki and very few visited Bwindi, Mgahinga and Kibale	Queen Elizabeth receives the most foreign tourists, followed by Murchison Falls
Revenue sharing	Tourism revenue shared with local communities increased	Revenue from sport hunting at Lake Mburo shared with local communities
Regulated resource access	Now available at all protected areas although the numbers of resources that local people have access to differs	Most resources available at Murchison Falls and fewest at Lake Mburo
Law enforcement	Rangers at Murchison Falls increased the distance they patrolled and, compared with other protected areas, covered the largest distance per day on patrol; rangers at Queen Elizabeth and Kibale also increased the distance they patrolled as well as the number of days on patrol	Only certain protected areas had complete data
Snares	Generally more snares were found during 'long' patrols, but when accounting for size of a protected area this only held true for Murchison	Rangers at Queen Elizabeth and Murchison Falls found the most snares per km on patrol
	Rangers at Bwindi, Mgahinga and Semliki collected many more snares than the number of people they arrested	Rangers at Mgahinga collected 85 snares for every one person they arrested

These broad trends provide insight into how protected area management in Uganda has changed over time. However, identifying whether an intervention influences conservation, for example whether law enforcement reduced the number of snares that rangers found, was simply not possible. The datasets were incomplete and the investigation could not account for other influences, for example the target species' population levels. But the insight gained can help Uganda's efforts to tackle wildlife crime. For example, the number of community conservation interventions has increased but the number of community staff to implement these has remained extremely low, which greatly limits how effective these interventions can be (Figure 2).

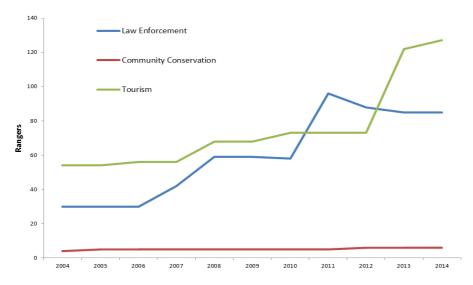


Figure 2. Change in numbers of Uganda Wildlife Authority rangers at Bwindi Impenetrable National Park from 2004 to 2014

The main recommendation from this review was that data collection at protected areas be made as robust and consistent as possible. Data are incredibly valuable, especially for these analyses at a national level, where they help understand how best to prevent wildlife crime by addressing its root causes.

3.5 The Uganda Wildlife Authority Wildlife Crime Databases

Andy Plumptre (WCS Uganda) described how 45-95% of UWA's budget for any particular protected area is invested in law enforcement. So there's a critical need to measure the effectiveness of this expenditure.

Uganda has some of the best Ranger Based Monitoring Systems in Africa. Using the 'MIST' and 'SMART' databases, UWA staff can now analyse law enforcement data in ways that show how to target patrols most effectively. The databases have led to increased patrol coverage in 'hot spot' areas of wildlife crime, and better targeting of different patrol strategies according to the different wildlife crimes being committed. For example, when patrol coverage maps were produced at Kibale National Park, law enforcement wardens could target patrols to areas that had previously been only rarely patrolled (Figure 3).

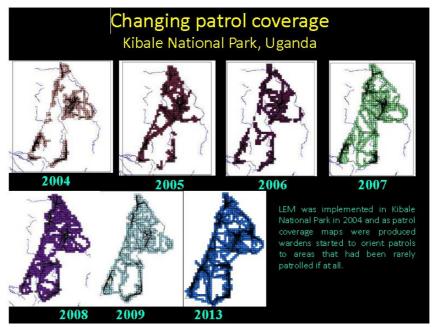


Figure 3. Maps of Kibale National Park showing improved patrol coverage over time

The University of York developed a model to determine the probability that rangers on patrol would find snares. The WCS tested their model at Queen Elizabeth National Park, and found it did help rangers to patrol areas where high numbers of snares were found.

So the databases and this model both help to improve the effectiveness of patrols by law enforcement rangers. But they do not consider the individuals undertaking wildlife crimes, especially for rangers to know whether people they arrest are 'first time' offenders or have been arrested before. This project (building capacity for pro-poor responses to wildlife crime in Uganda) has supported the WCS to develop a national-level database that stores information on offenders. It records the wildlife crime that people are arrested for, whether offenders have been arrested before (revealing how often rangers arrest repeat offenders) and the penalties awarded for each incident. This 'offenders database' also shows the time of day when most arrests were made and differences in penalties for the same wildlife crime between different courts around one national park. It has helped to demonstrate that poor people are likely to go to prison for committing a wildlife crime because they cannot afford their fine, whereas 'commercial' poachers can typically pay the fines. The database is online so it provides 'real time' data that all UWA staff can access. It also helps track individual offenders, for example revealing that a poacher hunting in Murchison Falls National Park has recently been caught in Queen Elizabeth National Park.

3.6 Research results 1: Levels of wildlife crime

Henry Travers (University of Oxford) presented the first of three sets of findings from the field-based research. This aspect of the project aimed to better understand why people commit wildlife crime and to identify how efforts to tackle wildlife crime can be improved while not unfairly affecting the rural poor. It was based at Uganda's two largest national parks: Queen Elizabeth and Murchison Falls (Figure 4; Table 3). Both are 'island' parks with settlements and farming up to their boundaries. This can create opportunities for people to take park resources illegally but also for wild animals to take crops and livestock from farmlands.

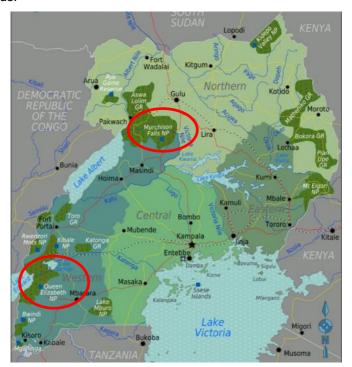


Figure 4. Location of Queen Elizabeth and Murchison Falls National Parks

The methods combined 'direct' and 'indirect' approaches. Direct approaches ask how and why people are involved in wildlife crime. Understandably, individuals may withhold information because of the sensitivities of the topic. Also, it would be unethical for the research to put anyone at risk of incriminating themselves. So direct approaches rarely give results that accurately represent a population. To overcome this, we use indirect approaches to estimate the proportion of people involved in wildlife crime without directly asking anyone whether they are involved in that wildlife crime.

Table 3. Key information about Queen Elizabeth and Murchison Falls National Parks

Protected Area	Size	Approx. no. of households within 3km in 2002
Murchison Falls Protected Area (incl. Bugungu and Karuma Wildlife Reserves)	5,056 km ²	23,000
Queen Elizabeth Protected Area (incl. Kigezi and Kyambura Wildlife Reserves)	2,475 km ²	44,000

Researchers completed questionnaires with 1955 household owners living within 3km of the national park boundary. This involved 125 villages, which were sampled proportionally, according to the length of national park boundary within each district. The questionnaires gathered information on the social and economic status of each household, as well as 'indirect questioning' to estimate the number of households involved in wildlife crime. Researchers also interviewed individuals with in-depth knowledge and insight into wildlife crime in Uganda. These people were UWA staff, village leaders, bushmeat sellers and current or former 'offenders' i.e. people who had been arrested for wildlife crime. These individuals helped the project to understand the local context of wildlife crime in each park.

The results showed that, over the past year, hunting to sell the 'catch' was the most common wildlife crime. An estimated 42% of the households surveyed had been involved in commercial hunting. Hunting for subsistence was the second most common wildlife crime with an estimated 35% of surveyed households involved. This was followed by, in descending order, fishing, grazing and collecting firewood.

The number of people involved with each wildlife crime varied geographically around the national parks. There were clearly areas where certain wildlife crimes were most common (Figure 5). For Murchison Falls National Park, these spatial patterns matched those from the wildlife crime databases that Andy Plumptre discussed. For Queen Elizabeth National Park, the two datasets did not match up so well. This was probably because there are more opportunities for illegal access into Queen Elizabeth than Murchison Falls.

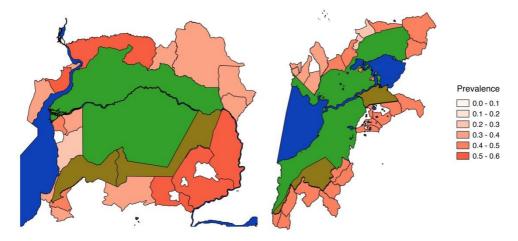


Figure 5. Estimated proportion of surveyed households involved with commercial hunting around Queen Elizabeth (right image) and Murchison Falls (left image) National Parks. Note: green denotes the national park; brown denotes wildlife reserves; blue denotes water

3.7 Research results 2: Who undertakes wildlife crime and why?

Henry Travers explained that the first results from the research generated estimates of the scale and type of problems facing the UWA. But to tackle these problems, the UWA needs a better understanding of the 'who and why' (who undertakes wildlife crime and why do they do so).

The research revealed that households most likely to be involved in hunting were those who reported livestock predation from wild animals and those who felt they had not benefited from the UWA's Tourism Revenue Sharing programme. In other words, inequity, retaliation and revenge are major drivers of hunting by local people around these national parks.

The research also found that households most likely to be involved in hunting were the relatively wealthy households (relatively for these areas). So it's not the poorest but the better off households that are most likely to hunt. This doesn't mean that the wealthier households are the only hunters, as poorer households do hunt. But, in general, hunters around these two national parks are better off than the average household. To understand the reasons why, researchers interviewed active hunters from the case study national parks and, from the information they gave, developed categories of hunters (Figure 6).

The 'subsistence hunters' hunt food for their families and consume most of what they catch. While exact numbers are uncertain, this group appears to be a small proportion of all hunters. 'Occasional hunters' make up the largest group of hunters. These individuals only hunt when they need money, for example, to pay for school fees, medical bills or agricultural items such as seeds. Then for 'professional hunters', hunting is their main source of income and they spend most of their time hunting in the park. Finally there's a small group of 'senior hunters'. These individuals are respected within their community for bravery while hunting, such as killing a buffalo with just a spear. They are also most likely to be contacted by bushmeat traders and 'middlemen' working in the international wildlife trade.

Whether these hunters hunt bushmeat to consume at home, or sell to the extensive local bushmeat market, or to traders who take the meat to towns or cities, they will all probably take an opportunity to hunt a valuable species if it arises such as elephants, selling the 'trophies' to middlemen. Senior hunters often provide other hunters with contact information for the middlemen.

Most hunters said that they hunt for money. Many described how they earn money from hunting that they couldn't otherwise earn, as there's no alternative source of income to pay for costs such as school fees. For example, they can earn 100,000 Ugandan shillings for a successful hunting trip whereas the average daily wage is about 20,000 Ugandan schillings. As one hunter explained: "I cannot stop hunting without another way of earning money".

These hunters also said that ranger patrols are a limited deterrent. The research suggests approximately one in 20 hunting trips will result in an encounter with rangers, but only one in 500-1000 hunting trips will result in a hunter being arrested.



Figure 6. Categories of hunters developed from the research at Queen Elizabeth and Murchison Falls National Parks

How do these results help to address illegal hunting? Firstly, they help by recognising that different hunters have different motivations, so that interventions can be targeted towards these. For example, one set of interventions is needed to address hunting for money whereas another set is needed to tackle

hunting as 'revenge' for crops lost to wild animals. Secondly, they help the UWA to recognize that there are different types of hunters. So again, interventions must be targeted to specific groups. For example at our case study national parks, targeting 'senior' and 'professional' hunters would likely bring the greatest reduction in hunting 'trophy' animals.

While earning money was a primary motivation for hunting, we did record traditional cultural practices as a reason why people hunted. Many wildlife products are used in traditional rituals and there are reports of increased hunting around religious festivals. Overall however, only limited evidence existed that culture drives hunting.

3.8 Research results 3: Interventions to reduce wildlife crime

Geoffrey Mwedde (WCS) presented the final set of findings from field-based research. The topic was the effectiveness of interventions aiming to reduce wildlife crime.

The research chose six interventions ranging from law enforcement to community initiatives (Table 4), and used 'choice experiments' to gather the views of local people, government and conservation managers on initiatives' effectiveness in reducing wildlife crime and in supporting poverty alleviation.

Researchers then used 'scenario interviews' to predict how people would change their behavior in response to different interventions. These approaches assessed whether people would be more or less likely to undertake wildlife crime in response to an intervention and what, if any, livelihood benefits or costs that intervention would have – without asking people directly about wildlife crime. Finally, we interviewed active hunters about which interventions would result in less hunting.

Table 4. Interventions to reduce wildlife crime considered in the research

Intervention	Description
Mitigating Human– Wildlife Conflict	Designate 25% or 50% of Tourism Revenue Sharing funds specifically to schemes that mitigate Human-Wildlife Conflict
Improve local livelihoods	Support 'wildlife friendly' enterprise schemes to improve the livelihood options that are available to people undertaking wildlife crime
Community scouts / Eco-guards	Employ local people as community scouts, or eco-guards, to respond to Human-Wildlife Conflict issues and to act as a connection between local communities and UWA
Withdraw resource rights	Withdraw all rights to harvest resources from within protected areas if people are arrested for undertaking wildlife crime
Regulated hunting	Allow a regulated hunting trade in specific species, provided that a sustainable off-take can be ensured
Increase law enforcement	Increase the probability of detection of wildlife crimes within protected areas

The main results from both national parks were:

- Human-wildlife conflict (HWC) mitigation, improved livelihoods and community scouts were considered to be the fairest interventions to reduce wildlife crime.
- HWC mitigation, improved livelihoods and community scouts were all predicted to increase the number of local people informing the UWA about wildlife crime, which has important implications for intelligence-led ranger patrols.
- "Having steady jobs" and "a means to earn money all year round" were the overwhelming responses active hunters gave when asked which interventions would reduce hunting.
- Increases in law enforcement received modest support by local people.

An interesting finding was that both local communities and UWA staff identified community scouts and mitigating HWC as effective 'pro-poor' interventions to tackle wildlife crime. So overall it was clear that interventions involving local communities can be effective in reducing wildlife crime.

3.9 Recommendations

Henry Travers presented the project's overall recommendations from the research findings. The UWA and its NGO partners undertake many interventions to reduce wildlife crime. These include law enforcement, efforts to mitigate human wildlife conflict, sharing tourism revenue with local communities and many others. These are all the 'right ones' for tackling wildlife crime in Uganda. But they are undertaken in isolation, with little coordination, especially between efforts to enforce conservation laws and to improve relations with local communities. Consequently, they are implemented in response to wildlife crime rather than being planned to address the root causes of wildlife crime. The UWA's work could be much more effective by adopting a strategic approach centred on three core interventions to prevent wildlife crime:

- · Develop strong working relationships and mutual trust with local communities
- Provide incentives for people to disengage from wildlife crime
- · Deploy targeted enforcement of the law

It's important to recognise that wildlife crime is not just about conserving nature, but a wider societal issue. Hunting fills a gap that is there because people do not have other livelihood opportunities. It is not the UWA's role to solve this issue, but it can work with other government agencies and NGO partners working in rural development to create viable jobs for hunters that provide alternative, sustainable livelihood options. Linking with partners can also help the UWA to identify ways to replace the protein sources that wild meat provides.

Where to start? The project recommends that Wildlife Crime Action Plans are developed for each national park. These should provide an overarching strategy for how that national park prevents and reduces wildlife crime. The plan would list the priority wildlife crimes to target.

In order to tackle these priorities, the most appropriate anti-crime interventions would be targeted to areas where those wildlife crimes occur and to individuals undertaking the crimes. The plans should also support a coordinated approach when different anti-crime interventions are implemented within one strategy. Coordination is especially important to reduce conflicts between law enforcement and community conservation actions. This strategic, coordinated planning is the project's main recommendation for the UWA's on-going efforts to tackle wildlife crime.

We recognise the barriers that the UWA faces to implementing such plans. These include the sheer scale of wildlife crime occurring in national parks, local people's lack of trust in the UWA, and the time needed to bring about behavioural change through community engagement, compared with the seemingly-immediate outcomes of law enforcement. To overcome these barriers, the project recommends:

- a staggered approach to implementing the action plans, focusing on 'quick wins'
- a long-term commitment to work in 'hot spot' community areas
- training and logistical support for Community Conservation Wardens and Rangers so as to make their work more effective
- partnerships should be established with rural development agencies for joint-working

3.10 Question and answer session

The project team chaired a question and answer session with the audience:

Q: A major problem is the lack of local good protein sources; for example there are no local butchers in villages around the north of Murchison Falls National Park.

A: Yes this issue must be addressed and carefully because many prefer the taste of bushmeat.

Q: There are challenges when using ranger data to inform management processes, for example the capacity of local rangers to collect data correctly.

A: Rangers are trained to use 'smart' phones to collect the data; much of which is simply practice and the rangers are now very capable because they are used to this way of collecting data.

Q: The dynamic of pangolin bycatch has changed, as now local poachers take 'orders' for pangolin and earn good money from this.

A: The research team encountered several hunters who had taken so many pangolin orders that they could not remember them all, and this is a major problem to tackle.

Q: How far do hunters travel to hunt?

A: The research found hunters travelling from far outside the parks. There are hunters who live nearer; these tend to spend longer inside the parks although they are more likely to be arrested, however hunters use local people as 'lookouts' to warn them of ranger patrols.

Q: Imprisonment needs to be tougher, as 'community service' is not a deterrent to stop hunting.

A: The arrest rate is extremely low, so the benefits that hunters gain from hunting outweigh the risk of being arrested. Also as hunters are relatively wealthy for these areas, they can pay the fine to release them from prison. Whereas poorer people cannot afford to pay the fines and this enforcement of the law has severe consequences for poorer people, but not for the wealthier hunters.

Q: Why do you think that regulated hunting was not a popular option by local people?

A: A high percentage of hunters do not want their hunting to be regulated because, currently, law enforcement is not an effective deterrent. For the UWA, there were concerns that 'opening up' hunting would stimulate a greater desire to hunt by local people and they would not be able to control the hunting.

Q: What is a wildlife friendly enterprise to the community?

A: An enterprise that would not increase hunting or harm wildlife; for example beekeeping.

Q: If local people see hunting as their main source of livelihood, they will not be willing to change for a new but unknown source of livelihood.

A: Most hunters who spoke with the research team said they see hunting as a 'hard lifestyle' because of the risks they face when hunting, especially from wild animals and being shot by rangers. These hunters said they were willing to earn less money if they have a steady income source all year round.

3.11 The research findings within an international perspective

Dilys Roe gave a presentation on how these research findings compare with the international perspective. At the international level, there are three broad responses to wildlife crime: enforcing laws, reducing demand, and supporting local livelihoods. Law enforcement is often the priority given the urgent need to stop the rapid declines in wildlife populations. But political momentum for engaging local communities in efforts to reduce wildlife crime is growing steadily. For example, in 2015 the UN General Assembly adopted Resolution 69/314 on tackling illicit trafficking in wildlife. This "strongly encourages" its Member States to: "Support the development of sustainable and alternative livelihoods for communities affected by illicit trafficking in wildlife and its adverse impacts, with the full engagement of the communities in and adjacent to wildlife habitats as active partners in conservation and sustainable use, enhancing the rights and capacity of the members of such communities to manage and benefit from wildlife and wilderness".

Given that there is increasing policy support for engaging local communities in efforts to reduce wildlife crime, how can this work on the ground? To help provide an answer, a separate international project led by IIED has developed a 'Theory of Change' to identify what needs to be in place, and what must then happen, for local community engagement to effectively reduce wildlife crime. This exercise identified four approaches for engaging local communities. To fit with the research findings in Uganda:

- Decrease the costs of living with wildlife
- Support alternative, non-wildlife based livelihoods/economic development

Dilys commented that the current research shows that Uganda closely aligns with international experience. So now the task is to understand the conditions needed for these approaches to work. For example, do they require a policy change or a change in practice? What and who brings about that change? These were the questions tackled in day two of the workshop (see below) when participants planned activities for the final year of the project.

3.12 Panel discussion

A panel discussion was led by **EJ Milner-Gulland** (Oxford University). EJ introduced the members of the panel who were **Charles Tumwesigye** (UWA; Deputy Director Conservation), **Gladys Kalema Zikusoka** (Gorilla Conservation Through Public Health; Director), **Olivia Birra** (UWA; Community Conservation Warden) and **Stephen Okiror** (Ministry of Tourism, Wildlife and Antiquities).

Points of particular interest

- 1. EJ asked each panel member to comment on one research finding that they found most interesting.
- 2. Charles began by commenting how Henry Travers interviewed many illegal hunters, yet UWA's rangers cannot find them! What he found most interesting was that local communities are "thinking like us at UWA" in terms of which interventions are most effective in reducing wildlife crime. Local people also identified mitigating HWC and community scouts as key strategies to address wildlife crime, as the UWA staff had done. Also interesting was that both local people and the UWA dismissed regulated hunting as an option to reduce wildlife crime.
- 3. Stephen also found the apparent agreement between local people and the UWA staff to be the most interesting aspect, especially the fact that both rejected regulated hunting as a way to reduce illegal hunting.
- 4. Gladys described how the poorest people are typically thought to be the poachers, but this research makes clear that is not always the case. So we need to consider sustainable livelihoods that provide an alternative means of income, rather than focusing solely on poverty alleviation.
- 5. Olivia commented that the sheer number of poachers is a challenge that the UWA must address. She also described that, while this research showed that traditional and cultural practices were not major drivers of hunting, people do hunt because of tradition and addressing that issue is important.

Discussing interventions

EJ asked the panel members to comment on the interventions that the research found could be effective in reducing wildlife crime.

Allocating UWA's tourism revenue sharing funds to mitigate HWC

Charles described how some funds from the revenue sharing scheme are already allocated to mitigating HWC, so implementation (rather than finding funds) is most important. But the issue is that HWC is only one factor driving poaching, so addressing HWC may not entirely address wildlife crime. He also said the UWA should also consider other budgets to support HWC mitigation because revenue sharing is only one source of funds and the amount available depends on numbers of tourists to our parks. His comments confirmed his support for the recommendation to allocate funds from the revenue sharing scheme to HWC mitigation, but emphasised the need for the UWA to consider whether other sources of funding could also support this.

Stephen commented that "we need to listen to this call" especially because the law that created the revenue sharing scheme is being amended, so the allocation of this fund might cover a bigger scope. Previously, revenue sharing funds could be used for any project. But this research shows that making sure funds directly benefit people who lose crops and livestock from wild animals is critical. But it's also important for local people to have a say in decisions about how the funds are used, as governance issues are key to successful implementation.

Gladys described how conservation is much more sustainable when local communities are engaged. For example, the 'HUGO' scheme at Bwindi Impenetrable National Park is where local people are trained by park staff to chase gorillas entering community farmland back into the park. The scheme is successful, as the local people also receive livestock for their work. They do ask for salaries, which has not been possible, but overall the scheme is a good example of a sustainable approach to mitigating HWC.

Olivia stated the importance of correctly managing the revenue sharing funds, otherwise they will not have the desired impact. Her experience is that local communities support the investment of funds into HWC mitigation. But they are concerned about how the funds are managed, especially when local governments are involved, perceiving that they might not receive all of their allocation.

Using community scouts / ecoquards as employment opportunities for local communities

Charles commented that 'ecoguard' schemes can be worthwhile in terms of creating local employment and strengthening UWA's relations with communities. However, other avenues of generating local employment must also be considered, for example using the revenue sharing fund to employ people to dig trenches for preventing crop raiding by elephants. The UWA staff at Kidepo Valley National Park implemented a scheme for wildlife scouts. The difficulties they faced were the extremely high expectations of local people and the need to train the individuals involved. He said this 'hidden' cost of training must be accounted for, but overall such schemes are beneficial. He also commented that the UWA does give priority to local communities when recruiting, but this is not formalised. Going forward, this should be written into policy so actions by UWA can be more effective.

Stephen confirmed his support for creating employment opportunities for local people as a strategy to reduce wildlife crime. He commented that there are many employment opportunities, not just community scouts, which must be seized. For example, local people have been trained as tourist guides at Rwenzori Mountains, which has been successful as a 'creating local employment' scheme.

Gladys described how employing former poachers, either as rangers or in another job at a national park, is a good way of reducing wildlife crime. She also described how this has been undertaken at Bwindi Impenetrable National Park with positive results.

Olivia commented that community scouts and 'ecoguards' are good ideas. She described how a community scout project has recently started at Queen Elizabeth National Park. The challenges, she said, are firstly to build local people's capacity for the work and, secondly, that in finding Community Conservation Rangers (CCRs) to work closely with the scouts to make sure they do not "go astray". This is difficult, she said, because of the limited number of CCRs and the many other projects they have to work on.

Reformed poacher associations

Charles said that identifying alternative sources of protein for reformed poachers is critical for these associations to be successful. If poachers join but they do not get what they want, they will soon start poaching again. So UWA's park staff must work closely with the reformed poachers, engaging them in activities such as in income generating projects. These associations can reduce wildlife crime but close involvement by Park staff is necessary.

Stephen described how strengthening internal capacity for starting and managing reformed poacher associations is critical. This is to avoid frustration by all involved, especially the poachers, when the associations start but are not effective.

Gladys agreed that these associations are a good way of tackling wildlife crime. She described a successful example from Bwindi Impenetrable National Park where poachers were trained in vegetable growing techniques, both to grow food for personal consumption and to sell. These former poachers influenced others within their community not to poach. The scheme was successful because it gave poachers a viable business for the long-term. Such schemes need specialist support, she said, but UWA can receive this by engaging with NGOs.

Olivia described her experience of these associations, commenting that the reformed poachers have many expectations that cannot always be met. When successful, reformed poachers work cooperatively with the UWA's park staff giving them information on poaching within the Park. But some associations have not been successful (where poachers return to poaching) because of a lack of close engagement with the UWA's park staff or because they have not been given viable business options as alternatives to poaching.

Improved interaction between law enforcement and local communities

Charles referred to the research results that showed many poachers escape "scott free". This, he said, highlights that the UWA must cooperate and collaborate with local communities to gather intelligence on poaching activities, and adopt both 'carrot and stick' approaches to tackle wildlife crime. He said the UWA has undertaken law enforcement since protected areas were created, and that other activities including tourism and community conservation came later. But the poor integration between community

conservation and law enforcement has been a much needed "missing link". On this, local communities have good ideas and can help the UWA, especially with information about wildlife crime.

Stephen commented that the UWA needs to improve interaction between its law enforcement and community conservation efforts, through collaboration. But this must be based on scientific evidence otherwise there is a risk that this will be ineffective.

Gladys commented that establishing trust is incredibly important – the communities must trust the UWA and feel that wildlife is not just for the UWA, but also for them.

Olivia described how she works with communities to gather their ideas on how best to work with the UWA's park staff, including law enforcement rangers. She also raises rangers' awareness of her community conservation activities.

Often, rangers do not know about her activities with communities, yet it's vital for the two units [law enforcement and community conservation] to be better coordinated so that their work is effective. This can be achieved through training and joint-meetings that show law enforcement staff how the community conservation unit can help in reducing wildlife crime.

Closing session

EJ closed the panel session, summarising the members' comments as follows:

- Mitigating HWC as a strategy to reduce wildlife crime was supported; HWC mitigation is already 'in
 action' at national parks and UWA will consider budgets other than tourism revenue sharing to fund
 these activities; a well-managed and transparent process is key for HWC mitigation to be successful.
- Community scouts and ecoguards were supported; the UWA could formalise their priority to recruit
 from local communities into policy; however local people need capacity building and the cost of doing
 so and of on-going engagement by national park staff must be recognised.
- Targeted employment for reformed poachers was supported, but poachers will return to poaching if
 the schemes fail; poachers often have high expectations that need to be managed; reformed poachers
 must have a say in decisions about the employment offered to them for the schemes to be successful.
- Law enforcement has been the dominant approach and the UWA's missing link is fully integrating
 community conservation within law enforcement; it is incredibly important for the UWA to be trusted
 by communities; communities have ideas about integrating law enforcement and community
 conservation that should be recognised.

3.13 Plenary discussion

EJ opened the final session to the floor, inviting questions and comments from the audience for the panel members to respond to. The first batch of questions and comments were:

John Otto (UWA) commented that the UWA has implemented many community conservation initiatives over the years. They have all been tried, he said, but we are not seeing the desired change and must understand where we are going wrong. The panel session was interesting, he added, as it highlighted the importance of engaging communities from the start of an initiative so that we (i.e. the UWA) know what the community require, rather than us "thinking for them". He said the UWA also needs better targeting of community interventions. Finally, he raised the issue of sustainability - because often there is money to implement an initiative, but nothing to sustain it in the long-term.

Anne-Marie Weeden (Uganda Conservation Foundation) commented that the high number of illegal incursions into the national parks, yet low arrest rate, indicates the problem we are all trying to combat. It's not that law enforcement has failed, but that it needs to be better complemented by other programmes, especially community conservation. The challenge is to integrate the various community initiatives with law enforcement so as to make one strategy to tackle wildlife crime. We must also consider that Uganda has international borders that influence levels of wildlife crime here.

The **Local Council Chairman** from a village on the border of Murchison Falls National Park described the devastation to villagers when wild animals from the park eat their crops, especially elephants, and called on the UWA to take action.

The **Local Council Chairman** from a village on the border of Queen Elizabeth National Park described the varying experiences of poachers who have 'surrendered' and formed ex-poacher groups. The first group of former poachers was well facilitated by the UWA, but the second group has not been supported, making it difficult for the group to continue. Some former poachers tried to earn money from fishing but faced dangers from crocodiles in the water and could not continue.

Johnson Masereka, the Conservation Area Manager of Kidepo Valley National Park (UWA) described how, at Kidepo, they are thinking of introducing sport hunting to control 'problem' animals that eat crops and livestock of local communities. Partners are supportive of this initiative, and the proposed intervention hoped to receive funds from the African Wildlife Foundation and the Global Environment Facility. At Kidepo, we have implemented a wildlife scout programme; the scouts were from local communities and trained by our NGO partners. They can arrest people with wild meat and undertake patrols in their communities. This is working well. But the main difficulty is that park staff must regularly work with the scouts to keep them motivated, but they have many other duties to fulfil. Our NGO partners have supported this programme by giving beehives to the scouts so they can make their own money. Also at Kidepo we had tribal warriors who hunted wildlife with guns. Many of these are now our rangers. They are very knowledgeable about the national park, and are convincing other poachers to stop poaching and join our ranger force. So for us at the UWA, we can never be everywhere and our work with communities greatly complements our law enforcement efforts.

Pontious Ezuma, the Conservation Area Manager of Bwindi Impenetrable National Park (UWA), agreed with the panel that many community interventions have been tried. There have been some successes but many challenges and these must be identified for the UWA to improve. For example, one NGO promised reformed poachers money but the money never materialised. This affects the UWA's relationships with these individuals.

Responses by panel members to these questions and comments included:

- We do not want to encourage people to become poachers so they surrender and receive benefits although we agree that those surrendering must be supported to find alternative ways to make a living.
- Local Chairmen should be working with the UWA to help reformed poachers rather than encouraging
 them to hold the "UWA to ransom", but we recognise and agree that if reformed poachers want to take
 up fishing and are offered beekeeping then it is not surprising that they are dissatisfied and return to
 poaching.
- HWC mitigation is extremely challenging and much work has been done, the problem is not solved but progress has been made and this should be recognised.
- At Queen Elizabeth National Park we are investigating crocodile translocation to support fishermen.

The second set of questions and comments were as follows:

A **District Government Official** described how they bought goats with the share of tourism revenue they received, but the communities just ate them and then had nothing so that was no use. Since then, they have constructed schools and community centres that have given benefits to the communities. If they could, they would use some of the revenue to recruit community scouts to work with park rangers to reduce poaching, but the money is often not enough to do that as well as community projects. Also, it's important to note that there is less poaching when local farmers are cultivating their crops but more poaching during the dry season.

A representative of **senior management within the UWA** stated that both the UWA and local communities need formal guidelines that clearly state the conditions under which reformed poachers receive amnesty. This takes reformed poachers "to the next level" within the organisation. The representative added that trust is key to working with local communities and "we, at the UWA, must guard against losing that".

Medard Twinamaskio (Social Researcher, ITFC and Mbarara University) commented that the UWA has much work to do, especially in building staff skills in community conservation and ensuring that the community conservation unit receives an adequate budget, as law enforcement is allocated much larger budgets.

A representative from the **Ministry of Tourism**, **Wildlife and Antiquities** stated it was clear that Uganda must resolve HWC, but questioned whether the data showing where HWC takes place existed, saying "our ranger-based monitoring is undertaken inside protected areas, so do we need a system for monitoring crop raiding by wild animals outside protected areas that will help us to manage it effectively?". He also described how the UWA should be tapping into the numerous programmes for poverty reduction and livelihood support by the Government of Uganda (for example NAADs for agricultural support). On the issue of problem crocodiles, he asked whether a sustainable use scheme to harvest crocodile eggs and skins could be considered.

Responses by panel members to these questions and comments were:

- A formal policy for reformed poachers would be difficult to work in practice.
- Training for the UWA's community conservation staff is very important.
- The NAADs scheme is a possible source of funding, although there were problems when the highyield crops brought with the funds were raided by wild animals.
- The ratio of law enforcement to community rangers is important to discuss. When protected areas
 were established, high numbers of law enforcement rangers were vital to stem the widespread
 poaching of wildlife. But now it is time to adjust and devote more effort into community conservation.
- It is true that the UWA budget allocations for law enforcement are higher than for community conservation. But the community conservation unit has recently been elevated within the UWA and the UWA Board discussed increasing its budget from 2% to 12%. So we now need to see this take hold.
- About more poaching in the dry season, a NGO established a guaranteed market for local produce but on the condition that the communities do not poach.

4. DAY TWO: preparing for Wildlife Crime Action Plans with the Uganda Wildlife Authority

4.1 Recapping findings and recommendations

Day Two started with a presentation by **Henry Travers**, reminding the participants of the main research findings and recommendations, as follows:

- Hunting meat for subsistence and/or to sell is the most commonly undertaken wildlife crime in Queen Elizabeth and Murchison Falls National Parks.
- The relatively-wealthier people (for these areas) are more likely to hunt than the poorest households.
- Poorer households do hunt and suffer more from the justice system, as they typically go to prison because they are unable to pay fines.
- The sheer number of hunters entering the national parks limits how effective law enforcement patrols can be.
- Engaging local communities can be an effective way to reduce wildlife crime, in particular by resolving HWC, creating local employment opportunities and establishing wildlife scouts.
- The added advantage of engaging local communities is that the UWA is much more likely to receive intelligence from them to help tackle wildlife crime.
- The UWA implements many interventions to tackle wildlife crime, but these are undertaken in isolation
 and sometimes conflict with each other. To overcome this, all interventions should be woven together
 into a single strategy formalised as a Wildlife Crime Action Plan for each national park. This plan will
 enable a targeted and coordinated approach based on specific wildlife crimes, areas and communities.
- The action plans should be implemented in stages, making the most of 'easier wins' early and with the recognition that behavioural changes take time.
- It's important that UWA staff receive training to build their skills in community conservation, for example conflict resolution.
- Finally, all UWA interventions to tackle wildlife crime should be under-pinned by actions to build long-term trust and respect by local communities.

4.2 Preparations for developing Wildlife Crime Action Plans

Participants were divided into two groups, one for Queen Elizabeth and one for Murchison Falls National Park. Each group had a facilitator from the project team, and senior managers from within the UWA. The groups discussed four questions to help with their preparations for producing Wildlife Crime Action Plans for each park. These questions were:

- Who will write the plan?
- When will it be done?
- · What inputs are needed?
- · What funds could support?

Each group presented their answers and all discussed the best way to proceed. Agreement was reached on the steps and timeline for producing and implementing the action plans, and this is shown in Table 5. Crucially, all agreed to complete and implement the plan during 2016, and then gather lessons learnt for presentation at the project's final workshop in March 2017.

Table 5. Timeline for producing and implementing Wildlife Crime Action Plans at Queen Elizabeth and Murchison Falls National Parks

Timeline	Wildlife Crime Action Plan
2016	
June - July	Planning Meeting
July	Draft the Action Plan
August	Present Action Plan to stakeholders
September	Submit Action Plan to UWA HQ
October	Action Plan approved by UWA HQ
November - December	Implementation and gathering lessons learnt
2017	
January - February	Implementation and gathering lessons learnt
March	Presentation at the 'end of project workshop'

4.3 Planning for 'pro-poor' interventions

Participants stayed in their groups with their facilitators and discussed all interventions they undertake to tackle wildlife crime at that national park. They reviewed these interventions in light of the research results, and agreed on what new, or improved intervention, they would implement.

Both groups chose 'community wildlife scouts' as their new/improved intervention, with the aim that scouts will monitor and intervene when human-wildlife conflict occurs, and liaise with the Community Conservation staff on mitigating it. The group for Queen Elizabeth National Park acknowledged that they have a scout programme at the moment, but do not have adequate resources for it - so this is an opportunity to "do it properly".

The groups then addressed four key questions to help with planning and implementing 'community wildlife scouts' at their national park. These questions were:

- Who will do it?
- What's needed?
- · What funds could support it?

Each group presented their answers and all discussed the various issues that emerged from this process (Table 6). All agreed that community wildlife scout programmes need further discussion and planning, as part of developing the Wildlife Crime Action Plans, but that these programmes are 'pilots' from which lessons will be gathered and presented at the project's final workshop during March 2017.

Table 6. Initial planning for community wildlife scout pilot programmes at Queen Elizabeth and Murchison Falls National Parks

Question	Notes
Who will do it?	UWA: the Community Conservation Wardens will lead with support from the Community Conservation Rangers. The project team will support and the Uganda Conservation Foundation might be able to support as well, depending on their work in each national park
What's needed?	Identify 'hot spot' community areas of HWC in order to target the programme. For example, four 'hot spot' community areas were identified at Queen Elizabeth National Park, which were Hamakungo; Kyambura; Ishasha; and, Rwehingo. The 'hot spot' areas should be mapped onto maps from the SMART/MIST databases

and from Henry's research to show any overlaps with 'hot spots' of wildlife crimes, especially hunting.

When the community areas have been selected, UWA will identify suitable individuals from frontline communities for the programme. It was discussed whether these individuals should be former poachers, but decided that this issue should be discussed further during selection of the community areas. The individuals will be trained in HWC mitigation and in data collection using the good practice developed by the HUGO programme at Bwindi. Training could be undertaken at the Uganda Wildlife Training Institute at Katwe. They will be supplied with basic equipment of: gum boots; raincoat; bicycle; animal scaring equipment; and, digital data collection.

There was much discussion as to whether the community wildlife scouts should receive a stipend. The NGO partners said this is appropriate given the work involved and also a necessity to maintain the commitment and motivation of the scouts. A stipend should be approximately 50,000 Uganda Schillings per month (approximately \$600 per person per year). However, senior management within UWA said that giving stipends was not possible, as this is work in partnership with local communities to resolve HWC.

support this?

What funds could The various funding opportunities discussed were:

- The Prosperity Fund of the British High Commission in Uganda
- **USAID**
- Allocation from tourism revenue sharing
- The Illegal Wildlife Trade Challenge Fund by the UK government
- Budget allocation from UWA Headquarters

Annex 1

Participants list: Wildlife Crime Research Workshop

DAY ONE

Dilys Roe Andy Plumptre	IIED WCS
Andy Plumptre	WCS

Geoffrey Mwedde	WCS
Henry Travers	Oxford University
EJ Milner-Gulland	Oxford University
Julia Baker	WSP PB
Aggrey Rwetisba	UWA
Charles Tumwesigye	UWA
Adonia Bintoora	UWA
Jossy Muhangi	UWA
John Makombo	UWA
Chadiha Keffa Ndeke	UWA
Edgar Buhanga	UWA
Pontious Ezuma	UWA
Nelson Guma	UWA
Fredrick Kizza	UWA
Johnson Masereka	UWA
Julius Obwona	UWA
Getrude Mamakula K	UWA
Olivia Biira	UWA
Edward Asalu	UWA
Susan Namuli	UWA
Richard Kapere	UWA
Annet Tuheisomwe	UWA
Margaret Kasumba	UWA
George Owoyesigire	Ministry of Tourism, Wildlife and Antiquities
Chairman LIII Purongo	s/c Lakony F Okumu
Chairman LCI Pii Akeyo	Diima parish: Kyomukama Bonifance
AnneMarie Weeden	UCF
Maz Robertson	Soft Power Education

Ashley Netherton	USAID
Gladys Kalema	СТРА
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DAY TWO

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Olivia Biira	UWA
Edward Asalu	UWA
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'Building capacity for pro-poor responses to wildlife crime in Uganda' (2014-2017) aims to increase national capacity to deliver pro-poor responses to wildlife crime. By increasing understanding about the links between wildlife crime and poverty it will also provide lessons with international applicability.

This report presents the findings of a two day research results workshop held in Kampala, Uganda in May, 2016.



Theme: Biodiversity

Keywords: Uganda, wildlife crime, livelihoods, pro-poor

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