



Section 5: Conservation Action



Poacher with duiker.. A. Plumptre, WCS

Introduction

If chimpanzees are going to survive in Uganda in the long term conservation actions must target the threats listed in Table 4.2 and the Appendix. There are other threats affecting these forests that could not be assessed during this study due to limited time and resources, but we are confident that our assessments have focussed on the most significant and pressing issues. The threats that have not been examined are essentially indirect threats such as political decisions to change the land uses of protected areas as happened with Butamira Forest Reserve in 2002. What we have observed, recorded and summarised here are the direct threats that are having an impact on the forests.

The actions needed to reduce the impacts of these threats are what will form the basis of a strategic action plan for chimpanzees populations in Uganda. Following the production of this report, WCS and JGI will be working with UWA to develop such a strategic action plan for chimpanzees in Uganda bringing together the main stakeholders involved in chimpanzee conservation. We present here some ideas that could be considered under the action plan as actions that would reduce the threats we observed.

Most of the threats we have listed can be grouped into a smaller subset of categories that need similar actions to address them as follows:

- Encroachment or forest loss
- Bushmeat hunting, fishing and animal collecting
- Local community use of plants (timber, firewood, NTFPs and medicinal plants)
- Increased access to the forest (roads, mining, access to water, grazing, fire)
- Conservation activities (tourism and research)
- Crop-raiding

We have omitted rebel activity from this list as it is the most difficult threat to tackle as a conservation manager. However we would encourage close liaison with the military forces where they are posted near or within the forests as they can have as much of an impact as the rebels themselves.

Encroachment and forest loss

Over the past 40 years both the Uganda Wildlife Authority (UWA) and the Uganda Forest Department (FD) have managed to maintain the boundaries of most of their protected areas over periods of political instability and war. Loss of forest within protected areas is a tiny fraction of the total forest lost (Plumptre, 2002) in the region of Uganda where chimpanzees occur. Most forest has been lost outside protected areas as people have cleared land for farming. However, pressures to clear the forests to gain access to land for agriculture is high in Uganda due to the rapidly growing human population. Where patrols are limited such as in Kasyoha-Kitomi forest local people encroached quite deep into the forest without being noticed quickly. This highlights the need for regular patrols and monitoring. UWA has a patrol-based data collection system in place with associated software (MIST) to handle the incoming data. Collecting spatially referenced information using GPS units provides information of patrol coverage allowing managers to track, map and plan patrolling activities to ensure more even coverage of patrols. It is critical that the Forest Department establishes an efficient patrolling/monitoring system in its natural forests. Close collaboration with UWA for example, and the implementation of some of UWA's recent protection and monitoring strategies would go a long way towards reducing the impacts of the threats we have observed.

Limiting the loss of forest outside protected areas is more of a problem and yet the maintenance of corridors is crucial if chimpanzees are to survive in many of these forests in the long term. There is a need to develop mechanisms to conserve natural forest on public and private land outside protected areas in Uganda. One of these could include tax incentives to people who keep natural forest on their land as occurs in other countries. Developing land use plans that factor in biological corridors at both district and the national level is essential for the long term survival of natural habitat outside protected areas. There are already laws that state that forest should be left within 50 metres of streams but there is no enforcement of this law where it is infringed. It is critical therefore that the laws are clearly and widely understood and that they are enforced.

Actions needed

- Regular monitoring systems in place in UWA and FD
- District and national land use plans that restrict forest conversion in potential corridors for wildlife
- Stiffer penalties for infringements of the law

Bushmeat hunting, fishing and animal collecting

Hunting of animals for meat occurs in all the forests surveyed. The threat analyses all highlighted the impact of hunting on wildlife and the long-term integrity of the forests. This is because large mammals tend to be targeted by hunters and it is the large mammals that have the greatest impact on the structure and ecological processes of the forests. In most of the forests people did not target chimpanzees for meat but did target them because of crop-raiding problems (see below). Many chimpanzees are caught in snares set for duikers and bushpigs, suffering debilitating injuries – often losing limbs – and at times result in fatalities. Given that there are so few chimpanzees in Uganda and that where they have been studied about 25% of chimpanzees suffer from snare injuries, a much greater effort is required to tackle this problem.

Collection of animals for the pet trade or zoos is less common in Uganda than in many other countries where chimpanzees occur. Many young chimpanzees

are brought over the border from DR Congo, however, and recently this has been increasing with the withdrawal of Uganda's military presence in DR Congo. There was evidence that the collection of reptiles in the Ruwenzori Mountains park, particularly the endemic chameleons, had led to a drastic decline in their abundance with local guides stating that they now rarely see the species.

A closer collaborative effort between customs and the police is urgently required to tackle the trade from DR Congo and prevent hunters bringing young chimpanzees across the border into Uganda. Preventing the movement of infant chimpanzees into Uganda will not only reduce the burden on the Ugandan facilities responsible for caring for the confiscated infants, but also limit the options available to poachers. As a result there will be a decline in the capture of infants in Congo.

JGI and Budongo Forest Project have established snare removal programmes in Budongo forest and Kibale park which have been very successful. For the most part snaring activity is lower in the parks because there are rangers dedicated to patrolling the forests and removing snares unlike Forest Department rangers who are primarily occupied with monitoring pitsawing activities. There is a need to develop a more extensive patrolling strategy, particularly in the larger forest reserves where the abundance of large mammals tends to be higher and snaring activity is more common. Unfortunately, insufficient funding is hindering increased protection measures. The development of research and tourism areas can help reduce the incidence of snares but does not eliminate the threat unless a specific snare removal programme is also implemented.

Education of local hunters and providing them alternative methods of income generation will reduce the incidence of hunting but probably not eliminate it. Often hunting is a cultural activity and raises the status of someone in the village so that it is difficult to completely eliminate it.

Actions needed

- Snare removal programmes with regular law enforcement patrols
- Programmes that target hunters living in communities adjacent to the forests to provide alternative livelihood options
- Work with police and customs to prevent trade of young chimpanzees to Uganda

Local community use of plants

The use of forest products ranged from fairly destructive practices such as timber harvesting (sawmilling and pitsawing), firewood collection and charcoal making down to the more milder impacts of medicinal plant and wild coffee harvesting. As a general rule it should be possible to establish sustainable off-take quotas for plant products provided research and monitoring programmes are in place to monitor harvest off-take and assess the impacts on the productivity of the plants. Where the harvesting is for commercial purposes which will have markets further afield than the local community (timber, charcoal making, building poles and fence posts and rattan cane) it is far more important that these programmes are in place.

For some species, on-farm substitution may be a method of reducing the impact on the natural forest. This has been tried for bamboo and some medicinal plants around Bwindi Impenetrable National park and Mgahinga Gorilla National Park with some success. On-farm substitution will probably be most needed in areas of high demand and low availability. Plantations of fast growing trees such as eucalyptus and pine is a type of on-farm substitution that can reduce the pressure on the natural forest by providing local alternatives for firewood, building poles, bean stakes and timber or charcoal. In order for people to invest in plantations they need to be sure they will be able to sell the trees later. This requires better law enforcement in the natural forest so that the alternatives that exist there are not exploited, thereby driving down the price of plantation products.

Allowing some use of the forest will probably create better relations between local people and park authorities. This is certainly the assumption of most 'integrated conservation and development projects' (ICDP). In the long term though it is probably better helping local people find alternative methods of making money in order to reduce the heavy reliance on forest products and resources.

Actions needed

- monitoring and research programmes to assess off-take and viability of plants harvested
- On-farm substitution programmes in areas of high human population density where demand for a plant is high.
- Plantations to take the pressure for poles, timber and firewood off the natural forest

Increased access to the forest

Providing increased access to the forests increases the risks to the forest. Often increased access through the provision of roads or other means leads to increases in illegal activities unless law enforcement activities are also increased. Opening up the forest to local people can lead to other threats such as the invasion of exotic species along paths and roads and an increase in the incidence of fires. The forests where chimpanzees occur in Uganda have all been affected by fire resulting from the activities of local people, even in the wettest forests such as Bwindi Impenetrable National Park. As a general rule it is probably best to limit access as much as possible and try to provide the resources required to satisfy local needs from outside the forest.

Actions needed

- limiting human access to forests
- Identify what people want from the forest and look for alternatives that could be developed outside the forest

Conservation activities

Research and tourism activities can have quite an impact on the forest. Both can benefit the conservation of the forests by providing regular surveillance and information to better manage the forests. However, they also affect the forest and chimpanzees and as a result they are potential threats. While the impacts of tourism on gorillas are being assessed and monitored there has been little work on this issue with chimpanzees. Chimpanzees like the gorillas are at risk from human diseases and there is a need to develop standard protocols for all the chimp tourism and research sites about the behaviour of tourists and researchers to minimise the spread of disease.

Chimp tourism is probably more destructive to the forest than gorilla tourism because an intensive network of trails are developed and maintained in the forest. In some sites these trails have developed their own vegetation over time and it has been noted that certain species, including chimpanzees, avoid the trails (Plumptre pers. obs.; Plumptre and Reynolds, 1997). These trails increase access to the forest for hunters. Currently a large percentage of Kibale National Park and Budongo Forest Reserve are covered by grid trails - as much as 30-40% of the forest in the case of Kibale. We would recommend that zoning plans for all the forests are developed as part of a management planning process that details where research and tourism take place and where trails can be developed.

Habituating chimpanzees for research and tourism purposes leads to the loss of fear of humans and can potentially lead to increased crop raiding or even attacks on people. Human infants have been attacked and killed by chimpanzees in Uganda and elsewhere. There is a need therefore to ensure that chimpanzees maintain a certain level of fear of people and are less likely to attack as a result.

Actions needed

- Develop protocols for the behaviour of researchers and tourists to minimise disease risks and risks of over habituation

- Develop zoning plans as part of the management plans for the forests to detail where tourism and research can develop trail systems

Crop raiding

Where chimpanzees are crop raiding cash crops there is great friction between the local communities and the protected area authorities. This is particularly true around Bugoma forest where cocoa is being grown and around Budongo forest where sugar cane is being grown. Elsewhere chimpanzees raid mango and papaw trees but people do not regard these as important crops. Around Budongo forest fruit trees are considered as food for children and many children help themselves to the fruits so they usually do not mind that much if a chimpanzee occasionally visits the trees also (C. Hill pers comm.). Crop raiding by other species is a major problem in Uganda currently because it leads to a very negative attitude towards protected areas and their managers. There is therefore a great need to find ways of reducing this friction by either reducing the level of crop loss or by raising the tolerance of local people so that they are prepared to accept a certain amount of loss. Crop raiding is a very emotive issue and finding effective solutions is difficult. In many studies it is often found that the species most people complain about is not the species that causes the most damage and there is a need to determine what it is people are really complaining about before trying to tackle the issue (Hill et al., 2002). Developing coherent land use plans for the districts that would determine where certain cash crops can be grown would be one way of reducing some of the conflict if it is linked with developing alternative cash crops that are less palatable. One possible cash crop is chilli peppers which is proving to be working well as a crop that minimises crop raiding loss while increasing local community livelihood security in Zimbabwe (F. Osborn, pers. comm.). Tea is another good buffer crop and is probably why there is less problem between chimpanzees and farmers around Kibale National Park.

Actions needed

- Assess levels of damage and crop loss in Hoima and Masindi districts and determine whether it is really the loss of crops that people are complaining about

- Work with districts to develop land use plans that minimise conflict through crop raiding
- Assess possible alternative cash crops that are less palatable (such as tea)

Conclusions

We have given some possible actions that are needed to address the threats we observed during these surveys. These ideas will feed into an action planning process that will involve representatives of most of the main stakeholders (protected area authorities, researchers, NGOs, District Environment Officers, police, and customs). The action plan will be developed using a logframe approach with goal, objectives and activities which will aim to be as specific as possible, stating where and when actions will take place and who will implement it.

No action planning process is of any use though unless the actions are implemented. However, there has been a good follow-up to the chimpanzee population and habitat viability analysis workshop that was held in 1997 (Edroma et al., 1997), from which one of the recommendations was the nationwide survey of chimpanzees presented in this report. There will be a need to monitor chimpanzee populations over time to assess whether the actions that are taken to reduce the threats will ultimately conserve the chimpanzee population. The numbers we have presented in this report act as a baseline from which monitoring can assess changes in future. Given the difficulty in censusing chimpanzees and the errors involved it will be difficult to detect small changes in populations even with the significant effort we have invested in these surveys. Detecting changes between two separate census results often requires a major change in the population (Plumptre, 2000). Over several surveys though it becomes easier to detect more subtle changes through trend analysis. We would recommend therefore that as part of the action plan a subset of the sites we have surveyed are selected and monitored at 5 year intervals to determine the trends in the chimpanzee populations in Uganda.