



**Limbe**

**Wildlife Centre**

*A collaboration between  
Pandrillus & the Government of  
Cameroon, Ministry of Forests  
and Wildlife MINFOP.*



## **Evaluation of Sustainable Harvesting as an Alternative Livelihood for Ex-Hunters in Batoke Village, Cameroon**





## Project Overview

Limbe Wildlife Centre (LWC) is a rescue, rehabilitation and reintroduction/release project founded in 1993 as a collaborative effort between the conservation NGO Pandillus Foundation and the Government of Cameroon, Ministry of Forestry and Wildlife. It aims to protect wildlife endemic to Cameroon from the major threats of deforestation, illegal hunting, and trade of endangered animals while providing a long-term solution for confiscated wildlife.



*The bushmeat trade leaves infants orphaned, who are then sold as pets, often kept in deplorable conditions.*

LWC's existence is a direct result of the illegal animal trades and the depletion of the animals' habitat through unsustainable logging and the ever-expanding human population. Traditionally, non-domestic animals have always been an important resource, particularly in small communities that depend on forest animals for protein; however, pressures from commercial factors have created a demand in progressively unsustainable quantities. The hunting of wild animals for meat, or the bushmeat trade, does not simply enable local people to eat protein. Rather, much of the meat is smuggled to, and sold in, large cities as a delicacy for those wealthy enough to be able to afford it. LWC, while acting as a rescue center and educational resource base, is actively

involved in *in-situ* conservation, particularly for those species endemic to the area that can be reintroduced into

protected areas; rescued animals provide the possibility of increasing wild populations to bolster species survival. The most probable reintroduction site for many endangered and threatened species cared for by the sanctuary (including the Nigeria-Cameroon chimpanzees, drill monkeys, mona monkeys, putty-nosed monkeys, and Preuss's guenons) is the newly

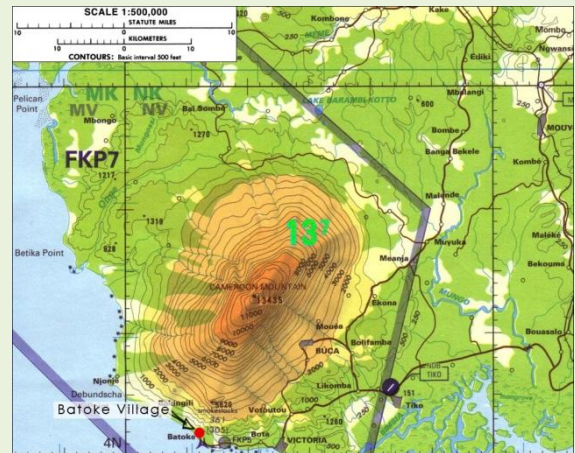


*LWC currently cares for more than 90 drills, one of the most threatened of all African primates.*



created Mount Cameroon National Park. This park was created in 2010 with approval from the 58 surrounding villages' traditional leaders and covers an area of 58,178 hectares.

Mount Cameroon National Park is located in the Guinean Forest Region of West Africa, a biodiversity hotspot which has the highest mammalian diversity in the world, and is one of the few remaining retreats for various primate species; therefore, it is invaluable for conservation. One of the main threats for animals within the park is hunting; it is widespread and law reinforcement is difficult to implement. This area must be made as safe as possible for wild populations as well as for species housed at LWC that are eligible for reintroduction.



*Batoke is located in the buffer zone of Mount Cameroon National Park.*

In the Buffer Zone of Mount Cameroon National Park, there are two biologically important areas that include community forest: Bakingili Village and Batoke Village. The Bakwerian people of Bakingili are traditionally fishermen, meaning that their livelihoods are based around the sea, whereas the Manyu people of Batoke are traditionally hunters, with their livelihoods based around the forest. For this reason, along with the large population of Batoke, we are working with the community in order to provide alternative means of living to hunters in this village, which used to be well-known for its bushmeat market. For the past nine years, we have been working there with hunters through our Hunting Reduction at Mount Cameroon National Park Programme. This programme consists of three projects that aim to reduce the hunting pressure in the area by encouraging hunters to retire from their hunting activity by redirecting them to sustainable agricultural schemes.

### 1. Livestock Production

- a. This pilot scheme aimed to redirect hunters to farming livestock. The individuals involved were trained in pig-rearing and poultry keeping with the goal of providing a sustainable alternative animal protein and income source to the people of Batoke. Through this pilot project, we learned an important lesson:



attempting to introduce a new form of alternative livelihood, rather than





traditional activities into economically beneficial schemes, is not effective. The people of Batoke had always relied on wild animals as a source of protein and income, and this cultural practice could not simply be changed by introducing a brand-new practice.

## 2. Aframomum Project

- a. In this very successful on-going scheme, 30 ex-hunters are employed to harvest Zingiberaceas in a sustainable fashion from the secondary forest for the animals currently cared for at LWC. This not only gives an invaluable source of medicinal plants and a proper diet to many of the primates, but also



protects the forest from being logged as this species only grows in secondary forest. These ex-hunters know the need for maintaining such areas and the value that they provide, and through this unique partnership with LWC, have also come to appreciate the endangered species of Cameroon.

## 3. Green Leaf Vegetable Scheme

- a. This scheme is the newest addition to our program, and currently provides 8 women and their families with an alternative to preparing and selling bushmeat. The women sustainably harvest green leaf vegetables, an economically costless activity that has minimal environmental impact, which are then purchased by LWC as food for the rescued animals currently under our care.

The Aframomum Project and Green Leaf Vegetable Scheme have four main goals:

1. To give an alternative and sustainable source of income to discourage hunting activities and pressures within Mount Cameroon National Park. This area is invaluable for conservation as it is one of the few remaining retreats for various primate species. This will enable us to safeguard wild populations of vulnerable, endangered, and critically endangered species.
2. To give economic value to the protection of the flora and fauna of Mount Cameroon National Park.
3. To provide essential nutrition which simulates the natural feeding patterns of the rescued primates cared for at LWC.
4. To create a relationship with the future host communities of the LWC Field Site Extension.



In the long-term, these projects aim to make Mount Cameroon National Park safer for a future field extension where the rescued primates currently housed at LWC that are endemic to the area will be transferred. The ultimate goal of this field site would include a reintroduction with conservation purposes. In order to conserve species, we need to focus on the habitats they live in, as well as on supporting sustainable and realistic alternatives to hunting for the local people.

### *Community Meetings*

A two-part workshop was held for members of the Batoke Aframomum Team and the women of the Green Leaf Vegetable Scheme as well as interested community members in the months of June and July. The first session, held in Batoke, was aimed at increasing knowledge about the importance of the forest, the wildlife of Cameroon, and the animals at LWC that benefit from the programs. The second session took place at LWC, and included a tour of the sanctuary. Both programs included discussion sessions, which were aimed at evaluating the successes and failures of the two schemes.



### Part I: 29 June, LWC Educational Presentation, Batoke

This workshop was held at the community center in Batoke, with 42 community members in attendance, including 5 village elders. Glenn Motumba and Ateh Wilson, the senior education officers of LWC, led the meeting with assistance from Akala Daniel, the village leader of the Aframomum Project and Green Leaf Vegetable Scheme. The day



*Glenn Motumba speaks to the Batoke  
community*





began with introductions from all of the participants, including program members, community members, and LWC staff and volunteers. Glenn and Wilson then gave a presentation in Pidgin English, the shared local language, which focused on the importance of the forest and wildlife of Cameroon and the partnership between LWC and the Batoke community. After the presentation, a film, also in Pidgin English, focusing on the importance of conserving the endangered species of Cameroon was shown.



*Glenn and Wilson speak to Aframomum and Green Leaf Vegetable Team Members and interested members of the Batoke community*

### *Selection of Questions and Answers from the Discussion Session*

**Q1: Can the LWC help the Batoke community by providing programming that will empower youth? They need to be part of something that is productive and that occupies their time.**

A1: Since the start of LWC, we have been working to empower youth. The income that parents bring home from their Aframomum and Green Leaf Vegetable harvesting all contributes to financing youth education and supporting their well-being. Staff explained that both schemes are starting to help a great deal of people over time, and stressed to the community that LWC does not currently have the capacity to oversee multiple projects that will be enough to support the entire community.

**Q2: It is becoming harder and harder to find Aframomum. When the project began years ago, members did not have to travel far into the forest to find and harvest it. Now they are having to travel further in, and spend longer amounts of time in the forest, away from home. Does the LWC know of any research about cultivating it, or if they could find some and share their findings with the group?**



A2: LWC staff replied that while cultivating Aframomum could benefit the community in immediate ways, the secondary benefits of sustainably harvesting it would be lost. Because the Aframomum located in Mount Cameroon National Park requires the tree canopy to thrive, the Aframomum project secondarily deters deforestation, protecting the forest and habitat of so many endangered wildlife species.

**Q3: How does LWC staff store the Aframomum in such a way that it will last?**

A3: Staff explained that the Aframomum is kept in containers for freshness and is rationed over two-day periods so that it does not spoil. The Aframomum is stored near the gorilla enclosure, as these individuals receive it most frequently.

**Q4: When animals died, what does LWC do? Can dead animals be fed to the crocodile at LWC?**

A4: We make a celebration of the animal's life after the post-mortem examination is done. This exam is done to determine the cause of death if it is not already known, which helps us to treat the other, living animals better. Staff explained that each animal at LWC is a member of the LWC family, and that we care about them as if they are family members. Animals who have died cannot be fed to the crocodiles because they may have died of an illness, and as animals die infrequently, this would not be a reliable source of food. Each week, LWC buys beef and other meats, which are kept in the freezer for the crocodile's weekly feedings.

**Q5: Can the group supply more Aframomum and Green Leaf Vegetables than they are currently supplying to the Centre?**

A5: Staff explained that the way the current program is run, more browse cannot currently be supplied, as it may result in over-harvesting which would affect the sustainability of the program; however, we are currently working on developing a new schedule which will ultimately allow more individuals to be involved in the program.

**Q6: How do staff know when animals are sick, since they don't talk?**

A6: We know through their behaviors. In each section, there are keepers who have worked for a long time with the animals, so they know how to observe each individual. As keepers, we come to know each animal's personality, and you see



irregularities. When something seems wrong, you tell the veterinarians (animal doctors).

**Q7: What is the center's plan for reintroducing the animals back into the forest? How will you keep them safe from hunters?**

A7: LWC staff explained that some animals (non-primates, such as reptiles, birds, etc.) can be released individually into a protected area without much difficulty, while primate reintroductions are much more complicated. These species must be released in groups, into their natural habitat in a well-protected area, long-term funding must be secured, and animals must go through a health-screening process. Working with a supportive local community that is committed to protecting the animals and their habitat is also necessary. It was also explained that reintroduction is a very length process that must be done in stages and over time.

This answer sparked an important conversation where all community members contributed to answering the question. Even an ex-hunter from the Batoke community who was well-known for his accuracy stated that wildlife should no longer be hunted due to their decreasing populations. It was agreed that if hunting were to continue, all of Cameroon's wildlife would be gone and their children would have no future.

**Q8 (from a female elder group member): When I am not on my farm, potato leaves have been stolen from my land and sold as part of the harvesting program. How can this problem be addressed and prevented?**

A8: LWC staff encouraged a meeting with the group's leader (Akala Daniel) about issues of land usage and rights. They said that this problem should be discussed amongst the group in order to come up with solutions as a unified group.

#### Part 2: 6 July, Aframomum and Green Leaf Vegetable Harvesters Visit LWC

On Saturday, 6 July, Batoke community members (including members of the Aframomum and Green Leaf Vegetable teams, their families, and other interested community members) were taken to LWC. After a brief introduction, they split into two groups in order to receive guided



tours from Wilson and Glenn. During the tour, participants learned about all of the animals at LWC, had time to observe and ask questions of their guides, and discussed animal behavior. Wilson and Glenn both described each of the animal species, including





their characteristic behaviors, information about their reproductive habits and social lives, their eating and sleeping habits, etc, and the similarities between non-human and human primates were explained. All participants showed extreme interest in all of the animal species at LWC, and the majority had never seen these animals alive before. Evidence of their interest was shown in the many, many questions asked of Wilson and Glenn. Both groups also had an in-depth discussion on the mission of LWC and the effects of the bushmeat trade.



*During the visit to LWC, Aframomum and Green Leaf Vegetable Team members were able to see how their efforts benefit the animals of LWC*

***“How many of you would like it if someone came in, shot you, and kidnapped your children? Just as you say that this is not correct, it is not correct for us to do this to wild animals. Animals need to be free in the forest, to find their own food, and to take care of their families and friends. We cannot just put them in cages with ropes and think that this is correct. We [humans] are the ones who caused them to be in these kinds of places. Animals do not need cages, the only cages that should exist are the ones that we must create in our hearts to prevent us from disturbing the animals in their homes.”***

***- Wilson, in response to a discussion on the hunting of wild animals during the tour***

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Upon seeing the animals at LWC, many individuals expressed their concern about the future of wildlife in Cameroon, and clearly recognized the importance of conserving these unique species.



***“Years ago, we used to see elephants cross the street, only 3 or 4km away!  
Now you don’t see an elephant for 10 years! In the past, animals woke us  
up in the morning with noise. Today you can stay 5 or more years without  
these sounds. If we continue to kill them this way, we’ll never see them  
again. If this happens, we have done wrong to our children. When they  
grow up, they’ll have to go to other countries to see the animals we used  
to have here.”***

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***- Aframomum Team Member***

## *Project Results*

### *In Batoke*

The results of the Aframomum Project and the Green Leaf Vegetable Scheme (thus far) make it clear that both projects are proving to be extremely successful. Aframomum is sustainably harvested three times each week by the 30 members of the Aframomum Team, and thanks to a recently donated vehicle, LWC staff is able to travel to Batoke and bring the Aframomum to the sanctuary after harvesting. This has led to the strengthening of our relationship with the Batoke community, and an increased understanding of the benefits of the project for both wild animals, the forest, and animals cared for by LWC.

Green Leaf Vegetables (currently including Elephant Stalk, Potato Leaves, Papaya Leaves, and Cassava Leaves) are also harvested three times a week by the 8 Batoke women currently involved in the project. This scheme, like the Aframomum Project, makes a culturally traditional activity into an economically beneficial alternative livelihood to hunting, preparing, and selling bushmeat, and thus far has proven to be incredibly successful.

Over time, as our relationship grows, we have seen the members of the Batoke community, which is well-known for its bushmeat market, develop an understanding for and an appreciation of a healthy forest filled with endemic wildlife species. The members of the two project teams are speaking about their experiences and helping to spread the word throughout Batoke. Importantly, the majority of the community is clearly aware of the decrease in wildlife species and is now concerned about protecting the forest, not only in order to continue earning income from the project, but to preserve Cameroon’s fauna and flora for future generations.





*“These animals also bring in tourists. There are friends coming to see our animals and help us with them. If they [the animals] aren’t here, the people will go elsewhere. Money they pay to our embassy will never come to us. The animals help contribute revenue to our country. Tourists will not come here if there are just trees and forests with no other life.”*

*- Batoke Community Member*

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*Jacob observes mona  
monkeys with his son*

During their visit to LWC, one Aframomum team member, Jacob, took his 3-year old son around the sanctuary multiple times (including before and after the tour) in order to show him the special animals of Cameroon. He took the time to tell his son about every species, and explained to him that all of these animals belong in the forest. This passing of information to future generations makes it clear that Jacob truly understands the importance of the forest and its wildlife and is concerned about conserving Cameroon’s natural heritage for future generations.

### *At LWC*

The animals at LWC, many of whom are eligible for reintroduction at a future field site extension in Mount Cameroon National Park, are also clearly benefitting from the Aframomum and Green Leaf Vegetable Projects. Along with the increase in browse given at LWC, which makes up to 90% of the diet of some wild primates



*Aframomum is an important part of the gorilla diet*



(i.e. gorillas), we have seen the overall health of all of the primates at the sanctuary improve. There are fewer cases of illness, and primates with coloration (i.e. mandrills and drills) are brighter, a sign of good health. In March 2013, we received a visit from the Great Ape Heart Project (GAHP) based at Zoo Atlanta, and were happy to discover that nearly all of the apes at LWC have healthy hearts; in Western Zoos, the leading cause of death for great apes is heart disease. Although the connection between a natural diet and heart health in captive populations is not yet confirmed, it is suspected that the feeding of various types of browse is one of the factors in keeping the primates at LWC healthy.

### *Planning for the Future*

The tangible outcomes of conservation programs are never seen immediately; rather, the ultimate success of any program lies within its long-term sustainability. Instead of entering in a community, creating a short-term project, and walking away, Limbe Wildlife Centre works towards forming relationships with the local community with the ultimate goal of changing attitudes towards Cameroon's unique wildlife. Our Aframomum Project is currently in its 9<sup>th</sup> year, and we hope to be able to continue both this project and the Green Leaf Vegetable Scheme for many years to come. In order for this to be possible, and for the long-term outcomes to be visible, funding must be secured each year. The early stages of the Green Leaf Vegetable Scheme have already shown signs of success, and we cannot walk away from the communities.

