



Final Report

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Signed on: March 1st 2004 by
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1. Summary:

Project Primate's president, Mrs. Raballand, signed the USAID award on March 1st 2004 in the USAID/Guinea natural resource management office.

During the 1st quarter, budget realignment was submitted to USAID. The realignment was requested because of an increase in the price of steel, used in cage construction, and inflation, which has increased so much that it was becoming very difficult to accomplish the project objectives with the approved budget. The realignment brought the total award to \$46,349. The budget realignment was signed in Mr. Thiam's office on August 6th 2004.

During the 5th quarter, since all the activities were accomplished, a relocation of the available funds that were left (\$13,905.01) was submitted and accepted. That amount was used for a fence extension at the site, a cage building and a fence building at the release site and purchase of radio equipment to be used at the release site. A time extension from September 31st 2005 to December 31st 2005 was granted to accomplish these news activities. On December 31st 2005, the activities under the USAID project were accomplished. A final voucher was submitted on January 10th 2006. The last payment was made on January 31st 2006.



2. Construction:

- *Fence*

Under the CA, two fences had to be built: for the youngster and for the babies quarantine.

While on a trip to the US in March 2004, where Mrs. Raballand received an award for extraordinary commitment and achievement from the Humane Society International, she bought all the fencing equipment that couldn't be purchased locally, such as wire, insulators, etc. A request for quotations was sent to over ten fencing companies. Fishock was chosen based on their very competitive prices for their equipment as well as sea freight transport prices. The bill was more than \$2,000 less than the proposed budget that had been based on another company's quotes (Geotex, Inc.). The equipment was transported by boat and arrived at the Conakry port on June 5th 2004.

The fencing equipment that has arrived in Conakry port from the USA, where they have been bought, was blocked in custom for a month. The first "transitaire", Soguifret, was dismissed after the director realized that they didn't do anything during the time they were supposedly trying to get the equipment out. Once a private "transitaire" Mr. Bah has been hired, it took him less than a week to get it out. We unfortunately had to pay "surestarie" to SAGA, since the equipment was kept for more than the allowed 10 days. A mini-bus was rent in Conakry to transport the equipment to Faranah then the CCC's car and the Parc National du Haut Niger's truck transported it to Somoria at the beginning of July 2004.

All the materials available in Guinea were bought and transported to Somoria in early June (wood posts, cement, gravel, etc.). A gas shortage and the non-availability of some construction materials delayed the work by a couple of weeks.

The fence line has been cleared in the month of April-May 2004. We've hired workers from the villages for the fence clearing then again hired another crew on July 12th for the building. They had to re-dig the holes since the water has filled them back up in part. It took them two weeks to put the insulators on the posts. We had to buy additional post insulators in the US since we were missing 500 of them. The current fence is bigger than schedule and we had to add posts. Since there was money left in the budget, we bought them. The quarantine fence and the youngster's fence were built at the same time in the same fashion. The both fence have a human door that opens out.

The welder has also made the tunnel to connect the youngster fence to the youngster's cage. It stands at 1,90m and is about one meter by one meter. A ladder allows the chimps to go down from the tunnel to the fence. We also built a sliding door for the tunnel that open and close their cage to their fence.

Both fences and the tunnel was built in less than three months.

The chimpanzees were allowed in the youngster fence at the beginning of October 2004. Some escaped the first time they were out when a branch broke over the fence. Once the fence was repaired they went out again but two of them went out using a fig tree that wasn't protected. Since the fig tree has been protected, nobody else has escaped.



Youngsters' fence



Youngster's tunnel and fence

The quarantine babies still don't use the fence when they are alone since they're not used to be left without a human. They go out every morning and afternoon with a volunteer in the forest but we always spend a minimum of an hour a day in the fence with them. Once they get older, they'll be able to stay in the fence without human supervision.



Quarantine Fence

Since there was materials and funding left in the budget, a fence extension was built for the separate adult chimpanzee quarantine. At the time of building, there were two adults male in a cage 5x5 divided in two cages, attached to a fence of 100 meters of fence line. In September 2005, a teenager male who was rescued from a house in Conakry, Keno, was house in one of the cage. The fence extension, built the same way as the other fences, is used by Keno who is enjoying his new freedom. The old fence and the extension share a fence line.



Fence extension with Keno

- Cage

All the necessary metal rods were bought in Faranah. Some of them had to be ordered in Conakry by the stores (like corner bars and T bars). Due to the shortage of such specific materials, the price had increased a lot, even more than the new budgeted amount. It was decided to buy it anyway as these bars were essential to the work. Since over \$2,000 was saved on the fence, this money was used for the cage construction. They were cut in Faranah and were transported to Somoria, the first week of June 2004, thanks to the Park National du Haut Niger's truck. Two trips had to be made between Faranah and Somoria to be able to transport all the equipment.

Due to the gas shortage in Faranah, we could only buy gas for the transport truck or the CCC's generator's, 20 liters at a time, so it took us almost a month to have the entire amount necessary for the work and transport. The old generator broke down in June, so we had to buy a new one in July 2004.

We haven't repaired the old one yet as it was an expensive job and not guaranteed. Since it appeared that the previous welder was no stranger to the generator problem, another welder was hired to finish the work.

The cement floor was done at the beginning of July 2004 and the roof by mid-July. Cement gutters were made all around the cage with a local "septic system" to insure a good hygiene. We've also painted the cage with gray anti rusting paint.

The quarantine cage was completed at the beginning of August 2004 and the babies have been enjoying their cage since the beginning of September.



Quarantine Cage

3. Site Search:

Data collection materials, including a laptop computer, a GPS, GPS software and all necessary equipment were bought in the USA at the beginning of the grant. A researcher, Mr. David Lucas, was identified and approved to conduct the first survey. He arrived in Guinea in mid-April 2004 and was on the first survey site a week later.

Mr. Lucas surveyed a site in Guinée maritime and a site in Moyenne Guinée called N'dama protected forest. Both sites were part of the AGIR program. A translator hired to help him was present for both surveys. Mr. Lucas has done the two scheduled surveys and submitted a report at the end of his surveys.

It seems that neither site can be used, at present, for release of the CCC's chimpanzees. N'dama has great potential if it could be well-protected for one or two years prior to the release, to give the vegetation a chance to grow back.

Since neither site could be used, another researcher was hire to survey the Park National du Haut Niger and the Reserve de Faune de Kankan to see if either site could be used as a release site.

A French researcher, Dr. Catherine Sourmail, arrived in Guinea at the beginning of November 2004. Originally, she was supposed to do some chimpanzee surveys for the PNHN (Parc National du Haut Niger) funded by the US Fish and Wildlife Service.

Ms. Sourmail had agreed with PPI that when she came to do this PNHN survey, she would also look for additional potential release sites for PPI. Because the US Fish and Wildlife funds were never used, she accomplished her mission for PPI but left without being able to do the survey she was supposed to do for the PNHN.

Ms. Sourmail and Ms. Raballand studied maps of the PNHN and talked with different eco-guards and the conservator working in the PNHN. Three sites were identified in the Mafou protected forest, one of the two forest benefiting from full protection. The wild chimpanzees density is 0,28 at one site, which is pretty low for the environment.

Zone tampon of the PNHN:

Ms. Sourmail visited a number of potential sites along the Niger River in the buffer zone of the PNHN and in the extreme east of the Mafou forest. She traveled down the river on a motor powered pirogue and did transect on both sides. She found a lot of human activities as hunting, crops, cut woods, as well as “temporary” human settlements; some bigger than others. Also, on the edge of the Mafou fully protected area (la Mafou ZIP), there is a village, Serekoroba, that uses the ZIP intensively without any respect for its status.



Pirogue on the Niger



After a bushfire

In brief, neither the buffer zone nor the extreme east part of the Mafou ZIP could provide enough protection for the first released group. Although the density of human and wild chimpanzees is “low”, the human activities are without a doubt the reason for the lower wild chimpanzee density. Human encroachment into the forest for farming, hunting and wood cutting, has impaired suitable chimpanzee habitat rendering it unsuitable for it or for Somoria’s chimps to be released. The wild chimpanzee population, likely previously at higher densities, has been either hunted or forced out of this area, resulting in the lower density (e.g., the local population is probably suffering and release of new individuals into this habitat would cause undo pressures on these wild chimps, and released chimps would be likely easily killed by hunters due to their habituation to humans).

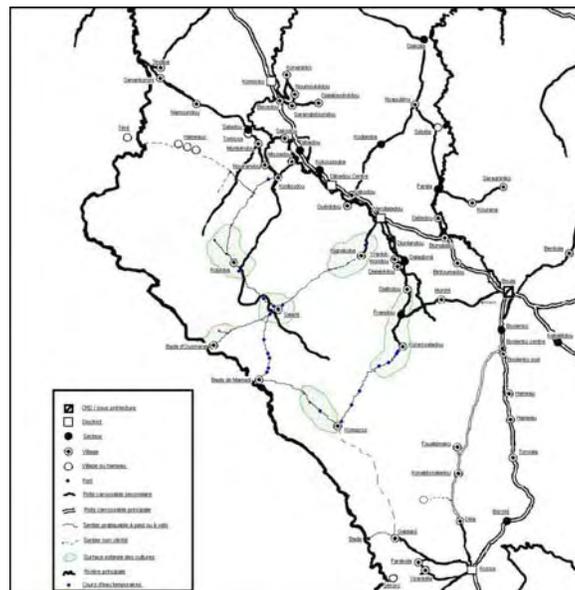
Ms. Sourmail had planned on doing some surveys in the second ZIP of the PNHN, called la Kouya, but the unwillingness of the PNHN authority to collaborate coupled with logistical difficulties in accessing the area made her change her plans.

She was however, able to conduct another detailed site survey in a semi-protected area (Reserve partielle de Kankan) near the border with Ivory Coast.

Reserve partielle de Kankan:

The management of approximately one-third of this semi-protected area had been leased in 2004 to a French national, Mr. Albert Clapasson, by the Guinean government. After meeting with him, studying his most recent maps, explaining the PPI chimpanzee release program, as well as talking about his future plans for the conservation and the protection of wildlife in his area, it had been decided that a detailed site survey should be conducted in an “unpopulated” zone of the reserve. This second mission was done with Ms. Raballand, using the CCC’s vehicle.

This site (indicated as “empty” on many maps of Guinea) appeared to have a lot of potential, but once it was surveyed, many roads, small agriculture villages (hameaux de cultures) were found all over the area. The habitat is good however, and there is enough water to support a released group of chimpanzees. Conversations with local hunters indicated that chimpanzees were prevalent in the area in the past, but it appears that all the wild chimpanzees have been hunted to extinction. Because of the hunting pressure and human settlements, this site has not been chosen for the release at this time. But release might be possible in a couple of years for the teenager group, if the hameaux de cultures can be removed and hunting stopped, as Mr. Clapasson has promised.



While in the area, education talks about wildlife protection in general and chimpanzees in particular were made using the stickers the CCC has produced with the realigned USAID grant.



Site evaluation:

Four potential release sites have been surveyed by PPI under this grant. The sites were surveyed by two researchers: N'dama and Kafama by Mr. Lucas; la Mafou (ZIP and Buffer zone) and Kankan by Dr. Sourmail.

The criteria, described in the grant, were used for the evaluation as well as some additional criteria that became relevant for certain area.

Below is a table that we've used to help in making our decisions. In italics are criteria that can't be changed so these are considered prime criteria. The scale is given in relation to the potential for release, not to the presence or absence of the criteria. For example, wild chimpanzee population in N'dama is +/- as there are some so it's not a + but not a lot so it's not -.

Scale: + > +/- > +/-- > -

Criteria	N'DAMA Reserve	KAFAMA Island & forest	MAFOU Buffer zone	MAFOU ZIP	KANKAN Reserve
<i>Habitat</i>	+/-	+/-	-	+	+
<i>It has to be a habitat where chimpanzee can live. Although chimpanzees are highly adaptable, the released chimpanzees will adapt better in an habitat similar to what they've know in Somoria (Clear forest, savanna, forest gallery)</i>					
Human population	+/-	+/-	+/-	+	+/--
The human population has to be to inexistent. Because of their human habituation, the released chimpanzees have to be as far as possible from any human settlement and roads (even foot paths). The forest where they'll be released can't be used by villagers to harvest timber, fruits or hunt. Since human population can be displaced, that criterion isn't in italic.					

Wild chimpanzee population	+/-	-	+/-	+/--	+
<i>Due to potential territory competition, it's usually accepted that chimpanzees should not be released where the wild chimpanzee population exist. The reality of Guinea is that there are no areas suitable for chimpanzees that don't have chimpanzees already. In Kafama, there is only one group of chimpanzee but since there are under so much hunting pressure as well as deforestation, that the criteria is – for Kafama as it can't accommodate another group.</i>					
Water	+/--	+	+/-	+/-	+
Obviously, the released chimps will need water, but reservoir can be dig or water pump can be used to provide water if water is lacking during the dry season for example.					
Hunting pressure	+/--	+/--	-	+	-
Due to their lack of fear in humans, the hunting pressure will have to be low at the time of the release. The entire sites visited were under hunting pressure, the higher pressure was in Kankan as well as Mafou buffer zone and the lowest in Mafou ZIP.					
Chimpanzee hunting	+/-	-	+/-	+	-
That criterion was added from the grant description criteria. It became important to make the distinction after visiting site where chimpanzee hunting occurred regularly to this day (Kafama) or before (Kankan) and other that didn't (Mafou ZIP). For the same reason as the hunting pressure criteria, the released chimpanzees would have no chance of surviving in an area where hunting is high, since they lack the fear of humans. In addition to the release, sensibilization, awareness and protection of the release site will be conducted. Also, researchers and guards will follow the Somoria chimps during the first stage of their release so if the hunting is not too high, their protection will be insure by the trackers.					
Deforestation	+/--	-	+/-	+	+
Obviously that criterion goes to pair with suitable habitat but doesn't include farming and burning, only timber cutting or mining. Kafama and N'dama were really degraded by the deforestation as well as in the buffer zone of the Mafou. In Kankan (based on the number of chain saws) and Mafou ZIP (because of its protection), the deforestation was pretty minimal.					
Current protection	+/-	-	-	+	-
<i>Apart from Mafou Zip that benefit from a full protection and N'dama that has some since its part of the AGIR program, under the Niokolo Koba-Badiar National Parc, all the other areas have no current protection.</i>					
Future protection	+/--	+/-	-	+/--	+
<i>The future protection is extrapolated from the current protection and the future plans. Since AGIR is coming to an end, whatever protection N'dama and Mafou are beneficiating from, it'll come to an end once the GoG is the sole in charge of it. On the other end Kafama might get a better protection in the future as the GEF is funding a conservation program in Guinea maritime so Kafama could probably beneficiate from it. The Mafou buffer zone is already under lots of pressure and whatever little protection it's getting will stop completely. Thanks to the lease of the area, we're hoping that the protection of Kankan will become very efficient in the future.</i>					

Outside hunters	+	-	+/-	+	-
The necessary data to answer that criterion has been hard to get and are based on conversation with local hunters and villagers. It seemed obvious that there was lots of outside hunters in Kankan but less obvious in Kafama. The major threat with outside hunters is that they hunt everything, including chimpanzees, even if the local population doesn't.					
Size	+	-	+	+	+/-
<i>It's one of the most basic criteria and it can't be changed. Based on the number of chimpanzees living in similar habitat (Chimpanzee density in the PNHN, Brugiere & Fleury 2001), it has been extrapolated that the first release group will need 67 square kilometers, approximately 7 km by 10 km. In addition to this 67 km² of this area a buffer zone of at least 5 km is necessary to avoid any human contact with the released group.</i>					
Extension potential	+/-	-	-	+	-
<i>The areas around the release site have to be accessible and usable by the released chimpanzees once the population grows or if they get displaced.</i>					
Authority support	+	+/-	+/-	+/-	+
<i>PPI and the CCC have always work with the local authorities since the project aims to become sustainable and run by the local authority. It is imperative to have their support at all levels. The support of the higher level has always been given, but local authority support is a criterion that needs to be taken into account.</i>					
Farming, burning	-	+	+	+	-
That criterion is linked to the deforestation and the habitat criteria. There was intense farming in Kankan as well as in N'dama. The land is not very rich in Kafama and the space is limited so hunting and timber harvesting was the two major threats, not farming. Even if the Mafou protection is more a myth than a reality, it does benefit from the presence in Sidakoro of the park officials so farming is limited even in the buffer zone.					
Feeding density	+/--	-	-	+	+
<i>This criterion is based on the presence or absence of consumable fruit and leaves in the forest in sufficient quantity to accommodate thirteen additional individuals.</i>					

Conclusion:

Due to extensive human encroachment into protected areas, there do not appear to be other high potential release sites to survey in Guinea. The table shows that there is no perfect site and that the decision had to be made using the criteria in order of importance.

After long discussions with both researchers and specialist as well as the director of the only other successful chimpanzee release project, it has been decided that the central ZIP in the Mafou in the PNHN offered the best site of all sites.



Since the AGIR project has come to an end at the end of 2005, the government is now the sole entity in charge of the protection of the PNHN. The small amount of funds, and weak dedication of the Government of Guinea to protected areas management outside of donor-funded project, makes the adequate protection of the park highly doubtful at present and into the future. One of the positive points concerning the use of the Mafou ZIP as a release site is that the presence of researchers, eco-guards and chimpanzee trackers will discourage hunters and tree cutters, better ensuring the future protection of the area. Also, since the CCC is located in Somoria, at the extreme west part of la Mafou ZIP, the logistics of conducting the release, monitoring and evaluating the progress of released chimps, and protecting the integrity of the area will be easier.

The most negative point of using the ZIP is the considered high chimpanzee population. Based on expert opinions, that population is high compared to the remaining population of wild chimpanzees. But in the past, wild chimpanzee population in the parc could have been up to 5/km². The released group consists of 11 adults and sub adults chimpanzees with two youngsters. Since they've been living in Somoria, wild chimpanzees have been visiting them, without aggression. The releasable chimpanzees have been tested and are not carrier of deadly or non transmittable diseases.

The ZIP is 55000 hectares, adding thirteen chimpanzees will not impact greatly on the wild chimpanzee population, while insuring their protection in short and long term. The released chimpanzees know this area, there are possibilities of extension, and the size is suitable as well as the habitat.

Although not a perfect site, an area in the center of the Mafou ZIP, along the river (30 km from Somoria, will provide the best possible release site and should offer protection to the wild population with limited impact on it since the camp will be based on the other side of the river, in the buffer zone.

A botanist from the CIRAD in France has been hired to evaluate the food density for chimpanzees in the Parc National du Haut-Niger (PNHN). All the available reports concerning the PNHN botanical variety were sent to him, along with lists of wild chimpanzees' diet. He's sent his report at the end of August 2005. His report is available in French upon request but his conclusion was as follow:

“Le relâcher de 13 chimpanzés supplémentaires (dans la ZIP) semble bénéficier d'une large ressource alimentaire bien répartie tout au long de l'année. Chaque milieu offre une ressource que ce soit la galerie forestière ou la savane boisée. Même la savane arborée, constituant près de la moitié du milieu comporte une ressource conséquente. Etant donné que le personnel du CCC n'a jamais observé d'arbre dont la totalité des fruits ont été mangés même dans des zones riches en chimpanzés et l'effort fait pour la réadaptation des chimpanzés à leur futur lieu de vie on peut conclure que le relâcher de chimpanzés dans cette zone riche en marigots et comportant des gués en saison sèche, est possible.”

The Directrice Nationale des Eaux et Foret, the Chef de Cabinet from the ministry as well as the conservator from the Parc National du Haut Niger has given their approval, verbally or in writing for the building and the chimpanzee release in the Park.

4. Release site:

With the funding left in the grant, PPI was allowed to build a cage and a fence at the chosen release site, 29 kilometers from Somoria. All the equipments that had to be bought outside of Guinea (electrical box and insulators) were ordered online in the USA. The director carried them back to Guinea. The equipment that could be bought in Guinea were bought and carried to the site using a rented truck.

The rainy season has made the road impracticable for the truck to carry the equipment, so the big building materials were first stored in Faranah. As the welder was also unable to work under the rain, he first cut the bars and kept them in his storage until the building started in December.

The fence is 400 meters long and the cage is 6mx6mx2m and will only be used for veterinary emergencies and the transfer.



Road access



Cage



Fence

Release Site

5. Radio equipments:

In the relocation of available funds proposal, the purchase of a V-SAT was submitted and accepted. The biggest advantage of the V-Sat system for the project was the possibility to track the released chimps from anywhere in the world thru the internet. But the companies making such collars withdrew their offer since they don't currently have collars with that GPS satellite tracking that could fit on chimpanzees' neck. They can only be used on bigger animals. The collars that can fit chimps' neck will still use the GPS tracking system, but the data will be stored on board the collar until it can be download. The download of the data will be done when the chimpanzees' trackers carrying the GPS hand held receivers will be in a radius of two kilometers from the collar. Information from up to thirty-five collars can be stored in one receiver that will then be downloaded to a computer.



In addition, seven companies selling and installing V-SAT in West Africa have been contacted. Unfortunately, none of them could offer the equipment for less than \$3,000, with a minimum of \$1,000 for the installation and another \$1,000 for the shipping. The cheapest connection fee per month is \$350. Since the initial company that had gave us the best deal, was now out of business, the previously allocated budget became too small.

Since the V-SAT purchase goal was to increase communications from the remote location of the site another communication system was chosen. The Park National du Haut Niger has been using VHS radio, fix and mobile. They also have a relay antenna in the middle of the Park. So a similar system that could allow us to talk from and to the release site with the center, as well as with the CCC vehicle and the Park headquarters, that can then talk to Conakry using their bigger radio, was a better purchase. The USAID mission accepted the request so the VHF radio equipments were bought at the end of December 2005, including installation fees.

6. Education Program:

The education component of this grant was very minimal and only allowed reprinting of existing stickers created in 2003 by the CCC under a Disney Wildlife Conservation Fund grant . The additional stickers were ordered online in the US. The chosen company has been used previously by PPI and offers the best quality for the price. As a new education program, funded by USAID has started in September 2005 in Guinea, with PPI and the CCC as a partner, it was decided that PPI will not create additional education materials. The stickers were distributed around the CCC, sanctuary and release site during our inter personal campaign as well as while doing site surveys.

Car Stickers:



Kill, Eat, Capture, Buy, Sell or Own a Chimpanzee is **ILLEGAL**



Chimpanzees, leave them in the forest!

7. Lessons learned:

The amount of deforestation and the difficulty to find a suitable release site was a surprise to the PPI team. Agricultural malpractice, coupled with a almost non existence family planning makes the survival of chimpanzees as well as every other wildlife unlikely unless drastic measure are taken.

a) The Orphan Chimpanzees problem:

The CCC still accept them but in limited numbers (there are over 100 in captivity in Guinea). In 2004, only three orphans were accepted and in 2005, five.

Taking new orphans are a necessity for the following reasons.:

- When there is an education program about chimp protection, orphans living in families or hotel are donated to the law enforcement agency. Also, when a chimpanzee is for sale on the side of the road it has to be seized and placed somewhere. In order to prevent people from buying baby chimps, a solution alternative to their dying has to be offered, unless law enforcement agency or the sanctuary is willing to euthanasia them (the CCC isn't and neither is the DNEF or any of PPI funders).
- By empowering the DNEF to confiscate baby chimps, they feel like they're actively doing something to protect chimpanzees. It also give a face to chimp protection. All these orphans are great ambassadors for conservation. Usually the DNEF work with CCC's staff, but sometimes they do seize by themselves.
- There can't be two messages for protection of chimpanzees. Chimpanzees tied up in someone back yard has to have as much value that the one in the wild. The message has to be consistent.
- We, as human, also have a moral responsibility towards these orphans. If chimpanzee protection was good these babies wouldn't be orphaned. Our mistakes created that situation, it would be too easy to turn our head away.
- At the rate chimpanzees extinction is going, all the orphans living in sanctuaries will become highly valuable genetic reserves for reproduction. Wild chimp populations are being so fragmented and under so much threat that even if they don't get hunted out, the wild genetic diversity is likely to become insufficient to continue the breeding of that population.

b) Is habitat destruction a major impediment to release?

Guinea is a bit different in that problematic as in most other countries where chimpanzees are endemic, they're hunted at a quicker rate than the habitat they live in is being destroyed. So in other countries, there are good habitat with no chimps, but with a huge hunting problem pressure. In Guinea, chimps have not be killed as fast as in other countries. So all the habitats that are suitable are home of wild chimps. If there are none, despite that it's a good habitat, the area must be too small (and probably home to a group or two, like in Boke area or Kafama) or under HUGE hunting pressure (e.g. Kankan where they've all been hunted out and where anything that moves gets killed). All these reasons make these habitats unfit for release.

One of the great consequence of releasing chimps or any wild animals, in a suitable habitat that is under some threats but still usable, is that the researchers presence and the chimpanzees follow-up as well as the media coverage, financial gain for local population and education associated with the release of once captives animals, will protect it very efficiently. In the long term, eco tourism will continue the protection. It's similar to an habituation of wild animals project (like the mountain gorillas project) that protects the animals as well as the habitat except that ex-captive animals are being used for viewing.

For the PNHN or any other parc or aire protégée in Guinea, their ultimate protection could depend on the release of once captive animals, especially chimps since they require more follow-up and more land than tortoise (for example). Animal protection and habitat protection are linked. It has been observed in Guinea that forests are rarely destroyed if there are still animals in it that can be hunted. But once it's empty of animals, it's a free for all situation. Also, the forest is still home to lots of tales and beliefs. Only certain people go in it (hunters, witchcraft people or people with "special" training, like eco guards). General population don't enter the forest because they are afraid of the animals. But if it's known that there is no more wildlife, the fear is gone and cutting starts (for fire wood first then for crops).

c) The threat to chimpanzees' habitat:

In Guinea, there are at least 6 threats to the habitat, and they're not always linked.

- Bush meat

For the reason explained previously and because hunters put the forest on fire to scare the animals towards them, bush meat hunting is a serious cause for habitat destruction. Also once the forest or savanna has been burned, animals are easier to see. Especially late into the season, the fire burns everything, including small tree and even kill bigger trees. As years pass by, there is more and more savanna land and less and less forest (where fire don't burn). So every year more land is set on fire, erosion is more intense and there is more desertification... Once the fire had come, using the land for crops is easier so that's another consequence of bush meat hunting.

- Inadequate agricultural practice:

For example, a new village will start by doing its field as close as possible to the village. After a couple of years, the land will be poorer so they'll go father and farther. So once the field is over 7 km away from the original village, hameaux de culture gets set up. Meaning a couple of families (or only one, but it's rare) go off at about 10 to 15 km from the original village. They established a "temporary" camp where they stay from the end of rainy season until the beginning of the rainy season the next year (9 months or so). They go back to the original village during the rainy season. After a couple of years, if the land is still good, more people join them and do more clearing and farming (they've moved farther away from the original village by then) and they settle. A new village has been created and a perimeter of 20 km of forest away from the original village has been degraded. Once a new village is there, peuls come in with their cows. BUT peuls can't live in same villages than Malinke or Soussou (or anything else than peuls), so they go off and settle THEIR village about 2 to 5 km away from the new village....ETC....It's the cycle.

- Slash and burn farming

Linked to the above, but also a problem around larger cities. Also Guineans are convinced that unless they burn their field things wouldn't grow. Ash is the only fertilization, right from the field, that they use.

- Over population

The bad agricultural methods used today will be multiplied by two within the next five years due to over population. Also, more villagers are now living in the cities and requires more and more bush meat.

- Grazing

It's a major problem in the savanna type of land, and is especially true towards Senegal and Mali. The Park National du Niokolo Badiar is especially at risk. In addition to completely destroying top soil and competing with all grazers for the little grass available, cows are often carriers of deadly diseases to wild life (and humans). There was an outbreak of anthrax in a chimpanzee group in Ivory coast last year, directly linked to cows using a common waterhole with wildlife. They are also carrier of TB, tetanus, sleeping sickness, among lots of other diseases.

During the dry season, herds of cows go and meet in the Niokolo's water holes. Some come from as far as 50 km away. People stay with them (hunting for their food) during the whole season then go back to their village. They go farther and farther every time, so as in agricultural methods, new villages are being created deeper in the grazing area.

- Rice farming

It's a disaster for Guinea. They clear cut (and burn) in the middle of forest, huge areas along marigot (small river) to grow rice. These marigot are (were) always surrounded by forest gallery, which is the habitat with the highest density of wildlife and providing water retention throughout the dry season. When the trees and vines are removed, the marigot gets dry, the animals are in the clear and they have to compete for water supplies, so they become easy targets and get hunted. Over time, water resources for farming diminish and soil quality degrades, causing the farmer to abandon the area and go to another one and clear it. Then the problematic fall back into "bad agricultural method" problems.

Most of the time, the amount of rice that is being produced doesn't even allow them to have food security. Farmers eat almost everything they produce. Not even 30 years ago Guineans were eating rice a couple time a week only. The World Food Program subsidized rice changed the starch eating diversity. Also there is an on-going campaign of eating Guinean rice, mostly subsidized by the Guinean president who produces rice, to increase rice farming so more and more forests get cut and rivers dries out.

8. Potential solutions:

Protection should be done in priority in large unpopulated or with low human density areas. The focus that have been done on community forests has shown its limits. In a National park or an aire protégée, the law to protect it exists, where it doesn't in a community forest where protections of small areas are costly per hectares.

Fencing as it has been done in Kenya or in South Africa, should be consider a viable option for West Africa. Especially if the land can be privatized, like in the Kankan reserve. In five years or so, once the message has been well understood and that the villagers (and government) has seen that it's in their interest to protect it, then the fencing can be taken down. Sensitization in an important first phase but shouldn't be the only thing. Repression inside and around the fence has to be part of the equation too.

Land can be privatized under Guinean law to make it an aire protégée, and then it could evolve into a tourism park or hunting park. As of today, there is little to view or hunt in the Guineans aire protege, and it'll take years before the number of animals for viewing or hunting is high enough. So any company with any financial interest in Guinea (Alcoa, Rio Tinto, Ashanti) should be forced to provide resources to fence, conserve, manage and protect these lands.

Mining or logging companies should have a conservation, protection, plantation and animal farm project associated with their activities to have their concession renewed. One statistic states that a Guinean eats about 3 kilos per week. A regulation that forbids staff from major companies to hunt for bush meat should be create and enforce. The company could provide meat from domesticated animals to their staff. It has been done in logging company in Cameroon with success.



As for fire wood or farming around the mine, the same problem arises. Also, most of these workers are from other areas of guinea that where they work, or from another country altogether, so they'll have no will to protect the land since they are only there temporarily. Any one who benefit from Guinean natural resources should be forced to conserve it as well.

Villages living off cows should dig water holes for their cows closer to villages. Cows should be fenced in, instead of letting them graze freely. Any cow found grazing in the protected area should be seized and the owner fined.

Natural fertilizer should be used in crops. Mixed crops in one land should be the norm as well as growing under cover species of certain crops (like coffee) and rice species that can grow on hills.

The cadastre should not allow construction of villages in prohibited or in protected areas and those that are illegal should be removed.

Laws exist in Guinea. Most of them are good but they are not enforced. Collecting fines will be one way to insure the collaboration of the law enforcement officers and to insure sustainable financing of conservation programs and/or protected areas. Law enforcement officers need to be paid with tips or extra for their work and those who break the law needs to pay fine that will make them understand the negative consequences if they do.

The bush meat markets throughout the country (there are four in Conakry alone) should be closed. Bushmeat is illegal in Guinea. Laws state that bushmeat can be consume in a family setting only. All trade of bushmeat is forbidden.

All the stores that sell endangered species should be closed and every thing seized. Whatever is illegal should be burned and whatever is not should be sold at auction with the proceeds going to the government and law enforcement agency that did the confiscation.

It is important to realize that hunting is directly linked to habitat degradation. If a forest has panthers, very few people will go in because they are afraid for their lives. Guineans don't eat carnivores, so the meat from cats is left to rot while the hide is brought to Conakry for sale. If there was no market for the panther fur, and the fine for getting caught with it, was huge, the incentive will be gone.

The GOG should subsidize rice again so it's not as profitable to grow rice, which will reduce threats to bas-fonds and gallery forests around marigots. It would be good to encourage the farming of other starch food that can grow in mixed environment (kassava, millet, corn?).



Civil servants paid to enforce the laws have to be paid more. If loggers or poachers can pay more than the state, the guard will allow the chain saw or the gun in the protected area. A reliable salary is a powerful and necessary tool. If the guard also gets paid to confiscate the chain saw, finding the saw and turning it in and the people using it, his incentive will be bigger.

Finally to have the best “on the ground impact” funding of twenty projects of \$50,000 each will be better than one at 1 million.

9. Conclusion:

By December 31st, PPI have accomplished all the purchase, building, and activities that were described in the CA: 675-A-00-04-00066, and more. PPI and the CCC will continue their activities even after the end of the USAID grant and the actual chimpanzees’ release should be done in 2007. The end of USAID grant did not mean the end of the CCC or PPI’s project.