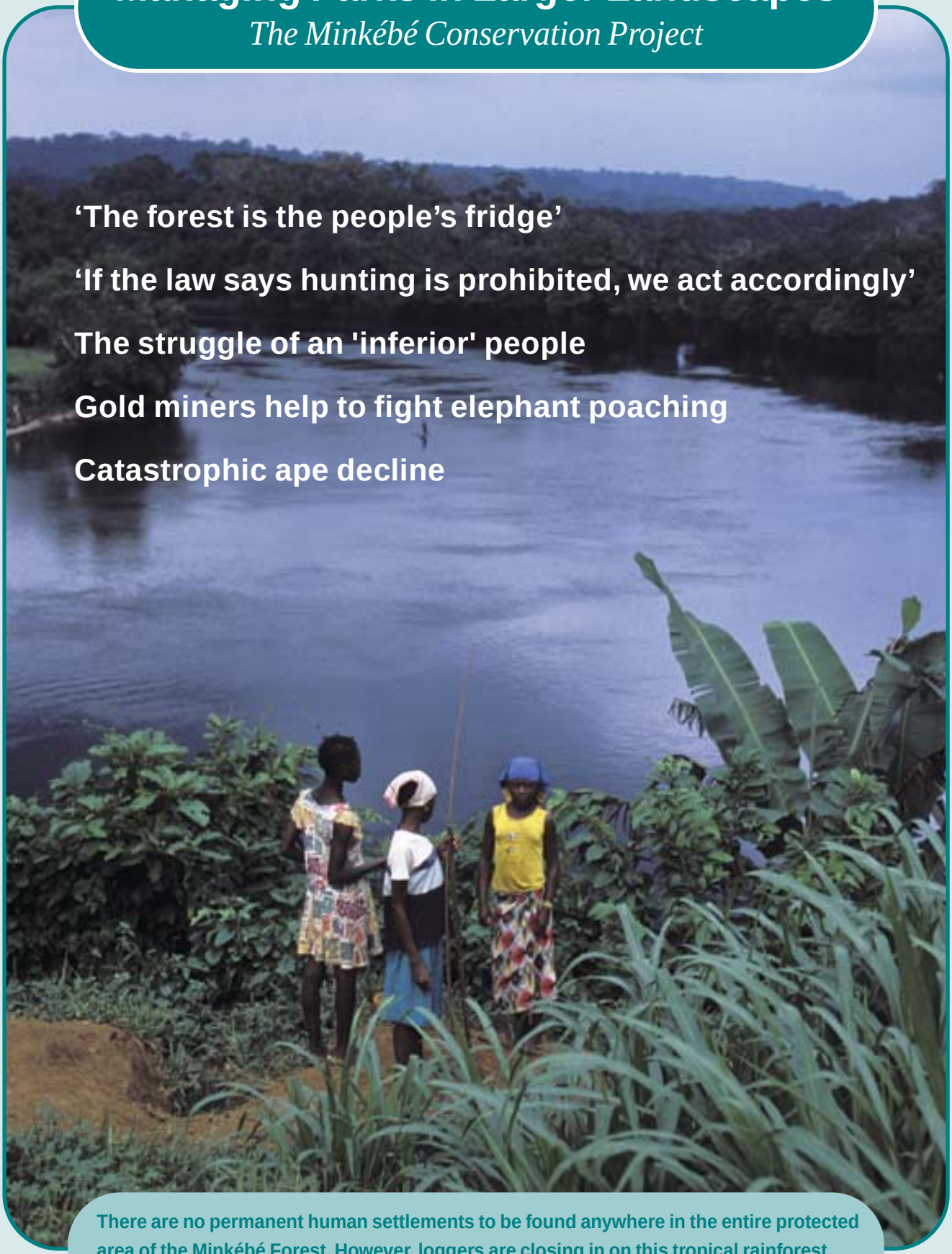
Managing Parks in Larger Landscapes

The Minkébé Conservation Project



‘The forest is the people’s fridge’

‘If the law says hunting is prohibited, we act accordingly’

The struggle of an 'inferior' people

Gold miners help to fight elephant poaching

Catastrophic ape decline

There are no permanent human settlements to be found anywhere in the entire protected area of the Minkébé Forest. However, loggers are closing in on this tropical rainforest wilderness in the north of Gabon, bringing poachers of bush meat and ivory as well as gold panners in their wake. What can be done to stop the looming crisis and preserve this least disturbed part of the Western Congo?

Introduction

‘The forest is the people’s fridge’

Gabon is the least populated country in West Africa. White beaches and mangrove wetlands give way to the rugged, densely forested interior. About three-quarters of the country is still covered with forest and possesses an unrivalled biodiversity.

Until the discovery of large oil reserves near the coast in the Sixties, Gabon’s economy was solely dependent on the exploitation of the country’s forests. Even today timber export is the country’s second largest money-earner with exports expanding rapidly in the Nineties. Concessions for timber exploitation covering 75 per cent of the remaining forest have now been issued, mostly to French and Malaysian companies. More and more primary old-growth forests are being transformed into selectively logged forests. In the 32,381 sq. km Minkébé Forest (an area as large as Belgium) 65 per cent of the area is allocated to logging - the 7,600 sq. km protected area, which is now called the Minkébé National Park, covers 23 per cent. The logging companies construct roads and build camps for their employees. Lacking an alternative food supply, these villages are important outlets for bushmeat. In the large forest concessions, hunting camps have been set up from where professional hunters supply the loggers with bushmeat - sometimes with the help of rifles and vehicles that are supplied by the company (or ‘loaned’ by the employees).

For most people living in the forest, bushmeat is one of the few sources of protein available, along with locally caught fish. Without bushmeat - or without affordable alternatives - a large part of the population of the Central African rainforest would go hungry and be deprived of an important source of income. As they say in Gabon: *‘La forêt est le réfrigérateur de la population’* — ‘The forest is the people’s fridge’. Consequently, the local population is the most important party that needs to be taken into account in all plan’s regarding conservation and management of wild animals.

According to a series of hunting laws, hunting can take place only with a license and within a set hunting season. Laying snares - the most commonly used hunting technique - is also forbidden. Further, there are outright bans on hunting a variety of threatened species, including gorilla, chimpanzee, leopard and aardvark. The severe fines and prison sentences attached to hunting these animals are, however, rarely enforced in practice. And so, over most of Gabon, the illegal trade continues. Approximately 18 million kilogrammes of bushmeat are traded every year, with an estimated turnover of Euro 50 million. This illegal and destructive trade might account for some two per cent of Gabon’s non-oil GNP. The trade goes hand in hand with the opening up of the forest by logging roads, and the big transport links to the capital like the Transgabonais railroad and the National Road N1.

When trying to tackle this state of affairs, the biggest problem is the lack of law enforcement capacity. The weak Gabonese administration is unable to effectively police either the forests or the markets. There is a shortage of qualified staff and resources like vehicles, uniforms, and equipment.

Confronted with the problem of the over-exploitation of the forests, the Minkébé project has chosen for an innovative approach based on a two-stage model. ‘To conserve wildlife and simultaneously maintain the role of wildlife in the economies of Minkébé’s villages, we decided that we first had to block the bushmeat hunter’s access to logging roads and rivers,’ explains project leader Pauwel de Wachter. ‘This creates a large core of un-hunted forest, thus shifting the balance towards village-based hunting on foot which becomes more sustainable because of the interaction with the large un-hunted core. Secondly, the capacity of the team built up during this law-enforcement process is used gradually – first to replicate the model elsewhere – but secondly to accompany villages so as to maintain a sustainable level of village-based foot hunting. In the future this should then lead to well-organized community-based wildlife management systems, based on quota on the amount of hunting effort a village can deploy in the periphery of the un-hunted core of the forest where intact wildlife assemblages prosper.’

Here’s a report on how successful this approach has been so far... ▲

Successful protocols with loggers and villagers

‘If the law says hunting is prohibited, we act accordingly’

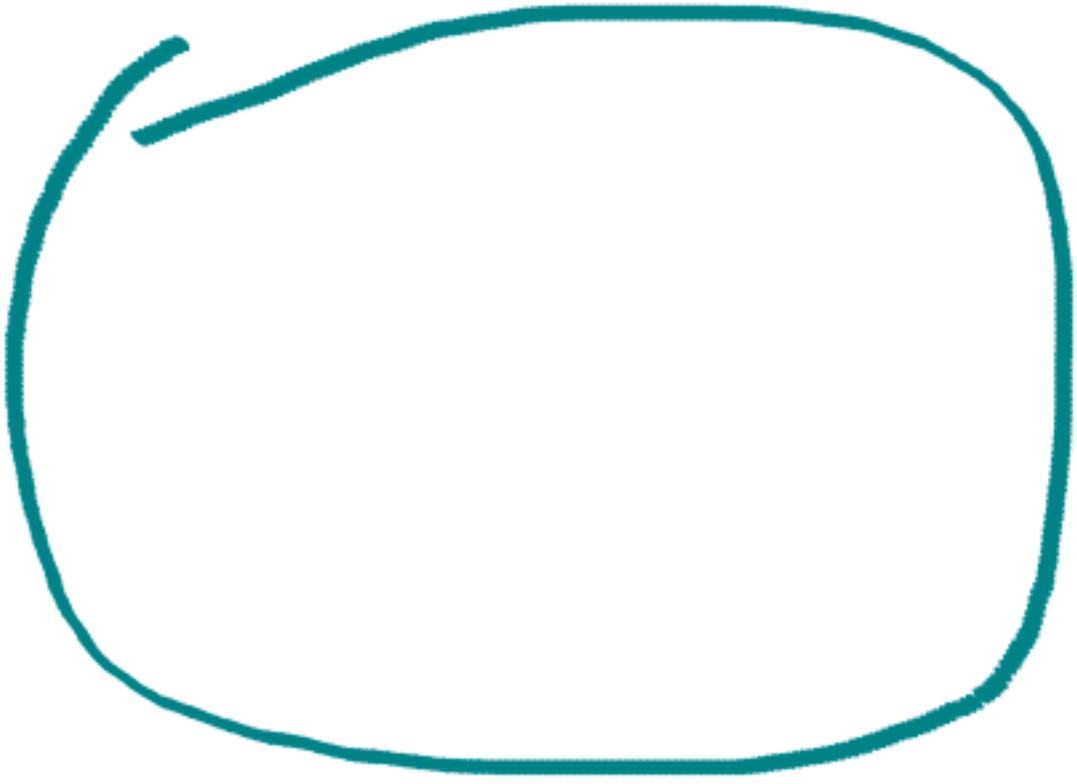
Logging company employees are often key links in the bushmeat chain. Many workers set a few traps before they start working; after and even during work they collect the captured animals and shoot a few more. The trucks loaded with timber and the trucks which transport the workers also transport the bushmeat to the city or villages, or traders come to the forest to collect it. The extra income logging company workers earn this way makes it difficult to stop the practice. Reason for WWF’s Minkébé project to contact the logging companies working in the concession areas surrounding the protected area, as well as the local population.

The controls at the entrance road to the Bordamur concession start around noon, when the first big trucks arrive from the forest to bring their load of freshly cut trees to their destination — usually the harbor of Libreville. The checks are thorough. Later in the day, pick-up trucks begin to arrive carrying workers home from work. The Toyota truck is carefully searched and all the men are asked to open their bags. The guards clearly know where to look - they tell stories about bushmeat smuggled under working clothes, etc. Everybody submits to the search with resignation - they are used to it. Only the Malaysian driver of the truck cracks a few jokes with the guards. 'The Asians love bushmeat too,' one of the guards whispers. 'They know exactly how to prepare it, and they eat everything.'

Three years ago, encouraged by the regular surveillance effort of the Minkébé Project, Malaysian logging company, Rimbunan Hijau (Bordamur) started enforcing strong rules and began checking that its employees and trucks were not transporting bushmeat. At that time, their employees where used to bringing bushmeat from the depth of the forest to their village. Company vehicles were being used to transport hunters, bushmeat and arms. Now all this has changed. The company, encouraged by the protocol that has been agreed with the provincial authorities and the local population starting sanctioning and firing workers caught with bushmeat. Since then the entrance to the logging concession has been guarded by a team composed of WWF-ecoguards and agents from the Ministry of Water and Forests. This combination of strict law enforcement as well as clear rules accepted by all concerned parties has resulted in a spectacular reduction of the illegal poaching and elephant hunting.

'Teams with strong law-enforcement capacity can stop hunting in concessions,' says Philbert Owono, chief of the Oyem-based Minkébé Project brigade. 'People no longer try to enter the area, as they know this is impossible. The teams can help to gradually increase the logging company's level of control on poaching in its territory. In this process we then gradually shift the balance towards more control by the company itself. That way we can liberate the capacities of the team to focus more time on pressing conservation issues elsewhere.'

After the success with Bordamur, the WWF project has shifted attention to other companies working in the Minkébé Forest, like ENFB, Forex, TTIB, STIBG and SHM. Much time and effort is being invested in applying a similar regime as in Bordamur. Most logging companies welcome this effort, because hunting in a concession area is a cause of trouble. It leads to a bad image for the company, to a lack of workers' discipline, to theft of fuel and spare parts and to an increased risk of road accidents. Because of the successful approach to poaching in Minkébé Forest, replication of these agreements is supported by the Gabonese government as a national policy and is now ongoing in other logging concessions. It has received the strong support of the donor community, in particular the EU, WWF, and the UN Foundation.



SHM is a concession of around 1,800 sq. km in the southwest of Minkébé Forest, and the second site where the project emphasized application of the Bordamur model. SHM is a logging company with major financial problems and with traditional weak discipline. Hunting by workers and by unauthorized vehicles tends to be heavy, further complicated because the SHM concession is also a gateway to the Mebaga gold camps, a high-intensity hunting area. The start of semi-regular presence in the area led in 2002 to several incidents with SHM workers.

In the evening we visit Jerome Lau, chief of operations at Rimbunan Hijau in Minkébé Forest. He sits on the veranda of the wooden house that is the company's office here, resting from a hard day's work with some of his colleagues. All of them are from Malaysia. In total there are some 20 Malaysians working here, together with 75 Gabonese loggers, and 30 more working in the sawmill. The management of the company's activities here - which started some seven years ago - is completely in Malaysian hands. They work long hours, day after day. After a year, they have two months home leave. Contacts between the Malaysians and the local population are few, the Rimbunan employees spend the little free time they have at their homes within the concession area.

Even before being approached by the WWF, Mr. Lau had recognized that the hunting practices of the Gabonese workers were a problem for the company. 'All the time they were busy with the traps, if possible even during working hours. And there were also occasions that they used company vehicles and stole our petrol.' This made it easier for the WWF team to get the Asian company on its side when it proposed joint action against the poaching practices. Also, the Malaysians are law-abiding people, Mr. Lau says: 'We are guests here in this country, we must follow the law. So if the law says hunting is prohibited, we act accordingly. And we have no problem in being strict in it.'

Thanks to the controls in the concession area the situation has improved greatly, he feels. It's not a popular policy, Lau knows, but he just shrugs his shoulders. 'The workers complain a lot. They say that they are hungry, and can't afford the food we offer them in our store, although these are fair prices. I think it's a very poor attitude. This whole thing also influences our relationship with the villagers, as we are not allowed to transport them into the forest. They are also angry with us. But what can we do?'

The next day we visit another logging company, Forex. A newly built relay station near the company's sawmill is almost ready. The project's mobile team will be housed there, when working in this area. Frequent controls have started since September 2002. 'There are large differences between the concessions,' explains Philbert Owono, chief of the Oyem-based brigade. 'Concession areas where gold

The newly build station at the Forex consession

mining is also going on, as here in Forex, are especially difficult to control. The gold diggers want to leave and enter the area as they please. Transport of bushmeat usually takes place in the evening or at night. Even harder are the very small concession areas. The companies which exploit these are mostly gone within a year of two. It's almost impossible to do a deal with them.'

But regular logging companies seem to be pleased with the project' s activities. 'We are under a lot of pressure from our workers,' says Hubert Bariller, the French *chef d'operation* of the Forex concession. 'They say: this is our area, we live here, you have to allow us to hunt here. It's nice for us if we can then point the finger to the Ministry, or WWF, and say: we have no choice.'

The agreements which have been reached with the local population explicitly allow for village-based hunting on foot. This is not considered to be a significant threat as the distance covered on foot is limited to a maximum of 20 kilometers. That leaves around two thirds of the Minkébé Forest outside of hunting areas (if no use is made of logging roads by bushmeat hunters). For the villagers, the wildlife resources are essential. They provide a varied, cheap and high-quality source of protein, mitigate the effects of under-employment as hunting is an activity which requires virtually no capital investment, has low risk and income comes in almost immediately. This is confirmed when we visit the small village of Nkougou, near the Bordamur-concession. *Chef de groupement* Mebia Casimine and *chef de village* Assoume Mancer, who give us a hearty welcome, emphasize that the 250 inhabitants of this village are in favor of the new hunting policy. 'We were alarmed by the sight of more and more trucks leaving the area with game. It's very good that this has stopped. Hunting is important for us. We have no fish because there is no river here, just the bushmeat. We need it for ourselves and our children.'

So the village signed the protocol with the rulings on hunting practices; which does not mean everyone is happy. 'The protocol does allow us to hunt for our own needs,' says chief Mancer. 'We want to collect the meat by car, in order to keep it fresh. But we are not allowed to do so. Besides, good roads are also lacking.'

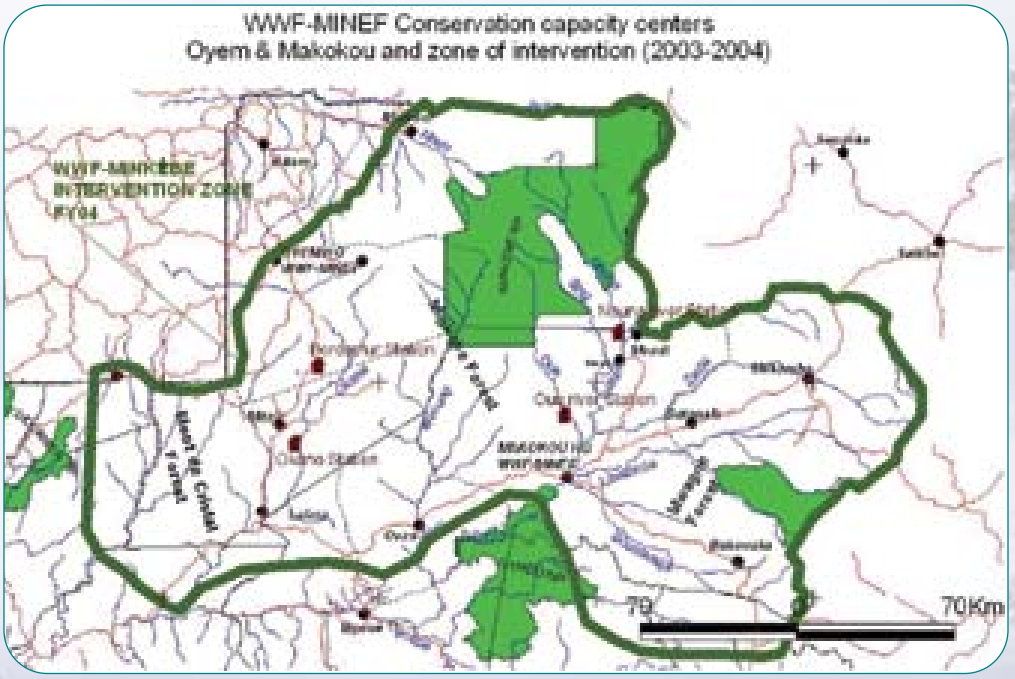
'Indeed, hunting by car is not allowed,' reacts Philbert Owono. 'Because the hunting by car has stopped in this area, animals approach the village again. You know that, and it proves the protocol is for our own good.'

The villagers' relationship with the Malaysian logging company is bad. 'There's nothing good for us in it. Except for the few men of this village who work there. But for the rest, we have no contact whatsoever. They have electricity over there, we don't. They have good drinking water, we don't. They do their shopping somewhere else, not here. We are not even allowed to collect the remaining timber.' One of the other men adds that 'the Asians have occupied our forest and we don't know how and when we will get it back.' ▲

Adrian Noungou, head of the Wildlife and Hunting Department of the Ministry of Water and Forests describes himself as a big supporter of the Minkébé project. 'The WWF project has without doubt contributed to the credibility of conservation in Gabon. Indirectly it has contributed substantially to the creation of the 13 national parks. If the Minkébé project had been a failure, or if it had been impossible to find new external funding, the authorities wouldn't have been encouraged to follow the path of nature conservation. Also, the protocols that have been developed with the logging companies and with the gold mining community, now serve as a model for the rest of the country.
The Minkébé project has also contributed a lot to capacity building, on the local as well as the national level. The staff are among the best-equipped in the country. It has also established a management model that did not previously exist. Integration of students from the forestry school into a conservation project was a novelty, but it has proved quite successful and deserves imitation.
Raising the awareness of the population is integral to the project and will remain so in the future. It is necessary to explain repeatedly why law enforcement is necessary to the population. That creates the space for two-way debate which also helps us.'

Oyem-brigade team chief Philbert Owono (at right): 'I love the Minkébé Forest, because I was raised here. I learned to love it in my childhood, but if you've been educated at the Forestry school, you appreciate it even more. This is different with many other people living here. They associate the forest with poverty and misery. For them, working behind a desk is progress. Parents are not happy when a youngster says he or she wants to go to the Forestry school.'

The Minkébé Forest



Biophysical description

- 32,281 sq. kilometres of roadless tropical lowland forest.
- Delimited by 500 kilometres of road to the west and south, the Ivindo River to the east, and the Ayina and Kom rivers to the north.

Biodiversity significance

- Intact zones: an estimated 14,000 sq. kilometres is almost never visited by humans - one of the finest tropical forest wilderness areas left on the planet.
- Located in the heart of the Northwest Congolian Lowland Forest Ecoregion, which is ranked 4th by the WWF for overall species diversity among forest ecoregions.
- The region holds an estimated 20,000 elephants.
- One of the largest undisturbed assemblages of large wildlife in the tropical rainforests of Central Africa including leopards, forest buffaloes, gorillas, chimpanzees, mandrills, crowned eagles, giant pangolins, aardvarks, slender-snout crocodiles, Congo clawless otters, and bongo antelopes.

Social setting

- Two provinces: Woleu-Ntem and Ogooué-Ivindo.
- Around 70,000 people live on the periphery of the Minkébé Forest.
- In Woleu-Ntem province much immigrant labour comes from Equatorial Guinea (including hunters).
- Small gold-mining communities live in the forest.
- Baka pygmies use northern Minkébé, in particular, for elephant hunting.
- Bakwele fishermen use the navigable rivers reaching the core of the forest.
- There is significant cross-border elephant poaching near the Cameroon border.

Pressures on resources

- More and more primary old-growth forests are being transformed to selectively logged forests. Presently 65 per cent of Minkébé Forest is allocated to logging, while Minkébé National Park covers 23 per cent.
- Bushmeat hunters use vehicles on logging roads to reach high-density wildlife populations and to transport bushmeat.
- Elephant poaching: an estimated 500 to maybe 1,000 elephants are killed every year. Ivory is traded via Libreville as well as Cameroon.
- Pedestrian village-based hunting is not a significant threat as distance covered on foot is limited to a maximum of 20 kilometres, leaving around two thirds of the Minkébé Forest outside of commercial hunting areas (if no use is made of logging roads by bushmeat traders).
- Ebola has decimated apes in the most intact parts of Minkébé Forest and is a continuing threat for apes in North-eastern Gabon and beyond.

'Acceptance of the landscape approach a big success'

According to the Minkébé project leader, Pauwel de Wachter, a landscape-based approach is vital to the success of the project. The creation of a protected area should be viewed as a catalyzing tool for conservation in a much larger area.

'Compare it with a business growth model,' says De Wachter. 'Conservation capacity is gradually built up and more and more of the landscape is covered with active conservation as capacities grow. A landscape vision takes hold among stakeholders and agencies. Successful experiences at site-level - like the policy on hunting in logging concessions, or the co-management agreements with the gold mining communities - are progressively replicated all over the landscape.'

Due, at least partly, to the successful example of the Minkébé project, the landscape approach is gaining increasing acceptance in Gabon. 'In the beginning of the project, we were expected by the government to focus to solely on the creation and management of the Minkébé Protected Area,' says De Wachter. 'Now the Ministry of Water and Forests has accepted a new vision with respect to the logging concessions surrounding the protected areas throughout the country. It is acknowledged that, without effective control of illegal activities in the concession areas there will be no sustainable future for the protected areas either. Our strategy has been to get protected areas within every large forest zone, which can then act as a catalyst for nature management in the whole forest block.'

In the Minkébé project itself, the focus is resolutely on management of the larger landscape. Because of the lack of real threats to the inaccessible western and southern part of the protected area, the project was able to concentrate on Minkébé Forest as a whole from the outset. While the process of getting all logging companies and hunters to agree and comply to the hunting rules will take substantial time and energy in the coming period, the project's ambitions extend even further. One of the priorities is sustainable management of the rivers in cooperation with the local population. Navigable rivers provide access for motorized dugout canoes and thus for bushmeat and elephant hunters. In the future, only subsistence fisheries should be allowed on the upper reaches of the Oua River as well as the Ivindo and all commercial hunting should be banned using motorized dugouts above a certain point on the river. De Wachter: 'We're working on that, but it takes time. It's not easy because you're dealing here with the natural use of the area, which is different from the logging areas.'

There are other possibilities for enlarging the focus area. Poaching problems in the northern part of Minkébé Forest, mainly accessed through Cameroon, need to be tackled in cooperation with the stakeholders and law enforcement agencies in the southern part of Cameroon, says De Wachter. 'In fact we are in the process of building up a 150,000 sq. km Cameroon-Gabon-Congo transborder conservation system - made up of protected areas and logging concessions - where hunting is strictly controlled. Gradually, we fill voids in the landscape with conservation. Soon with USAID and EU funding, we will fill in a such a void in northwestern Congo Brazzaville, the area over the border with Minkébé.

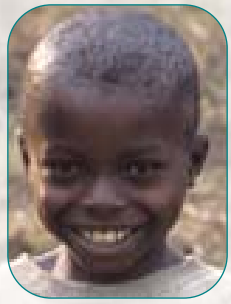
> ***To be successful, parks should be embedded islands in a sea of good quality nature***

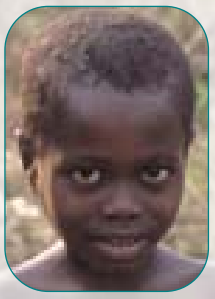
Within Gabon, the Minkébé project would like to be seen as an instrument for nature conservation in the whole of the northern part of the country. De Wachter: 'Gradually we hope to bring the authorities here on board. At first they saw us as a project solely for the protected area, then they accepted us working in the logging concessions. Now we hope to expand our work to the nearby Mekambo Forest, around the Mwagne National Park and in the Djoua-Zadié Forest. We will also work in the logging concessions west of the Minkébé Forest, and those east of the Ivindo National Park. We've started this process and feed back has been positive from authorities, the Wildlife department and logging companies.

The project's strategy is based on the conviction that everything starts with getting pragmatic results at the field level. Following that, authorities at the local and central levels should be involved. De Wachter: 'That's how it went with the logging concessions, that's how it should be accomplished with the rivers too. Concentrate on what is feasible, instead of dreaming of radical policy measures at the central level. I'm convinced there's a lot more creative power at field level. You've got to make use of that. Success in the field then leads to policy change at the national and even regional level.'

‘We need to achieve conservation at low cost per sq. km per year’

The government of Gabon surprised the World Environment Summit in Johannesburg in 2002 with the announcement of the upcoming creation of 13 national parks - covering in total almost 11 per cent of the country. Many experts believe that with this decision, the physical limits of nature protection in Gabon have been reached, at least for the near future. The further emphasis of Gabon’s government will be on economic development and timber exploitation. Which means that if the international community wishes to see the protection of larger parts of nature-rich Gabon, it will have to pay up in some way. The National Park Decree enlarged the 6,000 sq. km Minkébé Protected Area into the 7,600 sq. km Minkébé National Park by adding totally intact forests. The Minkébé project management would like to have the vulnerable and totally intact primary forest areas south of the Minkébé Park integrated. However, it appears to be impossible to get government support for this plan in the absence of outside financing.





The introduction of ‘conservation concessions’ might offer a solution. Project leader De Wachter: ‘It would mean that the international community is going to pay for not logging an area. We’ve talked about this concept with the NGO Conservation International (CI) and they are interested. However, it is an expensive option. We think the price should be something like 2 to 3 dollar per hectare a year. For an area of 100,000 ha that would mean 200,000 to 300,000 dollar. Which doesn’t seem excessive, but you have to realize it has to be paid every year!’

The same concept is also being discussed for the Ngoïla-Mintom area in the south of Cameroon, the area neighboring Minkébé. The government there has frozen logging concessions in an area as big as 800,000 ha. The rent for logging is estimated to be at least 3 dollar per ha, which means 2,5 million dollar a year would be needed. Half of this money should go to the government and half to direct support for conservation and development in the area. ‘We have to continue working on this’, says De Wachter, ‘though it won’t be easy. It is hard to compete economically with logging. Also more and more local communities favor logging as they receive a part of the annual area tax the logging companies pay to the government. The international community should make a concerted effort to pay some of the opportunity costs for keeping old growth forest.’

Another option being explored is to create a kind of shareholder ownership. It would open the opportunity for investments in conservation by bilateral donors, municipalities, NGOs or the larger public.

In return they would receive shares, which would give them a voice in the project. De Wachter: ‘It’s another idea we are exploring with Conservation International, which is already in contact with a Dutch bank on this. Of course it is the Gabonese government which is in charge of the area, not outside shareholders. Still, I feel it’s an interesting idea because it would enhance the accountability of the conservation project to its shareholders who provide capital directly to the project. These shareholders will only finance the project if they see very clearly how the ‘conservation company’ transforms this capital into pragmatic and sustainable results in the field. It could be the beginning of a new, more transparent market, for conservation. In the end it should become a normal way of doing for public entities like towns, corporations or individuals, to have a few conservation investments as part of responsible behavior.’

In general, says De Wachter, we should realize that conservation projects must be cost-effective, otherwise we are creating unsustainable conservation. ‘The long-term ambition of a conservation organization working in the Congo Basin should be to apply conservation action to the whole area, not just to a few selected small places at very high cost. Thus we need to achieve conservation at low cost per sq. km per year.’

▲

Minkébé's Baka pygmies

The struggle of an 'inferior' people

An estimated 500 to maybe 1,000 elephants are killed every year in the Minkébé Forest, representing three to five per cent of the total population in this forest area. The ivory is mainly traded via Gabon's capital Libreville as well as to neighboring Cameroon. The Baka people - pygmies - in the area are traditionally hunter-gatherers. Nowadays, they are increasingly involved in commercial hunting activities - and in particular elephant killing - being hired by people trafficking ivory.

It's an isolated place, the Baka village Bitougha. Coming from the direction of Minvoul, you have to leave your car behind, ascend a steep ridge along a small forest lane, walk down and cross a muddy field before arriving at the riverside. After a while a few pirogues arrive, containing one family and a few boys. They warmly greet Emmanuel Mve Mebia, who is the project's anthropologist in this area. We climb on board the pirogues, and for the next two hours there's nothing but the black water, the overwhelming green of the forest and the sound of the pirogues, slowly drifting through the water. Then we leave the boats, and go uphill again. This is the area of the Baka, a people who know every inch of this forest. Every so often our guides warn us away from leaves covering large holes in the ground, old game traps. When we finally arrive in the village, it doesn't look much like a pygmy village. It consists of the same kind of larger huts that you see in every village in Gabon. 'These are semi-permanent houses,' explains anthropologist Emmanuel. 'It's a fairy tale that the Baka travel around all the time and live continuously in small huts of leaves. It is true though that the men go into the forest to hunt for days and sometimes weeks, but this is where they live.'

His explanation is confirmed by *sous chef* Pierre Azongbo Ndabiké, who comes to greet us.

'This is the place where we have lived for many years now,' he says. 'Maybe, some day, we will move the village to the river bank, if the authorities want us to do so. But we'd rather not do so, because we feel safe here. If you live near the river, everyone can approach you.'

These words clearly indicate the position of the Baka. They would prefer to live their lives in the forest, in isolation, but this is impossible because of their dependency on the dominant Bantu (Fang) population in this area. Near the village are a few cacao plantations, which belong to a Fang employer. The Baka of Bitougha earn a little money, working on these plantations. Traditionally, there's a symbiotic relationship between the Baka pygmy of Gabon and the Fang. Each Baka clan has a brother clan amongst the Fang. The Fang, farmers since living memory, have exchanged their agricultural

products with the Baka, who provide bushmeat or labour in return. However, the relationship is not as equal as this may sound. There's a large economic and socio-political gap between the handful of Baka in the Minkébé area and the majority population of Bantu/Fang. To most Fang, the Baka are an inferior people. In Minvoul District, the Baka do not possess identity cards or birth certificates, making it difficult for them to travel or to have access to services like schools, social security or medical help. Their rights in court are weak and they cannot vote. For the WWF project, this attitude constitutes a big problem.'

Full-time elephant hunters

Despite their negative feelings about the Baka, the Fang greatly appreciate the Baka knowledge of the forest in general, and of the art of elephant hunting in particular. 'They know the forest,' admits Basile Ella Eyaga, Secretary General of the Minvoul District. 'When someone from the city wants an elephant, he contacts the village chief. He chooses one of the Baka, and lends him a weapon.' This accepted and lucrative system for the Fang is however threatened by the activity of commercial ivory traders, often West-African shopkeepers from countries like Cameroon, Mauritania, Mali and Senegal, who enlist Baka to work for them and purchase ivory from everyone. The authorities in Minvoul are furious about this development: 'That's total robbery. They leave nothing here for us or for our children, all the profits go to those foreign traders.'

The Baka themselves are hardly in a position to resist the pressure from people wanting them to kill elephants. Also, for the majority of Baka men, elephant hunting is the only way they can make some money, which enables them to save for a dowry or to

Main objectives of the Association of the Baka of Minvoul:

- improving the social and judicial status of the Baka
- taking into account the cultural heritage of the Baka
- socio-economic integration
- obtaining the same social services as the other inhabitants of the region (school, dispensary)
- obtaining direct benefits from their ecological knowledge
- conservation of the north-western part of the Minkébé Forest.

buy manufactured products. Some 50 Baka men in the Minvoul area are considered to be more or less regular elephant hunters. According to information gathered from the Baka themselves, every elephant hunter on average kills four elephants a year. While not only illegal - big game hunting has been prohibited in Gabon since 1983 - the poaching also threatens the survival of one of the largest populations of forest elephants in Africa. Indirectly this is also a threat to the life that the Baka live in the forest.

'It would be foolish to deny the importance of the elephant hunting for the Baka people,' says Emmanuel Mve Mebia. 'It's inextricably bound up with their culture, their myths, etc. But then we talk about the hunting for their own needs, for the meat. That's something else than the commercial hunt, which is perpetrated only for the ivory and which knows no limits.'

At night, around the communal campfire, many stories are told about the importance of the elephants

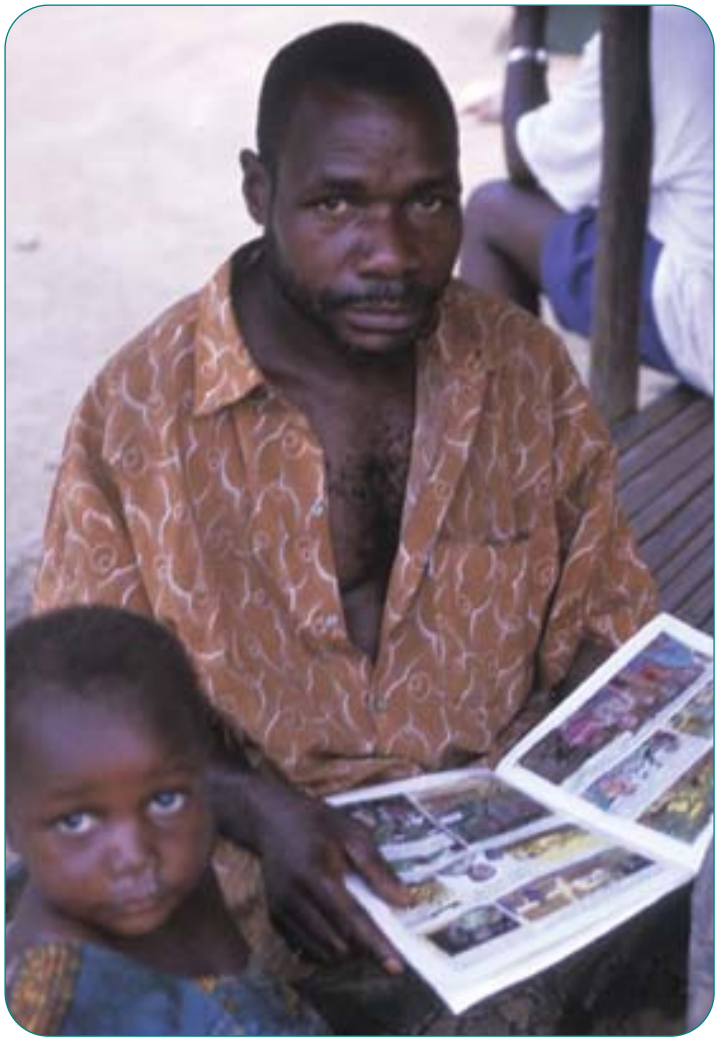
In front of one of the huts we meet Mbaka Bé Léo and his, wife Abouli Avore Pélagie. They are not sure about their age, both think they are around 35 years. They live from the work they do on the Fang plantation nearby, but also have their own small banana field. Bushmeat comes from the many small traps that are placed in a wide circle around the village. Soon the conversation turns to the subject of education. 'If I had the money,' he says, 'I would send my children to school. No doubt about that. But we can't afford it. Also, we don't have a birth certificate. So that's a problem too. But if God helps us, maybe these things will change in the future.'

Many Fang people turn to Baka traditional healers when they, or someone in their family, falls ill. They come to buy medicines, or sometimes stay for longer periods in the Baka village for treatment. It's one of the ways in which the Baka can earn money. Here a woman is being treated for infertility.

for the culture of the Baka. There are stories about mythical elephants in the past, and about the hard labour of following the traces of specific animals for weeks, until there's a first opportunity to kill it. There are also periods though when there is no hunting at all, mostly because a traditional healer in the village says that it isn't the right time. Later on the conversation turns to the socio-economic problems of the Baka, their misery and lack of development possibilities. Having neither money nor birth certificates makes it impossible for the Baka of Bitougha to send their children to school. The isolated place where they live adds to the problem too. 'That's our main problem,' one of the men says. 'Because our children do not go to school, nothing ever will change here.'

Because of their low socio-economic status and financial dependence on poaching, WWF has backed the creation of an association that will uphold Baka rights and act as their spokesman. A meeting in March 2002 involving 150 Baka pygmies resulted in the declaration of the Association of the Baka of Minvoul. The association's constitution was recently sent to the authorities for confirmation. A Baka women has already been nominated as chief of the association (because she had the opportunity to go a mission school, she speaks French, the only one of the Baka here).

'The creation of the association has already stimulated an awakening process,' says Emmanuel Mve Mebia. 'The fact that people now discuss the need to obtain birth certificates, is new. That's progress. Currently these certificates are being prepared by the authorities. Soon the Baka will be recognized as Gabonese citizens, with all the rights and obligations this implies.' Although a Fang, he feels very much connected to the Baka people. 'I too



A comic book is part of the awareness-raising campaign. Alerte a Djinga, Tonton et les braconniers, aims to convince children as well as adults that there's nothing heroic in killing an elephant.

grew up in the forest. But I was in a position to go to school, to study. I feel everybody should have that opportunity.'

The project's approach is based on the assumption that the number of elephants hunted by the Baka will diminish substantially if alternatives are offered. At the same time, heavy penalties should be imposed on those who continue breaking the law. For this, the presence of the Ministry of Water and Forests in information and awareness raising campaigns, as well as surveillance and repression, should be strengthened. To be successful, Emmanuel admits, long-term involvement by the Minkébé project with the Baka community and the majority community of the Bantu/Fang (including especially the administrative and political authorities) in this process will be indispensable. Besides that, valorisation of the Baka culture (language, culture, knowledge of the forest, traditional medicines, etc.) could be stimulated at local and national level by means of expositions, workshops, conferences and debates. Also, an ecotourist product could be developed, linked to the Baka culture. 'We feel that the region of the Upper-Ntem river has real ecotourism potential', Mve Mebia says, 'due to the visibility of wildlife on riverside open plains, the magic of river travel and the availability of gentle and knowledgeable Baka pygmy guides.'

No doubt about it, say the men gathered around the campfire, both the association and the project are important. 'Things have to change here. There's too much poaching, we have to go deeper and deeper into the forest to track animals. If we can earn money in another way, we will be glad to do so.'

▲

The oldest inhabitants of the area

The Baka are considered to be the oldest inhabitants of the north-western part of the Congo Basin Ecoregion. Currently Baka groups are spread throughout most of Cameroon's East Province and part of the South Province (Dja and Lobo Department) as well as the north-west of Congo-Brazzaville, the north-east of Gabon and a small part of the Central African Republic. Their total population is estimated at some 25,000 individuals.

Despite being dispersed over an area of some 150,000 sq. km, the Baka are remarkably uniform (in the same area live at least 17 different ethnic Bantu groups, each of them with their own language). The Baka everywhere speak the same language. Their 42 clans are known everywhere in their area of dispersion. Relations with neighbours are based on their reputation for reliability, which is important for the barter trade with the Bantu in which mainly agricultural products are exchanged for bushmeat and labour. Hunting practices and techniques of gathering forest fruits are completely uniform throughout the area. So too are a wide variety of ceremonies. And, last but not least, all Baka are expert in elephant hunting.

Gabon's Baka are located in the Minkébé area. Groups of Baka live near the border with Cameroon, in the extreme north of the Woleu/Ntem province (Minvoul district), and along the Ivindo River, onto the provincial capital Makokou. It is estimated they total some 500 individuals. Above that, some 200 Baka from Cameroon and Congo are thought to live at least part of the year in the Minkébé Forest. In the Minvoul area the population numbered 364 in July 2001, spread over 7 villages and constituted in seven clans.

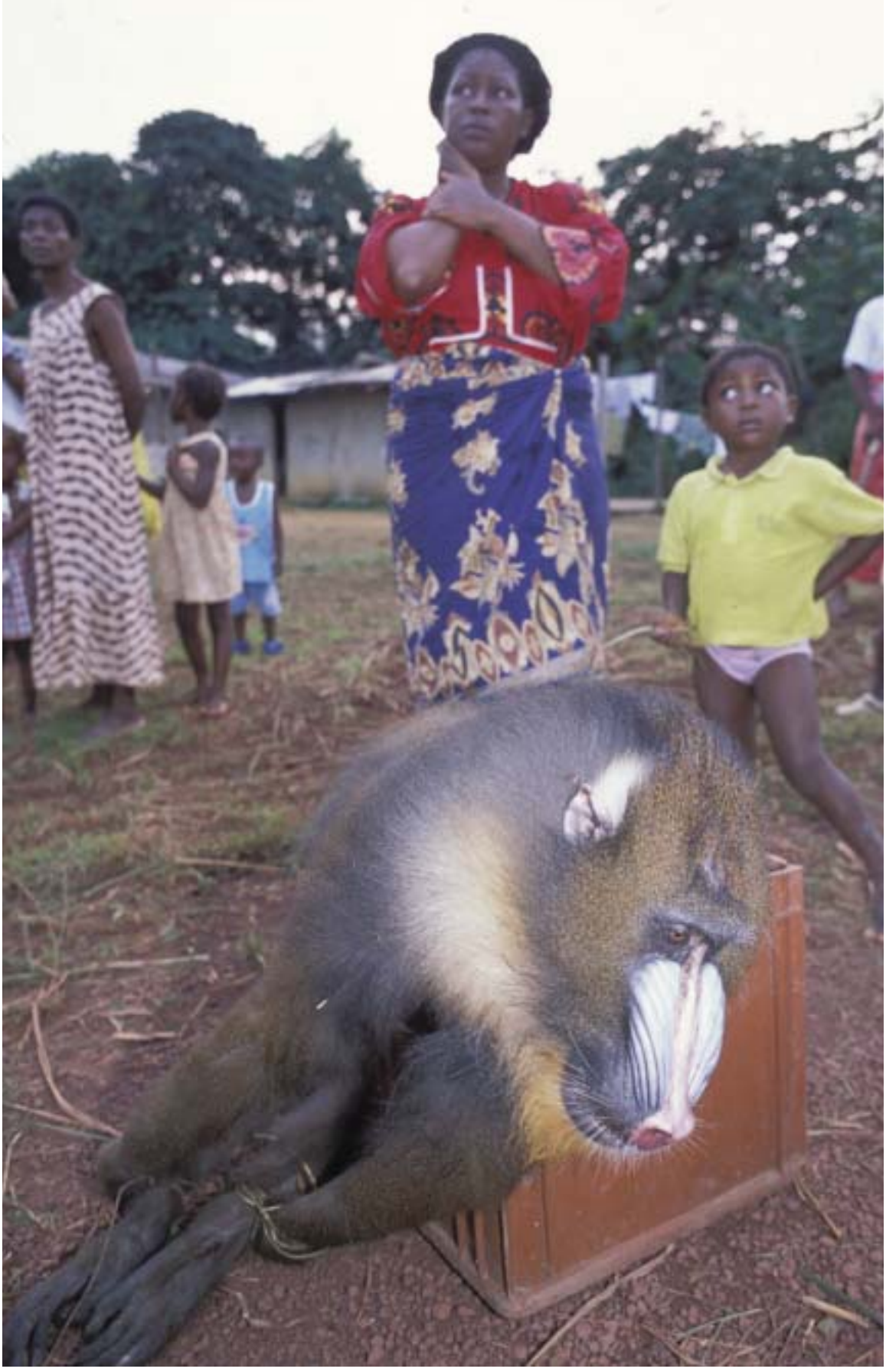
Catastrophic ape decline in Minkébé Forest

Recent research indicates that ape populations in Gabon declined by more than half between 1983 and 2000. The primary cause of the decline is commercial hunting, facilitated by the rapid expansion of mechanised logging. Furthermore, ebola haemorrhagic fever is currently spreading through ape populations in Gabon and Congo and now rivals hunting as a threat to apes.

It is not difficult to buy a (dead) monkey in the Minkébé Forest. On the dirt road from Mitzic to Makokou, several corpses are hanging from trees, at eye level for car drivers. Also, pieces of monkey meat are displayed on little tables along the road. Then we encounter the dead body of a mandrill, in Gabon also a protected animal. We stop the car, and the ecoguards of WWF and the Ministry of Water and Forest slowly walk to the scene. From the few small houses nearby, children come to have a look at them. Some women and two men also draw near. On being asked, one of the men proudly confirms that he is the one who shot the animal. 'It was a pain in the ass, this animal,' he says. 'Every night it came to our plantations to eat the bananas and the manioc. I had no other option than to shoot the bastard.' Sosthène Ndong-Obiang, agent of the Ministry's Eaux et Forêts and chief of the Project's Makokou brigade, shows signs of disbelief: 'Show us the plantation, let us see the signs of the monkeys.' The men walk to the fields, which are a few hundred meters away. In the meantime we ask for the price of the mandrill. It is 15 dollars. The women are confident that today or tomorrow someone will stop and buy the animal, to sell it in the city or eat it themselves.

When the men come back from their survey of the plantation, Ndong-Obiang acknowledges that there are signs of the presence of mandrills over there. 'We understand your feelings,' he says to the man, 'but you are not allowed to do what you've done. The mandrill is a highly protected animal. No one is allowed to kill it.' 'Then what am I supposed to do?' the man replies. 'You should have gone to the authorities in Mitzic and asked for help,' the Ministry's agent explains. 'Also you should register your gun over there.' The man doesn't reply, although his laughing face shows what he thinks of this advice. Then Ndong-Obiang plays his last card: 'Killing these apes is a danger for yourself and your family too. You've heard about the ebola virus? Well, what we know now is that it is spread through people like yourself, who have touched dead monkeys or apes.'

On April 10, 2003, the magazine *Nature* published results of the latest surveys of ape and gorilla populations in the forests of western equatorial Africa. The surveys, to which the Minkébé Project contributed substantially, reveal a catastrophic decline. Ape populations in Gabon more than halved between 1983 and 2000. An expansion in mechanized logging and the spread of the ebola virus are major factors, but hunting remains the biggest threat. The African apes are already on the IUCN red list of endangered species. Most researchers in the field now support immediate reclassification as 'critically endangered'. Researchers conclude that 'the international community will need to take dramatic action to boost conservation policies - including politically



sensitive law-enforcement measures - if the tide is to be turned.'

In the Minkébé Forest the number of lowland gorillas and chimps has fallen by some 95 per cent since 1994. That is thousands of apes. Ebola is to be seen as primarily responsible, according to Bas Huijbregts, a former advisor of the Minkébé project and one of the authors of the published research. The ebola virus erupted twice within the local human population in the same area, in 1994 and 1996. For example in the Mekambo Forest to the north-east, and in the north-west of neighboring Congo, the ebola virus has been found on dead gorilla's. And the virus is killing people as well as apes.

The source of Ebola is so far unknown. Apes are known to be the bearer of the virus, as well as human beings. They can mutually infect each other. Besides apes and human beings, also plants, rodents and fruit eating bats may be the source of the viral disease. However, it is known that the killing of apes for the bushmeat trade helps to spread the disease. Not by way of eating, but via the hunters who have touched the dead animals and women who prepare the food. Infections spreads through blood, sweat and urine.

How the disease arrived in the Minkébé Forest is not known. Clearly Ebola has to be blamed for most of the dead apes, because there are hardly any humans in the area which was studied between 1998 and 2001.

Because rapidly expanding human populations have devastated gorilla (*Gorilla gorilla*) and chimpanzee (*Pan troglodytes*) habitats in East and West Africa, the relatively intact forests of western equatorial Africa have been viewed as the last stronghold of African apes. Gabon and the Republic of Congo alone are thought to hold roughly 80 per cent of the world's gorillas and most of the chimpanzees

The Minkébé Project's Sosthène Ndong Obiang actively participates in the Provincial Ebola Committee in Ogooué-Ivindo Province, which has had in total more than 100 people dead from several epidemics. Based on the experiences in the Minkébé Forest, other organizations as well as the government will be assisted in developing deals such as that in Bordamur in order to control the bushmeat trade. Also, a system of information and education need to be set up on the dangers of Ebola and of the bushmeat trade. More research is needed to discover more about the source of the disease, as well as the bearers. Apes as well as human beings in the area should profit.

'Without aggressive investments in law enforcement, protected area management and Ebola prevention,' Huijbregts says, 'the next decade will see our closest relatives pushed to the brink of extinction.' Current conservation efforts, he argues, do not address the cause of the major decline in western lowland gorilla populations. 'Immediate improvements in law enforcement could dramatically reduce the impact of the commercial trade in bushmeat on the species. The hunting of western lowland gorillas is already illegal in all range states, but in many places these laws are not being enforced.' ▲

The small gold mining village of Ngutu lies on the Nouna river, outside the protected area. On the Sunday morning we visit the village, not much work is going on. Here some 25 men and women live together, those with children have left them with family in the city of Makokou. Formerly more people lived here but some have left as the gold has become scarcer. 23-year old Mary Yvonne Ntsondo shows a wound on her foot, which she suffered when running from an elephant which raided their plantations. The wound looks nasty but she has no money to pay for a two day trip to the clinic. 'We should kill all elephants here,' she says angrily. A few of the men mutter in agreement. 'You know that's not allowed,' Gustave Mabaza tells them. 'You have to realize that these animals live here, it's you who have entered their area. There are ways to keep them from your fields, like burning tires or erecting barriers. That's the way to solve this problem.'

Gold miners help to fight elephant poaching

One of the successes of the Minkébé project is the containment of the hunting activities linked to small-scale gold mining. An informal agreement has been reached with the Ministry of Mining on the further prohibition of gold-prospecting in the National Park. A collaborative management process with the gold miners of the Minkébé gold camp has lead to a very substantial reduction in elephant poaching linked to this camp. A protocol with the gold miners is expected to be signed within the next year. It is stipulated that only small game hunting for subsistence means is allowed by authorized gold miners in an area of three kilometers around the camp. All other transport of bushmeat is forbidden and so is hunting along the Nouna river, which provides access to the remote camp.

'As a result of the changed conditions, the elephants have already returned to the area,' says Gustave Mabaza, the project's anthropologist who was involved in the negotiation process with the gold miners. Elephant hunting around the camp was rampant during the Nineties, when a famous ivory poacher was installed in the gold mining camp. Since agreement was reached on the protocol, Mabaza knows of only one incident when a gold miner killed an elephant near the camp with a shotgun and a self-made bullet. 'The killing was reported to the Minkébé Project's Makokou base. The miners indicated that they killed the elephant because he was a daily threat. The Makokou base manager, Sosthène Ndong Obiang, has warned the gold miners that, as their site is in the protected area, no elephants can be killed, even for crop-raiding.'

Despite the successes, continued attention is absolutely necessary, Mabaza says. Occasionally small prospecting teams illegally enter the National Park, searching for new gold reserves. Worse is the still continuing trade of goods between South-Cameroon and the Minkébé gold mining camp.

A major recent activity for the project was the construction of a large base camp at the mouth of the Nouna river. The camp includes four bungalows, houses for the camp guards, meeting rooms and an office building. It has been equipped with a HF long-distance radio receiver-transmitter. The camp allows for logistical operations on the remote Upper-Ivindo region, which needs attention because of elephant poaching, linked to Baka pygmies coming from Cameroon and Congo and also because of elephant poaching linked to fishing activity and small-scale gold mining.

Several Cameroon traders have been identified who use Baka pygmies as porters. The rules regarding the Minkébé gold mining camp forbid this kind of trade.

The project is now shifting attention to the Mebaga gold mining zone, which is some 50 km east of Mitzic (outside the protected area). It is accessible from the town via an old logging road and also through the SHM logging concession. Until a few months ago, most surveillance missions on this road led to the confiscation of ivory coming from the Mebaga area. Mebaga was considered to be a lawless area, with very heavy ivory poaching. 'Criminals are even known to hide in the Mebaga camps,' Gustave Mabaza says. 'Our teams have been threatened in the past at gunpoint and the only way, until very recently, to operate in the gold camps was with a large team.' In January 2002, the gold camps were entered with a 29 man team made up from members of the Minkébé project, the Wildlife Department's mobile anti-poaching unit, gendarmes and the Provincial Inspection of Oyem. Two major gold camps were burned down. A few months later, two gendarmes went into the gold camps, to enquire about the theft of an electric generator from the logging concession. They were brutalized by the miners. Consequently, the camp leader was later arrested and put in prison in Makokou.

In February, a meeting was held in Mitzic with the Mebaga gold-miners and the project can now safely operate in the camp. The lawless region has been pacified. The road leading to Mebaga, and going through the Forex logging concession, is now regularly controlled by Minkébé's mobile brigade's (by the same teams which also operate in the Bordamur concession) and infractions have become much rarer. In the end, Mebaga gold mining activity will be monitored and all relations between the camp and bushmeat trade and elephant hunting stopped. Small scale subsistence hunting around the camps can continue.

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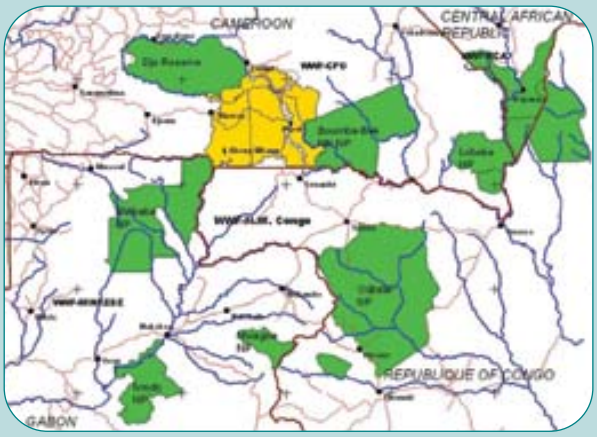
Funding

In 1997, the WWF initiated a vast conservation project to the tune of 1.4 million Euro with the objective of creating the necessary institutional and human capacities for the conservation and management of fauna in the north-east of Gabon. The project is based on high involvement of employees of the Ministry of Water and Forests, students from the National School of Water and Forests and Gabonese anthropologists. Funding for the first five years came mainly from the Dutch government (the DGIS-WWF Forest Portfolio), with contributions from USAID (Carpe), WWF-US, the MacArthur Foundation and the US Fish and Wildlife Service. The Dutch financing ended in June 2001. The project secured new major funding from the European Union, USAID/CARPE, the UNESCO/UNF, WWF-Netherlands and WWF-International for a period to the end of 2006. A total amount of around 3 million USD will be allocated for this new phase of the project, which will lay emphasis on the building up of all of Northeast Gabon as an operational conservation landscape, an area as large as Belgium and the Netherlands combined. It will work complementary to efforts from partners ECOFAC , Wildlife Conservation Society, WWF and Conservation International in Dja and the Southeastern part of Cameroon, Odzala (Congo) and Ivindo. All these efforts together should lead to the 150,000 sq. km Tri-national forest Dja-Odzala-Minkébé (TRIDOM) becoming an operational conservation landscape.



WWF's Minkébé project: main goals, obstacles and results

The long-term development objective of the project is to safeguard original and representative ecosystems and maintain biodiversity in harmony with sustainable utilization. The project's purpose is to establish efficient and equitable natural resource management systems for Northeastern Gabon. During the first five years the following outputs were realized.

Goals	*Obstacles*	*Results*
Minkébé as a protected area, to be included in a larger network of gazetted, well-managed, and adequately protected areas, both in Gabon and the Central African region.	Creating new protected areas becomes more and more difficult because of the economic importance of logging.	6,000 sq. km of primary forest gazetted as a strictly protected area, in 2002 enlarged to a 7,560 sq. km NP. With EU-funded partner ECOFAC and UNDP, a Cameroon-Congo-Gabon transborder conservation project has been initiated and a three country-wide landscape vision promoted.
The representative Guinea-Congolian forest and wetland ecosystems and the indigenous populations dependent on these ecosystems in the Minkébé region to be safe-guarded.	There are many logging companies active in the Minkébé Forest, and it is difficult to assure a sufficient level of presence in all of them as well as on the access rivers. Heavy elephant poaching still going on in South Cameroon and Northern Minkébé.	Significant reduction in bushmeat and elephant poaching in key areas of the Minkébé Forest. Agreement reached with the Ministry of Mining on prohibition of gold-prospecting. Conservation activities started in the neighboring Mekambo and Mont de Cristal Forest Blocks covering around 70,000 sq. km.
Development which corresponds with the efficient and equitable use of forest resources in the Minkébé area to be stimulated.	Recruitment of Baka by Fang villagers to work as elephant hunter is still going on. Very few ecotourism exists in Gabon	Collaborative management process with Minkébé gold-camps leads to almost 100 per cent reduction of elephant poaching linked to this camp. Sustainability and legal basis of village based hunting strengthened. Collaborative management process Baka pygmy leads to empowerment of Baka as well as diminishing elephant poaching.
Establishment of a protected area for in-situ conservation and pilot scale activities that will test systems for efficient and equitable natural resource management.	Given the many sectors and activities to assure as well as the huge geographical area, some area have been relatively neglected so far, like the Mvoung River and some tributaries of the Ivindo.	Exploration of 20,000 sq. km of forest has resulted in good knowledge of the interior of the forest and staff capacity building. Two high-quality mobile teams have been formed, one for each province, based on government officials with law enforcement authority and a high level of education.
Local, national and international interest and motivation in the protection and sustainable use of the Minkébé are to be mobilised.	Ministry is still not enough feeling the project as their own, although they have 8 staff persons in it.	Minkébé project, in reality a close partnership between the WWF and the Ministry of Water and Forests, has acquired a legitimate place in the institutional landscape in both provinces. International donors support the further development of the project.

Conclusion

New issues coming up

In the first years of its existence the Minkébé project has concentrated on fighting the worst environmental offences in its working area - excessive hunting in general, heavy elephant poaching in particular. Undoubtedly this approach has been successful. By diminishing hunting in the logging concessions, game protection in the Minkébé Forest has been improved. The Bordamur concession alone amounts to some 1,400 sq. km, which without the agreement and law enforcement effort would now be heavily hunted. The project's activities have also contributed to the decline in elephant hunting. Although exact quantification is difficult, it is clear that the situation has grown a lot worse for elephant hunters who had nothing to fear in Minkébé Forest at the time the project started. Seeing that protection efforts are successful, local people are more inclined to cooperate in sustainable hunting practices. Most people involved have assured us that the attitude towards nature conservation in the north-eastern part of Gabon has changed fundamentally in the past years. Hardly anyone accepted the urgency of the matter a few years ago, now most stakeholders - including local authorities and provincial inspections of the Ministry of Water and Forests - whole-heartedly support the conservation efforts.

The concentration of the project on hunting practices has had a lot of advantages. First of all, the clear profile did not leave much room for confusion about the character of the project. The concentration on the conservation aspects has helped to prevent an attitude of 'milking the project' with the local population. As project leader De Wachter says: 'There is a genuine demand for conservation in the provinces, and many pressing conservation issues can be solved without alienating - and even with the support of - most stakeholders. Without nature protection, resources will disappear to the detriment of the local people and their future development prospects diminished. Poaching and in general overexploitation has never led to development. If local people can in the long term continue to benefit from rich and varied wildlife resources close to their villages, the project will have contributed substantially to poverty alleviation. Small-scale development work should be left to other actors, with whom you can cooperate of course.'

While this may be true, the fact remains that a country like Gabon has only a handful of development organizations working within its borders. When the local population can expect little from their own government, it is almost inevitable that expectations are raised once an external organization such as WWF begins working in an area. This means that the project - if it is to ensure the long-term cooperation of the population - must also help stimulate eco-connected income-generating activities. There is for instance potential for ecotourism activities in the Minvoul-area with the Baka pygmies, and on the rivers. Efforts need to be directed towards winning the attention of small-scale tour operators. Also here, the principle of achieving some results on the ground in order to win the support of local authorities, need to be made to work.

Building up ecotourism as well as other eco-connected income-generating activities for people in this part of Gabon will be a long-term effort. Consequently it will require the prolonged involvement of all stakeholders. A long-term commitment is also needed to further assist Gabon in building effective nature management on the ground, as well as to help the country follow the path of sustainable exploitation of its natural resources. At present, there is some debate in Gabon on the need of less-damaging logging methods. Within the Minkébé project it is thought that it is better not to become too closely involved in that issue, not only because it might be beyond the project's power but also because it would cloud the presently clear profile of the project. Timber volumes cut per ha in Minkébé are relatively low, so the project chooses to keep focussed on conserving as much primary, unlogged forest as possible. That might be a right choice for the moment, but it can't be denied that sustainable forest management (timber management as well as social issues) has to be put on the agenda in Gabon, despite the powerful interests connected to the logging sector. ▲

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