



A Brief History of Armed Conflict and its Impact on Biodiversity in the Central African Republic (CAR)

By Allard Blom and Jean Yamindou

Biodiversity Support Program

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Abstract

Located in the heart of the African continent, the Central African Republic (CAR) encompasses a wide array of habitats, ranging from the dry Sahelian zone in the north to the lush rainforests in the south, and supports a rich diversity of fauna and flora. Historically, the CAR has been relatively politically stable. Recently, however, the country has experienced two different types of armed conflict: 1) Three mutinies of 1996-97, which were short-term conflicts largely restricted to the capital city of Bangui; and 2) lingering insecurity in the north, caused mainly by infiltration of armed groups from Sudan. The latter of these conflicts has had a particularly devastating impact on the country's biodiversity, and especially on the wildlife in the northern half of the country, where it led to the extinction of the once-common rhinoceros. Beyond the direct loss of human life, these conflicts have contributed to overall instability, a degraded infrastructure, a weakened economy, and a decrease in social services such as health care and education. In general, neither the conservation and development sectors nor the CAR government have adequately dealt with these conflicts and their consequences. Unfortunately, some of the best opportunities for biodiversity conservation in the CAR often occur in more remote areas that tend to have a higher risk of armed conflict. Instead of avoiding such areas, conservation organizations need to consider hiring staff with appropriate experience to deal with crisis circumstances and need to devise policies to deal with such crises. Transboundary collaboration, which can be an effective approach for mitigating the impacts of these crises, should be promoted where practical.

Introduction

The CAR has a landmass of approximately 623,000 km² and a population of approximately 3.5 million that is largely concentrated in the west (Berberati – Nola) and around the capital city of Bangui, leaving much of the country's interior sparsely inhabited.

CAR's biological diversity

As its name in Sango (the national language) indicates, the CAR is located in the heart of Africa, and the country's rich biodiversity reflects influences from both the east and west of the continent. The topography of the country is largely defined by low-lying and undulating hills, and for this reason most of the habitat differentiation in the CAR is caused by climate, mainly variations in rainfall. The CAR has four main climate zones, extending from north to south (Boulvert, 1983). The Sahelien Zone is characterized by a longer dry season than rainy season, with annual rainfall totaling less than 1,200 mm. This zone is situated in the extreme north of the CAR, and covers about 10 percent of the country. The Sudano-Guinean Zone, which comprises the largest part of the country, is characterized by three to six months of dry season with annual rainfall of around 1,400 mm. The Sudano-Oubangian Zone, which covers most of the southern third of the country, is characterized by a three-month dry season, high humidity throughout the year, and annual rainfall greater than 1,500 mm. The Guinean-Congolese Zone, which is located in the extreme south (around Bangassou and south of Bayanga), is characterized by the absence of a true dry season, with annual rainfall exceeding 1,500 mm.

The CAR's vegetation zones correspond to these climate zones (Boulvert, 1986) and include Sahelian savanna, consisting of open savannas; Sudanian savanna, consisting of vast grasslands with small groups of trees; Congolian forest-savanna mosaic, which includes wooded savanna and dry, deciduous forest; and Congolian dense forest, ranging from deciduous forest to semi-evergreen and evergreen forest (Blom and Yamindou, 2001, adapted from Boulvert, 1986 and Carroll, 1997; Figure 1).

Even though the CAR's biodiversity is one of the least studied in Africa, an impressive number of species have already been documented. For example, approximately 700 species of birds have been recorded in the CAR (Carroll, 1987). The region of Dzanga-Sangha is one of the most biologically diverse areas in the country (Fay et al., 1990; Blom, 1993a, 1993b; Harris, 1994; Rondeau and Blom, in preparation) and

have been gazetted (Blom and Yamindou, 2001) while an additional 1.0 percent has been gazetted as forest reserves, mainly for sustainable production of forest resources (Damio, 1997; Namsenei, 1999; Blom and Yamindou, 2001). A recent assessment, however, indicates that only 32 percent of the protected areas and only 2 of the 47 gazetted forests are adequately managed (Blom and Yamindou, in preparation).

In fact, the ministry responsible for the protected areas lacks sufficient resources to protect even one national park. Its annual budget for 1999/2000 was about \$770,000, or close to US\$0.1/ha, which is similar to the figure given by Wilkie and Carpenter (in prep.) of US\$0.07/ha/year. This figure is far below the average for sub-Saharan Africa of US\$0.65/ha/year (excluding South Africa, which is much higher) (Wilkie and Carpenter, in prep.). Even more telling is the fact that, of the 70 guards employed by the ministry, most are over the age of 50, and no new guards have been recruited in the past 15 years. These guards are responsible for covering the entire country, which means there is only one guard per 100,000 km². Even if all the guards were concentrated within the protected areas (which is not the case), there would still be only one guard per 1,000 km² of protected area. This level is well below the one guard per 170 km² of protected area in neighboring Cameroon, which is still less than half of the recommended number of guards for that country (Culverwell, 1998). Law enforcement to control the rampant poaching in all protected areas is clearly inadequate, and poaching poses the single largest threat to biodiversity conservation (Blom and Yamindou, 2001).

Armed conflict in the CAR

During most of the four decades since independence, the CAR has remained remarkably calm in a region rife with civil unrest and armed conflict. Although several changes in government have occurred over the years, many by coup d'état, none was particularly violent. In 1993, after demonstrations and rioting, then-President Kolingba was forced to call for an election in which he was clearly defeated. These elections, the first open and free multi-party elections in the CAR, seemed to have been fair, with little or no violence. The elections ushered in a new era under President Patasse, and although the economy was in shambles, a new spirit of optimism reigned. Unfortunately, the economic situation did not improve, which ultimately triggered a series of events that shocked a country that had never known such violence.

The three mutinies of 1996-1997

In 1996, members of the CAR army mutinied, demanding payment of back wages and improved benefits and working conditions. The army took to the streets, firing their weapons in the air and looting Bangui's main commercial district. Even though

that mutiny was resolved through negotiations, it created a climate of mutual mistrust. Shortly thereafter, when the military believed the government had still not met its demands and promises, the soldiers took to the streets once again. This second mutiny quickly deteriorated into a vicious cycle of violence. The ranks of the army became divided into those supporting the President and those demanding not only payment of wages, but also political change. Pitched battles ensued in the streets of Bangui, and looters took advantage of the total breakdown of law and order and started looting shops, businesses, and homes.

In the midst of this chaos, France and other foreign governments evacuated their nationals, while continuing to try to mediate. After several days of unrest and fighting, the French army intervened and ended the uprising.

A brief period of calm followed, but underlying tensions remained, with the capital divided into two clear factions, now based mainly on ethnic lineage. Violence eventually erupted again, and heavy fighting ensued.

This third mutiny had by far the most serious consequences on the economy, civil society, and the environment. People were forced to evacuate their homes and relocate to areas under the control of their own ethnic affiliation. Again, several nations tried to mediate and placed troops between the fighting factions. A cease-fire agreement was reached on January 24, 1997. French troops were quickly supplemented by troops from six African nations, and this mostly African peacekeeping force eventually restored order by the end of 1997 (CIA, 1999). President Bongo from Gabon became the chief mediator in a team of concerned nations that finally helped stabilize this volatile situation. The international peacekeeping force was ultimately replaced by a United Nations (UN) peacekeeping force (MINURCA) in April 1998 (CIA, 1999). Negotiations between warring factions continued, finally leading to a permanent settlement later that year.

Life in the CAR gradually regained its normal pace after more than two years of bloodshed and violence in which at least several hundred people, mostly civilians, were killed. This unrest was devastating for the economy, however, and also had a tremendous impact on the environment, biodiversity, and foreign aid.

The civil unrest associated with the three mutinies was a relatively short period in which all law and order broke down. In addition to being short-lived, the fighting was mainly restricted to the capital Bangui.

Insecurity in the north

In addition to this dramatic period of unrest, the CAR's central government has experienced a slow breakdown of control over its northern provinces. The north has long been an area of unrest, dating back to the slave trade period, when raiding parties

from both Sudan and Chad came looking for slaves and ivory. Ivory has been a valued commodity for centuries, but in the late 1970s the market saw a new upsurge. Furthermore, the civil wars in both Sudan and Chad led to an increasing influx of automatic weapons such that the AK-47 quickly became the weapon of choice for elephant poachers, replacing the traditional spear. The civil wars also fueled the demand for fast money to fight the wars, and ivory, with its rapidly increasing value, satisfied this demand.

The insecurity in the north is both an internal and an international problem. The deteriorating economic situation in the CAR, with its closely associated political unrest, has weakened the central government to such an extent that it has lost control over much of the country. Nowadays, the situation in the northern part of the country is one of insecurity, and the area is known for its risk of banditry along roads and for the frequent raiding parties that pass through.

Because the northern area of the country is very remote and has long been unsafe for travel, far less data are available on the situation there than on the mutinies in Bangui. This long-term insecurity in the north has doubtless had far more severe effects on the nation's biodiversity (e.g., local extinction of the rhinoceros population and decimation of savannah elephants) than did the short-term mutinies whose effects were largely restricted to the capital.

Impacts of armed conflict

Impacts of the mutinies

IMPACTS ON THE ECONOMY AND CIVIL SOCIETY

The mutinies in the CAR resulted in 70,000 internally displaced persons (IDPs), 130 destroyed industries and businesses, and 3,000 lost jobs resulting from the closing of industries and commercial enterprises. According to sources at the Ministry of Planning and International Cooperation, in 1996, these conflicts increased inflation by 3 percent, decreased per capita income by 3 percent, decreased exports by 16 percent, decreased imports by 23 percent, and decreased state revenues by 33.6 percent. These changes caused a dramatic increase in external debt, a decrease in overall security in the country because of the breakdown of law and order and spread of military weapons, a serious decrease in medical services, and shortages of even basic medical supplies. In a country that already had extremely limited medical services, at least three health centers were destroyed during the mutinies. Funeral services were limited during this time, and people were buried in backyards, causing serious health hazards. Finally, very little schooling occurred during the period (1996 and 1997).

Embassies and international organizations closed, leading to the suspension or permanent closure of projects, such as those concerned with the AIDS campaign [U.S. Agency for International Development (USAID)], primary health in rural areas

[German Technical Assistance (GTZ) - European Union (EU)] and urban areas (French cooperation and World Health Organization), and blood transfusions (French cooperation). The offices of at least 12 donor-financed projects were ransacked or completely destroyed, including, for example, ECOFAC (Ecosystèmes Forestiers d’Afrique Centrale, an EU-sponsored regional conservation program), PDRN (an EU-sponsored project for conservation and sustainable development in the north of the CAR), and PARN (Projet d’Amenagement des Ressources Naturelles, a World Bank-sponsored project for the management of natural resources). Of these, some closed down permanently, while others had to start from scratch and relocate to new offices in Bangui once the situation returned to normal.

IMPACTS ON BIODIVERSITY

It is difficult to assess the short-term impacts of the mutinies on biodiversity. The mutinies certainly increased overall insecurity and resulted in a large migration away from Bangui, creating many IDPs. As soon as the conflict eased, however, many IDPs returned to the capital, and it is likely that most have now resettled. The movement of IDPs was relatively short-lived, lasting perhaps for a maximum of four years. Even this relatively short-lived displacement, however, probably led to a rapid increase in deforestation associated with slash and burn agriculture as well as firewood collection. Many people likely turned to hunting and poaching to survive this difficult period. Although little quantitative data exist on any of these factors, the overall impression is that the mutinies had limited direct impact on biodiversity. Nevertheless, indirect impacts of the mutinies, such as the massive pullout of foreign assistance and funding, had important negative effects on biodiversity conservation.

Impacts of the insecurity in the north

IMPACTS ON BIODIVERSITY

Because of its extended duration, the conflict in the north has had a much greater impact on the CAR’s biodiversity than did the short-lived mutinies in the capital. Elephant numbers have dropped dramatically as a direct result of the insecurity in the north. The last estimates counted roughly 5,000 individual elephants in the savannas of the CAR, a reduction of more than 90 percent (Tello, personal communication, 1998). Today, the CAR’s only remaining large population of elephants (approximately 5,000) is found in the forests of the extreme southwest around the Dzanga-Sangha protected area complex (Blom, unpublished data). The conflict in the north has also led to the disappearance of the rhinoceros from the CAR, which had a rhinoceros population possibly as high as 10,000 some 30 years ago.

When examining the impacts of the insecurity in the north, it is interesting to compare the history of Dzanga-Sangha with that of the forest of Bangassou in the east of the country. Both areas feature large tracts of forest with low human population densities. About 40 years ago, both supported large elephant populations, numbering

roughly around 5,000 animals for Dzanga-Sangha and 10,000 for Bangassou (Blom, unpublished data).

With the increasing pressure from the north and the subsequent disappearance of elephants, poachers began moving further south into the forest zone, and by the early 1980s poachers began to have a severe impact on forest elephant populations. In 1988, however, WWF started the Dzanga-Sangha Project in collaboration with the ministry responsible for protected areas. A major objective of the Dzanga-Sangha project was to curb the decrease in elephant populations by reducing poaching. Within a couple of years this project was able to drastically reduce poaching and to reverse this downward trend (Blom, 1999). Elephant poaching has remained low since then, and the population has been able to recover significantly (Blom, unpublished data). As a result, elephants can once again be observed in broad daylight in forest clearings and even around the town of Bayanga (Turkalo, personal communication). These elephants form the basis of an expanding ecotourism industry, (Blom, 2000, 2001), and Bayanga has developed into a park headquarters, with an associated tourism infrastructure. Tourism, although still underdeveloped, already plays an important role in the local economy (Blom, 2000, 2001), providing both direct employment and indirect income.

Bangassou did not have the benefit of such a project, however, and no effort was made to curb poaching there. Local and Sudanese poachers were largely left undisturbed, and even today poachers can still be found operating in the area. A survey in 1994-95 showed that elephant populations had been decimated, with only about 1,600 remaining in the forest (Kpanou et al., in prep.). As long as poaching remains rampant, there can be little hope for these elephants. Given the continued insecurity and lack of economic development, no tourism has developed in this region, and even local people are moving away. The few passable roads that remain are dangerous and prone to banditry, and truck drivers are regularly held up at gunpoint.

Interestingly, the logging industry in Dzanga-Sangha has been revived in recent years, and the concurrent influx of people has resulted in an increasing rate of deforestation. The Bangassou region, on the other hand, which has experienced a diminishing population (as evidenced by abandoned fields and coffee plantations), is enjoying an increase in forest cover (Kpanou et al., in prep.). Therefore, while in Bangassou the conflict has led to decreasing human populations and diminished impacts on the vegetation but reduced wildlife populations, in Dzanga Sanga hunting pressures have decreased whereas pressure on the forest has increased (Blom, 1999). This example demonstrates that the impacts of armed conflict are not uniformly beneficial or detrimental to biodiversity. Some impacts (such as increased poaching in Bangassou) are negative; however, regional instability and degradation of infrastructure linked to the conflicts may in fact be beneficial by acting to reduce forest degradation by decreasing human populations and commercial activities in the area.

The insecurity in the north has caused a serious loss of biodiversity, with the rhinoceros at least one confirmed extinction. The potential extinction of elephants might lead to a serious cascading effect since the elephant, even more than the rhinoceros, significantly influences its habitat and is considered a keystone species. The extinction of elephants would likely result in major changes in the habitat.

IMPACTS ON THE ECONOMY AND CIVIL SOCIETY

The north of the CAR has already lost its tourism industry. This industry was relatively small, but had considerable growth potential, especially given the fast-growing world industry in adventure- and nature-tourism. More important for the CAR in economic terms is the loss of its very profitable safari-hunting industry (Wilkie and Carpenter, in prep.). Many safari-hunting companies have already been forced out of business, sometimes literally after having been overrun by poachers. Although some still remain (12 officially, though not all are operational), their future in the north looks bleak. Several such companies remain in the forested south, which seems to offer some future potential, although the area and quota allowed in the forest region are too small to offer opportunities for more than a handful of companies.

Because of this ongoing insecurity in the north, few donors are willing to invest in the region. The infrastructure is being neglected, especially in the northeast, so that farmers and others cannot get their products to market. Overall, this insecurity has had a dramatic impact on the daily life of many communities in the north, to such an extent that many people have left the region.

Nongovernmental organization (NGO) resilience

Conservation organizations

Very few international conservation NGOs were present in the CAR before the mutinies, and most of these left the country during the conflicts. Only two international conservation organizations remain active in the CAR: Wildlife Conservation Society (WCS) and the World Wildlife Fund (WWF). Although some national conservation organizations exist, they are relatively small-scale and have a limited scope. Some national organizations such as FOSCERENA have collaborated with certain WWF activities, including the Bangassou feasibility studies. These studies included both ecological and socioeconomic surveys in preparation of a Global Environment Facility-funded, community-based, conservation initiative.

In the CAR, WCS is only active in field research, which leaves WWF as the only international conservation organization with a conservation management program. WCS has a relatively small but permanent research presence in Dzanga-Sangha (researching forest elephant ecology at the Dzanga clearing) and has financed or co-financed several other short-term research projects in the same area, all of which are closely associated with the WWF-initiated Dzanga-Sangha Project. Research activities

in Dzanga-Sangha have not been greatly influenced by the insecurity in the north, and the mutinies in Bangui caused little more than inconvenience and anxiety for most.

The situation in Bangui was quite different, however. During the second mutiny looters attacked the WWF offices, but because some staff remained on the premises they were able to negotiate for protection and drive off the looters. As a result, no major damages or losses were incurred at this office. Although the WWF representative was forced to leave soon after this incident and the building was attacked several more times, no major losses ever occurred and all vehicles and most equipment were saved. This allowed for almost continuous operations.

Development organizations

As mentioned earlier, a few organizations are working specifically on biodiversity conservation in the CAR, and in fact most conservation activities in the CAR are carried out by development organizations. The EU is by far the most important, with a large and diverse program, including the PDRN and ECOFAC components mentioned earlier. GTZ has several conservation aspects in its diverse portfolio in the CAR, most notably Dzanga-Sangha and the project for conservation in the hills behind Bangui (Programme de Gestion Participative des Ressources Naturelles or PGPRN – participatory natural resource management project). Although it was not directly involved in conservation, the World Bank also provided funds for PARN, which had a conservation component (Dzanga-Sangha).

PDRN was by far the biggest conservation and development project in the country. With a budget of several million U.S. dollars a year and a staff that has sometimes exceeded 400, including 15 expatriate advisors, PDRN has been a major conservation player in northern CAR for more than a decade. Between 1988 and 1998, PDRN's total budget was 39.6 million ECU (Euro) or about US\$39 million. This project, based on the concept of integrated conservation and development, followed up several other initiatives, such as the Food and Agricultural Organization's (FAO) projects around the Manova-La Gounda-St. Floris and Bamingui-Bangoran National Parks, which are both on the World Heritage Sites red list.

Even though these projects have received substantial investment, they have not been successful in controlling the poaching onslaught. The projects were able to temporarily stop local poaching and had some success with introducing community hunting zones. Because of the continued insecurity in the region, however, the projects were unable to achieve their main objective of safeguarding the protected areas under their care. Given the multiple internal and political problems related to this project, the EU recently decided to substantially scale down this project and possibly pull out completely in the near future.

During the 1996 mutiny the EU decided to evacuate all its expatriate staff. The project offices in Bangui were looted and destroyed, and several vehicles were lost, result-

ing in a serious disruption of operations. Field office communications were cut off, the flow of money for salaries and operation costs was hampered, and supplies were disrupted for several months, seriously affecting antipoaching and other operations. The loss of all archives and financial documentation was also important. Besides these direct impacts, the resulting loss of credibility and loss of confidence by the project donors had serious consequences in reducing available funding.

The Ngotto Project, another EU-funded project, experienced similar problems. Ngotto is part of ECOFAC, a larger regional program for the conservation and sustainable use of tropical rainforest in central Africa that concentrates on sustainable forestry and conservation of a core area of the CAR's southern tropical forests. Like Dzanga-Sangha, this area has so far remained relatively stable and safe. During the mutinies, the project remained operational, but only at the most basic level. As was the case with the PDRN, the Ngotto Project was forced to evacuate its entire expatriate staff, its offices in Bangui were looted, and three vehicles were stolen. It took the Ngotto Project a year to replace lost equipment and well over a year to become fully operational again.

PARN, another major project related to natural resource management financed by the World Bank, was probably the most affected of the projects operating under the CAR Ministry of Water and Forests. PARN lost all of its equipment, including its entire geographic information system (GIS) database of forest inventories covering the whole southwest of the country. PARN's CAR headquarters were completely destroyed, and it lost at least six vehicles. Fortunately, PARN kept a copy of most of its data safe at the headquarters of the consulting company in Canada. Still, the project was suspended for almost a year and was finally halted without achieving its main objectives. Although a second phase had been discussed, it has not yet materialized. Even though the mutiny was certainly not the only decisive factor, it must have played a role in PARN's decision to discontinue the project. Unfortunately, very little was ultimately done with the massive amount of data collected during the forest inventories or with the experience gained in sustainable management and reforestation.

The National Fish Culture Center, which had been established with funds from FAO, was totally destroyed and shut down. The Peace Corps, with volunteers involved in several conservation-related activities such as the Dzanga-Sangha Project, evacuated its entire expatriate staff and volunteers during the mutiny and closed its offices. The Peace Corps stopped all of its activities as a direct result of the mutinies and has yet to return to the CAR.

In summary, most international organizations, such as UNDP, FAO, and the World Bank, pulled out their expatriate staff and had their offices looted and/or vehicles stolen during the mutinies. A notable exception among such organizations was the GTZ. Although it evacuated most staff, with the exception of the representative in

Bangui and the staff in Bayanga, GTZ still managed to maintain a presence in the country. Even though its premises were invaded and several cars were taken, GTZ was able to negotiate with the rebels and looters. As a result, GTZ lost little property and all of its vehicles were returned. The representative was also able to provide financial assistance to WWF during the mutinies.

From the experiences of WWF and GTZ in Bangui, one can conclude that maintaining a presence of senior staff (expatriates) during civil unrest made a substantial difference. Two factors played an important role in maintaining this presence: immediate resource management and confidence building. The senior staff was able to make the necessary adjustments and decisions when needed, such as allocating resources on short notice to provide funds to pay additional staff to protect property, for example. The fact that senior staff was able to make such critical decisions without consulting the home office was of crucial importance.

The second point is that maintaining a presence during civil unrest had a positive effect on employee morale. In both the cases of GTZ and WWF, the continued presence of expatriate staff gave local staff confidence and encouraged the local staff to remain actively involved in the continuation of operations. In the case of WWF, several Central African staff members remained in the office to defend the premises, showing a great degree of loyalty. Those staff members believed that the continued presence of senior staff made it more likely that they would continue to obtain their salary and benefits and made it less likely that the project would shut down permanently.

It is also important to note that nearly all the project offices were located in Bangui. Those with substantial activities and resources outside the capital were the least affected and the quickest to recover.

Donor reaction/emergency funding

As mentioned earlier, most of the international organizations closed their offices during the mutinies, effectively stopping the flow of funding to their projects. As a result, certain projects were terminated, while others were delayed. As described above, the organizations that were able to maintain their Bangui offices (GTZ and WWF) were the least affected by the conflict in the end. Even so, both organizations experienced serious cash flow problems during the crisis and both were forced to scale back their activities. For example, WWF was only able to maintain a limited degree of activity in its only active project at that time, Dzanga-Sangha. GTZ also remained active in that project, but was forced to suspend others, mostly due to the absence of senior (expatriate) staff. PDRN was also able to maintain a presence in the field, although events surrounding the mutiny increased donor doubts concerning that project's viability. This probably contributed to the donor's decision to scale down the project.

In the case of the Dzanga-Sangha Project, most funding continued, including NGO funding and, more surprisingly, funding from bilateral governmental sources that typically withdraw during periods of political instability. Both the German government (through GTZ) and the American government [through U.S. Fish and Wildlife Service (USFWS) and USAID] remained very much involved in the Dzanga-Sangha Project during the crisis. Overall, donor involvement remained high throughout the conflict, as illustrated by the fact that expatriate staff was allowed to remain. Several factors played a role in the decision to allow expatriate staff to remain. First, Dzanga-Sangha had the advantage that it was far removed from the conflict (500 km southwest of Bangui). Second, it had good evacuation potential, being close to an international border, with arrangements in place for a quick evacuation if needed. Third, the project had experienced senior staff and senior expatriate staff from both GTZ and WWF with previous experience dealing with conflict situations. Finally, the project also had good protection, with 35 rangers and wardens, and benefited from close collaboration with local police and other law-enforcement staff.

The fact that the Dzanga-Sangha Project survived the mutinies almost unscathed added to donor confidence. Even more important was the fact that the continued operations in Dzanga-Sangha were highly appreciated by the CAR government. This goodwill raised the profile of these conservation organizations, providing them with easier access to all levels of the CAR government and unique opportunities for promoting new conservation initiatives.

Collaboration among conservation, development, and relief sectors

Close collaboration between the conservation and development sector has existed in the CAR for at least the past 10 years. All current programs are in fact some form or another of an integrated conservation and development program, in most cases financed by a single donor. The notable exception is the Dzanga-Sangha Project, which involves a unique collaboration among a national ministry, a conservation organization (WWF), and two development organizations (GTZ and the Peace Corps), as well as a diverse donor base, including multilateral (World Bank), bilateral (U.S. and Germany), and conservation funding sources.

On the other hand, collaboration between different projects has been mostly informal in nature. Some effort was made to collaborate more formally on aspects such as tourism and antipoaching, with few practical results. A successful formal collaboration on guard training did evolve between the EU (ECOFAC) and the Dzanga-Sangha Project (WWF/GTZ), however, and this collaboration was strengthened during the mutiny when mutual assistance was given whenever feasible.

The case is rather different with collaboration between conservation and relief organizations, with very little if any contact between them, even though both sectors have

been active in the CAR for many years. Relief efforts have long focused on the ongoing conflict across the border in Sudan. Northeastern CAR has been used as a base for camps that harbor several thousand refugees who have fled the conflict in neighboring Sudan. More recently, in the period from 1998-2000, however, an unknown, but probably relatively small number of refugees have entered the CAR from Congo (Brazzaville), while large numbers of refugees have entered the CAR to flee the devastating war in neighboring Democratic Republic of Congo (DRC). At least 13,000 refugees have crossed the Oubangui River into the CAR, while an estimated 6,000 refugees have reportedly taken up residence around Zinga in Lobaye Province, southwest of Bangui. In addition, the CAR government has been collaborating with the UN High Commission for the Refugees (UNHCR) to set up a refugee camp for several thousand Rwandan refugees near Bouca, 300 km north of Bangui. The environmental impact of these new refugees has not been documented.

It is also important to mention the collaboration (or the lack thereof) in the CAR between foreign peacekeeping forces and the conservation and development sectors. Until recently, the French military had two major bases in the CAR, with as many as 2,500 troops throughout the country, outstripping the CAR army. The French military has assisted the PDRN project on several occasions, carrying out joint missions to try to prevent the infiltration of poachers into the national parks, providing medical evacuations, as well as conducting emergency evacuations during the mutinies.

Similarly, conservation projects have provided training opportunities and logistical support to French troops on exercise. This collaboration, however, has not always been positive. For example, WWF had one of its vehicles confiscated by the French military during the mutinies and experienced major problems getting the vehicle returned. WWF was able to recover the vehicle eventually. The African (Organisation of African Unity, or OAU) and later UN peacekeeping forces that gradually replaced the French troops have interacted very little with the conservation and development sectors, mostly because their peacekeeping mandate was restricted to Bangui.

Transboundary management of natural resources

The tri-national park area around Dzanga-Sangha provides a classic example of how important transboundary management of natural resources can be during periods of armed conflict. This tri-national area, which includes the Dzanga-Sangha protected area complex in the CAR, the Nouabale-Ndoki National Park in Congo, and the proposed Lac Lobeke protected area in Cameroon, is considered one of the most important protected area complexes in the Congo Basin.

The area encompasses a contiguous forest block with low human density and low disturbances and harbors highly diverse rainforest fauna and flora, supporting one of the highest known densities of forest elephants (*Loxodonta africana*) and lowland gorillas (*Gorilla gorilla*). Not only do these protected areas connect similar habitat types, but

they also connect areas that are socially similar. National borders in Africa are often not based on ethnic group divisions: people living on one side of a border are often closely related to people in the other country. In fact, certain groups move quite freely across the CAR-Cameroon-Congo borders, especially the BaAka and BaKa pygmies.

Before the mutinies in the CAR, the idea of a tri-national park was already well under way, with protected areas established and management structures in place or being developed in the CAR and Congo. Cameroon was lagging somewhat behind, but an area had been identified, was pre-gazetted, and some management infrastructure was being developed. Also, an active collaboration existed among the three countries, with both formal and informal regional meetings taking place. Other forms of collaboration were either being implemented or developed as well, including training, research (e.g., cross-border migration study of elephants), and antipoaching (intelligence sharing and joint patrols).

While transboundary collaboration can be very useful during times of peace, the concept also offers great advantages during times of conflict. In the case of this tri-national area, the advantages were observed on two occasions: once during the mutinies in the CAR, and then again during the ongoing civil war in Congo (Brazzaville). The assistance provided by WWF Cameroon during the evacuation of the Peace Corps volunteers and other expatriates during that period was crucial, as was the existence of good communications (mostly by radio) among staff of the three protected areas. WWF, GTZ, and the U.S. Embassy in Cameroon remained available throughout the crises in the CAR to provide assistance with evacuating staff and valuable equipment. Arrangements with ministry staff on both sides of the border were in place to move essential equipment such as vehicles, computers, and archives across the border for secure safekeeping. In fact, this was never necessary during the CAR mutinies, but it did happen in the case of the civil war in Congo.

During the Congo civil war, the Dzanga-Sangha project assisted WCS and the staff of the Nouabale-Ndoki Project in providing temporary lodging for its evacuated staff and logistical support. The Dzanga-Sangha Project also provided safekeeping of all its valuable equipment and archives, which otherwise might have been lost during the conflict. The fact that everything was safely guarded just across the border during this period allowed the Nouabale-Ndoki Project to quickly return to full operations when the worst of the conflict had passed and the region had stabilized. The value of such mutual assistance during times of conflict cannot be stressed enough.

Post-war policy opportunities

The greatest impact of the mutinies on environmental policies was that they brought about so many changes in the CAR government that most previous government policies were rendered ineffective. The mutinies also devastated the national budget, thus

restricting even further the resources available for law enforcement and antipoaching. The country will still take a long time to recover. It is possible that with the start of this new millennium the time is ripe for some consistency and the development of policies to protect the enormous biodiversity of the CAR.

The lingering problems of insecurity in the north and its impacts on biodiversity have not been resolved and it seems unlikely that they will be resolved in the foreseeable future.

This lack of action on the part of the CAR government has multiple causes, including:

- Fear of endangering relations with its neighbors, especially Sudan.
- Vested interests.
- Fear of bad press from military-style operations to control illegal hunting, which could generate criticism in the European and American press (e.g., claims of putting animal welfare above human welfare and claims of human rights abuses).
- Fear of deteriorating relations with local communities, since a tougher approach would certainly affect those local people involved in illegal hunting.
- Lack of political stability, and a frequently changing government that renders the formation of consistent policies virtually impossible.
- Low priority for government, i.e., the insecurity in the north was not seen as a priority (certainly during the mutinies).

In reality, it is likely that all these factors contributed to varying degrees over time.

On a more positive note, the CAR government has made some effort following the mutinies to recover some of the weapons that went into circulation during the mutinies. The UN peacekeeping force carried out regular searches for illegal weapons. This will certainly increase the overall security in the region and will help decrease illegal hunting. People are aware of what needs to be done, but that not enough political momentum exists to make the necessary changes.

Clearly, the CAR government must make a strong commitment to law enforcement to bring illegal hunting under control. Without such a commitment, the savanna elephants in the CAR will go the way of the rhinoceros and become extinct. The integrity of both parks (Monovo-La Gounda-St. Floris and Bamingui-Bangoran) is already severely threatened and, with diminishing EU funding, their future looks bleak.

Conclusions

The mutinies in Bangui provided a unique opportunity to analyze the preparedness of the conservation community for short-term crises. The following lessons can be drawn from this conflict:

1. **Experience in Crisis Management:** The presence of senior staff with experience in crisis management can make a substantial difference in the capacity of an NGO and other organizations to weather a crisis.
2. **Training:** If senior staff lacks this type of experience, training should be provided, especially in areas at high risk of conflict. Several professional consultant security companies provide such training and can also carry out a risk assessment. Such training would also prepare staff to deal with other types of crises, including natural disasters. When possible, the training should be extended to all staff, not just senior staff, to ensure a degree of organizational autonomy, as senior staff is more likely than junior staff to leave during times of crisis.
3. **Authority:** During a crisis it is important that senior staff have the authority and autonomy to make important decisions without consulting with headquarters, if such decisions are critical and the time or means to consult are unavailable. Examples of such decisions are whether or not to evacuate, to hire or to lay off staff, and to access additional emergency funding. An experienced and well-trained staff member on the ground is usually better placed to judge the situation than someone at the headquarters of the organization.
4. **Decentralization:** Activities should be carried out in the field as much as possible. Equipment and archives should be kept in the field whenever feasible, with backup copies of important documents stored in separate locations (including the capital and/or headquarters).
5. **Emergency Funding:** Some cash should be kept separate from normal cash flows for emergency circumstances. Even small amounts of cash can make a significant difference and is usually not available during a crisis because banks and other financial institutions are the first to close their doors. Enough cash for at least one month of functioning should be kept in a safe (another essential piece of equipment often lacking) at each location where activities are carried out on a regular basis.

6. **Good Communications:** Good, reliable communication systems should be in place, with back-up systems and alternative power sources, and if possible two fully autonomous communication systems (for example satellite telephone and radio). Radio is used most often and is reliable in most situations. Telephone based on landlines is less reliable and can be cut off. Satellite phones are getting cheaper, more reliable, and smaller. Satellite phones are still rather expensive but are a good second system next to conventional radio communication systems. Reliable communication is not a luxury and can literally save lives, not only in times of crisis.
7. **Crisis Management Plan:** Each site should have a detailed plan in place for dealing with different crisis situations. Such a plan should detail how to deal with medical emergencies and full-out evacuation for each site where the organization is active. When necessary, the previously mentioned consultant security companies can be helpful in drafting such plans.
8. **Home Office Preparedness:** Crisis plans should be in place at the home office level as well. A team for each region should be available, with sufficient knowledge of the region as well as the authority to act. They should have a file readily available containing essential information to provide back stopping. They need to have information on, for example, names of all staff, their close kin, insurance information, scope and location of projects, offices concerned, etc. They should remain updated on the situation, preferably through one point person. They should also be able to contact institutions such as ministries, departments, and embassies that can provide either information or assistance. It is essential for the field manager to be able to count on support from the home office. The home office should be there in times of crisis to help solve problems, not create other obstacles. The reality in that respect is unfortunately often the opposite.
9. **Insurance:** No staff should be sent in the field without proper insurance. Serious attention should also be given to insuring property of both the organization as well as staff. Regular insurance does not normally cover armed conflict! If insurance is too expensive, then the organization should be willing to absorb such losses, including those incurred by its staff.
10. **Job Security:** In the worst cases, expatriate staff needs to be evacuated and the projects and offices closed. In such cases, organizations should guarantee continued payment of salaries for a reasonable time (e.g., six months) and assist in finding alternative employment, within or outside the organization. At present, most contracts issued consider an armed conflict enough reason to terminate a contract immediately. Beside the obvious traumatic experience of evacuation during armed conflict, staff should not have to worry about their employment or other financial consequences.

11. **Official Support for Protected Areas:** The conservation community needs to redouble its efforts to lobby the CAR government to adopt the necessary policies to safeguard the protected areas. A tougher stance on poaching on the part of the CAR government is needed. At the same time, the international community should be ready to provide sufficient funding for the management of the World Heritage Sites in perpetuity. This will require substantial funding, especially because the integrated conservation and development approach comes with a big price ticket. Several initiatives are presently under way to address this challenge of long-term sustainable funding for protected areas in the Congo Basin.
12. **Remoteness:** It is an unfortunate reality of working in conservation that some of the best opportunities for biodiversity conservation are located in remote areas, with high risk of armed conflict. Rather than avoiding such areas, organizations should hire staff with the appropriate experience and put policies in place to deal with such crises.
13. **Transboundary Management of Natural Resources:** This type of management should be promoted where practical as a means of mitigating the impacts of armed conflicts. In delineating such areas, however, biological and ecological factors should come first. If ecologically appropriate and practically feasible, transboundary management can be an excellent way to decrease the impacts of armed conflicts on biodiversity conservation. Additional advantages are the potential for increased funding and for stabilizing potential conflict areas (e.g., Peace Parks). Because badly defined borders in many developing countries often lead to conflicts, the transboundary protected areas represent one approach to dealing with this problem.
14. **Intersectoral Collaboration:** Besides collaboration across borders, it is important to develop networks within countries. Even just informal contacts among the conservation, development, and relief sectors can be useful. Last, but certainly not least, collaboration is needed with the parties involved in the armed conflict. These parties can be government troops, rebels, peacekeeping forces, or foreign armies. The point here is not to choose sides in the conflict but to have open communications with all, to avoid being dragged into the conflict. Conservation organizations are often involved in antipoaching and are associated with paramilitary departments. Especially in the context of central Africa, this means they have to be well-trained and well-armed to deal with poaching. In those few instances where well-trained and armed rangers are present, they need to be strictly controlled and kept out of the conflict and focused on their antipoaching role. Even though this is a difficult task, some good examples exist in Central Africa of heroic behavior during armed conflict on the part of rangers and wardens in defending wildlife.

The two types of conflict in the CAR (mutinies largely restricted to the capital, and long-term instability in the north of the country) have had negative impacts on both human welfare and the environment, with long-term consequences. This year (2001) another attempted coup d'état took place in Bangui, and the insecurity in the north worsens daily, demonstrating that both types of armed conflicts remain unresolved. The longer these conflicts continue, the more dramatic their impacts will be, with important irreversible loss of biodiversity affecting the livelihood of many people. The government of the CAR, along with all involved stakeholders (donors and conservation, development, and relief organizations) must make a serious effort to resolve these armed conflicts, not only for the sake of the local population but also for the preservation of biodiversity.

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