

Adaptive Livelihood Strategies in Conservation-Induced Displacement: The Case of the Baka of East Cameroon

Harrison Esam Awuh

Abstract: This article utilizes the Actor–Network Theory (ANT) to guide thinking about the relationship between nature and society and how this relationship is severed by conservation-induced displacement. ANT’s view of interconnectivity between networks is used to argue that a network is only stable as long as actors remain faithful to it. In the case of the displaced Baka people of the Dja Reserve area in East Cameroon, resistance to conservation through adaptive practices following displacement can reverse or disrupt the socially predetermined order of a network, which in this case would be marginalization of the displaced. However, the marginal scale of their adaptation to change raises doubts over the sustainability of adaptation to post-displacement livelihoods.

Résumé: Cet article utilise la théorie de l’acteur-réseau (Actor–Network Theory = ANT) pour éclairer la réflexion sur la relation entre la nature et la société et comment ce lien est rompu par les déplacements induits par les exigences de la préservation de l’environnement. Le point de vue sur l’interconnectivité entre réseaux dans le cadre la théorie de l’acteur-réseau est utilisé pour affirmer qu’un réseau n’est stable que tant que les acteurs lui restent fidèles. Dans le cas des peuples Baka qui furent déplacés de la Réserve du Dja dans l’Est du Cameroun, la résistance à la préservation de l’environnement, grâce à des pratiques adaptatives après le déplacement, montre que l’ordre social prédéterminé d’un réseau peut être renversé ou perturbé, ce qui dans ce cas représenterait une marginalisation des personnes déplacées. Toutefois, la faible ampleur de leur adaptation

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au changement soulève des doutes quant à la viabilité de l'adaptation pour la survie suite à un déplacement.

Keywords: Conservation; displacement; adaptation; Actor–Network Theory; Baka; East Cameroon

Introduction

The resurgent “protection” paradigm in studies of international biodiversity argues that current Integrated Conservation and Development Projects (ICDPs), or people-oriented approaches to protecting biodiversity areas, are failing. Based on this paradigm, an increasing number of protected area managers still believe that human displacement is fundamental to conservation (Terborgh & Peres 2002). In turn, the number of protected areas in the world has risen by 500 percent in the last thirty years (Wittemeyer et al. 2008). This increase in protected areas has meant an increase in the number of people who are displaced, either directly or indirectly, to create room for these areas. Furthermore, groups that are affected by conservation are often relatively marginalized in their society. Such groups include, among others, the San of Botswana (Hitchcock & Holm 1993), the Adivasi of India (Dowie 2009), the Ogiek of Kenya (Dowie 2009), and the Baka people of Cameroon, who constitute the case study in this article. Globally, approximately 3,058,000 people from twenty-eight different indigenous groups have been displaced across forty-eight protected areas (Awuh 2011).

Background to Displacement

Conservationists aim to create national parks free of people, and the governments that are eager to benefit from the financial backing of conservation institutions and the timber business assert their power over indigenous groups in remote areas by declaring ownership over territories. Estimates by the International Union for Conservation (IUCN) of forest degradation and loss in the Central African subregion (which covers the study area) show that on average, 60 percent of tropical forest and 60 percent of wildlife habitat have been destroyed (Cernea & Schmidt-Soltau 2006). Based on these figures, the Yaoundé Declaration of 1999 was ratified by seven Central African heads of state, with the belief that the establishment of national parks and other protected areas in the subregion is the most effective way to protect nature.¹ By 2002 signatories to the declaration, including the government of Cameroon, had fulfilled their obligations and doubled the area of protected land in the subregion. The governments also came up with a plan stipulating that in ten years time no less than 30 percent of their national territories would be protected as national parks (Cernea & Schmidt-Soltau 2006; IUCN 2003). The implementation of this plan has

taken place at the expense of indigenous people, including the Baka people, who have been economically and physically displaced without compensation.

The Cameroon 1994 Forestry Law (Ministry of Environment and Forestry 1994), like the 1973 and 1981 laws it superseded, put all forest resources under the control of the state. Under Section 35, all forest and genetic resources (i.e., any natural material of actual or potential value), with the exception of council forests and private forests, are nationalized. Sections 30 and 35 imply that an individual cannot own a naturally growing tree, even if it is found on a plot of lawfully owned private land. An extension of the law also states that user rights of local people can be temporarily or definitely suspended or restricted for the purpose of conservation. This can be carried out only with the consent of the local population and must be done in consonance with the requirement of expropriation by reason of public interest, that is, the payment of compensation (Egbe 2001). However, in practice there is hardly ever any consultation with the local population and compensation is often little or nothing. The stipulations of the law exacerbated a preexisting process of economic and physical displacement and was influenced by the World Bank and the Government of Cameroon, as well as by logging companies and individual Cameroonian politicians. Their actions were defended to a limited extent by development objectives, but principally by direct material interests and political concerns. Consequently, the success of future conservation policies will depend on the willingness of actors to defend their own interests, the balance of power at any time, and the ability of the powers-that-be to mediate among the different stakeholders.

The Baka people are traditionally a hunting and gathering community and are considered to be the original inhabitants of the Dja Reserve area (Bahuchet 2000). They traditionally live in small groups and lead a semi-nomadic forest-based life. It has been estimated that there were about thirty thousand Baka in the area covered by the reserve before it was created (CED/FPP 2005). Baka language, culture, and religion are strongly tied to the forest, which remains the cornerstone of most household livelihoods (Shikongo 2005). The Baka of East Cameroon living around the Dja Reserve were chosen as the case study for this article because they fit most criteria for classifying displaced indigenous people. The Baka people are believed to be the first occupants of their current territory, they have a widespread knowledge of the use of natural resources in their area, and their culture and economic practices are connected with the use of these natural resources (Shikongo 2005).

Early records of the protected area status of the Dja Reserve date from 1932, when it received some protection from the French government (see figures 1 and 2). In 1947 certain species within Dja were protected by Decree 2254, which regulated hunting in the French African territories. In 1950 the status was upgraded to a full-fledged protected area (*Réserve de Faune et de Chasse*) by decree number 75/50 of the French colonial

administration (UNEP-WCMC 2008). Following independence, the government of Cameroon took over administration of the reserve under National Forestry Act Ordinance 73/18. The official recognition of the Dja Reserve in 1950, coupled with “fortress” conservation ideology claiming that the presence of people in protected areas is anathema to the idea of nature protection, led to the first wave of expulsion of the local Baka population, which began in the 1950s and has been ongoing.

Studies by Cernea and Schmidt-Soltau (2003) have shown that an estimated 7,800 Baka people who depended on the forest for more than 50 percent of their livelihood have been forced to relocate from the protected area, thereby losing their freedom to roam. The displaced Baka people were not consulted prior to their displacement and no compensation was offered for their loss of land and livelihood. Consequently, the Baka have been forced to settle in sedentary villages alongside the dominant Bantu groups (principally the Nzime). As a result of this forced sedentarization and restrictions on mobility and access to resources, the Baka are enduring marginalization by the state and other ethnic groups and are relegated to the bottom ranks of the cash economy because of their inability to adapt to a sedentary lifestyle.

The remote location of the Dja Reserve tends to mask its impoverishment from the public eye. Promoters of protected areas ignore the voices or plight of the displaced Baka people because recognition of displaced people entails recognition of their rights to compensation. As Dowie (2009:52) states, “conservation refugees are invisible because visibility raises the price

Figure 1. Location of the Dja Biosphere Reserve and Study Sites

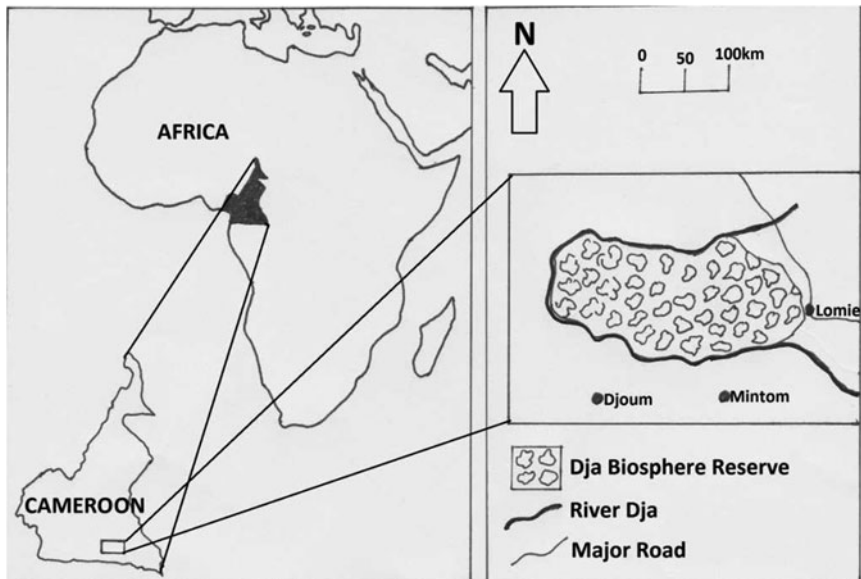
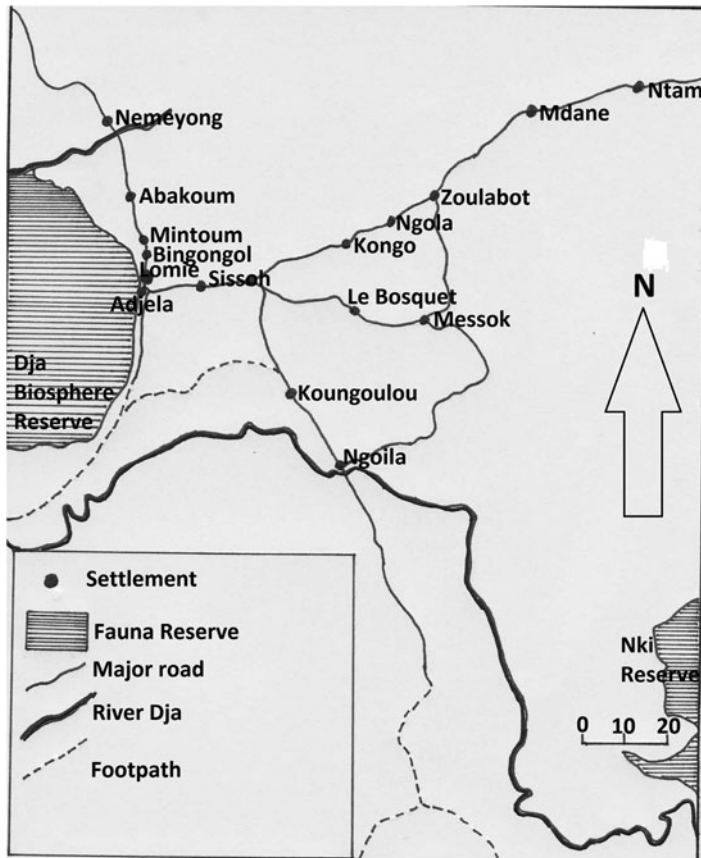


Figure 2. The Eastern Fringe of the Dja Biosphere Reserve



of conservation.” Consequently, World Bank recommendations for resettlement of displaced people have been ignored in the case of the Baka, with some government officials arguing that the cost of resettling inhabitants of national parks according to the World Bank’s socially sound guidelines is too high (Cernea & Schmidt-Soltau 2003). In order to comprehend such negative impacts of conservation-induced displacement, this article turns to actor–network theory (ANT).

Actor–Network Theory (ANT) and Displacement

Actor–network theory (ANT), which has been credited to Michel Callon, Bruno Latour, and John Law, consists of a set of overlapping propositions intended to guide thinking and research about nature–human relations (Castree 2002). When applied to the field of conservation ANT is not, in the strictest sense, a “theory,” because it is descriptive rather than explanatory, but it is a theory in that it is used to explain why displaced people

experience inequalities. An actor in this case is defined as “any element which bends space around itself, makes other elements dependent on itself and has the ability to translate [its] will into a language of [its] own” (Callon & Latour 1981:286). ANT has been adopted by several other disciplines based on its flexibility, in that besides being an unconventional theory in itself, it can also be used as a method for delineating relations among actors without limiting what such relations can look like. This study takes advantage of this flexibility in its aim of incorporating ANT into conservation research.

Rather than basing conservation practices on nature alone, this article suggests that it is more productive to base them on the configuration of networks that can either drive or impede conservation practice. With this approach, ANT can play a pivotal role in the comprehension of conservation and displacement, since actor networks are interconnected and practices in one network can control or interfere with another (Latour 1990). In other words, networks cannot be treated in isolation, because what happens in one network ultimately has an influence on others. This “stabilization of the network” argument is further strengthened by Wallerstein’s (1974) description of how the “core” maintains control over the “periphery” through a variety of methods, including military or political strength, polarization of the weaker periphery into upper and lower strata, and brainwashing of the weaker periphery into an ideological commitment to the system. Latour (1987) states further that in order to ensure actors’ commitment to the network, stronger actors seek to “black box” less powerful actors by eliminating controversies and making alternative decisions or courses of action difficult or impossible.

However, such suppositions about the stability of a network lead to the assumption that networks are irreversible and determinate. The weakness with such a viewpoint is that it downplays the role of resistance, which can reverse or disrupt the socially determined order of a network. Often, actors who do not wish to be part of the network or are not ideologically committed to the system will struggle to break free. This leads to renegotiation of the terms of a network by rebellious actors. As Knights and McCabe (2000:426–27) suggest, “power is rarely so exhaustive and totalizing as to preclude space for resistance and almost never so coherent as to render resistance unnecessary or ineffective.” Furthermore, as Whittle and Spicer (2008) argue, a network is stable only as long as all human and nonhuman actors remain faithful to it. Martinez-Alier (1990) and Watts and Peet (1996) argue that relevant political action can take the form of civic movements, organized party politics, or alterations in livelihood strategies in general. Likewise, resistance (which is a form of political action) is considered in this article as the power to utilize adaptive or alternative livelihood strategies in order to withstand oppressive policies that have relegated the displaced people to the bottom ranks of society. In other words, the capacity of displaced people to withstand the negative effects of harmful policies through alternative strategies is viewed as a form of resistance.

Actor–network theory, in short, does not consider actions that can disrupt a network but may or may not come about as a result of translation processes within the network. In the context of conservation studies, this article presents empirical evidence from a study of the displaced Baka people to show how resistance to a socially acceptable order among displaced people does not necessarily have to be a result of action from within the network of conservation itself but can result from the influence of other networks. In addition, resistance can be regarded as the unintended effect of a translation of a flow between one node and the other in a network (i.e., translation gone wrong). The fundamental questions this article seeks to answer are: What is the nature of this resistance to the network or threats to network stability? In what ways can displaced people destabilize predetermined post-displacement network stability?

In order to study anti-network activities or network destabilization, this article examines resistance in the form of adaptive survival or livelihood strategies being employed by displaced people to offset the balance of dominant versus dominated, or of rich versus poor, which is a major characteristic of inequality in network stabilization. Resistance takes the form of exacerbated illegal hunting, changing labor relations, increasing trust in modern medicine, increasing awareness of the importance of formal education, realization of the potential for agriculture, and the tenacity of reciprocity.

Material and Methods

This study employed a mixed method approach to examine adaptation to the social impacts of conservation-induced displacement in the case of the Baka of East Cameroon. Data were collected between July 2012 and September 2012, and in April 2013 with the help of three indigenous research assistants. Four communities were selected based on the criteria of the position of Baka in the community, the degree of displacement in regard to physical displacement and restriction of resource use, and the location of the settlement in relation to rural–urban relationships. The position of the Baka in the population was a relevant selection criterion because community power relations have earlier been revealed as having an important impact upon the livelihood chances of displaced persons (Schmidt-Soltau & Brockington 2007). Le Bosquet is inhabited by the Baka exclusively; Bingongol/Mintoum and Sissoh have Baka majority and a Bantu minority, while Lomie has a Baka minority in the Adjela suburb and a Bantu majority in the town center (see figure 2). The degree of physical displacement and restrictions on resource use is also relevant because displacement does not refer only to physical relocation (Cernea, 2006; Schmidt-Soltau & Brockington 2007). Since displacement also involves restrictions on resource use, it was important to compare the Baka who have been physically displaced in Adjela with no access to a community forest with those who have been physically displaced to

Moangue-Le-Bosquet but who do have access to a community forest. Finally, it was important to look at the rural–urban factor to see if displacement has had different effects on the Baka displaced to an urban environment and those displaced to a rural environment. In this case the comparison is among Lomie town (with an urban feel), Adjela on the outskirts of Lomie town, and Moangue-Le-Bosquet and Bingongol/Mintoum, which are rural areas.

In the selection of participants, gender was used as the key control variable because the division of labor among the Baka, besides being organized according to age, is organized strictly along lines of gender (Devin 2008), and some kinds of knowledge and practices are gender specific (Nesheim et al. 2006; Zent 2009). The adult population is made up of individuals above the age of fifteen because the Baka undergo initiation at the age of sixteen and therefore mature into adulthood earlier than most other ethnic groups (Devin 2008). Males and females were targeted equally in the selected communities and the snowballing technique was used to arrive at the desired sample in all the communities. Only one adult per household was interviewed, thereby preventing the duplication of household data.

Baka community leaders as well as ordinary Baka people (21 in all) were interviewed on issues associated with conservation-induced displacement that affect them individually or communally. Ten representatives of nongovernmental organizations (NGOs) working with the Baka, such as Living Earth Foundation Cameroon (FCTV), GEOAID, Association des Baka (ASBAK), and Ecosysteme Forestiers en Afrique Centrale (ECOFAC) were also interviewed about their efforts to improve the standard of living of the Baka and the challenges they face.

In addition, one hundred and twenty structured questionnaires were administered across the four communities (one questionnaire per household). These were subdivided into thirty questionnaires per community, with fifteen for men and fifteen for women. Since a majority of the participants were illiterate, the questionnaires were administered by the research assistants. Translations were made from French to the Baka language and vice versa in cases in which participants did not have a mastery of French.

On the subject of the potentially incriminating topic of illegal resource use (illegal hunting), the RRT method survey was employed. Initially, a structured survey with direct interviews was executed, but very few people admitted to illegally hunting in the Dja Reserve. This raised the need for an alternative method of data collection that guaranteed the confidentiality of respondents. The RRT was suitable for this study in that it allowed respondents to disclose sensitive information without revealing an individual's true response to potentially incriminating questions (Solomon et al. 2007).² The decision to use an alternative survey method was also based on a number of other factors, including the proximity of the settlements to the Dja Reserve boundary (all within 10 km); the fact that 65 percent of Baka men indicated in the structured interviews that hunting was their highest income-generating

activity; the easy availability and relatively cheap price of bushmeat (compared to beef, chicken, or pork) in most restaurants in Lomie town; confidential information from two local people who confirmed that illegal hunting in the reserve was widespread; and visible evidence of illegal hunting (e.g., observations of a man exiting the Dja reserve with a backpack full of dead monkeys, children walking down the road with game slung around their shoulders, and two men approaching the reserve carrying hunting guns). Children also fabricate toy guns from taro (*Colocasia esculenta*) stems in Bingongol/Mintoum, and the accuracy of the craftsmanship indicated that they must have copied them from original versions in their parents' possession. A total of fifteen men per community participated in this survey. Only Baka men were involved because hunting is a male-dominated activity among the Baka.

To further triangulate the RRT method and to get more in-depth information on animal species hunted illegally, the "ballot box" method was used to determine what kinds of animals are being illegally hunted in the reserve while preserving the participants' anonymity.³

Results: Adaptive Strategies

The various strategies employed to determine the situation on the ground revealed the following results: an intensification in illegal hunting; a renegotiation of labor relations; an increased awareness of the potential of formal education; an increasing trust in modern medicine; a realization of the potential of agriculture; and the tenacious nature of reciprocity.

Increased Illegal Hunting

Fabricius's (2004) study of conservation in pre-democratized South Africa provides a thorough critique of fortress conservation policy and its top-down approach. Under the apartheid regime, conservation policy was characterized by forced evictions, with the victims given little or no compensation for loss of access to resources. Resettlement areas were often less productive and poorer in biodiversity than the original locations, and as a result the forcefully displaced people often ended up poorer than they had been in their previous homes. These evictions also eroded traditional institutions as the government tightened its control over rural politics. We can draw parallels between this case in South Africa and the case of the Baka in this study.

The Baka have been subjected not only to political control by the state but also to a rapid introduction to capitalism and the money-making ethos of the market economy. The effect of displacement among the Baka goes beyond those who have been physically displaced to include those who have been economically displaced through restriction of access to resources. The Baka, like their indigenous counterparts in southern Africa, have been resettled or coerced to resettle along roadside areas often characterized by depleted forests with poorer biodiversity. The most productive forests are

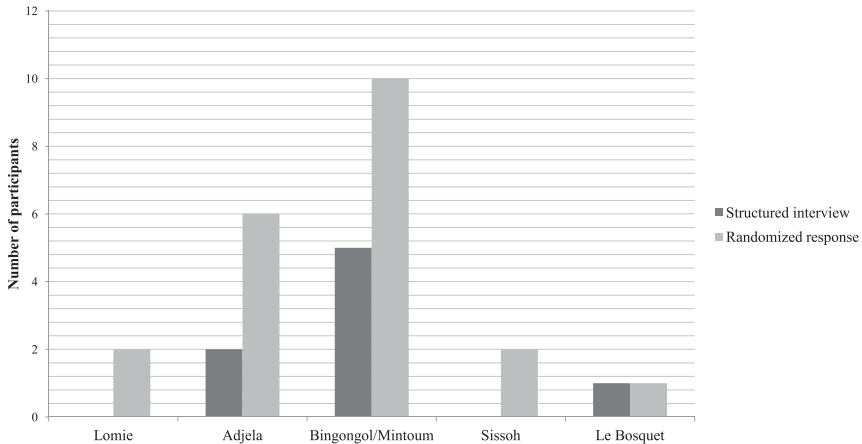
farther away from the main road and principally reserved as protected areas—forestry exploitation units which are out of bounds to the human activities of farming and hunting. This system of land use is a recipe for failure, as the indigenous Baka people are generally deprived of rich and productive soils.

Though resource conservation is vital for the survival of threatened species, the manner in which conservation is executed is important. Fabricius observes that in his South African example, contrary to expectations, displacement and resettlement were also bad for conservation because there was more pressure on natural resources in the post-displacement state than in the pre-displacement state. This was mainly as a result of people being restricted to limited areas and deprived of the right to roam the forest. However, what is perhaps most interesting in Fabricius's study is his observation that displaced people may become hostile to conservation and conservationists, leading to an unanticipated increase in poaching. This is particularly applicable in the case of the Baka on the eastern fringe of the Dja Reserve, as demonstrated graphically by a defaced poster observed by the research team in the area. According to reports from neighboring residents in Bingongol/Mintoum, the poster, which listed endangered animals that could not be hunted, had been ripped by local hunters venting their anger.

Some people are angered not by the conservation policy per se, but more by the fact that poachers from outside the community with political or administrative connections are able to hunt with impunity in the reserve. This motivates many Baka hunters to take advantage of the resource just as everyone else does. Others who believe theoretically in the need for conservation (a view expressed quite frequently by local people on the eastern fringe of the Dja Reserve) nevertheless engage in poaching as a matter of survival. As a Baka man from Adjela said,

Well let's put it this way. If I need 30,000FCFA [U.S.\$60.00], I will need to hunt ten antelopes for that. Now if I try to hunt these gazelles in the community forest I might only manage to get about five at most, so if I have a sick child to take to the hospital the only option will be to go into the reserve where antelopes are more available and I can assure you I will have the required ten gazelles in less than no time and that could save my child's life. So we hunt protected species in protected areas not because we want these species to go extinct. It is more as a result of the need to survive.

The results of both the structured interviews and the RRT survey are shown in figure 3. As the figure reveals, many people admitted in the RRT survey to hunting illegally in the Dja Reserve. More people admitted hunting in protected areas in settlements close to the reserve than in settlements farther away like Le Bosquet. More hunting takes place in the Bingongol/Mintoum area because of weaker law enforcement. Specific bushmeat

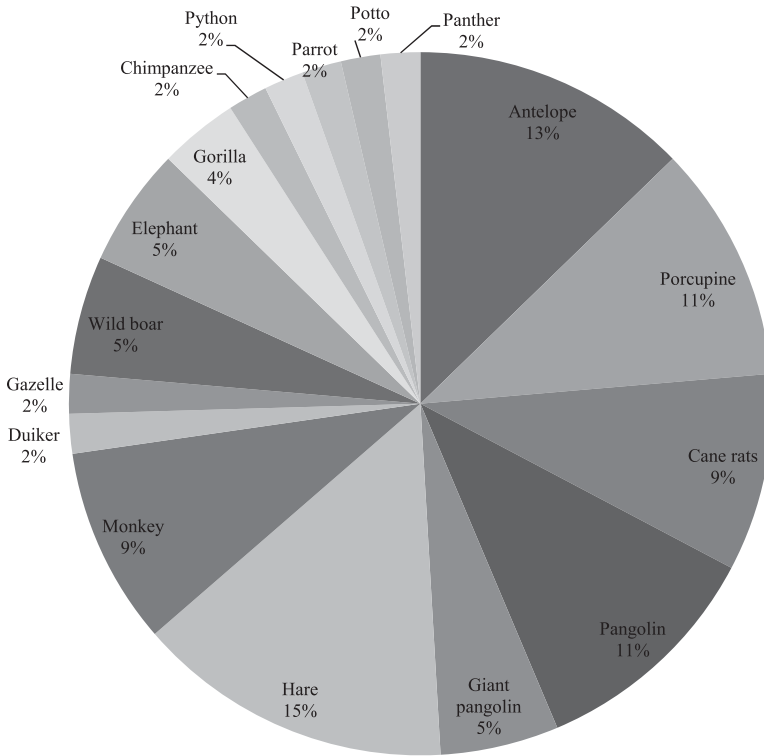
Figure 3. Illegal Hunting in the Dja Reserve

trade routes have been carved out to and from the reserve, and this area is particularly conducive to poaching since it is separated from the reserve by a river without a bridge. As a result, it is inaccessible to forest guards, who prefer to monitor the Adjela entry which has a bridge. This relative inaccessibility allows the Baka to swim across the river into the reserve relatively easily.⁴

Figure 4 shows the animal species mainly hunted in the reserve. This includes large animals such as elephants and also smaller mammals such as pangolins, monkeys, porcupines, and antelopes. According to the survey participants, the smaller animals are easier to carry across long distances and difficult terrain with thick undergrowth and also easier to hide from forest guards. They are also more easily found than larger mammals because their distribution in the reserve is widespread, whereas the larger animals are mostly concentrated in the central areas.

Despite the guarantee of anonymity, Adjela participants were afraid to give honest answers because the issue of illegal hunting is more sensitive in Adjela than anywhere else. According to an interview with a representative of FCTV, Adjela is a major bushmeat transit point because most buyers are based in nearby Lomie. Most of the bushmeat in the eastern part of the reserve is sold in Lomie, where middlemen buy it and then transport it to the cities of Yaoundé and Douala.

The task of conservation is made all the more difficult by this lucrative business of game trafficking. A porcupine or varan will sell for about 3,000FCFA (U.S.\$6.00) in the Lomie area and 10,000FCFA (U.S.\$20.00) to 15,000FCFA (U.S.\$30.00) in Yaoundé or Douala. Illegal bushmeat is mostly sold at night in the area. The author, traveling from Mindourou to Lomie between 8:00 p.m. and 10:00 p.m., witnessed four endangered species—a deBrazza monkey, an African civet, an African python, and a giant pangolin—being sold on the roadside to passing vehicles. On a larger scale, ivory from

Figure 4. Species of Animals Hunted Illegally in the Dja Reserve

elephants sells at hundreds of dollars per kilogram on the black market, with most of it smuggled to Asia, especially China, to be carved into jewelry and ornaments (Cameroon Online 2013). Aljazeera (2013) states that the price of ivory in the Asian market currently exceeds U.S.\$2,000 per kilogram.

The author also discovered the possible involvement of law enforcement officers in bringing the illegal game to market. Various informants reported that police, gendarmerie, and forest guards are often used to smuggle bushmeat to Yaoundé because they do not get stopped and checked at forestry checkpoints. An anonymous poacher approached in Lomie said he has a collaborator in the gendarmerie who often helps in transporting his game to the more lucrative markets in Yaoundé. He then pays the officer a percentage of his earnings from the sale. This allegation was perhaps supported by an observation in Lomie of bushmeat being transported in a police car.

Illegal hunting in the Dja Reserve is part of a bigger problem affecting other protected areas in the Central African subregion, including other parks of southeast Cameroon (Nki and Lobeke) along with parts of the Republic of Congo and Gabon, which have some of the last significant populations of forest elephants. According to the Worldwide Fund for Nature

(WWF) Cameroon, poachers responding to the Asian demand for ivory have reduced the population of Africa's forest elephants (valued for their straight tusks) significantly over the last decade, putting the species on track for extinction. The organization declared that between February 10 and March 1, 2013, its staff found the carcasses of twenty-three elephants, stripped of their tusks, deep in the Nki National Park (Cameroon Online 2013). Five more were found without their tusks in the Lobeke National Park, farther to the east. According to the same source, "poachers use automatic weapons, such as AK-47s, reflecting the violent character of elephant poaching, and park wardens lack good weapons. If urgent measures are not taken, Cameroon's forest elephants could disappear in less than a decade."

Given the enormous scale of illegal hunting, the future of conservation lies in collaboration with local people who can act as stewards of protected areas. Completely restricting access to resources without providing local people with alternative livelihood strategies as typified by top-down conservation practice will just propel them toward poaching and increased illegal resource use. A combination of displacement and the associated exposure to the market economy of the indigenous Baka is proving to be bad news for the very conservation efforts that the initial displacement policies were meant to support.

Changing Labor Relations

Another effect of displacement of the Baka and exposure to the market economy has been the recognition of the economic potential or commercial value of non-timber forest products and handicrafts, which before displacement were only being collected or produced for domestic use. Exposure to the market economy has also revealed to the Baka their value as providers of cheap unskilled labor on farms and plantations and in the timber industry. Increasingly they have developed and honed their bargaining capability in regard to their dealings with the dominant Bantu group.

For instance, one of the objectives of ASBAK is the empowerment of Baka communities to negotiate their own wages. In addition, although most Baka in desperate need of money will still work for Bantu employers for 500FCFA per day (U.S.\$1.00), an increasing number are resisting the culturally imposed notion that working for the Bantu is an "obligation" and are trying to strike a better deal for themselves, proposing as much as double that amount as a reasonable minimum daily wage. According to a Baka man from Le Bosquet, "We like to work, but we can only work when we want and for only the wage we feel right. Even when the timber exploiters come to the village to ask us to go work for them, we do not feel obliged at all so we go on our own free will."

There is also increasing advocacy among the Baka for equal pay for equal work, although at the moment Baka and Bantu employees seem to be treated equally only in the timber industry. One informant,

a Baka employee of the timber industry in Le Bosquet, seemed rather satisfied with his earnings.

I often get paid 2,000FCFA [U.S.\$4.00] for every log of wood I process. So, if in a day I can process three logs of wood, that gives me a total of 6,000FCFA. There are different sizes of wood, so if the diameter is large I can process about six to ten logs a day with the help of another person, which could give me 12,000FCFA to 20,000FCFA. Whatever we earn we split between the two of us, which means on such days I could earn between 6,000FCFA and 10,000FCFA. When we work in teams we can process more logs of wood per day and it goes much faster than when it is one person working on a log.

In other sectors, such as agriculture, the Bantu generally earn twice as much as the Baka. Some Baka have been known to resort to physical violence to settle labor disputes with the Bantu. A Baka in Bingongol who was asked how they handle disputes with Bantu employers over unpaid wages said, “We fight with them and sometimes we beat them up and other times they beat us up.” This resistance to “forced labor” and exploitation is producing an unintended effect that an increasing number of Bantu are beginning to collect forest products on their own. According to results from a larger survey (Awuh 2015), such work, which was once exclusively a Baka economic activity, is now the highest earning activity for up to 7 percent of Bantu men.

Increasing Awareness of the Importance of Formal Education

The pursuit of formal education presents many challenges to Baka youth. Students are subjected not only to the use of corporal punishment from their primary school teachers, but also to a great deal of bullying and threats throughout their school years from Bantu pupils who look down on them and consider them “primitive.” Baka youth also experience pressures from their families, who often expect them to get married rather than to stay in school or to accompany the family to the forest on hunting or gathering expeditions instead of attending school. Beyond secondary school, higher education is mostly too expensive for the Baka in any case. A parent from Le Bosquet stated that “Our children still do not get into higher education. Consequently they often return to the village after all the education and live the same hunter-gatherer lifestyle education promised to get them out of. So, is that the kind of positive change we expect with education? No, of course.”

Despite the generally gloomy picture, attitudes and opportunities do seem to be changing somewhat. An increasing number of Baka do at least acknowledge education as the key to prosperity, and I heard of at least one success story about a Baka man who had overcome an alcohol problem and in 2013 was at a training school for nurses in Bertoua through the assistance of the Catholic church in Le Bosquet. A Baka from Le Bosquet said

that “We also have access to education now which has improved our general living conditions. There is an increasing number of Baka people in the teaching and nursing fields who serve as positive role models for our whole community.”

Increasing Trust in Modern Medicine

Most Baka continue to rely on traditional medicine for their health care, and some Baka even believe that modern medicine either makes an ailment worse or can introduce new diseases to the sick person. However, displacement has led to rapidly changing views, with many Baka now expressing preference for modern medicine. Ninety-two percent of the respondents in the quantitative survey reported using some form of modern medicine alongside traditional medicine, and 46 percent actually rated modern medicine as superior. The major point of contention with modern medicine is that it is more expensive and not easily accessible to communities without health centers. A large majority of the Baka still rely on traditional medicine mostly because it is an affordable and more accessible option, not necessarily because they believe it is more effective. Communities with an access to a hospital or health center demonstrated the greatest trust in modern medicine.

Preference of treatment source also depends to some extent on the kind of illness being treated. The Baka still prefer traditional medicine for cases in which the illness can be linked to spiritual or metaphysical causes. However, 80 percent of reported incidences of disease among displaced Baka are malaria and diarrhea, illnesses that are clearly attributable to living conditions rather than hidden causes. Other reasons for the turn to modern medicine are likely as well. Following displacement and reduced access to the forest, a significant number of Baka have lost knowledge of medicinal plants and their uses, leaving modern medicine as the only viable alternative. Conversion to Christianity also likely plays a part, since Christianity often paints traditional medicine as demonic and 78 percent of the displaced Baka identify themselves as Christian. In addition, health care services are provided by Christian missionaries such as the Catholic mission in Le Bosquet. Nevertheless, this increasing trust and adaptation to modern medicine, whatever the source, can be seen as a manifestation of resistance or adaptation in the post-displacement network translation, which relegates displaced people to a life out of the forest with little avenues for the transmission of forest-based traditional medicinal knowledge.

Realization of the Potential of Agriculture

The Baka are traditionally hunter-gatherers who spend three to four months in the forest when forest products are available before returning to their camps. Following displacement, hunting (whether legal or illegal) is still the highest earning activity for 65 percent of Baka men, and the gathering

of forest products is still the highest earning activity for 77 percent of Baka women. However, restrictions on access to protected areas, the increase in exploitation of timber resources, rapid population growth, and the increase in commercial exploitation of non-timber forest products mean that longer distances are required in order to find forest products and less time overall is being spent in the forest, since the great majority of Baka cannot afford the long-distance travel. Faced with the increasing realization that the forest will not always provide for the Baka, an increasing number are turning to agriculture, especially the growing of crops as an alternative to hunting and gathering. A Baka man from Adjela said, "I think the Baka need to be encouraged to adopt agriculture because it is our best opportunity to generate higher incomes which can permit us pay for higher education for our children."

Though the figures for the Baka practicing agriculture as the highest earning activity are still quite low—7 percent for men and 2 percent for women—the quantitative survey shows that 63.3 percent of Baka households practice some form of arable farming and 23.3 percent practice some form of animal husbandry. Most agricultural knowledge is passed on from parent to child (up to 53%), and NGOs are also significant actors (accounting for 29% of agricultural education).

These surprisingly high figures for agricultural practice among the Baka are testament to their resistance to the socially predetermined order, which continues to restrict the Baka to the category of hunter-gatherers in the post-displacement market economy. As an elderly Baka lady from Le Bosquet said, "The present life in the village is better because modernism has taught us agriculture and other things which make life a lot easier than before in our hunter-gather lifestyle." Clearly, an increase in agricultural activities will eventually lead to a decrease in the pressure exerted on forest products.

Tenacity of Reciprocity

Reciprocity (barter) is the practice of exchanging goods and services for mutual gain. Besides its practical benefits, reciprocity also serves a function in the "solidarity economy" by acting as a welfare cushion for underprivileged people in the face of unemployment and poverty, serving as a mode of exchanging food, shelter, and labor outside the market economy (Chatterton 2005).

Reciprocity among the Baka principally involves the exchange of food items between households or individuals (peanuts, cassava, maize, and plantains). This was the sole mode of exchange in pre-displacement Baka society, although displacement and the introduction of the market economy have meant that reciprocity has come under increasing threat. Nevertheless, reciprocity has remained astonishingly resilient, even more in a location as close to the market economy as Adjela, which is a suburb of Lomie town. The quantitative survey revealed that 80 percent of the Baka have switched

to using cash as a mode of exchange for labor and 83 percent as a mode of exchange for goods and other services, but this still leaves a substantial percentage of the exchanges in both categories being conducted according to the barter system. In Adjela, 63.3 percent of labor services and 50 percent of payment for goods and services involve cash payment. The figure is higher in the case of labor payments because most Baka in Adjela work for the Bantu, whose economy operates mostly with cash. However, among the Baka themselves, reciprocity is still a preferred mode of exchange. According to the Baka chief of Adjela, "In this village we still practice a lot of reciprocity. Even when dealing with the Bantu we often still use reciprocity as a means of exchange. So, the use of cash is still not very common in our community as could be the case in other places."

Even in Le Bosquet, a Baka settlement that has embraced the cash economy the most (83.3% for labor exchange and 90% for goods and other services), significant payments still take place according to barter. For example, in Le Bosquet during the time of our research it was possible to swap a liter of bush mango seeds for clinical medicine at the local Catholic health center. So, despite the predominance of the cash economy, pockets of resistance to the market economy still exist, challenging the notion that the market economy is bound to obliterate traditional Baka reciprocity.

Conclusion

The plight of the Baka is quite similar to that of other indigenous groups around the world such as the Ogiek and the San. The Ogiek are an indigenous hunter-gatherer community in Kenya with a population of approximately twenty thousand who occupy the Mau Escarpment and Aberdare around the Rift Valley, as well as part of the Mt. Elgon Forest in western Kenya. From the early 1900s onward, successive governments have evicted Ogiek communities from their ancestral lands without consultation, consent, or compensation. They have been excluded from development plans and pushed onto land that is not suitable for their way of life. The destruction of forests in Ogiek-inhabited areas and the displacement of Ogiek people have occurred as a result of the establishment of the Mt. Elgon Game Reserve and the cultivation of land for export crops by private individuals, which is permitted under existing land laws for cultivation of export crops and flower farming (see Nyang'ori Ohenjo 2003). Having lost their traditional occupation of hunting and gathering, the Ogiek themselves have been forced into cultivation farming, though they lack the necessary skills to adapt to living a sedentary life.

Likewise, the San of Botswana, South Africa, and Namibia have also been displaced from their ancestral territory through forceful eviction or coercion by colonial and postcolonial government authorities for the sake of the establishment of protected areas including Kalahari Gemsbok National Park in South Africa, Etosha National Park in Namibia, and the Central Kalahari Game Reserve, Chobe National Park, and the Khutse

Game Reserve in Botswana (Hitchcock & Holm 1993). In the case of Botswana, this displacement was orchestrated by the British colonial authorities which designated an area of 52,000 square kilometers as game reserve exclusively for ecotourism and wildlife conservation.

In the cases of the Baka, the San, and the Ogiek, the displacement policy has been justified by rhetoric claiming that resettled people benefit from being assimilated into mainstream culture and taking advantage of social amenities provided to permanent settlements. This article contests that claim by showing indigenous peoples' rationality in the variety of livelihood strategies adopted by the Baka to resist the predetermined social order of marginalization following displacement. Indeed, the capacity of indigenous people in the global South to adapt to such contingencies according to their own rational calculations is often underestimated. Nevertheless, a few success stories should not be used to mask the more widespread reality that conservation by displacement has brought widespread destruction and suffering. While adaptive livelihood strategies may bring environmental and socio-economic benefits for a limited privileged minority in some places, this is often accompanied by a deterioration of social and physical conditions among the deprived majority living in or around protected areas.

Though adaptation to new conditions in post-displacement society can be seen as a way forward, or to some extent as an encouraging sign of better things to come for displaced people, this in no way signifies the success of displacement. This article does acknowledge that in the long run adaptation to life outside the forest is the way forward for displaced people, considering that their previously unlimited access to the forest is now a thing of the past. However, it is the scale of this adaptation that poses problems. Despite the fact that an increasing number of the displaced Baka are acknowledging that their future life will be outside of the forest, the actual numbers of those who are optimistic about that future are small, raising doubts about the rising trends of resistance through adaptive livelihood strategies in the new life out of the forest following displacement, or how these trends can persist or be sustainable in the long run.

Considering that local governments, and in this case the government of Cameroon, are the most powerful stakeholders in conservation policy, the most promising solution to negative social impacts of displacement resides in good governance, as discussed at the Fifth World Parks Congress in Durban, South Africa, in 2003 (Borrini-Feyerabend et al. 2004).⁵ In the effort to reduce conflicts between conservation policy and indigenous peoples, government policies should be directed toward a number of goals. These include ensuring the capacity of local people to influence decisions about the management of nearby resources; ensuring equitable sharing of the costs and benefits of conservation; providing a platform for impartial judgment in cases of conflict; establishing long-term conservation objectives grounded in a recognition of ecological, historical, and sociocultural complexities; and ensuring transparency in the flow of information about resource use (Borrini-Feyerabend et al. 2004).

Such good governance measures would greatly empower displaced indigenous people to expand the realm of positive adaptive strategies such as improved agriculture, better access to health care and formal education, and general improvement in living standards: developments that would make them less reliant on hunting in protected areas and transform them into better custodians of resources within protected areas. As former South African President Thabo Mbeki stated,

Mere exhortations to poor people to value and respect the ecosystems contained within Parks will not succeed. It is critically important that alternative means of livelihood be found for the poor, so they are not forced to act in a manner that undermines the global effort to protect these ecosystems, driven by hunger and underdevelopment (quoted in Dowie 2009:xviii)

To conclude with the words Nelson Mandela: “I see no future for Parks, unless they address the needs of communities as equal partners in their development” (quoted in Dowie 2009:xix).

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Notes

1. In March 1999, leaders from the Central African states that constitute the Congo Basin came together in Yaoundé, Cameroon, to plan for the protection of the immense natural resources of the Congo Basin forests. This summit included leaders from Cameroon, Gabon, Central African Republic, The Republic of Congo, Chad, DR Congo, and Equatorial Guinea. The objectives included the creation of millions of hectares of new forest protected areas, increased funding in forestry conservation, cross-border conservation cooperation, and the establishment of a regional body to coordinate conservation initiatives. A subsequent meeting was convened in 2005.
2. Participants were asked if they had hunted any animals in the protected area in the three months preceding the survey. They were provided with boxes containing folded pieces of paper, some with only green labels and others with both green labels and red labels. There were equal numbers of green-only and green-and-red papers in each box. The color green represented "Yes, I have hunted animals illegally in the Dja Reserve" while the color red meant "No, I have not hunted animals in the Dja Reserve." Participants randomly selected folded papers from a common box containing both kinds of labels. If the paper had the single green label, then they did not need to give a truthful answer and just placed the paper in the "answers" box. However, if paper had both labels, they checked the applicable color label before placing the papers in the box. Only the participant knew what label color he had picked.

3. Photos of all the known animal species in the reserve were obtained from the ECOFAC that manages the Dja Reserve based in Lomie. The photos were printed and placed in separate stacks in a room. Participants were asked to enter the room one at a time and pick a card with the photo of any animal they had hunted in the past three months in the reserve and put it in a box provided. They had the option of not putting any photos in the box if they had not hunted any of those animals or putting in a blank card if the animals they had hunted were not in any of the photos. For each card they put in the ballot box, participants were asked to indicate if the hunting was for home consumption with a green sticker, for commercial purpose with a red sticker, or with both stickers.
4. The research team noted with some interest that Baka poachers often fled into the bushes in alarm when the research team showed up in a four-wheel-drive vehicle supplied by GEOAID. It turned out that the poachers are particularly wary of four-wheel-drive vehicles because these are often used by the law enforcement and conservation authorities.
5. In 2003 the IUCN held the World Parks Congress in Durban, South Africa, which was intended to produce a lasting legacy in regard to protecting area conservation efforts worldwide. Durban's achievements are still influential, particularly in regard to the importance of good governance and the involvement of indigenous peoples and local communities. However, at the World Parks Congress held in Sydney, Australia, in 2014, the congress speakers acknowledged that approaches adopted in the last decade had failed to achieve ambitions for protected areas and they agreed that a new direction was needed in protected area management. Without much consideration for why targets set in Durban 2003 had failed to materialize—i.e., a failure of governments to guarantee good governance—the congress fixed a new target for setting aside more land and water resources as protected areas by 2020.