Private Conservation Case Study

Private Conservation and Black Rhinos in Zimbabwe: The Savé Valley and Bubiana Conservancies

by Michael De Alessi

Until the late 1960s, the black rhinoceros was relatively plentiful in Africa, but between 1970 and 1994, black rhinos suffered a 95 percent decline. In fact, no other mammal population in Africa has crashed so spectacularly. Poaching was responsible for much of the decline as rhino horn is highly valued in traditional Asian medicines and for dagger handles in the Middle East.

Zimbabwe was one of the last strongholds for the black rhino, but by the mid-1980s it too began to feel the effects of poaching, and black rhino numbers dropped precipitously. The cash-strapped Zimbabwean government tried many different rhino protection approaches, including banning trade in rhino horn, dehorning live animals, forming antipoaching units, and creating heavily patrolled areas called Intensive Protection Zones (IPZs). All met with only limited or, in some cases, almost no success.

One final measure, however, set the stage for dramatic success. With technical assistance from the World Wide Fund for Nature–Zimbabwe Programme, financial assistance from the UK-based Beit Trust, the efforts of Raoul du Toit (who headed the rhino conservancy project for WWF-Zimbabwe²) and the cooperation of the Zimbabwean government, many of the remaining black rhinos were relocated to private land in the early 1990s. The aim of the relocation program was to find suitable habitat that was large and secure enough to protect the rhinos and where private funds could be used to maintain this security. The move was fortuitous, because cattle ranchers in Zimbabwe, particularly in the lowveld (the arid, southern part of the country), were beginning to look for alternate sources of income. They had suffered a catastrophic drought in the 1991/1992 season, and government agricultural subsidies were also drying up.

This spurred some ranchers to shift their operations from cattle to wildlife protection, eco-tourism, and hunting, and to incorporate these properties into large, private conservancies. Two of the largest and most successful examples are the Savé Valley and Bubiana conservancies. Since their formation over seven years ago, not a single rhino has been poached and black rhino numbers are growing in Zimbabwe for the first time in decades. Today, these conservancies are dramatic testimonials to the power of private conservation in the developing world.

The Black Rhinoceros

The black rhinoceros (*Diceros bicornis*) is a savannah species, preferring thickets and savannas to high-canopy forests. It is a browser, feeding primarily on young twigs, leaves, and shoots. Despite its herbivorous diet, the World Wildlife Fund describes the black rhino as "hostile when disturbed," to which anyone who has had the pleasure of tracking one on foot can attest as they constantly plot which tree to jump behind in case 1,400 kilos of rhino suddenly charges out of the bush. ⁶

The black rhino most probably gets its name to distinguish it from the white rhino (*Ceratotherium simum*), which has a wider lip than the black rhino. The Afrikaans word for wide sounds very similar to white, hence the name white rhino. Black rhinos are not really black, they are grey, although in some cases they may be quite dark.

The black rhino is essentially solitary. Breeding occurs throughout the year, although in certain areas it is concentrated at certain times. Females gestate for over a year, and the time between calves is generally 2½ to 3½ years. If the conditions are optimal, an black rhino population can expand at just over ten percent per annum.

Both black and white rhinos are indigenous to Zimbabwe, but white rhinos were locally extirpated early in the century. The white rhino population across the border in South Africa was also nearly extirpated, but due to effective conservation efforts, today they are plentiful, and so the species is not considered endangered. The black rhinoceros, however, is listed as endangered on the the World Conservation Union (IUCN) red list.

The reason for this status stems primarily from poaching and the demand for rhino horn. According to TRAFFIC, which monitors international trade in endangered species and animal parts, a single rhino horn can sell for as much as \$30,000, or for \$1,000 a kilo in powdered form. (Of course price figures vary widely, and poachers are paid far less than retail prices). Interestingly, the rhino horn is not actually a bone but a tightly wound mass of keratin fibers—the same protein that forms the basis of human hair, human fingernails, and horse hooves—which regrows when cut. Rhino horn is a popular ingredient in traditional Far Eastern remedies for such ailments as the flu, and is also used to make dagger handles around the Arabian peninsula, particularly in Yemen. It is often reported that rhino horn is valued as an aphrodisiac, but this is not true. Traditional medicine only values it as a flu remedy. As the author Douglas Adams put it, "There is a widespread myth about what people want rhino horns for—in fact two myths. The first

myth is that ground rhino horn is an aphrodisiac....The second myth is that anyone

Black Rhino Declines and the Response in Zimbabwe

In 1970, the population of Black Rhinos in Africa was estimated at 65,000. ¹⁰ By 1995, by some accounts that number was down to as low as 2,400. ¹¹ Strongholds of the population remained primarily in South Africa, Namibia, Kenya, and Zimbabwe. Zimbabwe was difficult to reach for poachers, and was one of the last countries to experience a decline. In the mid-1980s, according to optimistic government estimates, there were about 3,000 black rhinos in Zimbabwe, the world's largest population at the time. By 1989, however, that number was down to 1,750, and by 1994, barely 300 were left in the country. ¹² Raoul du Toit (now with WWF-Zimbabwe), however, has suggested that the decline was more gradual than that—that the original figure should have been closer to 2,000 and that the poaching pressures started earlier than were officially recognized. ¹³ Either way, the black rhino was in dire straits by 1994.

Efforts both internationally and within Zimbabwe concentrated on trying to make trade in rhino horn difficult, thereby lowering its attractiveness to poachers. International efforts focused on the Convention on International Trade in Endangered Species (CITES), which enacted an international ban on the trade of white rhino parts at its first conference of the parties in 1975. The next meeting, in 1977, added the black rhino to the ban (i.e. added the species to CITES Appendix 1). Nearly 20 years later, however, in 1994, the black rhino was closer to extinction than ever before. According to South African economist Michael 't Sas Rolfes, the CITES trade ban "has not had a discernible effect on rhino numbers and does not seem to have stopped the trade in rhino horn. If anything, the Appendix I listings led to a sharp increase in the black market price of rhino horn, which simply fueled further poaching and encouraged speculative stockpiling of horn." 14

During this time there were also tremendous efforts to protect the black rhino within Zimbabwe, also to little or no avail. In 1992, Zimbabwe committed itself to a full-scale dehorning operation for all of its rhinos. Many rhinos were dehorned, yet a little more than one year later, the black rhino population had dropped to under 300 (dehorning efforts vastly improved the accuracy of this population estimate). The dehorning program may very well have deterred poaching on state lands and on private land that could not be well-protected. Nevertheless, as late as 1994, poachers continued to kill rhinos "despite radio collars, dehorning of hundreds of rhinos, use of heavily protected animal sanctuaries, and a shoot-to-kill policy that has left 178 suspected poachers and four game wardens dead." ¹⁵

Dehorning met with only limited success for a number of reasons, including its cost (up to \$1,000 per animal), the rapid regrowth of the horns (dehorning must be done at least every other year to be effective), and the danger to the rhinos when they were sedated (animals may be overdosed and killed). ¹⁶ And even recently dehorned animals

have been killed by poachers, perhaps simply to avoid having to track the same animal again, to increase the price of stockpiled horn, or to obtain even what little horn was left. Finally, corruption hindered protection efforts—police, game wardens, and even a member of Parliament have been convicted of either killing rhinos or trading in rhino horn. ¹⁷

In the latter part of 1993, Zimbabwe's then-minister of environment, Herbert Murerwa, admitted the government's dehorning operation had failed to stop the poaching, and the remaining rhinos were moved into smaller areas known as Intensive Protection Zones (IPZs). The IPZs were an improvement, but failed to address the corruption issue or to adequately protect the remaining rhinos.

Not surprisingly, many pundits predicted the demise of the black rhino. A front page story in the *Los Angeles Times* in 1994 called efforts to save the black rhinoceros a "losing battle" and claimed that "by all accounts, [the black rhinoceros] may be

19 The magazine *Buzzworm* carried an even more apocalyptic article the same year, simply headlined "The Rhino Chainsaw Massacre: Why Rhinos Will Not Survive

In the early 1990s, the same had been said of the southern white rhinoceros in South Africa. In fact, the white rhino was believed to have been extirpated from South Africa at the end of the last century before a lone population of less than 100 animals was discovered in Natal, South Africa. In the ensuing decades, however, the Natal Parks Board took a radically different approach to rhino conservation from the rest of the continent. Instead of trying to devalue the rhinos, it strove to bolster their populations through a program of commercial use and management, which included reestablishing the rhinos on private lands and, since 1986, auctioning them to the private sector for both trophy hunting and non-consumptive tourism.

The results have been spectacular. At the turn of the century the southern white rhino was the most endangered of all the rhino species. Today it is more numerous than all the other rhino species put together. And it is still growing fast—the number of white rhinos was estimated to be about 7,500 in 1995 and 8,500 in 1997. In 1997, 20 percent of the white rhinos in South Africa were in private hands. It was this conservation success on private land that encouraged the creation of private conservancies in Zimbabwe.

There is no legal definition of a conservancy in Zimbabwe, but according to Raoul du Toit, in Zimbabwe, South Africa, and Namibia the generally accepted notion of a conservancy is that it is made up of two or more landholders (not necessarily all private) bound together by an agreement on joint management of some or all of their wildlife resources. Hr. du Toit notes that the IUCN African Rhino Specialist Group has defined a rhino conservancy as "a relatively large fenced area of primarily or entirely private land under the control of two or more landholders, where staff are deployed at moderate to high density to protect the rhino population, and where the need for biological management is reduced." According to this definition, the only Zimbabwean rhino conservancies other than Savé Valley and Bubiana are the Chiredzi River Conservancy

²⁶ The private conservancies were the difference. As the majority of black rhinos were moved to the conservancies, their population in Zimbabwe went from 300 in 1994, to 339 in 1997, to nearly 400 in 1998. ²⁷ For the first time in decades the population was increasing.

Back in 1986, in response to the worsening black rhino situation, the Zimbabwe Department of National Parks and Wildlife Management (DNPWLM) began moving rhinos out of the Zambezi Valley to areas of private land in Zimbabwe (the Zambezi valley is close to Zambia, where it was alleged that most of the poachers came from). Most of those moved were placed on ranches in the Midlands, a central portion of the country which was not ideally suited to the rhinos, and the program met with only moderate success, although the situation has improved since then in the Midlands. ²⁸

Another starting point for the conservancies came in 1989, when a British-based organization that had supported projects in Zimbabwe for decades, the Beit Trust, ²⁹ announced an interest in providing grant money for rhino conservation through the Zimbabwe program office of the World Wide Fund for Nature. Based at least partially on the success of the white rhino recovery in South Africa, WWF-Zimbabwe, and Raoul du Toit in particular, proposed using the Beit Trust money to help establish viable breeding groups of rhinos in free-ranging situations on large areas of private land. ³⁰ Once the program was initiated, these private lands would then have to be self-sufficient.

Before it could move forward, the conservancy project had to be approved by DNPWLM. It has been estimated that in order to be effective, an anti-poaching program requires US\$400-1,000 annually per square kilometer of rhinoceros habitat, and a staff complement of one person for every 20 kilometers.³¹ This was money that DNPWLM simply did not have, and it helped convince them to approve the proposal in 1990.

The Rhino Conservancy Project (RCP) officially began in 1991 with the one-time grant of one million British pounds from the Beit Trust. Both WWF-Zimbabwe and the DNPWLM agreed that private ranchers were in a better position to protect the rhinos than anyone else in Zimbabwe. They also understood that the rhinos had to be an asset for those ranchers to protect them. The program got off to a slow start because of the rapidly-worsening plight of the black rhino, which took DNPWLM staff time away for dehorning operations and resulted in fewer rhinos available for transplanting. ³² During 1992, several lone survivors were captured in the Zambezi Valley, and between May and June of 1993,

³⁵ For example, on the Senuko property in the Savé Conservancy, it was estimated that the return on capital from cattle would range from 1-3 percent, whereas wildlife could return 11 percent. Thus, financial consideration was the prime motivation for the formation of the lowveld conservancies.

Revenues from the conservancies come from both consumptive and non-consumptive uses of wildlife. The most popular non-consumptive activities are photo-safaris and birdwatching. A major attraction of the conservancies is the chance to see the "big five"—rhinoceros, elephant, lion, leopard, and buffalo. All may be found, and although lions are sparse, there are plans to restock them in the near future. There is also some meat production, but the primary consumptive revenue comes from hunting, mostly of various antelope species.

As for the rhino, there is no doubt it has been well-protected by the lowveld conservancies. For every rhino there is also at least one armed guard tracking it all day (they are effectively impossible to follow at night), and not a single one has been poached.³⁶ Additionally, their numbers are increasing at near their biological maximum.

The Savé Valley Conservancy

The Savé Valley Conservancy is a truly remarkable place. Located in the south-eastern part of the country, about 70 km northeast of the town of Chiredzi and bounded by Savé River to the east, it occupies over 850,000 acres, making it Africa's largest private wildlife reserve. Even more remarkable than its shear size is the complete transformation it has undergone since the late 1980s, when it was painfully clear that the region was suffering serious environmental degradation from overgrazing and a series of droughts.

Wildlife was also severely depleted, both by the drought and by the impact of cattle ranching. In the early 1970s, to prevent the spread of hoof and mouth disease, the Department of Veterinary Services systematically eradicated the buffalo and all but five elephants throughout the present Conservancy. Predators such as lions, cheetahs, wild dogs, and hyenas were also removed to reduce stock losses, but a healthy leopard population did manage to survive. ³⁷ Still, there was quite a bit of wildlife in the area because, according to Clive Stockil, one of the ranch owners and catalysts for the formation of the conservancy, "Prior to the introduction of cattle in the 1950s and 1960s, no national park in Zimbabwe supported as diverse a wildlife population as this area." ³⁸

When, out of desperation, the DNPWLM relocated a number of black rhinos to private lands in 1987, some of them wound up on one of the Savé ranches. Humani Ranch was owned by Roger Whittall, a well-known conservationist and safari operator who was already switching his land from cattle to wildlife. During this initial phase of limited, experimental translocations (which preceded the Rhino Conservancy Project), 20 black rhinos were brought to the Humani Ranch.

When the rhinos first arrived, there was no concrete plan to form a conservancy, but it soon became clear that a single ranch could not adequately protect the rhinos, who frequently strayed from the property. By 1990, four had been killed by poachers. ³⁹ It was also determined that the minimum breeding group should be 30-40 animals, and that the ideal stocking rate was one per ten square kilometers.

It was at about this time that the Rhino Conservancy Project got under way, and Raoul du Toit, the project manager, became another catalyst in the formation of the conservancy. In August 1990, ranchers in the Savé Valley voted to form the Conservancy, which at the time consisted of 18 members and 23 properties. That number has since risen to 21 members and 25 properties. In 1991, the members agreed on the initial aim of providing a sanctuary for the seriously threatened black rhinoceros. After the 1991/1992 drought, in November 1992, the members held a meeting to evaluate their land-use options, and resolved to pursue the wildlife option.

They also decided that they had to go for the "big five," which meant reintroducing buffalo. Buffalo are crucial for photo safaris, and it was also estimated that buffalo would more than double the financial returns to hunting. ⁴⁰ Buffalo carry hoof and mouth disease, and the Department of Veterinary Services would not allow them to be reintroduced as long as any cattle remained. Thus, a commitment to buffalo also meant a commitment to completely remove all cattle from the Conservancy. To allay the fears of their neighbors and to placate Veterinary Services, as the conservancy was tearing down all of its internal fencing, it also set up a double electric fence around the entire property, as much to keep the buffalo in as anything else.

On a recent visit to the conservancy, it was obvious that the land was still not completely rehabilitated, but the transformation and the progress to date were stunning. Native grasses and shrubs were coming back in strength, and so was the wildlife. Today,

the Savé boasts large numbers of species such as buffalo, zebra, giraffe, warthog, wildebeest, hippo, leopard, cheetah, and elephant. During the 1991/1992 drought, the elephant population in nearby Gonarezhou National Park suffered tremendously. A number of these animals were later relocated to the Savé, the first time a relocation effort moved whole family units. From that original number of 600 elephants, there are now well over 1,000. There are also growing populations of impala, kudu, eland, bushbuck, bushpig, sable, and waterbuck. Many of these species have been reintroduced on the property, and the resident predators—leopard, cheetah, and the endangered wild dog—are growing with them. Species still slated to be supplemented or reintroduced include buffalo, eland, elephant, giraffe, hartebeest, nyala, ostrich, roan, sable, tsessebe, wildebeest, hyena, lion, and white rhino.

Of all the species on the conservancy, however, the black rhinos garner the most attention. The Savé has one of the largest black rhino populations in Zimbabwe, and their numbers are growing rapidly. By 1993, 35 rhino had been relocated to the conservancy. By June 1997 that number had grown, through natural recruitment, to 57. ⁴¹ This near 12 percent per annum increase in the black rhino population is the highest ever recorded, and exceeds the predicted increase under optimal conditions. ⁴²

The first property to open for non-consumptive tourism was Senuko, owned by Clive Stockil. Clive has had a long and varied career in wildlife management and was crucial to the formation of the conservancy. He is now the chairman of the Savé Valley Conservancy. He is also a member of the IUCN Southern Africa Rhino Specialist Group and the IUCN Southern Africa Sustainable Use Group. In 1997 he won the third annual *Traveler* Ecotourism award for his work with the nearby Shangaan tribespeople to develop a luxury safari lodge known as Mahenye. ⁴³ Clive was quoted in the *Condé Nast* article saying that the solution to the strife between the Shangaans and National Parks "lay in granting the Shangaans ownership and management of the wildlife on their

The Senuko lodge provides another example of a peaceful resolution to a serious problem. Many of the game drives and trackings there are led by Kenneth Manyangadze, who is the head guide at Senuko. Kenneth was formerly a sergeant of Operation Stronghold—the National Parks effort to protect the rhino on the ground that witnessed the decline of the rhino in spite of the often violent and mortal confrontations with poachers.

Staying at the Senuko Safari Lodge is a magical experience. Luxurious bungalows are clustered on a kopje (granite hill), creating a feeling of nesting on the rocks. Days are spent on game drives, tracking rhinos or elephants, birdwatching, or simply taking in the view. A highlight of a visit in 1997 included waiting patiently for a pack of wild dogs to return to their den, which was full of pups. Another afternoon was spent tracking a rhino, which was unsuccessful but did provide the distraction of nearly stumbling on top of a ten-foot-long python.

The Bubiana Conservancy

The Bubiana Conservancy is another remarkable effort, lying in the southwestern lowveld below Bulawayo, not far from the town of West Nicholson. Bubiana was formed in June 1991 by seven ranchers whose 10 properties make up the conservancy's nearly 400,000 acres. Bubiana's success has been similar to the Savé. The conservancy started with 38 introduced rhinos, and by 1998 that number had grown to 69. 45 Bubiana also assigns guards to track each rhino every day, and they are breeding up quickly, at about ten percent per annum.

Bubiana was also jump-started by financial assistance from the Beit Trust, which helped to build the 216 km fence around the perimeter. A condition of this "loan" was that the conservancy would not have to pay it back as long as it invested at least the same amount to purchase game animals to boost wildlife populations within the conservancy (the same policy applied to the Savé as well). ⁴⁶

Apart from the black rhinos, Bubiana is especially well-known for its population of leopards, as evidenced by the snarling caricature that greets visitors on the Bubiana road signs. The variety of wildlife in the conservancy is certainly both impressive and rapidly expanding. 390 species of birds have been counted on the property, which includes a wide variety of raptors such as the black eagle and the fish eagle.

There is one important difference between the two conservancies, which arises from the greater viability of cattle ranching in and around Bubiana. For this reason, the conservancy has not totally committed itself to wildlife. It is still considered a "green" zone by Veterinary Services, meaning that it is still free of hoof and mouth disease. Many properties still run cattle on parts of their land. There are a small number of buffalo in the conservancy, but they all originated from disease-free stock. Disease-free buffalo are much more expensive, and so there are only about one hundred in the conservancy.

Because Bubiana's members have different ideas regarding the extent to which wildlife should replace traditional ranching and agriculture, each property has taken a slightly different approach to revenue generation, including non-consumptive tourism, trophy hunting, a large cattle operation, irrigated agriculture, commercial fishing, and ostrich and crocodile farming.⁴⁷ Except for the cattle one passes on the drive in to Barberton, however, one would never notice their presence on this vast expanse of land.

The Barberton Lodge is perched atop a kopje, with an absolutely stunning view of the countryside. Most amazing, perhaps, about the view is that all of the African savannah, as far as the eye can see (which is a *long* way) is still within the boundaries of the conservancy. Below the cabins there is also a good view of a watering hole that attracts all sorts of wildlife, and a paddock where some of the buffalo are kept at night.

The activities available to the lodge guests are varied, and during a 1997 stay included game drives, game rides on horseback, visits to see centuries-old bushmen

paintings, and a boat ride on a dam filled with crocodiles and a fantastic array of bird species. But of course the highlight was tracking and glimpsing one of the black rhinos. They must be tracked on foot, and it is difficult to describe the exhilaration of seeing such a prehistoric-looking behemoth up close.

Conservation through Commerce and the Importance of Hunting

Creating the lowveld conservancies was a financial decision at heart, and after the seed money from the Beit Trust was used up, wildlife had to start paying its way. This meant either consumptive (i.e. hunting or meat production) or non-consumptive (i.e. game viewing, photography, and birdwatching) use of wildlife.

Photo safaris and other non-consumptive activities can be quite lucrative, but take a great deal of time and investment to set up. Guests expect comfortable accommodations, quality meals and a range of activities. This in turn means a fair number of staff. Hunters, on the other hand, are often more happy with Spartan amenities, and one or two game scouts.

While staying at the Barberton Lodge costs about \$160 per night for a photo safari, other Bubiana properties charge between \$500 and \$1,000 per day for a hunting safari, on top of whatever trophy fees are incurred. For an animal like a leopard, the trophy fee can be over \$3,000. 48 Because of the low overhead and high return, hunting is, as one Bubiana partner was quoted as saying, "a low-cost entry option to benefiting from 49 It is also the reason why all of the Bubiana partners are now turning a profit from their wildlife operations.

While it may seem gruesome to some, there is no doubt that trophy hunting provides huge incentives to protect wildlife throughout Africa. No elephants are hunted in the conservancies, but elsewhere in Zimbabwe, hunters pay up to \$36,000 for a three-week chance at tracking and killing one. And while no black rhino may be hunted anywhere in Zimbabwe, it has been estimated that the fee for a permit to hunt one could be as high as \$250,000.

Dave Foreman, a founder of EarthFirst! and now head of the Wildlands project, recently visited Zimbabwe and was exposed to some of the realities of conservation in Africa. After his trip he was quoted in *The Idaho Statesman* saying, "I find shooting elephants…repulsive. I'd never do it. But if hunting will save elephants…then I support

Unfortunately, that sentiment is rare in the environmental community, and many groups either oppose any sort of consumptive use for wildlife, or choose to ignore the successes that it has generated. Even the World Wide Fund for Nature, whose program office in Zimbabwe played a major role in both the movement of the rhinos onto private lands and the creation of the conservancies, hardly acknowledges the success of the conservancies. WWF International's website has a page entitled "What WWF is Doing to

Of course, the CITES ban on trade in rhino horn did little to stave off the rapid decline of the Zimbabwean rhinos, and while calling for more government moneys may sound fine, especially in developing countries, the only way to generate those funds is to wed conservation and commerce. In fact, a major impetus for relocating the rhinos in Zimbabwe on to private land was that National Parks simply did not have the resources to monitor and protect the rhino. By contrast, the Natal Parks board in South Africa embraced the notion of conservation through commerce long ago, selling both hunts and live animals to support its white rhino conservation activities, and bringing that species back from the brink of extinction.

There is an even greater urgency to combine conservation and commerce in developing countries like Zimbabwe, where poverty is widespread. ⁵⁵ If wildlife on communal lands does not pay its way, it may simply be replaced by something that does. This was one impetus behind the CAMPFIRE program in Zimbabwe, which gives control over wildlife to local communities so that they can realize the benefits of allocating land to wildlife. ⁵⁶ The program has had its share of difficulties over the years, but has also shown that when wildlife has value to the people living with and around it, they will be more likely to protect and provide habitat for wildlife.

Wildlife Law and the Conservancy Constitutions

In 1975, there was a crucial change in the wildlife law of Zimbabwe that set the stage for the resurgence in conservation activities on both private and communal lands. The Parks and Wildlife Act of 1975 abolished the conventional, colonial-style state controls on hunting seasons, off-take quotas, license fees, etc., and instead conferred the right to manage wildlife to landowners. ⁵⁷

In a strict legal sense, wildlife in Zimbabwe was still owned by no one (*res nullius*), but because landowners could now utilize and control the animals on their land, they became the de facto owners of the wildlife on their property. The black rhinos are the exception, as the state explicitly retained ownership of the relocated rhinos in the agreements they signed with the conservancies. Based on the success of the conservancies, however, there is little chance that they will be relocated again. Just who owns the offspring may one day lead to some controversy, but for now the situation is very stable.

The right to manage wildlife was readily extended to private contractual arrangements governing the mutual use of wildlife by groups of landowners. A variable and unpredictable environment in the lowveld made large-scale land management particularly attractive, and so the conservancy members created just those kinds of contracts. ⁵⁸

The Savé and Bubiana constitutions oblige their members to share responsibility for wildlife re-stocking and management, but allow them to retain control over their properties. Following regular wildlife surveys and professional ecological advice, each conservancy member is allocated an annual quota for the consumptive utilization of different wildlife species on their property. Members then decide how they want to use this quota (e.g., for safari hunting, live sales of wildlife, game cropping, or no harvest whatsoever). ⁵⁹

Revenues are not shared between properties, but each member commits to a minimum level of funding for restocking and wildlife management. To encourage funding beyond this minimum, and to allow individuals to benefit from either greater investment or non-consumptive use, Savé Valley Wildlife Services, Ltd. (the company set up by the conservancy) credits members who restock beyond the required minimum against future payments (at the prevailing market price of the animals).

On the other hand, if the actions of one member adversely affect the conservancy, there is a legal recourse under the contractual obligations of the conservancy constitution. ⁶⁰ After the Savé Conservancy was formed in 1992, Clive Stockil said, "The powers we have as a result far exceed the powers of our local agricultural laws. For example, if a member overgrazes he can be prosecuted, because he'd be destroying the other members' ecosystem as well." Furthermore, this is unlikely to ever come up because the system is self-policing—with no internal fences, any member who managed their land badly would lose game to better land next door.

In both conservancies, each landowner is responsible for the scouts that monitor the black rhino, identifying them daily and staying in radio contact. Rhino tracking is one way to discover the property boundaries with the conservancy—on one occasion we had to stop tracking a rhino we'd been hot on the heels of for hours when it crossed over onto a neighboring property.

Working with Local Communities

Communal and resettlement lands surround 66 percent of the Bubiana Conservancy and 84 percent of the Savé. These areas are among the most densely populated and poverty-stricken in Zimbabwe. Understanding and working with these communities is essential to the survival of the conservancies, in no small part because, as one Savé member put it, they simply could not exist in Africa as an area of wealth in a sea of poverty. This holds especially true in Zimbabwe, where the issue of resettlement (land redistribution) is frequently discussed.

Initially, poaching was the most immediate threat to the survival of the both the black rhinos and the conservancies. That threat seems to have been nullified through a combination of vigilance and community outreach. Although there are still cases of poaching for bush meat by locals, there is no local interest in poaching the rhinos. Any potential poacher, therefore, could only be successful with help in the form of local knowledge of the terrain and likely whereabouts of the rhinos. For this reason, both conservancies offer to pay 10 times what a potential poacher offers for information leading to the capture of that poacher. To date they have never had to pay it.

There is far more to the story than that, however, as explained by Kenneth Manyangadze, the head guide at Savé, in an article in *International Wildlife*. ⁶² "We've learned we can't save the rhino only through our guns. The answer is also through the hearts of the people." To further this end the Savé Valley Conservancy Trust was established as a philanthropic agency to support local community development. As one local council member put it, "To us, rhino are worth a lot more alive than dead."

Aside from working with surrounding communities, both conservancies are also striving to genuinely involve them in the management of the conservancy. As one report from the University of Zimbabwe stated, "The greatest potential in the conservancy approach to address equity issues will arise when it is applied across tenure categories" (i.e., when wildlife management and revenue generation are incorporated across both private and communal lands). Management differences preclude integrate the surrounding at the moment, but the attempts of CAMPFIRE to involve local communities in wildlife management is at least a positive step in that direction.

In the meantime, the Savé has come up with another innovative way for the surrounding communities to profit from the continued success of the conservancy. In August 1999, the World Bank's International Finance Corporation approved a loan of \$1 million to the Savé Valley Conservancy. ⁶⁴ This money will be used by Savé Valley Wildlife Services, Ltd. (the wildlife stocking company owned by the landowners) to purchase animals to re-stock the conservancy. In parallel with the loan from the IFC, the Savé Valley Conservancy Trust was launched with a commitment from members to provide seed capital of ZW\$1 million. The idea is that the Trust will purchase wildlife on behalf of the communities for release in the Conservancy. By owning the foundling number of animals in perpetuity, and selling any increases in population over the original number of founder stock back to the Conservancy, an annual income will be established for the Trust. Thus, both parties benefit—the communities receive a significant annual return from their "living endowment," and the conservancy benefits from the increased interest of its "shareholders" in the health and protection of the conservancy.

Conclusions

Black rhino numbers are growing in Zimbabwe for the first time in decades, hundreds of thousands of acres have been returned to wildlife habitat, and poverty-stricken rural

communities are reaping some of the benefits of wildlife production on these lands. The Savé and Bubiana Conservancies highlight the innovation and improvements that are possible when private property rights, in this case to land and to wildlife, are well-defined. Such large-scale management of private property is unheard of in places like the United States because there is no private ownership of wildlife.

Despite widespread opposition to conservation through commerce, and especially to hunting, there is no denying the successes of the lowveld conservancies in Zimbabwe in finally beginning to bring populations of rhinos back from the brink of extinction. The magnificent success of the Savé Valley and Bubiana Conservancies provide a real reason for optimism about the future of both the black rhino and the conservation and protection of vast stretches of wilderness in Africa.

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ENDNOTES

³ There is a third lowveld conservancy, the Chiredzi River Conservancy, but as it was not visited by the author it is not treated in detail in this study.

World Wide Fund for Nature, "Species Factsheet." See http://panda.org/resources/factsheets/species/fct_rhino.htm

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² Raoul du Toit was technically with the Zimbabwe Department of National Parks and Wildlife Department at the time but was supported by the Beit Trust to head the rhino conservancy project for WWF-Zimbabwe.

⁴ For a further, in-depth examination of the lowveld conservancies, see H.J. Goodwin et al, *Tourism*, *Conservation*, & *Sustainable Development: Volume IV*, *The South-East Lowveld*, *Zimbabwe*, (Unpublished), April 1997. Available at http://www.ftsl.demon.co.uk/zim.pdf.

⁶ Their poor eyesight which makes them relatively easy to avoid, or so at least we were reassured.

⁷ World Wide Fund for Nature website http://www.panda.org/resources/factsheets/species/19rhino.htm, March 1998. All dollar figures quoted in this study are US\$.

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^{14 &#}x27;t Sas Rolfes, 1997.

¹⁵ Bob Drogin "Zimbabwe is losing rhino war" Los Angeles Times September 22, 1994.

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¹⁸ Speart, 1994.

¹⁹ Drogin, 1994.

²⁰ Speart, 1994.

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²² WWF Press Release, "Africa's Rhinos slowly growing in numbers," August 20, 1998.

²³ 't Sas Rolfes, 1997.

²⁴ Raoul du Toit, personal communication, January 2000.

²⁵ Drogin, 1994.

²⁶Megan Lewis, "Big-game hunters pay to conserve wildlife" *Reuters World Service*, November 22, 1995; Douglas MacArtur, "Zimbabwe's rhinos make a comeback, and tourists can get a close-up view" *Pittsburgh Post-Gazette* October 15, 1995

²⁷ International Rhino Foundation, "Rhino Information" http://www.rhinosirf.org/rhinos/maps/blackdistro.html, March 1998.

²⁸ Some poaching occurred initially on the Midlands. Rhinos remain there today, but their annual rate of increase has been about 3 percent, as compared to almost 10 percent at Savé and Bubiana – due primarily to superior habitat (N. Leader-Williams, 1994).

²⁹ The Beit Trust is known primarily for building school halls around Zimbabwe. Its founder, Sir Alfred Beit, was involved in the development of Rhodesia in the 1800s.

³⁰ Leader-Williams, 1994.

³¹ Milliken, 1996.

³² Leader-Williams, 1994.

- ³³ In The Lowveld Conservancies: New Opportunities for Productive and Sustainable Land-Use, Harare (Zimbabwe: Price Waterhouse Wildlife, Tourism and Environmental Consulting), July 1994, Price Waterhouse defines a conservancy as "any number of properties which are amalgamated into a single complex in order to enable more effective management, utilisation and protection of some or all natural resources in that area."
- ³⁴ Quoted in Lewis, 1995.
- ³⁵ Price Waterhouse, 1994.
- ³⁶ Although there was a poaching incident in 1992, there have been none since the formal incorporation of the conservancy that same year.
- ³⁷ Price Waterhouse, 1994, p 34.
- ³⁸ Geoffrey Dean and Charles Clover, "Farmers turn from cattle to big game in Zimbabwe" *Daily* Telegraph, October 24, 1994.
- ³⁹ Price Waterhouse, p 34.
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- ⁵⁵ See Center for Private Conservation, *Conservation through Commerce*, December 1998.
- ⁵⁶ See www.campfire-zimbabwe.org/index.html for more information on CAMPFIRE, and see Ike Sugg and Urs Kreuter, Elephants and Ivory: Lessons from the Trade Ban (London: Institute of Economic Affairs), 1994 for a discussion of communal property rights structures in Zimbabwe.
- ⁵⁷ For an in-depth discussion of the evolution of wildlife law in Zimbabwe and its effect on conservation, see Graham Child, Wildlife and People: The Zimbabwean Success (New York and Harare: Wisdom Foundation) 1995.
 ⁵⁸ Price Waterhouse, 1994, p. 17.
- ⁵⁹ Price Waterhouse, 1994, p. 18.
- ⁶⁰ John Dalton, "Eco-Ranch Conservancy Evolution" unreferenced publication, n.d.
- ⁶¹ Lewis, 1995.

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