

The Botswana Defence Force and the War against Poachers in Southern Africa

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ABSTRACT *'Semper aliquid novi Africa affert'* (out of Africa this is always something new) wrote the Roman scholar Pliny the Elder, and that has been all too true of catastrophe and misery in modern times. Yet despite Africa's problems, the continent also offers many examples of humankind's most commendable achievements. This is one such story. It is the account of the successful struggle by a small but well disciplined and well led African army to protect a vital national resource, a role performed with dedication and consistent success since 1987. The fight against poaching in Botswana is a peculiar form of low-intensity conflict that poses significant political, operational and technical challenges. This article identifies some of those challenges and notes how the Botswana Defence Force overcame them, providing an example that may profitably be emulated elsewhere. The article also calls attention to evolution of military roles and missions in reaction to the novel threats of post the Cold War world.

Introduction

It was a hot, dry early summer day in northern Botswana, weeks before the onset of the rains. The miombo woodland was desiccated and brown, the earth alternately baked hard and layered in dust. The Botswana Defence Force was conducting routine anti-poaching patrols, and Lieutenant Makolo was patrolling with his six-man Commando team in the Chobe National Park. At approximately 9 a.m. Makolo's patrol picked up the tracks of three poachers. Guided by its 'Bushman' tracker, the patrol carefully followed the poachers through the dry bush, hour by patient hour into the early afternoon. Suddenly, a small figure dropped from a treetop observation post and opened fire with an automatic rifle. Poachers resting in a concealed nearby hideout scattered in all directions. The lieutenant quickly deployed his troops, returned fire, and swept through the poachers' camp. When the shooting stopped,

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three poachers lay dead, including the lookout. Four had escaped, and despite a vigorous pursuit, made it across the border into neighboring Namibia. Later, inspecting the abandoned camp, Makolo and his men found two weapons: the dead sentry's Kalashnikov assault rifle and a bolt-action hunting rifle. They also found the tusks of two elephants along with game meat being cooked for an evening meal.¹

Makolo's encounter with the poachers occurred in October 1993. By that date, Botswana's military had been protecting the country's wildlife for six years, having killed or captured dozens of poachers, performing its anti-poaching mission with considerable success. When the Defence Force commenced the mission in late 1987, armed gangs from neighboring countries were menacing Botswana's elephant herds and were threatening a growing tourist industry. Two years later, poaching no longer endangered the viability of any species, and the tourists were flocking to Botswana's game parks. Military intervention had succeeded.

The roles and missions that a government assigns to its armed forces generally are a good indication of its priorities, and offer unambiguous insights into the prevailing conception of 'security.' 'Environmental protection' is not a role generally sought by the world's military leaders, but wildlife plays a large and growing role in Botswana's plans for its economic development. Its Defence Force still plays an important role in defending the nation's 'megafauna' – its large wild animals – and appears likely to continue to do so for the foreseeable future.

Botswana's concern for protecting its wildlife reflects an interesting African example of an ongoing, worldwide redefinition of 'security,' a process that has stimulated considerable debate amongst scholars of international relations.² Yet Botswana's commitment of military power to environmental security has not been widely copied, nor was it inevitable that employment of the military actually would succeed in halting the poaching of its megafauna. Few African countries display Botswana's interest or success in safeguarding their wildlife, and even in Botswana, priorities of national development sometimes are significantly at odds with biodiversity. So its decision is interesting from a variety of perspectives.

One implication of the story is of particular interest here. The military struggle against poaching in Botswana is a peculiar variant of low-intensity conflict, posing significant intelligence, mobility and communications challenges. Its successful prosecution requires effective military planning and good leadership as well as significant technical and tactical competence. It obliges its military practitioners to establish and maintain a productive web of relationships with other government agencies, with civil society and with the security institutions of neighboring states.³ In other words, Botswana's Defence Force has

tested itself successfully against elusive opponents as well as the demands of law enforcement and the civil-military relations so characteristic of the messy conflicts of the twenty-first century. Its achievement may have useful applications elsewhere.

The purpose of this article is briefly to examine Botswana's war against poachers from 1987 to the present, explaining how the country employed military power against one threat to its national interests.⁴ The article is more interested in the nature and conduct of military operations than the social and geopolitical context. It seeks to answer the questions: how did Botswana's military conceptualize the poaching threat, how did it deal with that threat and why did its approach succeed?

Locating the Story

Botswana is a landlocked, subtropical and semiarid country in southern Africa with a land area roughly the size of the US state of Texas or a bit larger than the country of France. It shares borders with four other African countries. At the beginning of the twenty-first century it had a population of 1.7 million. Although modestly endowed with natural resources, the country is widely regarded as one of Africa's few unambiguous success stories.⁵ Since achieving independence from the United Kingdom in 1966, it has remained a stable multiparty democracy with regular free and fair parliamentary elections. Its moderate, conciliatory foreign policies and growth-oriented economy have been frequently commended and widely praised.⁶ Yet despite its relative prosperity, Botswana suffers from many of the troubles common to the developing world.⁷ Its government believes that economic growth is an important key to addressing most of its problems.⁸

Botswana is among the most prolific wildlife regions in the world, and vast stretches of the country have been set aside as national park or wildlife conservation areas – some 17 per cent of the land area.⁹ Since the 1980s, Botswana has made a concerted and successful effort to develop a tourist industry based largely on its wildlife. By 2003, tourist-related activity had grown to account for about 12 per cent of the country's Gross Domestic Product and seemed destined for much more. The government of Botswana thus has considerable incentive to protect its wildlife resources – the foundation of a large and growing industry.¹⁰ Yet while Botswana's government emphasizes the economic importance of wildlife, the country's citizens are ambivalent about the merits of biodiversity, and wildlife conservation does not rest on a strong cultural foundation.¹¹

Botswana's application of military power to its environmental agenda seems even more radical in the light of other factors. The country has not stressed military power in its foreign policy, nor does it celebrate

a 'warrior' culture. Its traditions emphasize dialogue and accommodation over violence as a preferred way to settle inter-community and intra-community disputes. Also, in the 1980s, the use of the military for anti-poaching had little precedent in Africa, and most of that precedent was distinctly negative.¹² Even worse, a loose coalition of scholars had begun to challenge what it characterized as a peculiarly 'European' concept of wildlife conservation in the developing world, viewing it as an insidious form of colonialism, and offering a growing literature that criticizes 'protectionist' conservation efforts.¹³ A conclusion easily drawn from their studies is that a coercive conservation agenda had a poor track record in Africa and limited prospects for success.

Despite its novelty, Botswana's decision to use its Defence Force for an environmental protection mission was inherently rational. The country already had begun to make a significant economic investment in an industry that was directly threatened by poaching, and the military was the only security agency of the state with the firepower and capability to confront the poachers. Still, the government's ability to make this decision and succeed with it over the long term rested on several unique features.

Botswana's decision was greatly facilitated by a culturally based aspiration for public order. There is very little sympathy in the country for perpetrators of violence (like the foreign criminals commonly blamed for rising levels of crime), and citizens expect their authorities to maintain order.¹⁴ This gives the government more than normal political space to deal with internal threats. The key poaching threat in the 1980s consisted of armed gangs of foreigners whose presence was feared and resented by the local population, and whose violent demise generally was greeted with enthusiasm. At the same time, the well-disciplined Defence Force took pains to avoid abusing citizens, and demonstrated some skill in using the local media to highlight its successes.

Residential patterns in Botswana facilitated the military's anti-poaching success. Most anti-poaching operations were conducted in the national parks and safari concession areas near the northern border. The vast majority of citizens in that part of the country live in towns and small settlements outside the game areas, and the military was not obliged to contend with an angry peasantry whose land use rights had been arbitrarily abrogated in the recent past. The country's relative prosperity and ready availability of domestic livestock products also significantly reduced the local incentive for poaching.

In any event, Botswana's political culture did not require the government to justify its decision. The country's progressive economic policies and regular multiparty elections mask the dominance of a ruling

party and an executive branch so strong that one scholar characterizes the government as a 'quasi-elected "soft" autocracy' and the governing style as 'authoritarian liberalism'.¹⁵ Perceptive observers of national politics in Botswana believe that essential security-related decisions are made by a small group of senior officials that are close confidantes of the President, with limited consultation outside this circle.¹⁶ Still, given the ambivalence toward conservation in the country as a whole, it is entirely possible that absent one key actor, the military would never have been committed to this role. The military involvement in anti-poaching in 1987 was almost certainly an initiative of Ian Khama, a significant advocate for wildlife conservation in Botswana and patron of environmentalist groups.¹⁷ At the time, Khama was the Deputy Commander of the Defence Force and went on to command it before retiring in 1998 to enter politics. He is now the country's Vice-President.¹⁸

The Botswana Defence Force (BDF)

Whatever other factors contributed to Botswana's anti-poaching success, most of the credit must go to the Botswana Defence Force, a military that was barely a decade old when it embraced this role. In fact, Botswana arrived at independence in 1966 without an army. The country's only security force at the time was a national police with deep roots in the colonial era.¹⁹ The new leaders initially considered the police adequate to assure the new nation's security, opting for a very small paramilitary capability in a Police Mobile Unit.²⁰ That choice, however, was severely challenged by regional events in the 1970s and 1980s as the region decolonized, a violent process directly involving most of Botswana's neighbors.²¹ In April 1977, the government reversed its earlier decision and established the Botswana Defence Force (BDF).²² The nucleus of the new army was drawn from the Police Mobile Unit.²³ The new military commander, Mompoti Merafhe, was deputy Police Commissioner when he was charged with overseeing the formation of a new army. He concluded at the outset that lack of discipline was a principal defect in other regional militaries. His legacy to the BDF was a strong emphasis on high standards of professional behavior.²⁴

The 1980s were very troubled years in southern Africa, and the BDF struggled during these years to define itself and its role. Its inability to protect the country's long and porous borders eroded public confidence, and several egregious acts of indiscipline tarnished its local image.²⁵ Still, Botswana sought an effective military and the new Defence Force began to develop substantive relations with foreign partners. At the same time, the BDF emphasized its discipline and training and sent its officers *en masse* to military schools in the West. The Government also funded the military quite generously, allowing it to realize many of its infrastructural

priorities. By the 1990s, the BDF was confident enough in its abilities to participate in regional peacekeeping operations, beginning with the US-led humanitarian relief operation in Somalia in December 1992.²⁶ These experiences were positive for Botswana, providing the BDF with new experience and excellent public relations exposure.²⁷ The BDF also deployed internally in a recurring series of operations within Botswana itself, including programs to assist the national police in urban anti-crime patrolling, flood relief and national efforts to control livestock diseases.²⁸

By the turn of the century, the Botswana Defence Force had developed into a capable, well educated, well-disciplined force. It has been the public sector organization dispatched to address the country's most pressing security dilemmas, whether environmental catastrophe, serious crime, or foreign threats. To its own members and external observers, it emphasizes its professionalism and its service to the nation and enjoys a high level of respect in the nation as a whole. Though it remained relatively small and 'light,' the Defence Force has grown steadily. By 2004, it had become a force of just over 12,000 personnel.²⁹ A genuinely integrated military, the Air Arm consisted of about five hundred personnel organized into five squadrons.³⁰ The ground combat forces consist of three infantry brigades and an armor brigade.³¹ The BDF also maintains a very capable Special Forces unit – the Commando Squadron (of about 120 men).

Several features of its organizational culture have contributed to BDF success in anti-poaching operations. These include its high standards of discipline and generally good leadership. The BDF starts with good human material. It is very selective in recruitment both of officers and enlisted personnel.³² Education plays a key role in the selection and career progression of BDF personnel.³³ In addition to military education in Botswana, the BDF sends many of its officers to courses elsewhere in Africa and overseas: Canada, France, India, the United Kingdom and the United States are frequent destinations.³⁴ One knowledgeable source estimated in 2004 that 75 per cent of BDF officers above the rank of major are graduates of US military schools.³⁵ The high proportion of BDF officers with higher education and prolonged exposure to Western military schooling has provided the BDF with a professional aspect rare in Africa, an orientation that spills over into resource management. The BDF maintains extensive repair facilities that foreign military observers have found to be well equipped and well staffed. It stresses preventive maintenance in its training programs. It keeps its weapons, ground vehicles and aircraft in good repair.

The professional behavior of BDF personnel is encouraged by a generous scale of pay and allowances, correlated since about 2002 with the pay of other civil servants in the country.³⁶ BDF personnel are well and reliably paid, affording a middle class standard of living for officers

and relative comfort even for junior enlisted personnel. The Defence Force itself enjoys a somewhat privileged position within the public sector. Military service carries substantial prestige and military positions are highly sought.

The Poaching Threat in the 1980s

When the Botswana's military commenced anti-poaching operations in 1987, its professionalism and growing capabilities were not widely recognized. The country faced a variety of external threats in the 1980s, most of which had their roots in the decolonization of southern Africa.³⁷ Conflicts in Angola, Namibia and South Africa intensified in the early 1980s, and though Botswana was not a cobelligerent, armed groups from neighboring states regularly violated its borders seeking sanctuary, targeting opponents or simply stealing from the population. Continuing instability and flows of small arms plagued the entire region. The early 1980s also saw a dramatic increase in organized poaching in eastern and southern Africa. Criminal syndicates took advantage of regional instability and overburdened law enforcement capacities to poach ivory and rhino horn.³⁸ As the decade unfolded, the well-watered, game-rich Okavango area of northern Botswana became a lucrative target for increasingly bold and well-armed gangs.³⁹

At the time, the security of Botswana's northern border was a shared responsibility, although responsibilities were not well defined. The Botswana Police performed normal border and immigration control duties. Its numbers and mobility were very limited and police tended to stay close to population centers. The Department of Wildlife was responsible for controlling the poaching throughout the country, including the area along the border, but its anti-poaching component was lightly armed, poorly resourced, inadequately trained and weakly motivated.⁴⁰ Its deficiencies were increasingly apparent as poaching escalated and the Department provided little credible deterrence. The Botswana Defence Force also patrolled the northern border, but its focus was almost exclusively devoted to border security and it tended to restrict its focus to the eastern end. The BDF's primary mission at the time was to deter intrusion by armed groups, but it did not conduct anti-poaching operations, and its activity was somewhat episodic. In the 1980s, poachers infiltrating from Namibia's 'Caprivi Strip' were able to move across the border from Namibia into Botswana's game areas without the likelihood of encountering either human settlements or the sporadic Botswana security patrols.⁴¹

In the mid-1980s, none of these various operations were deterring the escalating cross-border poaching and general lawlessness. This situation was well known in environmentalist circles, where it had provoked increasing alarm.⁴² But it probably would not have resulted in any

additional government action were it not for the personal intervention of Deputy BDF Commander, Major General Ian Khama. A dedicated conservationist himself, he watched the megafauna depletion with growing concern. According to authoritative sources, Khama, disgusted and exasperated with government inaction in 1987, offered to deploy the BDF against the poachers and the government gratefully agreed.⁴³

The Initial BDF Involvement in Anti-Poaching

Khama apparently had devoted substantial thought to the requirements for effective anti-poaching operations. He was aware of the failed attempts in the 1980s by neighboring Zambia to use its conventional military forces in such roles, and seemed determined not to repeat Zambia's mistakes.⁴⁴ He recognized that organized poaching was a peculiar form of low-intensity warfare in which small groups of men using excellent intelligence and skillful field craft were infiltrating deep into the country, effectively frustrating detection and interception by government authorities. The poachers were sufficiently well armed to intimidate the Botswana police and Department of Wildlife personnel, yet at the same time were very difficult to find and difficult to catch. Khama concluded that his best option was to confront them with the military element most suited to that kind of warfare – the secretive Commando Squadron (a special forces unit with unique skills in small unit operations, tracking, patrolling and ambush).

Well before the BDF deployment in late 1987, Khama consulted with the commander of the Commando Squadron, Major (now Brigadier) Otisiswe B. Tiroyamodimo.⁴⁵ Both men concluded that it would be useful to augment the Commando Squadron with the expertise of skilled trackers like those used by the South African Army for regional counter-insurgency operations. So in mid-1987, Tiroyamodimo, posing as an officer in the Department of Wildlife, accompanied a Botswana delegation in talks with the leaders of South African-controlled Southwest Africa (now Namibia). The consultations included discussion about the disposition of citizens of Botswana that had been working for the South African military.⁴⁶ Tiroyamodimo's primary mission was recruitment. The Commando leader sought trackers originally from Botswana that might be amenable to employment by their own government. The initiative paid off, initially with a small number of volunteers. The early volunteers recruited others. By late 1987, the Botswana Defence Force had hired several dozen.⁴⁷ In addition to their tracking skills, these men also brought a detailed familiarity with security forces – their own and those of opponents. They subsequently played a critical if little publicized role in Botswana's anti-poaching operations.

In September 1987, the BDF dispatched Tiroyamodimo to conduct an initial ground reconnaissance of Botswana's northern border area. He concluded that the best area for his unit's operations was the region immediately southwest of the Kwando River. This was mainly a concession area for safari companies, located some distance from the part of the border where the BDF already was patrolling. Poachers were very active in the area. They had already significantly reduced the amount of game and were attacking the facilities of the safari concessions.⁴⁸ For the poachers (and for Commandos) this area had the additional advantage of containing virtually no permanent human population.

Tiroyamodimo now set up a forward command center at Maun, transferring a command element and about 50 men – about half his available manpower – from his base near Gaborone. In October 1987, he launched his first anti-poaching patrol, following it with a vigorous and comprehensive regimen of small unit patrolling.⁴⁹ Within three days of their deployment, the commandos experienced their first firefight. Within months, dozens of poachers had been killed or captured, and the amount of poaching began to fall off dramatically.⁵⁰ This was evident in the poachers' decreasing success: they killed at least 35 elephants in 1987. By 1988 the total had fallen to 15 and never subsequently exceeded it.⁵¹

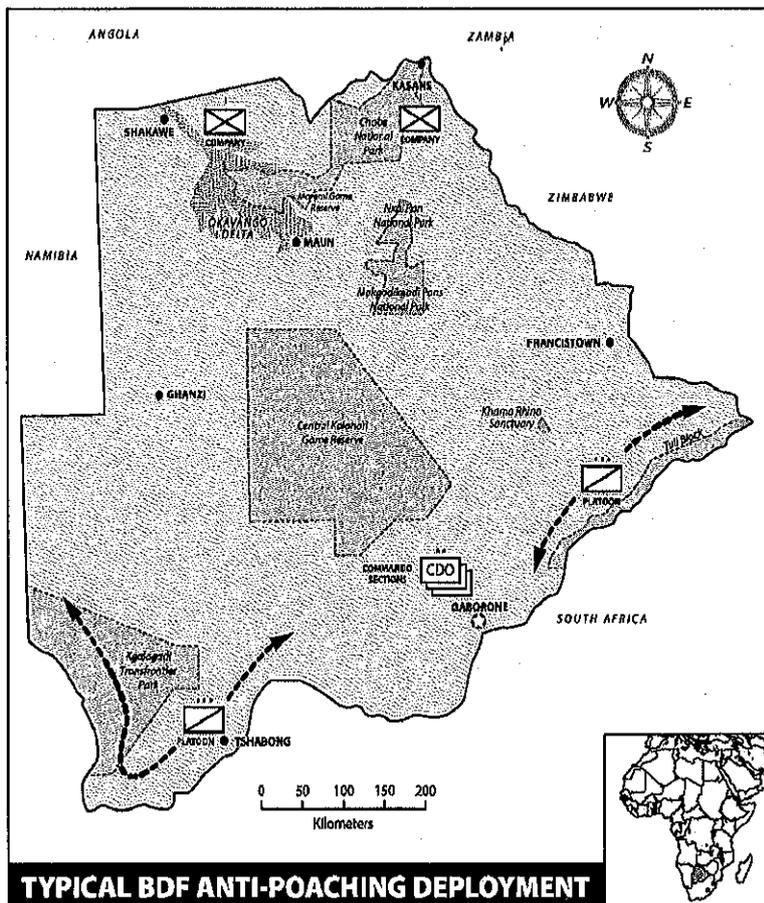
The Commandos' anti-poaching success was rapid and spectacular, but it was not easily achieved. Tiroyamodimo insisted on employing his unit's standard techniques of long-distance, dismounted patrolling and ambushes. His troops moved very long distances by foot over rough terrain in small groups in search of a clever foe. Their quarry was skilled at bush craft. The poachers knew they were being hunted and used elaborate anti-tracking measures and ambushes. Some of the poacher groups were well armed with automatic small arms. Though most groups were small, containing fewer than a dozen members, some had over 30, significantly outnumbering their BDF pursuers, and possessing the advantages of surprise and numbers. Despite conditions that favored the poachers and the frequency of firefights, the Commandos sustained few casualties, a significant tribute to their tactical competence.

Broadening the Anti-Poaching Mission

The Commando Squadron remained the sole BDF element charged with the anti-poaching mission until 1989, but in that year, the mission was extended to the rest of the Defence Force. The BDF now began to rotate all its combat arms personnel to the border areas for anti-poaching duties, at the same time significantly increasing the number of personnel involved in poaching at any one time.⁵² Initially, company-sized units were deployed on anti-poaching operations for periods of three months,

though by the early 1990s, this had been reduced to tours of two months.⁵³

The initial BDF anti-poaching operations had been conducted in a fairly limited area along Botswana's northern border, generally southwest of the Kwando River. However, the operations expanded over time. By the end of 1989, the BDF had begun conducting anti-poaching operations in the game areas along a much larger stretch of the northern border, now generally from Kasane to Shakawe, with a smaller effort in a narrow strip of land along the eastern border, the so-called Tuli block area.⁵⁴ In the 1990s, the BDF also began to conduct sporadic, small-scale anti-poaching patrols along the southern and southwestern border.⁵⁵ The number of troops deployed in anti-poaching missions peaked in the early 1990s, when up to 800 were in the field at one time, although troops committed to anti-poaching more typically ranged between 400 and 600.⁵⁶ (Still, it is worth noting that at any one time during the 1990s, up to 10 per cent of the entire BDF was committed to



anti-poaching. Given the simultaneous BDF deployments for operations such as flood relief at home and peacekeeping abroad, this was a substantial commitment of available resources.)

Until 1996, anti-poaching operations in northern Botswana were controlled from a temporary task force headquarters in Maun, set up originally by the Commando Squadron when it first deployed in anti-poaching operations in 1987. Maun served as a logistics 'rear base,' for deployed company-sized units that maintained their own smaller headquarters in Shakawe and Kasane. After 1996, the BDF's 2d Brigade Headquarters near Francistown assumed operational control of the anti-poaching forces in the north and northeast. Anti-poaching forces in the south remained under the control of their parent battalions.⁵⁷

The BDF continued its anti-poaching operations as a matter of routine into the early years of the twenty-first century. In mid-2004, the number of BDF personnel deployed on anti-poaching operations at any one time ranged between 300 and 400. The BDF still typically committed its forces to this mission in company strength, with one company patrolling in the Shakawe area, one in the area of Kasane, a reinforced platoon operating in the Tuli block along the eastern border, and a platoon-sized unit operating out of Tshabong in the south on a wide-ranging, mobile patrol along the western border. The primary BDF anti-poaching operations still were conducted along the northern border. At any one time, these consist essentially of two companies (of about 120 men each), one based near Kasane and one near Shakawe. The companies maintain smaller bases for their subordinate platoons at scattered locations, resupplied by truck or military aircraft. The platoons patrol in their assigned areas, both on foot and in vehicles.⁵⁸ Until 2004, a typical tour of duty was two months, and BDF personnel could expect such deployments up to twice per year.⁵⁹

In April 2004, the BDF instituted a new deployment program for its anti-poaching duties. Each of its three infantry brigades conducts a rotating deployment for its subordinate battalions, with one battalion actually 'deployed' (e.g., conducting anti-poaching operations), one training for deployment and one assigned to 'guard' duties in its normal garrison area. The deployed battalion is responsible for all the BDF anti-poaching duties throughout Botswana (with the exception of smaller-scale operations by the Commando Squadron). The actual deployments are still of company strength near Kasane and Shakawe, Platoon Strength in the East and South. As part of this change, the duration of an anti-poaching deployment was increased from two months to three, although presumably the frequency of such deployment has dropped substantially.⁶⁰

All of the BDF officers interviewed by the author in 2004, without exception, thought that anti-poaching was a valid mission for the force. They indicated that anti-poaching operations maintained good basic soldier skills like patrolling and preparation of ambushes. They also called attention to the value of this kind of mission in an era when external deployments were at a low ebb – it kept the troops busy and focused. Interestingly, nonmilitary citizens of Botswana commonly held these same views. All seemed to share the opinion that anti-poaching operations represented a tangible return on the national investment in an army that was otherwise ‘unoccupied’.

Challenges of Anti-Poaching

The anti-poaching mission has posed a number of unique challenges for the BDF. The northern operational area is a vast undeveloped region of up to 80,000 square miles, including about 400 miles of border (providing poachers significant options for evading detection). Even at the peak of the anti-poaching commitment, fewer than a thousand BDF troops were deployed in this huge area at any one time; so effective anti-poaching has depended on vigorous surveillance, good communications and mobility. Vegetation throughout the area provides good concealment to small groups.⁶¹ Ground mobility is impeded by the austere infrastructure of the game reserves and by the weather: heavy summer storms turn dirt roads into impassible mud and rainless winters turn them into deep dust. To cover this vast area, the BDF has had to emphasize coordinated ground patrolling and air reaction.

The climate and terrain in the operational environment are harsh and destructive to personnel and equipment, so the BDF has been obliged to adjust troop health and equipment maintenance programs to accommodate novel stresses. Much more exotic was the presence of vast quantities of wildlife not commonly encountered elsewhere in Botswana (or elsewhere in the world, for that matter). Troops operate in the constant vicinity of wild animals, including very dangerous ones like elephants, cape buffalo, lions, crocodiles, hippos and highly venomous snakes. The BDF found it important that its members possess the confidence and competence to operate in a wildlife-rich environment.

By the early 1990s, the BDF had instituted a training regimen at Sir Seretse Khama Barracks (the BDF headquarters base just north of Gaborone) that exposed BDF personnel to the wild animals commonly encountered in anti-poaching operations. The training was provided to active duty BDF personnel at the time and then made part of the basic training of new BDF recruits.⁶² It was designed to provide troops with animal handling skills and confidence in their abilities to confront a unique operational environment, but Ian Khama seems also to have had at least one additional purpose in mind. A dedicated conservationist, he

wanted to impress on his troops the value of megafauna resources to the nation and convince his military subordinates that they could (and should) safeguard the nation's environmental interests.⁶³ The BDF indoctrination has succeeded in building a strong conservationist ethic in the organizational culture that persists to the present.⁶⁴

Once committed to environmental security, the BDF was confronted with various different categories of poaching besides the armed gangs. Some local citizens that lived near the conservation areas poached for meat, typically snaring or shooting smaller antelope. Some of the threat came from the population of the fishing villages just across the river in Namibia. Individuals would shoot the odd antelope or buffalo at river's edge, again for meat. Still another variety occurred along the Zimbabwe border in the east. Here, Zimbabwean citizens – generally single individuals – would cross the border covertly and set wire snares, again typically to trap antelope for meat. The meat hunters, whether from Botswana, Namibia or Zimbabwe, were clearly engaged in illegal activity and required some response, but did not pose the same kind of threat as the well disciplined, armed groups of commercial poachers. Nor, generally, did the meat hunters threaten the megafauna – elephants and rhinos.⁶⁵ But the BDF was obliged to deal with all of these different kinds of poaching activity, whether by armed groups or unarmed individuals.

There was no comprehensive precedent on which the BDF could draw for structuring its anti-poaching operations, so it was obliged to experiment. The most pressing initial task was to intercept the armed groups, and its first approach was to saturate limited areas in the northern game reserves with very small teams of foot-mobile special forces (commandos) on long-range patrols. The BDF commandos were able to track and ambush the poachers, beating them at their own game by emphasizing stealth and surprise for tactical advantage. (The 'trackers' they had recruited from regional hunting-gathering societies proved a critically important asset.) This activity was very violent and the Commandos apparently killed a large proportion of the poachers they encountered. Within a short period of time, they had succeeded in eliminating much of the threat posed by the criminal syndicates.⁶⁶ However, the Commandos lacked the numbers to cover the entire affected area over a protracted period.

The nature of the threat and the mission had changed by the time that the other BDF combat units were deployed for anti-poaching duties in 1989. Since that time, the conventional forces have maintained a very visible presence in the northern game areas, deliberately intended to deter all forms of poaching and reassure citizens and tourists that they are secure from armed criminals. In fact the main objective by this point had become deterrence rather than interception. The BDF continued

patrolling, but the conventional units were more inclined to use vehicles for some of these operations. They pursued a vigorous regimen of foot patrols, but compared to the Commandos, their patrols were larger in size (up to platoon strength) and of much shorter duration (generally 24 hours).

When the BDF expanded the anti-poaching mission to include all of its ground combat units in 1989, it developed a new anti-poaching role for the Commando Squadron. The Commandos now became something of a reserve force, to be used in circumstances requiring particular stealth, bushcraft or violence. They continued to conduct anti-poaching operations at the same time as – but autonomously from – the other BDF units. The Commando Squadron deploys small teams to different areas in the north and east, generally in response to specific intelligence.⁶⁷ They typically deploy to a designated area with no previous announcement that could tip off poachers, taking pains to vary their movement and routes. In the field they tend to rely on very long-range foot patrols (of a week or more duration) by four-man groups. They also make extensive use of two-man observation posts set up near water ‘pans’ where animals and poachers are likely to be found. They prefer to maintain at least one helicopter (typically a French-made *Ecureille*) in a deployed site near their operation for quick-reaction missions.⁶⁸

While the military presence since 1987 in the northern game areas has had a significant deterrent effect (measured by a dramatic decrease in megafauna poaching), the BDF has continued to encounter the various kinds of poaching. BDF personnel interviewed by the author have consistently claimed that their anti-poaching operations discriminate between the local meat poachers and the foreign gangs. While the accuracy of this assertion is difficult to verify, the primary human rights advocacy group in Botswana has received no allegations of BDF abuse of citizens over infractions of game laws in the northern areas.⁶⁹ In fact, Botswana seems to have a dual approach in its military anti-poaching operations. Meat hunters typically are apprehended and turned over to the police for prosecution. Armed gangs are ruthlessly hunted down and eliminated.

The Technology of Anti-Poaching

Beyond the patrolling and tracking, the BDF experimented with some technology in its anti-poaching operations. From the beginning, it made use of its Bell (and later, its French *Ecureille*) helicopters for troop lift, troop supply and some surveillance. In the early 1990s, the United States donated Panther Airboats (high-speed swamp boats) and surplus light observer aircraft (a military version of the Cessna 337). The airboats were intended for rapid movement on the rivers and swampland of the

northern game reserves. The surveillance aircraft were equipped with a Forward-looking Infrared Radar (FLIR) designed particularly for night-time surveillance, providing a capacity for easy identification of human bodies. The BDF also purchased limited numbers of geo-satellite positioning systems (GPS) and night vision devices for troop use and state of the art tactical radios.

In the end, except for the GPS, night vision devices, radios and helicopters, none of the technology provided a quantum advantage. GPS has become essential technology for most modern armies, allowing quick and accurate determinations of location. Night vision goggles provided a good short-range capacity to detect and identify poachers. The helicopters were well suited for transporting troops and supplies into remote sites, and were particularly useful for rapid reaction in fast-moving engagements with poachers. The other technology generally proved a disappointment. The FLIR on the US-provided surveillance aircraft might have provided a significant night surveillance capability, but all the systems malfunctioned soon after delivery and the BDF lacked the resources to repair them. The BDF tried to use the light aircraft for air patrolling, but the terrain and vegetation in northern Botswana provide good concealment to individuals or small groups. Poachers recognize the distinctive sound of the aircraft long before observers are in visual range of the poachers. The same is true of the airboats. Although the BDF has used them for limited patrolling on the waterways of northern Botswana, their noise is so great that poachers are alerted well before the boats are anywhere near their intended targets. The BDF leadership has concluded that the most effective counter-poaching technology is a highly visible and mobile presence for deterrence along with the combination of ambushes and foot patrols by small, stealthy, disciplined teams backed up by rapid-reaction helicopter-borne forces for interception. One fascinating thing about the BDF anti-poaching mission is how primal it is. Technology might provide marginal advantages, but success is based on the most ancient of military attributes: teamwork, perseverance, endurance, patience, discipline, great environmental awareness and ability to apply extremes of violence on a moment's notice.

The Inter-Agency and International Relations of Anti-Poaching

Poachers were not the only problem faced by the BDF during their anti-poaching operations. The use of Botswana's military in this role in 1987 was a novel development that ramified into law enforcement, requiring the establishment of a new BDF relationship with the Botswana Police. In the absence of a carefully negotiated division of responsibilities, this caused a variety of unanticipated problems,⁷⁰ whose resolution depended largely on the interpersonal skills of the junior officers on

the scene. Some achieved better working relations than others.⁷¹ However, by about 1990, largely as a BDF initiative, the working relationship had become much smoother and less bureaucratic, and apparently at least some of the BDF anti-poaching patrols began to include members of the police.⁷² Later in the 1990s, the BDF, Botswana Police and Department of Wildlife created a Joint Operations Committee in Kasane to coordinate anti-poaching activity in northern Botswana.⁷³ The BDF now works effectively with both the Police and the Department of Wildlife. Police and Game officials are included in anti-poaching operations planning and police accompany at least some anti-poaching patrols.

The BDF recognized from the outset of the anti-poaching operations the importance of taking the fight to the poachers beyond the borders of Botswana. The BDF pursued at least two separate tracks. One was cooperation with the authorities in neighboring countries: from the beginning, the BDF endeavored to establish cooperative linkages. While relations were problematic in the early years, they had vastly improved by the late 1990s.⁷⁴ The key to this cooperation now is a Joint Military Commission, a permanent institution based in Kasane, including representatives from all the neighboring countries. The cooperation includes sharing of intelligence, some joint operations, and sting operations.⁷⁵ The other approach was a unilateral human intelligence collection effort. The BDF reportedly has developed an external agent network that can provide early warning of poacher syndicate activity. The author was told that BDF agents in neighboring countries have also successfully pitted competing syndicates against each other, profiting by the eagerness of syndicates to eliminate their competition.⁷⁶

Significance of BDF Anti-Poaching Success

The BDF's anti-poaching operations by themselves have not fully guaranteed Botswana's environmental security, nor were they ever intended to do so. The success of the BDF anti-poaching operations does not prove that this is an appropriate role for a national military. The BDF has simply demonstrated that given a certain conjunction of circumstances, military force can be effective against a complex, low-intensity security threat with difficult law-enforcement and civil-military ramifications. Botswana has demonstrated that a small, well-trained, well-disciplined and well-led national military can succeed in a that kind of conflict environment.

For the duration of its anti-poaching operations, the BDF has limited its interests to a very small proportion of Botswana's land area. With the exception of limited patrolling along the borders in the east and southwest, the focus has been in the national parks and safari concession

areas along the country's northern border, the primary locations of the megafauna and, by extension, the megafauna poaching. The BDF manifestly has not been indiscriminately used for anti-poaching law enforcement throughout the country. (Even if Botswana's leaders wanted to use their military in such a way, the military clearly lacks the resources for the role) What the BDF has done is threefold: it has largely ended the megafauna poaching in northern Botswana, either by interception or deterrence of the poachers. Its disciplined and pervasive presence has reestablished a perception of security amongst a population once very sensitive to armed poachers and amongst a jittery international tourist clientele. And every bit as important as the other two accomplishments, the BDF has won kudos in the country at large by demonstrating commitment and competence in a difficult military mission over the long term.

NOTES

1. Personal experience recounted to the author by Major T.S. Makolo, Botswana Defence Force, 4 March 2004.
2. For a good overview of the ferment in the discipline of International Relations relating to 'security,' see Terry Terriff, Stuart Croft, Lucy James and Patrick M. Morgan, *Security Studies Today* (Malden, MA: Blackwell Publishing, 1999).
3. For an overview of recent thinking on civil-military relations, see James Burk, 'Theories of Democratic Civil-Military Relations', *Armed Forces & Society*, 29, 1 (Fall 2002) p.7; Peter Feaver, 'Civil-Military Relations', *Annual Review of Political Science*, 2 (1999) pp.211-41; Peter J. Roman and David W. Tarr, 'Military Professionalism and Policymaking', in P. Feaver and R. Kohn (eds), *Soldiers and Civilians* (Cambridge, MA: MIT Press, 2001); Andrew Cottey, Timothy Edmunds and Anthony Forster, 'The Second Generation Problematic: Rethinking Democracy and Civil-Military Relations', *Armed Forces & Society*, 29, 1 (Fall 2002) pp.31-56.
4. Information offered here is drawn from several sources, including a modest scholarly literature. Some reflects the author's own observations over the course of 15 years of close contact with events in Botswana: first as a diplomat accredited to the country in the early 1990s, and then in regular visits to research a variety of security-related issues. A substantial proportion of data in the study is derived from the author's interviews, conducted in 2004, of individuals in Botswana.
5. A recent study attributes Botswana's economic success to five key factors: the preservation of pre-colonial institutions that constrained the power of political elites, a colonial experience that did not destroy those institutions, a strengthening of the institutions of private property after independence, the equitable exploitation of diamond wealth that produced a breadth of stakeholders in the *status quo* and the sound political and economic decisions of the post-independence leadership. Daron Acemoglu, Simon Johnson and James A. Robinson, *An African Success Story: Botswana*, Unpublished text, 11 July 2001, available at <http://econ.mit.edu/>. See also Kenneth Good, 'Authoritarian Liberalism: A Defining Characteristic of Botswana', *Journal of Contemporary African Studies*, 14, 1 (1996) p.32.
6. See, *inter alia*, Acemoglu *et al.*, *An African Success Story*; Kenneth Good, 'Interpreting the exceptionality of Botswana', *The Journal of Modern African Studies*, 30, 1 (March 1992) pp.69-93; Mpho G. Molomo, 'Civil-Military Relations in Botswana's Developmental State', *African Studies Quarterly*, Online Journal available at <http://www.web.africa.uct.ac.za/>; C. Harvey and S.R. Lewis, *Policy Choice and Development Performance in Botswana* (London: Macmillan, 1990) p.55; and Pauline Peters, *Dividing the Commons: Politics, Policy and Culture in Botswana* (Charlottesville: University of Virginia Press, 1994) pp.76-137.

7. See, *inter alia*, Kenneth Good, 'Towards Popular Participation in Botswana', *The Journal of Modern African Studies*, 34, 1 (1996) pp.56-62.
8. This approach is particularly characteristic of the administration of Festus Mogae, President of Botswana since 1998. Interview with Dr Shelly Whitman, University of Botswana, 17 June 2004. See also US Department of State, *Background Note: Botswana*, April 2004, available at <http://www.state.gov>.
9. Information provided by Dr Larry Patterson, wildlife biologist with extensive, long-term experience in Botswana, including work with Botswana Department and currently a Wildlife Consultant in Gaborone, private communication 29 June 2004. For historical detail, see Clive Spinage, *History and Evolution of the Fauna Conservation Laws of Botswana* (Gaborone: Botswana Society, 1991).
10. M. Mothoagae, 'Wildlife Based Tourism as the Engine of Economic Growth: Policy and Institutional Issues', *Proceedings of a National Conference on Conservation and Management of Wildlife in Botswana: Strategies for the Twenty First Century*, 13-17 Oct. 1997 (Gaborone: Government of Botswana Printing Office).
11. Many citizens consider wildlife conservation to be a fixation of the economically privileged white minority, perhaps even evidence of a continuing colonialist mentality that values wild animals above indigenous people. Conservationists also compete with local cattle interests and politicians find it relatively easy to draw a contrast between the cattle owner as the 'little guy' or 'native' whose interests are endangered by rich white expatriates obsessed with wildlife conservation. The constituency for wildlife conservation in Botswana is a combination of private sector environmentalists, businesses and NGOs, international interest groups, and elements of the government of Botswana itself. These share many interests, but are by no means unanimous on conservation issues. Author's interviews with Dr Larry Patterson, wildlife biologist with extensive, long-term experience in Botswana, including work with Botswana Department of Wildlife and currently a wildlife consultant in Gaborone, March 2004 and June 2004. For additional detail, see *inter alia*, Neil Parsons, 'The Economic History of Khama's Country, 1844-1930', in R. Palmer and N. Parsons, (eds), *The Roots of Rural Poverty in Central and Southern Africa* (Berkeley CA: University of California Press, 1977) pp.114-16; Isaac Schapera, *Tribal Innovators: Tswana Chiefs and Social Change, 1795-1940* (New York: Berg, 2004) pp.101-106; Peters, *Dividing the Commons*.
12. Clark C. Gibson, *Politicians and Poachers: The Political Economy of Wildlife Policy in Africa* (Cambridge: Cambridge University Press, 1999) pp.59, 62.
13. These issues have produced a rich literature, among these works (in addition to Gibson noted above) are: Jan Dizard, *Going Wild: Hunting, Animal Rights and the Contested Meaning of Nature* (Amhears: University of Massachusetts Press, 1994); Gary Gray, *Wildlife and People: The Human Dimensions of Wildlife Ecology* (Chicago: University of Illinois Press, 1993); Richard Grove, 'Colonial Conservation, Ecological Hegemony and Popular Resistance: Toward a Global Synthesis', in J. McKenzie, Editor, *Imperialism and the Natural World* (Manchester: Manchester University Press, 1990); S.A. Marks, *The Imperial Lion: Human Dimensions of Wildlife Management in Central Africa* (Boulder, CO: Westview, 1984); J.Z.Z. Matowanyika, 'Cast out of Eden: Peasants Versus Wildlife Policy in Savanna Africa', *Alternatives*, 16, 1 (1989) pp.30-35; Jonathan McShane and Thomas Adams, *The Myth of Wild Africa* (New York: Norton, 1992); Roderick P. Neumann, *Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa* (Berkeley, CA: University of California Press, 1998).
14. Isaac Schapera, *A Handbook of Tswana Law and Custom* (Totowa, NJ: Frank Cass, 1977) pp.69-70.
15. Kenneth Good, 'Authoritarian Liberalism' pp.29-48.
16. In the military's founding legislation (BDF Act Chapter 21:05, 1977), the President was designated 'commander in chief', with the prerogative to select the Defence Force commander and promote all officers above the rank of major. The President also was authorized to deploy the military in whole or in part without consulting any other body. The Act did not create a Ministry of Defense; delegating that role instead to the Office of the President. Nor did the legislation specify any particular role for the National Assembly in the oversight of the military. No mention was made of a legislative role in allocating funding or employment of the force. Interview with Professor Kenneth Good, University of Botswana, 18 June 2004. See also Tendekani E. Malebeswa, 'Civil control of the military in Botswana', in R. Williams,

- G. Cawthra and D. Abrahams, (eds), *Ourselves to Know* (Pretoria: Institute for Security Studies, 2003) p.73; and Molomo, 'Civil Military Relations' pp.12–13.
17. Khama is the most eminent member of what might be called the political 'first family' of Botswana. His father, Sir Seretse Khama, was a national hero, prominent in the struggle for full national independence from the United Kingdom, and founder of the party that has governed the country since independence. Both Sir Seretse and his eldest son Ian inherited the paramount chieftaincy of the (Bama) Ngwato, the largest Tswana subgroup in the country. When the Defence Force was created in 1977, the Sandhurst-educated, 24-year old Khama was appointed its deputy commander with the rank of brigadier. Jeffrey Ramsay and Neil Parsons, 'The Emergence of Political Parties in Botswana', in W. Edge and M. Lekorwe (eds), *Botswana: Politics and Society* (Pretoria: J.L. van Schaik, 1998). Author's interviews with Dr Judy Butterman, US Embassy Gaborone, 6 March 2004 and 12 June 2004; Dr Kenneth Good, University of Botswana, 18 June 2004; Dr Ian Thompson, University of Botswana, 7 March 2004; Dr Mpho G. Molomo, University of Botswana, 26 June 2004.
 18. Khama's current positions of Vice President and Party Chair are widely believed in Botswana to guarantee his accession to the Presidency when the incumbent, Festus Mogae, steps down. Khama is both popular and controversial. Many among Botswana's educated elite view a future Khama presidency with some trepidation, though few doubt that he will continue to be a strong supporter of wildlife conservation, or that he will hesitate to use the national military in environmental security roles. *Ibid.*
 19. The roots of the institution are found in the Bechuanaland Mounted Police founded by the British colonial administration at the outset of the Bechuanaland Protectorate in the mid-1880s. It evolved into a fairly conventional colonial constabulary as the Bechuanaland Border Police, then the Bechuanaland Protectorate Police before becoming the Botswana Police Force at independence in 1966 and, ultimately, the Botswana Police Service.
 20. Richard Dale, 'The Politics of National Security in Botswana, 1900–1990', *Journal of Contemporary African Studies*, 12, 1 (1993) pp.42–55; Lekoko Kenosi, 'The Botswana Defence Force and Public Trust: The Military Dilemma in a Democracy', in R. Williams, G. Cawthra and D. Abrahams (eds), *Ourselves to Know* (Pretoria: Institute for Security Studies, 2003) p.190.
 21. *Ibid.* See also Mpho G. Molomo, 'Civil-Military Relations'; Richard Dale, 'Not so Placid a Place', *African Affairs*, 86, 342 (Jan. 1987) pp.73–4; H. Ellert, *The Rhodesian Front War* (Gweru, Zimbabwe: Mambo Press, 1993) pp.114, 136.
 22. The founding legislation was the Botswana Defence Force Act, Chapter 21:05, 1977.
 23. The Police Mobile Unit had received training from British Army instructors as early as 1967, a program formalized in a bilateral agreement with the United Kingdom in 1968. See also, Dale, 'The Politics of National Security in Botswana' p.44; Kenosi, 'The Botswana Defence Force' p.190; Molomo, 'Civil Military Relations' p.5; and Dale, 'Not so Placid a Place' pp.73–4.
 24. *Botswana Defence Force, 25th Anniversary Commemorative Brochure* (Distributed by the Botswana Defence Force), (Gaborone: Front Page Publications, 2002) pp.7–9. See also Dale, 'The Politics of National Security in Botswana' pp.44.
 25. Dale, 'The Politics of National Security in Botswana' pp.44–5; Kenosi, 'The Botswana Defence Force' pp.190–92.
 26. For a good overview of this operation, see William J. Durch, 'Introduction to Anarchy: Humanitarian Intervention and 'State Building' in Somalia', in W. Durch, Editor, *UN Peacekeeping, American Policy and the Uncivil Wars of the 1990s* (New York: St Martin's Press, 1996) pp.311–65. For a review of the relevant literature, see Walter S. Clarke, *Humanitarian Intervention in Somalia: Bibliography* (Carlisle, PA: US Army War College Center for Strategic Leadership, 1995).
 27. Malebeswa, 'Civil Control of the Military' p.73. Other deployments included an observer team in Rwanda in 1993, participation in the National Peacekeeping Force deployed in South Africa to facilitate that country's first democratic multi-party elections in 1994, and the UN peacekeeping mission in Mozambique in 1993 and 1994. The BDF performance in these operations was regarded as a considerable success both by the BDF participants and by external observers. Botswana also contributed a significant contingent to the (South African-led) Southern African Development Community intervention in Lesotho in 1998.
 28. Author's interviews with Lieutenant General Matshwenyego-Louis. Fisher, BDF Commander and Brigadier E. B. Rakgole, BDF Assistant Chief of Staff Operations, 4 March 2004.

29. *ibid.*
30. In 2004, it had an inventory of about 45 operational aircraft, including some 13 CF-5s and three C-130Bs. Among its other assets are Casa 212-300 transports, AS 350BA and Bell 412 utility helicopters, PC-7 trainers and O-2A Skymasters. See <http://www4.janes.com/K2/doc> for details.
31. 1 Brigade, headquartered near Gaborone, is responsible for most of the southern part of the country, including most of the border with South Africa; 2 Brigade, headquartered in Francistown, is responsible for the eastern part of the country, including the entire border with Zimbabwe; 3 Brigade, headquartered in Ghanzi, is responsible for the western part of the country, including most of the border with Namibia. The heaviest ground armament includes 50 Steyr-Daimler-Puch SK 105 light tanks. Jane's Sentinel Security Assessment-Southern Africa, available at.
32. It recruits by advertising for candidates in advance of a yearly 'intake' – one each for officer and enlisted candidates. In 2004, the BDF sought 80–100 new officers and received some 3,000 applications. It sought 500 enlisted recruits and received over 15,000 applications for these positions. This level of recruitment and popular response has been consistent over the past decade. Author's interview with Lieutenant Colonel P.T.F. Sharp, Botswana Defence Force Director of Career Development and Training, 17 June 2004.
33. *Ibid.* The minimum educational qualification for an officer candidate is a Cambridge A-level 'First Class Pass', essentially equivalent to a US junior college associate degree. This itself is impressive, but does not tell the whole story: over the past decade, about half of the officer candidates actually selected for BDF service also have had university degrees. Enlisted recruits must at a minimum possess a Cambridge O-level certification, equivalent to a degree from a good quality US secondary school. Many of the successful enlisted applicants have additional trade school or apprenticeship training as well.
34. *Ibid.* Multiple interviews with Major Max Ngkapha, Director of Public Relations and Protocol, Botswana Defence Force, March 2004.
35. Estimate provided by Major Andrew Oldenfield, Chief of the Office of Defense Cooperation in the US Embassy in Gaborone, 14 June 2004. The BDF Commander in 2004 (Lt Gen. L.M. Fisher) was a graduate of both the US Army Command and General Staff College and US Army War College.
36. For 2004 budget detail, see B. Gaolathe, Republic of Botswana Budget Speech, 2004, delivered to the National Assembly on 9 February 2004, Paragraph 80, available at <http://www.finance.gov.bw>.
37. This was a protracted, violent process lasting from the early 1960s well into the 1990s. Among its key features were the liberation wars in Portuguese Africa that ended in independence (but with continuing civil wars) for Angola and Mozambique in 1975, the unilateral declaration of independence of white-ruled Rhodesia in 1965 with the subsequent liberation war that led to an independent (majority-ruled) Zimbabwe in 1980, the insurgency against South Africa that resulted in independence for Namibia in 1990 and, finally, the advent of majority rule in South Africa in 1994.
38. See, *inter alia*, Nick Abel and Piers Blaike, 'Elephants, People, Parks and Development: The Case of the Luangwa Valley, Zambia', *Environmental Management*, 10 (1986) pp.735–51; Edward Barbier *et al.*, *Elephants, Economics and Ivory* (London: Earthscan Publications, 1990); Raymond Bonner, *At the Hand of Man: Peril and Hope for Africa's Wildlife* (New York: Alfred A. Knopf, 1993); Edward Ricciuti, 'The Elephant Wars', *Wildlife Conservation*, 96, 2 (1993) pp.14–35.
39. The criminal syndicates were not the only poaching problem: Botswana's officials suspected South African military forces stationed in neighboring Southwest Africa (now Namibia) were also engaging in some of the cross-border poaching. BDF officers believe that gang members in the criminal syndicates also had military training. They cite the excellent counter-patrol and counter-ambush techniques, the 360-degree security and counter-surveillance measures and the escape and evasion measures habitually employed by those poachers. Fisher interview; Rakgole interview; Makolo interview. Author's interviews with Colonel Galebotswe, Deputy Commander, BDF 1st Brigade, 6 March 2004; Brigadier Otisitswe B. Tiriyomodimo, BDF Assistant Chief of Staff Logistics, 8 March 2004. Wildlife biologist Larry Patterson, associated at the time with the Department of Wildlife, argues that by the late 1970s there were relatively few rhino left in Botswana, a long-term legacy of hunting and environmental stress.

40. Fisher interview; Rakgole interview; Patterson interview, O'Hara interview, Galebotswe interview, Tiroyamodimo interview.
41. *Ibid.*
42. See, *inter alia*, Barbier *et al.*, *Elephants, Economics and Ivory*; Bonner, *At the hand of man: Peril and Hope for Africa's Wildlife*; Ian and Oria Douglas-Hamilton, *Battle for the Elephants* (New York: Viking Press, 1992); Ricciuti, 'The Elephant Wars'.
43. There is some controversy over Khama's exact role in the government decision. Quett Masire, Botswana's President at the time, indicated in 2004 that the government was simply reacting to a clear security threat and that Khama had little to do with the decision. Interviews with Professor Shelly Whitman, University of Botswana, June 2004. However, other knowledgeable sources strongly support a key Khama role. At the very least, Khama undoubtedly exerted strong informal pressure to employ the BDF in anti-poaching.
44. For details on the Zambian experience, see Gibson, *Politicians and Poachers*, pp.57, 59, 62.
45. Tiroyamodimo assumed command of the Commando Squadron in 1986. Tiroyamodimo interview.
46. *Ibid.* For their wars in Namibia and Angola in the 1970s and 1980s, the South Africans had made extensive use of trackers recruited from hunting-gathering societies in Angola, Namibia and Botswana. These could quickly and easily trace the footprints and other evidence of human movement through the bush, could readily detect counter-surveillance techniques, and could thus provide their South African employers a highly useful capability to track down small groups of insurgents. The trackers were drawn from peoples called 'Bushmen' or (less pejoratively) 'San'. In Botswana, they generally are called 'Basarwa,' a seTswana phrase meaning 'people without cattle'. For their employment by the South Africans, see *inter alia* Fred Bridgland, *The War for Africa* (Gibraltar: Ashanti, 1990) pp.132-33.
47. Because of the educational qualifications for BDF recruits specified in Botswana law, most of the trackers initially were ineligible for induction into the BDF as soldiers. They were hired as civilian contractors. Later, a number of the trackers achieved the necessary qualifications and were recruited into the BDF itself. Tiroyamodimo interview.
48. *Ibid.*
49. According to BDF Colonel Galebotswe, at the time a lieutenant in the first contingent to deploy, the first units inserted into the operational area in October 1987 were two teams of 18 men each. Galebotswe interview.
50. Tiroyamodimo interview; Galebotswe interview; Rakgole interview.
51. Information collated by the BDF and presented to the author, 4 June 2004. The BDF is secretive about the specific number of firefights and statistics on killed or captured poachers. The intensity of poacher activity apparently has varied significantly from year to year, but based on anecdotal evidence, the author estimates that after the early 1990s, BDF poacher 'kills' have ranged from about five to ten per year. The BDF seems to have apprehended another 15 to 20 poachers a year, most of which were unarmed meat poachers.
52. Tiroyamodimo believes the change was politically motivated. Significant numbers of poachers were still regularly being intercepted and killed, and some were Namibians. By that point, it was clear that neighboring Namibia soon would become independent of South Africa, and Botswana wanted good relations with its newly independent neighbor. Botswana's motivation in increasing the numbers of personnel involved in anti-poaching was a 'show of force' to deter Namibian poachers from entering the country in the first place.
53. Galebotswe interview; Rakgole interview.
54. Much of this area consists of freehold farms owned by white farmers, generally of Afrikaner origin. There is substantial game in this area, including a herd of elephants, but the 'anti-poaching' patrols may have been intended more for surveillance of possible South African infiltration than for protection of game. Patterson interview.
55. These patrols apparently always have consisted of vehicle-mounted, platoon-sized units. They seem to have been conducted somewhat sporadically and perhaps were aimed at deterring poaching of plains game by South African poachers or local citizens living along the border.
56. Galebotswe interview; Rakgole interview.
57. *Ibid.* Tiroyamodimo interview; Interview with Major Mofefi Seikano, BDF Commando Squadron Acting Commander, 18 June 2004.
58. The troops are supplied by overland truck and by air - the BDF Air Arm flies its old BN-21 Defenders into the company bases. Forward bases are at times supplied by helicopter. Rakgole

- interview; Tiroyamodimo interview; Galebotswe interview; Makolo interview; Seikano interview.
59. Galebotswe interview; Rakgole interview.
 60. Ibid. Tiroyamodimo interview; Seikano interview.
 61. Vegetation ranges from dry open ('Miombo') woodland to thorn-bush savanna to thick swamp brush.
 62. Rakgole interview; Ngkapha interview. Author's interview with Brigadier J.O.J. Hengari, Commandant of the BDF Force Training Establishment, 9 March 2004.
 63. These themes are stressed in basic and advanced training and BDF troops receive regular lectures on the economic importance of wildlife to the nation. Galebotswe interview; Hengari interview.
 64. This was evident in the author's interviews in 2004 of BDF personnel at all ranks.
 65. Tiroyamodimo interview, Galebotswe interview, Rakgole interview.
 66. Ibid.
 67. Tiroyamodimo interview; Seikano interview.
 68. For the commandos, the anti-poaching mission provides excellent training in their most basic skills, providing a realistic combat training environment against a skilled opponent. Observers that have worked with the commandos generally have praised their professionalism and proficiency. Seikano interview, Galebotswe interview, Tiroyamodimo interview. Interview with Barney O'Hara, Wildlife Consultant and former employee of the Department of Wildlife, 17 June 2004.
 69. Author's interview of Alice Mogwe, Director of *Ditshwanelo*, the primary human rights advocacy organization in Botswana, 18 June 2004. BDF personnel say that their organization experimented in the mid-1990s with restrictive rules of engagement, including a prohibition against firing weapons unless fired upon, but these rules apparently proved impractical and were dropped.
 70. For instance, the police initially tried to treat each killed poacher as a homicide, requiring an elaborate investigation and the interrogation of the BDF 'suspects' involved in the homicide. The police also insisted initially on seizing all the captured poacher materiel as 'evidence'. Galebotswe interview; Makolo interview; Tiroyamodimo interview; Seikano interview.
 71. BDF officers have indicated that there were occasions of poacher interceptions in the early years when the senior BDF leadership (typically Ian Khama) was obliged to intervene in BDF disputes with the police.
 72. Galebotswe; Makolo interview.
 73. Rakgole interview.
 74. Tiroyamodimo interview; Rakgole interview.
 75. Fisher interview; Rakgole interview.
 76. Individuals providing this information did not want to be identified by name. The information seems plausible to the author.