

Letter No. 3 to AFRICOM

Transfrontier Conservation Areas and AFRICOM: Conflict Resolution and Environmental Sustainability

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Environmental security is a fundamental component of human security necessary for long-term stability and progress in Africa. It is essential in developing meaningful and lasting relationships among local indigenous peoples and between public and private sectors in fledgling local and national governments. The development of Transfrontier Conservation Areas (TFCA) worldwide, but specifically in Africa, promotes environmental security and has offered a useful means to attenuate and resolve some conflicts while at the same time promote biodiversity and enhance environmental (and natural resources) management. Peace Parks (PP), a kind of TFCA that involves twin primary aims—conflict resolution and conservation/sustainment of biodiversity—

are found primarily in regions of past conflict, postconflict, or potential conflict. Human and environmental security concerns, keenly shared by many African countries and individual Africans, represent a potential opportunity for building partnership capability in a way that could significantly increase the reach and influence of Africa Command (AFRICOM). The 2009 AFRICOM/Air University Symposium featured a track on environmental security, identifying ways that AFRICOM could engage in partnering for lasting and meaningful influence. One workshop featured discussion of TFCAs and PPs, offering several initiatives that constitute roles the command could play to promote environmental security in Africa.¹ This article explores the use of TFCAs in an African

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context, utilizing the initiatives promoted through the workshop that offer benefits to local populations as well as regional and national environmental/human sustainability.

Africa, Environmental Security, and the US Military/Africa Command

US military involvement in African environmental security has increased somewhat inconsistently over the last 20 years. This inconsistency can be traced to differing emphases on the environment and security in the previous presidential administrations of Bill Clinton and George W. Bush. The Clinton administration linked security to the environment in the national security strategy, but the two Bush administrations minimized such a link.

Dan Henk describes a three-pronged US approach to the administering of environmental foreign policy in southern Africa, featuring the Department of State, the US Agency for International Development (USAID), and the Department of Defense (DOD).² He details a dysfunctional, “stovepiped” US agency involvement in environmental security in the southern Africa countries of South Africa, Botswana, and Namibia, with funding meager compared to that of other foreign policy initiatives. In addition, the inability to define projects with a focus on environmental security and the absence of a clear conceptualization to unite regional efforts (because of lack of interagency coordination to a strategic whole) produced only modest results in developing partnerships and funding environmental security projects.³ Henk suggests that southern Africa holds promise for exploring military partnerships in environmental issues; however, the only two organizations

within the DOD that supported environmental security as of 2006 were European Command (at that time, one of the US combatant commands with jurisdiction in Africa) and a small environmental office within the Office of the Secretary of Defense, Deputy Undersecretary of Defense for Installations and Environment, that was minimally funded for more or less environmental-compliance projects on the continent.

Of the three countries, Botswana had received the lion’s share of monies, most of it DOD related; however, funding for non-DOD projects occurred for all three countries through a variety of USAID programs between 1990 and 2005, including support for local and regional conservation efforts in the Okavango Basin Project and promotion of the Kavango Zambesi (KAZA) initiative. Military funding went to the Botswana Defense Force for supplying equipment and training to support antipoaching activities.⁴ Namibia also received both USAID and military funding, beginning in the early 1990s. USAID funding went to support a local Community-Based Natural Resources Management program, while military funding supported local environmental projects. This resource-management program produced a successful coordination between the Namibian and US governments, international nongovernmental organizations (NGO), and very cooperative local communities, in which significant improvement of biodiversity was encased within a primary goal of reducing rural poverty through improvement in people’s quality of life.⁵ As Henk chronicles with the Namibian and Botswana examples, the meager monies, compared to those for other US foreign policy initiatives and concern about this direction overall, signaled a lack of interest in this area of US foreign policy from the Department of

State, USAID, and the DOD during the last administration.

The Birth of Africa Command and the Existing/Potential Relationship to Environmental Security

The development of AFRICOM in 2007 grew out of the United States' desire to create a combatant command that sought to engineer a "whole of government approach" to effect positive influence through engaging collaborative relationships within the US government as well as with partner nations and other organizations across the African continent. "The creation of U.S. Africa Command enables DoD to better focus its resources to support and enhance existing U.S. initiatives that help African nations, the African Union, and the regional economic communities succeed. It also provides African nations and regional organizations an integrated DoD coordination point to help address security and related needs."⁶ The leadership of AFRICOM features Department of State and DOD deputy commanders together with representation from USAID and other governmental agencies involved in Africa. AFRICOM will seek to engage partner nations and humanitarian organizations also involved in African issues and common concerns.

This paradigm shift in US military relations reflects the changing face of foreign relations in an increasingly "globalized" twenty-first century. The merits of theoretical discussions on globalization perhaps fall outside the scope of this effort. Nevertheless, the end result of US involvement in a continent as diverse as Africa, and with many countries still struggling from the aftermath of colonialism, points toward reconstruction and stability

operations as a primary concern for US foreign policy and toward potential DOD opportunity in building partnerships with African nations. As Henk outlined, historic patterns of foreign policy initiatives in African environmental security include interagency dysfunction, and stovepiping would exist for all types of stability-operations projects within the traditional combatant command approach. However, AFRICOM exists as a means of harnessing the efforts and strengths of traditionally autonomous agencies to engage a range of programs, including military-to-military programs, for promoting a stable and secure African environment. In a continent such as Africa, where most nation-states are in their infancy and where quality of life is constrained by a host of factors (e.g., little or no infrastructure; ethnic conflict; and environmental, man-made, and natural crises that result in the loss of natural resources, disease, and famine), the notion of security cannot be tied to the traditional concept of defense of national integrity. Rather, it should reflect a more human-centric perspective.

In essence, a prosperous and stable continent, across and within national borders, will develop and sustain elements that make up human security. The concept of human security originated through promulgation by the United Nations in the 1990s and beyond.⁷ Considered radical when introduced, the notion of human security has redefined the idea of a secure state as one that places primary emphasis on the safety of individuals and the well-being of local communities, not one that involves a centralized government competing in an international arena through the use of threat and military force.⁸ "Security should be 'people-centered,' rather than state-centered; its most basic components would be 'freedom from fear and freedom from want.'"⁹

Critical to the “operationalizing” of human security are the sustainment and, in some cases, the protection of the African environment from competing global and African national forces. This notion of environmental security would also include minimizing conflict generated by the constrained availability of natural resources, such as minerals, water, grazing lands, and timber. As AFRICOM moves from standing up as a functioning command to engagement with African nations and their people, the concept of human security—specifically, environmental security—should become a key component of engagement strategy through reconstruction and stability operations. Promoting, planning, and assisting in environmental security programs and projects—or even creating the conditions for awareness of environmental security—represent roles and possible avenues for funding/cooperation or coordination for AFRICOM with African partners.

The development and sustainment of such viable programs as TFCAs and PPs in which AFRICOM might engage could have immediate and long-lasting effects on African human security and could offer engagement channels to promote the operational, tactical, and strategic goals of AFRICOM: “conduct[ing] sustained security engagement through military-to-military programs, military-sponsored activities, and other military operations as directed to promote a stable and secure African environment in support of U.S. foreign policy.”¹⁰

Transfrontier Conservation Areas

The development of ecological areas/conservation zones within and between nations to promote sustainability and sta-

bility has a long history. The birth of national parks and forests in the United States is just one example of the use of conservation zones. More recently, the use of such zones has been promoted as a means of conflict resolution as well as a way of providing an environment of sustaining peaceful relations among nations and promoting environmental sustainability while preserving access to natural resources. Since environmental stress rarely knows national boundaries, it may be beneficial for countries and regions to cooperate to alleviate similar or mutual problems.¹¹ Concentrating on environmental peacekeeping instead of the negative interface created by environmental problems, environmental security entails interactions that can become the building blocks for future cooperation.¹² Identified as a Protected Area, Transfrontier Protected Area, Transboundary Protected Area, or TFCA, conservation areas that straddle national or other regional boundaries have also been colloquially defined as PPs.¹³ The most universally accepted definition of these conservation zones comes from the World Conservation Union (IUCN) publication *Transboundary Protected Areas for Peace and Co-operation*.¹⁴

This article uses the label “TFCA” to conceptualize the particular notion of an ecological/conservation area or zone. Generally, all definitions feature the development of ecological protected areas between international states that share a political boundary as well as engage in some regular communication and sharing of information between TFCA partners. A TFCA can encompass protected areas that may, or may not, have contiguous boundaries and that feature multiple-use land-use areas within the TFCA.¹⁵ Development of these national and international conservation zones has been used to promote a variety of local, na-

tional, and international issues. In Africa the development of conservation zones has proven especially successful on many fronts, specifically facilitating the resolution of territorial conflict and promotion of environmental sustainability. TFCAs have “become prospects for new and innovative regional approaches to the inter-related problems of conflict resolution and appropriate stewardship of the resources base.”¹⁶ As such a protected area, a TFCA provides different outcomes to various groups.¹⁷ For conservationists, the outcome is an enforceable means of protecting biodiversity; for a state military, an area absent of population encroachment; for rebel forces, a refuge area or staging platform for future attacks; for government-based, local indigenous groups or privately sponsored ecotourism companies, economic development; and for pharmaceutical companies or international NGOs interested in preserving agricultural biodiversity, a genetic “warehouse” of potential natural resources or information for present or future use in environmental change.

Importantly, TFCAs incorporate local communities and governmental organizations to manage the land for multiple purposes. To this author, they are based on the three general pillars of sustainability:

- a) sustainability of biodiversity through conservation (including conservation and management of natural resources which encompasses water [hydroelectric] and land resources such as forests and wildlife number and diversity) and preservation of the “commons” to reduce conflict over depletion of resources;
- b) sustainability and management of economic development both locally and regionally through the engine of ecotourism and community-based land use programs;

- c) the sustainability of regional peace and stability through conflict resolution, to include sustain[ment of] bilateral and multi-lateral relations among nations.¹⁸

TFCAs provide additional boundary protection to mitigate terrorism. Cooperation in managing conservation zones promotes the sustainability of “soft peace” between friendly neighbors. Such zones can also serve as an important tool for the development of “hard peace” (between adversarial neighbors) as a starting point in facilitating dialogue between adversaries; furthermore, they can offer a valuable exit strategy from intractable positions.¹⁹

Promoting, sustaining, and protecting biodiversity as well as maintaining access to natural resources for indigenous and local peoples are primary considerations of TFCAs. In addition, the engine of ecotourism drives both funding and livelihoods for those who live in and around the TFCA; it does so directly through park management and sustainment and indirectly through ecotourism dollars.²⁰ TFCAs such as the Great Limpopo Trans-frontier Park that straddles Mozambique, South Africa, and Zimbabwe, and the Ngorongoro Conservation Area (NCA) offer indigenous populations residence within and adjacent to park boundaries. Even though limiting their traditional subsistence strategy of pastoralism for the Masai, for example, NCA park development and sustainment can offer employment, experience, and training/education.²¹ The NCA is not unique in attempting to provide development to indigenous and local populations through both economic gain and local management. Members of the Northern Rangelands Trust, a community-organized and -led conservation initiative in northern Kenya, represent pastoralist communities whose traditional lifeways have become somewhat margin-

alized by the formal sector of the state. The trust was established by these local groups—along with other stakeholders interested in biodiversity conservation—to form “umbrella” local governance emphasizing conservation and sound environmental management to improve, diversify, and sustain pastoral livelihoods. Currently the Northern Rangelands Trust is composed of 15 local community conservancies in six districts.²²

Peace Parks

PPs date back to 1932 and the development of the Waterton-Glacier International Peace Park that lies on the border between the United States and Canada.²³ Organizations such as the IUCN’s World Commission on Protected Areas, World Wildlife Fund, and United Nations University for Peace have worked in some way to further the concept of building peace through building PPs. As is the case with TFCAs, there are slightly differing definitions of PPs.

According to the IUCN, a PP must promote “a clear biodiversity objective, a clear peace objective *and* co-operation between at least two countries or sub-national jurisdiction” (emphasis in original).²⁴ The United Nations University for Peace defines PPs as “protected areas where there is a significant conflictive past.”²⁵ Trevor Sandwith and others define PPs as “transboundary protected areas that are formally dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and to the promotion of peace and co-operation.”²⁶ Saleem Ali has similarly defined PPs.²⁷ Clearly, a PP emphasizes an environment of sustaining peaceful relations among nations, promoting environmental sustainability, and preserving access to natural resources.

Instead of mitigating tension, PPs provide a collaborative alternate solution to barricaded borders that isolate and sustain. This development has been used successfully either in regional areas prone to conflict or in a postconflict situation (e.g., the border between Kuwait and Iraq).²⁸ The Korean demilitarized zone represents both a nature corridor untouched for 50 years and an opportunity for the North and South Korean governments to engage in a collaborative effort to maintain habitats and reintroduce species into the ecosystem, as well as offer a symbol of peace and novel, cooperative international relations.²⁹ The Siachen Glacier region, shared by both India and Pakistan, has been and continues to be a region of conflict between the two nations: “Their combat over a barren, uninhabited nether world of questionable strategic value is a forbidding symbol of their lingering irreconcilability.”³⁰ Neal Kemkar poses the creation of a transboundary PP bilaterally managed by both India and Pakistan that would end the ongoing “low-intensity border war between the two nations.”³¹ A frontier PP that exists in the Mesopotamia marshlands between Iran and Iraq is in the preliminary stages, having the goal of bringing Shi’a and Sunnis together and restoring sensitive marshlands, necessary for biodiversity and agriculture, that have suffered damage by decades of conflict.³² Moreover, boundary land between Afghanistan and Pakistan has been proposed for a series of TFCAs.³³

In Africa the development of TFCAs in the early 1990s featured PPs.³⁴ These parks were promulgated through discussions of common interests, first between Anton Rupert, president of the South African World Wildlife Fund, and Joachim Chissano, president of Mozambique, in 1990 and later with the support of newly

elected South African president Nelson Mandela. The Peace Parks Foundation, established in 1997, was the collaboration of the national governments of Mozambique, Zimbabwe, and South Africa, as well as NGOs such as the World Wildlife Fund and the World Bank.

There are several successful PPs in southern Africa, including Great Limpopo Transfrontier Park, Kibira National Park, Virunga National Park, and the Volcanoes National Park, which make up the Great Lakes TFCAs of Burundi, Democratic Republic of the Congo, and Rwanda. The ambitious KAZA Peace Parks Initiative includes TFCAs in five African countries: South Africa, Botswana, Mozambique, Zimbabwe, and Angola.³⁵ Although KAZA has been in the planning stages for several years due to factors such as the political instability of some members, which led to internal conflict, the implementation of such an initiative only underscores the potential benefits of TFCAs to nations and their neighbors.

Another African example is the “W” International Peace Park in West Africa, a TFCa that covers three West African countries: Benin, Burkina Faso, and Niger, and over a million hectares. Parts of it were designated as a wildlife reserve in 1926 and went through various management administrations under colonial rule and after independences through the 1980s. This was accompanied by indigenous practices of first foragers, stockbreeders, and, lately, practitioners of pastoralism/transhumance managing the park’s resources.³⁶ In 1986 the three countries entered into transboundary collaboration for park management, emphasizing sustainable management of the park’s natural resources. Park management is economically driven by tourism and sports hunting, while peripheral populations border on abject poverty. The park still

exists in a fragile ecological state; moreover, tourism and hunting programs are not mature, affecting park sustainability. Programs to integrate these populations into sustainable park management are ongoing, and strict conservation laws have given way to more “participatory” approaches to involve local indigenous populations as “comanagers” of the park through a series of obligations and rights.

The Downside of Transfrontier Conservation Areas and Peace Parks

Some scholars argue that the development of conservation zones such as TFCAs has not yielded those benefits that promote environmental or economic sustainability. Land adjacent to nature preserves, such as TFCAs, often yields to commercialization, and peace breaks out only in the designated conservancies.³⁷ In fact, the act of creating a bounded conservation zone, especially across national boundaries, may create its own set of conflict issues. In addition, Rosaleen Duffy points out that PPs can be considered a paradox of globalization.³⁸ PPs offer undeniable benefits, and, as discussed above, many of them relate to global forces such as ecotourism and the pressure exerted by international NGOs such as the World Wildlife Fund and the Nature Conservancy to sustain biodiversity. However, globalization, as an opportunity, also creates negative effects on the land, as well as nefarious subsistence and illegal practices. The fact that many TFCAs have permeable and porous borders weakly patrolled by state agencies makes illegal activities such as poaching, smuggling, and narcotic trafficking frequent, attracting powerful political interests. “Paradoxically, the creation of Peace Parks requires more, and

not less, state control of frontier zones, and raises significant issues for the management or control of globalising forces in weakly administered regions of the developing world.”³⁹ In the case of the NCA, the indigenous population of Masai that lived within or adjacent to the TFCA borders found their traditional subsistence practices either curtailed or extremely limited by park activities. Cultural traditions and livelihoods are sacrificed, and even if the park employs local people, they are penalized by lack of education and find themselves occupying service positions or, even worse, resorting to entertaining tourists.⁴⁰

From a different perspective, international conservation groups, although acknowledging that indigenous groups have rights to land and the use of that land, find that when taken out of traditional subsistence patterns and armed with modern technology, indigenous groups can often cause harm to the same biodiversity that they once managed while engaged in traditional cultural patterns of survival.⁴¹ Conservationists such as Richard Leakey and Christof Schenke (of the Frankfurt Zoological Society) argue this very point. To Leakey, if indigenous peoples such as the Masai in the NCA want to improve their quality of life, and if this involves development of traditional lands (now parklands), and if this aspiration will eventually cause the destruction of the park, “you can’t sustain a national park if modern housing and schools and so on are springing up.”⁴² Relocating some indigenous populations may be necessary to sustain the integrity of the conservation zone, and although they acknowledge that this will affect lifeways, conservationists still wish to push for sustaining biodiversity as the primary goal of conservation areas such as the NCA. Schenke believes that protecting lifeways is possible “as long

as it [indigenous lifeways] doesn’t conflict with conservation aims. . . . In order to protect biodiversity it’s imperative to retain some human-impact-free areas in the world, so in protected areas, conservation must come first.”⁴³

It is clear that establishment and development of TFCAs and PPs can support the three goals outlined earlier in this article: conflict resolution, sustainment of biodiversity, and economic and social growth. It is also clear that there will be TFCAs and PPs in Africa that will affect, and most likely disrupt, traditional cultures: the traditions, lifeways, and patterns of meanings that have tied cultural members together for centuries, much as other facets of globalization have done and will continue to do. In fact, promoting TFCAs and PPs could actually promote conflict instead of attenuate it.

The concept of TFCAs has been embraced globally and has garnered considerable support from any number of governments, NGOs, and private corporations. However, with all the development of TFCAs, PPs, and other conservation zones, there is no clear mandate supportable by systematic and empirical studies that can actually promote the theoretical foundations and reasons explicated for the development and sustainment of these areas. Some individuals have made attempts to systematically measure the “effect” or “performance” of TFCAs. Anna Spenceley and Michael Schoon, for example, propose framing PPs as a social ecological system.⁴⁴ Using the Great Limpopo Transfrontier Park, they posit the use of transfrontier natural resources in nature-based tourism as a mechanism within this social ecological system to drive not just biodiversity but, perhaps more importantly, the effect on local economic development. Simply put, the growth of local economies becomes a performance yardstick. Anne Hammill and Charles Besancon take a different tack and

propose looking at TFCAs through the lens of conflict attenuation. Exploring the linkages between the context of the emergence of TFCAs, with respect to the history of peace and conflict in that area, they suggest looking at the interaction of those contexts with the “ability” of the TFCA to act “as arbitrators for peacemaking, but in regions currently experiencing conflict or those with a history of conflict, they can inadvertently exacerbate conflict.”⁴⁵ Using a Peace and Conflict Impact Assessment (PCIA), developed in various forms by Kenneth Bush and Luc Reyckler (Conflict Impact Assessment System [CIAS]) for more general peace and conflict-resolution projects, Hammill and Besancon preview using this tool to look at the Great Lakes TFCAs for the purpose of exploring the optimistic claims of agencies, governments, and groups regarding the success of TFCAs and PPs through one lens—one that promotes a “culture of peace and cooperation.”⁴⁶

To authors such as Duffy, the development of TFCAs is a paradox of globalization. The creation of TFCAs is itself a function of globalization, yet, as seen, there are implications of this genesis that are undermined by other activities “equally supported by the broader shift to globalisation.”⁴⁷ The creation of TFCAs also raises the question that, within the framework of coordination and park governance, does one not also create a new form of transboundary state adding globalized “layers” of regulated governance and “extend[ing] state control over those landscapes and the resources and people contained within them”?⁴⁸

Many stakeholders are featured prominently in the development and sustainment of TFCAs. The concept of these areas and, specifically, PPs stands intuitively as tenable to the dramatic and immediate effects of any number of disparities and con-

ditions of a twenty-first-century planet—climate change, loss of biodiversity and habitat, depletion of natural resources, economic and sociocultural inequality—creating new forms of marginalization of indigenous populations or even creating new cultures out of traditionally marginalized populations: poachers, drug traffickers, and even pirates. PPs also act as a focus of establishing or reestablishing national, ethnic, or cultural identity in postconflict regions with failed infant nation-states in developing areas of the world, such as many newly independent African countries. It is necessary for the concept of TFCAs and the recent development of many of them globally to be successful in meeting those three goals and mitigating as much as possible the effects of environmental crises, globalization, and twenty-first-century conflict. All stakeholders should be intimately involved in agreeing to the programmatic goals of the TFCA and in developing and sustaining the TFCA. AFRICOM could be a crucial stakeholder in this process. Through collaborating and partnering with stakeholders and by providing funding, equipment/technology, environmental residential knowledge, and education/training, the command could make a substantial contribution to furthering stability operations in many African countries and regions.

Collaboration between Africa Command and Transfrontier Conservation Areas

Because a variety of stakeholders are involved in the development of TFCAs, specifically PPs, success depends upon the establishment of collaborative partnering between those stakeholders. Consequently, national militaries and police forces can provide and have provided en-

hanced security to maintain TFCA integrity through minimization of the exploitation of natural resources, including wildlife, minerals, and timber. For example, the development and implementation of the Botswana Defense Force as a necessary deterrent to boundary invasion and poaching are a benchmark of what can be accomplished through the development of conservation zones.⁴⁹ A robust development of national parks and international PPs can provide a means to model environmental, sustainable peace and economic prosperity for many African nations by slowing the environmental degradation and exploitation of natural resources and by enhancing environmental and national security.

AFRICOM contributes to a nascent cooperative environmental-security program with many African stakeholders. The DOD, through the Office of the Deputy Undersecretary of Defense for Installations and Environment, promotes a successful environmental-partnership program that provides mostly planning and compliance assistance on a very modest budget. These ongoing programs include providing workshops on developing response plans to chemical spills and programs such as management of hazardous and solid waste. Mitigation of environmental degradation caused by past and ongoing conflict and the lack of mature environmental-compliance programs that minimize human agency in many African countries is a fertile and necessary opportunity for engagement of AFRICOM's financial and human resources. At some point in the future, as AFRICOM increases its operational presence on the continent, environmental compliance will become important as well.

Beyond these existing initiatives, AFRICOM in general and the United States Air Force (USAF) in particular can partner

with African governments and their militaries to sustain existing conservation zones and help develop planned projects, such as KAZA, and as yet unplanned projects by (1) transferring environmental knowledge and best practices and training for sustaining biodiversity and conserving natural resources; (2) applying airpower's capability for monitoring boundaries and borders, moving wildlife, mitigating poaching and terrorism, identifying environmental degradation within conservation zones, and transporting human resources and equipment for park management; and (3) assisting in the development of security capability through training and equipment. The following recommendations, generated from the Air University/AFRICOM symposium held from 31 March to 2 April 2009 at Maxwell AFB, Alabama, represent possible actions that AFRICOM might take.⁵⁰ The environmental-security track at the symposium brought a variety of skill sets and academic perspectives. These recommendations address potential contributions to the three general goals of TFCAs, as outlined earlier in this article.

Recommendations

1. "Provide environmental security [education/] training and regional co-operation training to African militaries."

USAF bases in the continental United States are both environmental managers as well as environmental stewards of federal lands. It is imperative that these bases work with a variety of governmental regulators and comply with environmental laws and regulations. Bases also are directed to consult with those federally recognized Native American tribes who claim historical association with the bases' environmental heritage. However, beyond

compliance, USAF bases must also develop partnerships with local communities and groups of concerned citizens, nature-based groups (such as the Nature Conservancy), as well as environmental-activist organizations (such as Defenders of Wildlife), to sustain and conserve environmental resources on the base, protect wildlife, sustain biodiversity, and mitigate the impact of base operations on the environment. This process of establishing partnerships with interested stakeholders having environmental concerns could help Africans develop and sustain their TFCAs and PPs. Indeed, the concept of PPs involves a process of sustaining the ethos of environmental stewardship necessary for all stakeholders concerned with developing partnerships in environmental security. A knowledge base of both management experience and lessons learned exists.

2. *“Assist African governments and militaries in creating security for Trans Frontier Conservation Areas (TFCA). (Example: Botswana [Defense Force]).”*

3. *“Assist with knowledge sharing related to piracy, poaching, trafficking and terrorism and other illicit trans-boundary activities.”*

Conservation zones incorporating more than one national border require a robust program to maintain security within the zones/parks for participating nations. Security involves many different applications, from protecting parks and nations from terrorism, to protecting residents, park employees, and ecotourists, as well local communities surrounding the TFCAs. Security is also integral for protection of the areas’ biodiversity (including wildlife) and critical natural resources such as water and timber. USAF personnel can provide assistance in training and helping equip militaries to provide security. Capabilities such as aerial and satellite

monitoring/surveillance, mapping by means of the global positioning system, interdiction training, transporting, and conflict training are just a few of the possible avenues of assistance. Botswana’s national military (the Botswana Defense Force) would be a logical partner for sharing lessons learned, should it need or request assistance.

Similarly, the USAF could help the security forces of organizations such as the National Park Service, United States Forest Service, and Bureau of Land Management in the areas of training and equipping. Indeed, the USAF’s expertise could prove equally valuable in sustaining a viable security program, such as the Botswana Defense Force.

4. *“Assist with knowledge sharing to identify and maintain areas suitable for designation as a TFCA.”*

5. *“Facilitate the TFCA programs with the assistance of DOD Environmental and Natural Resource Managers.”*

As indicated above, the DOD—specifically, the USAF—maintains robust environmental-management programs at all of its installations in the continental United States. Integrated into these programs are both natural and cultural resource managers who maintain active conservation programs aimed at protecting biodiversity (by complying with laws such as the Endangered Species Act) and cultural resources within the confines of the installation. These resource programs are staffed by environmental scientists and specialists experienced in developing and implementing resource programs as well as sustaining such programs in the face of changing mission requirements and land use. Maintaining successful programs requires engaging proactive, scientifically based programs focused on sus-

taining biodiversity, including wildlife habitats. This management experience would include the skill sets required to control invasive species, sustain wildlife through protection (as well as species rejuvenation), and mitigate the effect of natural events (such as fire and flooding) on the environment and other programs valuable to African TFCAs.

Furthermore, these same programs could provide resources to gather, analyze, and “empirically” test models such as the PCIA/CIAS or the social ecological systems model as to the success of TFCAs. Additionally, the environmental impact statement/assessment process used by all federal and state agencies, specifically the USAF, could be engaged in helping site TFCAs and predicting intended or unintended consequences of development.

6. “Assist Africans in environmental remediation programs to mitigate and return natural environments back to sustainability following human impact such as [post]demining [environmental mitigation].”

The DOD maintains mandated programs to address human effects on the environment, such as remediating Superfund sites, cleaning up toxic-chemical spill sites, maintaining a demining capability, and removing ordnance from inactive ranges. These programs provide a wide range of experience at addressing human impact on the environment that could prove helpful in examining conservation zones from current, recent, or distant past conflict, as well as other land uses.

7. “Provide cross-cultural education/training programs to all involved stakeholders. Develop program assessment measures to include short and long-term ethnographic studies to ensure that development and sustain-

ment of conservation zones [are] both effective and sensitive to the local peoples and culture [in and] around the conservation zones.”

The USAF Culture and Language Center has developed as foundational to both training and professional military education programs the concept of cross-cultural competence, which, at its core, is the presentation of general culture—domains of culture and applied skills such as cross-cultural communication, negotiation, and participant observation. Cross-cultural competence is important to both cultural interactions and sensitizing actions taken to support development and management within a local culture.

Summary

The development and sustainment of TFCAs and PPs represent a global phenomenon with a relatively short history for judging results across the spectrum of goals, including biodiversity improvement, sustainment of natural resources, increased economic and political independence (or at least improvement in one or both domains for indigenous and local populations), increased cooperation across national borders, and other direct or indirect benefits. As noted, Africa contains a number of TFCAs as well as intranational conservation zones. In light of the number and development of these zones, support through AFRICOM—especially the USAF—could promote foundational goals of building partnerships and providing capability that lead to a more stable Africa. □

Notes

1. See Dr. Stephen F. Burgess, *Air Force Symposium 2009: US Africa Command (AFRICOM), 31 March–2 April 2009, Final Report* (Maxwell AFB, AL: Air University, Air War College, 2009), <http://www.au.af.mil/au/research/documents/AF%20AFRICOM%20Symposium%20Report%2030%20June%202009.pdf> (accessed 16 February 2010).
2. Dan Henk, "The Environment, the US Military, and Southern Africa," *Parameters* 36, no. 2 (Summer 2006): 99.
3. *Ibid.*, 111.
4. Dan Henk, *The Botswana Defense Force in the Struggle for an African Environment, Initiatives in Strategic Studies—Issues and Policies* (New York: Palgrave Macmillan, 2007).
5. Henk, "Environment," 109.
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50. For the seven recommendations offered here, see Burgess, *Air Force Symposium 2009*, 9.