



# HIV/AIDS and the Environment: Impacts of AIDS and Ways to Reduce Them

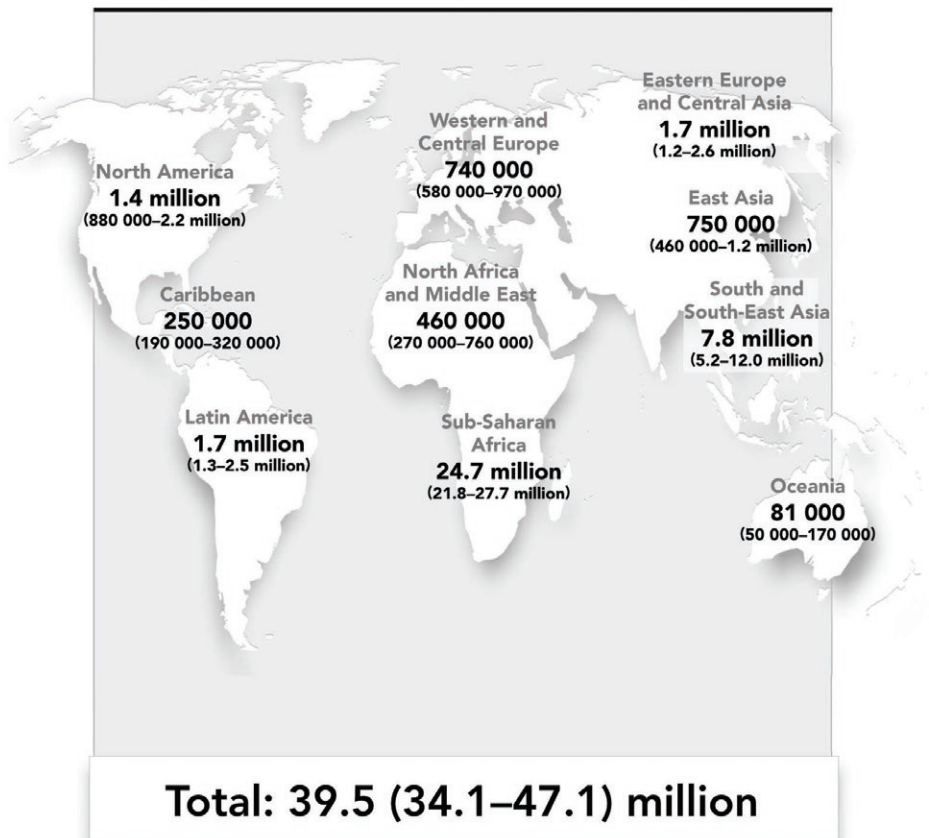
## Fact Sheet for the Conservation Community

### The Problem

*Loss of human capacity to AIDS is seriously affecting conservation, including protected areas and community-based natural resource management.*

AIDS (acquired immunodeficiency syndrome) is the late stage of infection caused by the HIV or human immunodeficiency virus. Approximately 39.5 million people around the world were living with HIV/AIDS in 2006. Of these, almost two thirds were in sub-Saharan Africa. The same year, an estimated 2.9 million AIDS-related deaths occurred globally. The number of people living with HIV continues to rise around the world especially in Africa, parts of Eastern Europe, the Caribbean, and South, Southeast, Central and East Asia, with prime-age adults being affected most (UNAIDS 2006a). The epidemic has devastating and tragic impacts on families and communities. It is affecting local and national economies, social structures and institutions. It is also affecting the environment through impacts on human capacity, natural resource management and land use. There are very close linkages between HIV/AIDS, rural livelihoods, human capacity and conservation. This fact sheet outlines the impacts of HIV/AIDS on conservation as well as the actions the conservation community can take to reduce them.

### ADULTS AND CHILDREN ESTIMATED TO BE LIVING WITH HIV IN 2006



Reproduced with kind permission from UNAIDS (2006)



## Impacts on conservation organizations

*The conservation community cannot rely solely on the health sector for solutions to HIV/AIDS: it needs to engage actively with partners in a multisectoral approach to reduce impacts.*

### Loss of human capacity

Conservation organizations and projects are losing staff members to AIDS in the countries most seriously affected by the disease. For example, the nongovernment organization Wildlife and Environmental Society of Malawi lost 14 percent of its staff in health-related deaths (Mauambeta, pers. comm.). Also in Malawi, Kasungu National Park lost 17 staff members between 2000 and 2006 – 22 percent of its 2000 workforce level (Kumchedwa, pers. comm.). As a result, uncontrolled poaching has escalated in Kasungu, leading to a serious decline of buffalo, elephant and other species.



Conservation organizations have lost park guards and other staff to the AIDS epidemic. © WWF-Canon / Martin Harvey

Loss of staff at this scale seriously affects institutional memory and continuity of programs and operations, and can greatly reduce an organization's ability to achieve conservation goals. Staff members are particularly vulnerable if they spend time away from their families, where they are more likely to practice risky behavior. This applies to the following people:

- those based in protected areas and communities in remote locations;
- those who travel frequently such as drivers; and
- those on temporary assignment away from home (e.g., training programs).

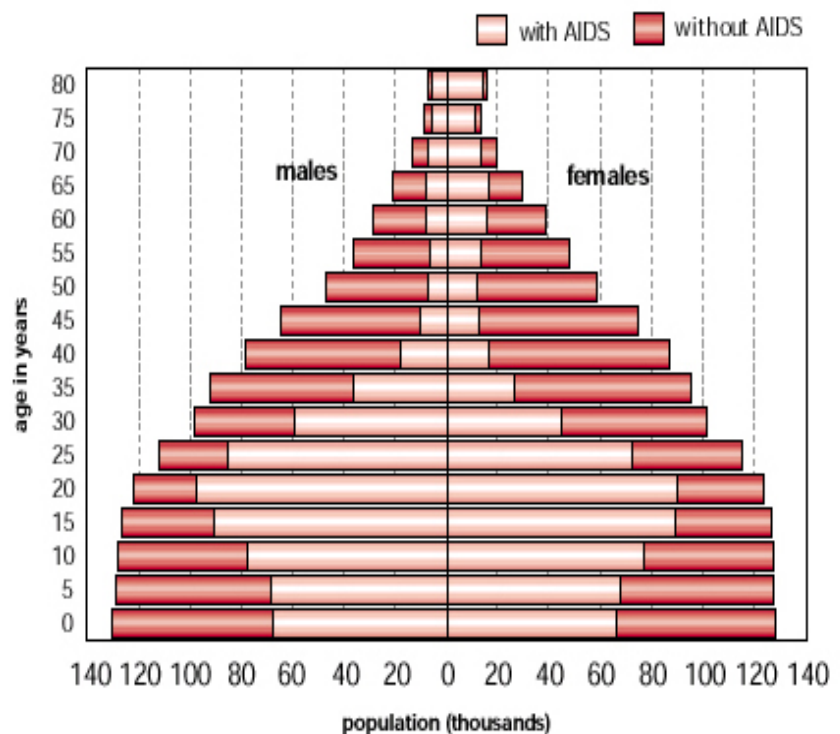
## Projected population structure with and without the AIDS epidemic, Botswana, 2020

### Loss of investment in training

Many conservation organizations have lost highly trained staff to the disease. This is particularly serious in Africa, where conservation capacity is already limited. Training replacement staff is very expensive – if funds are available at all.

### Loss of staff time

There is increased absence from work when staff members care for their family members with AIDS and attend funerals of relatives, friends and colleagues.



Source: U.S. Census Bureau. World Population Profile, 2000

### **Diversion of conservation funds for AIDS costs**

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Many conservation organizations are covering the costs of medical expenses, sick leave, terminal benefits and funeral costs, and training for replacement staff. These expenses reduce the budget available for conservation work, and often have to be covered by scarce core funds.

### **Decline in morale**

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Successive bereavement saps morale and enthusiasm from even the most committed employees, slowing productivity.



*Growing demand for coffins due to AIDS-related deaths is placing serious pressure on Malawi's forest reserves.*

© Daulos Mauambeta, Wildlife and Environmental Society of Malawi

## **Impacts on communities and natural resource management**

### **Increased use of natural resources**

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As AIDS-affected rural households lose salary earners and agricultural labor, many are turning to natural resources as a safety net. Activities such as hunting, fishing and charcoal making increase as families seek alternative livelihoods. More water, firewood and medicinal plants are consumed by households caring for the sick and timber logging has accelerated in many areas to supply the growing coffin industry (Africa Biodiversity Collaborative Group 2002, Barany *et al.* 2005). These widely reported increases in resource use may not be sustainable and pose a long-term threat to communities and their ecological wellbeing.

### **Loss of leadership and capacity for community-based natural resource management**

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Community-based natural resource management (CBNRM) programs become increasingly vulnerable as communities lose leadership and capacity, and HIV/AIDS-related issues such as caring for the sick or adapting family livelihoods take priority.

### **Loss of traditional knowledge**

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The middle generation is most active in land and resource management. When these adults die, their traditional knowledge of natural resource management and local farming systems is often lost, and land and resources are used in less appropriate ways.

### **Impacts on women**

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Women are particularly affected by AIDS. They care for the sick and for orphans, and they themselves suffer a higher HIV rate than men – in sub-Saharan Africa three women are infected for every two men (UNAIDS 2006a). Natural resources managed by women are in higher demand because of AIDS (e.g., water, firewood and medicinal plants) (Barany *et al.* 2005). And as poverty deepens in AIDS-affected households, women may be forced into prostitution in order to feed their families and are powerless to negotiate the use of condoms – risking further spread of HIV (Fleishman and Morrison 2003).



*There is increased demand for medicinal plants to treat opportunistic infections of AIDS.* © WWF-Canon / Martin Harvey

## HIV spread through natural resource extraction

Fishing communities in parts of Africa have higher HIV infection rates. Fishermen often land fish in markets away from home where cash in the pocket is easily spent on alcohol and transactional sex with women who often have no other means of feeding their families (Gordon 2005, Torell 2007). Similarly loggers spread HIV in remote communities, like in the Congo Basin where new logging roads have opened. Women trading natural resources are also more at risk if they travel away from home overnight.

## Changes in land use

### Changes in farming practices

When agricultural labor is lost and household incomes decline, households often farm more extensively with fewer inputs. This can result in more environmentally damaging techniques including the increased use of fire.

### Land tenure and land grabbing

In some societies, when the male head of the household dies, the widow and children cannot inherit his land – legally or customarily. Land-grabbing results in the loss of a livelihood base for the immediate surviving family members. Sometimes incomers do not have detailed knowledge of the area and of resource management, and use the land and resources inappropriately.



*Changes in land use are occurring as a result of the AIDS epidemic.*

© WWF / Judy Oglethorpe

## Future security and conflict

Children orphaned by AIDS usually grow up to have little indigenous knowledge, weak attachment to the land and resources, and poor education. They and other disenfranchised people may turn to unsustainable fishing, poaching, logging and charcoal making on a large scale, all of which have serious environmental impacts.

Having a large number of young adults in the population with no sound livelihood base can threaten the peace and security of an area and/or country (Cincotta 2003). At the same time, police forces are losing capacity to AIDS and have less ability to maintain order. Armies are also seriously affected in many countries. This combination could lead to civil unrest, which brings serious consequences for conservation.

# What Can be Done to Reduce Impacts?

*Conservation organizations can take action to protect our staff, the communities we work with, and the natural resources and biodiversity we aim to conserve. We can't stop the HIV/AIDS epidemic, but we can play an important role in reducing its impacts. The following pages outline possible conservation sector approaches. Different approaches are relevant in different situations; select the most appropriate ones for your situation.*

## Workplace policies and practices

### Develop HIV/AIDS policies for the workplace

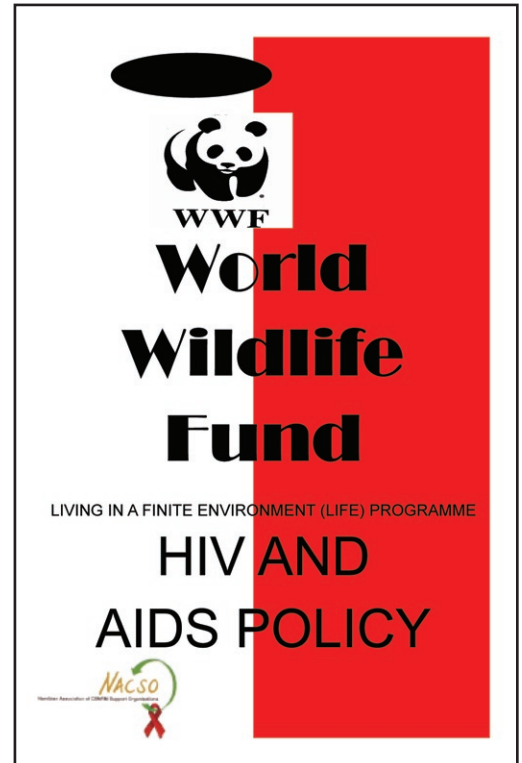
Workplace policies help both employers and employees in conservation organizations. They can be developed for government departments, nongovernment organizations, training institutions, donor agencies and private sector companies (e.g., Rau 2004 for public sector, Futures Group 2004 for NGOs and private sector).

Workplace policies should do the following:

- set a foundation for HIV/AIDS awareness, prevention and care programs;
- offer a framework for consistency of practices within the organization;
- express standards of behavior expected of all employees (e.g., on stigma, discrimination and appropriate behavior towards colleagues);
- inform all employees of what assistance is available through work;
- ensure confidentiality;
- guide supervisors and managers on how to manage HIV/AIDS issues;
- assure consistency with relevant legislation and regulations;
- be based on advice from health and labor sectors, ensuring soundness; and
- mainstream HIV/AIDS into conservation activities.

### Overcome stigma and avoid discrimination

An open discussion about HIV/AIDS is an important first step to dealing with the disease in the workplace. Often it takes a champion in an organization to promote discussion and overcome stigma. Conservation organizations need to learn from each other and from the health sector, and take action as early as possible. There are several HIV/AIDS-conservation champions in Africa who have identified and implemented coping strategies, and have shared their approaches and information through open discussion. Their leadership is a great model for addressing HIV/AIDS issues that affect conservation, and their efforts should be rewarded and duplicated.



WWF HIV/AIDS workplace policy for the LIFE project in Namibia. © WWF

## Promote HIV/AIDS awareness and prevention

It is important that all staff members understand how HIV is and is not transmitted, and how to prevent transmission. They should know the organization's policies and procedures for handling HIV/AIDS concerns and employee benefits, as well as where employees can go for help. HIV/AIDS education should be provided by someone from the health sector who can relate to the circumstances of the conservation organization. These awareness sessions are done best in focus groups. Trained peer educators within an organization can be very effective as well. When organizing workshops away from home, remind participants of HIV risk (e.g., with strategic leaflets).

Develop a condom distribution system, e.g., through peer educators and/or by placing supplies of condoms at convenient, discreet locations at work - including vehicles, remote stations and conference venues.

Supplies must be replenished as needed. Local health organizations or AIDS programs may provide them for free. Include rubber gloves in first aid kits at work and in vehicles in case employees have to provide first aid.



*HIV/AIDS corner: HIV/AIDS information center in the office of the NGO Integrated Rural Development and Nature Conservation, Caprivi, Namibia.*  
© WWF / Judy Oglethorpe

## Encourage voluntary counseling and testing

Encourage employees to have HIV tests, with pre- and postcounseling so they understand the nature of the test and its implications. People are more likely to have tests if they can have access to treatment if needed. It is important that tests are voluntary. Mandatory testing as a requirement for recruitment, employment or retention is discriminatory, violates human rights principles, and is illegal in some countries.

## Promote wellness programs

Work with the health sector to promote wellness programs at work. This includes prevention and treatment of sexually transmitted infections that both increase the possibility of HIV transmission during sexual intercourse, and a person's susceptibility to HIV. Prevention and treatment of opportunistic infections is also important: HIV positive people are more susceptible to diseases such as tuberculosis because their immune system is weakened. Some large conservation organizations have hired occupational nurses to help with staff health care.

In some cases it may be possible to help employees gain access to antiretroviral (ARV) drugs. However, access to good health infrastructure in general is needed to ensure follow-up care. Decisions have to be made about offering treatment to HIV-positive spouses and children, and a commitment should be made to continue treatment for the life of the employee (and not just for the life of a project or funding cycle).

## Transfer affected staff to less labor-intensive positions

When staff whose jobs involve physical exertion (e.g., game scouts) develop early stages of AIDS and are less able to work, transition them to less labor-intensive positions such as desk jobs or part-time jobs if possible.

## Post staff near their families

Whenever possible, post staff with their families so they are less likely to practice risky behavior. This may require construction of new staff housing, or redesigning protected area management systems from a decentralized law enforcement system with remote outposts to a more centralized, mobile system. When staff travel for training, consider paying for spouses to accompany them.

## Encourage staff to make wills

In many countries, existence of a will enables surviving family members to inherit property more easily and allocate any pension and/or benefits if appropriate.



*Park staff and family in a protected area in Tanzania. The risk of HIV transmission is reduced when staff are posted with their families.*

© ABCG / Nancy Gelman

## Try to maintain institutional memory

Document important decisions, meetings, management systems, research and monitoring results to ensure that more than one staff member has good working knowledge of plans, programs, projects, systems, donor relations, etc. This reduces the impact of losing a key staff member.

## Integrate HIV/AIDS in funding proposals

Some donors are willing to cover the costs of integrating HIV/AIDS into conservation programs (e.g., community conservation programs). They may also be willing to cover direct institutional costs of HIV/AIDS that would otherwise have to be covered by core funds.



*In Namibia, community theater is an effective way to integrate HIV/AIDS awareness in CBNRM programs.* © WWF / Judy Oglethorpe

## Mainstream HIV/AIDS into all organizational activities

HIV/AIDS needs to be addressed on all fronts, ranging from awareness, prevention, treatment and wellness, to staff housing, work assignments and training, to working with local communities on CBNRM design of conservation programs and activities, and land policy initiatives. Undertake an assessment of existing and likely future impacts, and develop a strategy for action.

**The earlier HIV/AIDS is tackled, the easier it is to reduce impacts.**

# Training strategies

## Adapt conservation training programs to reduce risk of HIV transmission

Incorporate awareness and prevention at the start of courses in training institutions to protect students: foster open discussions concerning risks, remind students regularly to protect themselves and supply condoms. When sending employees away from home, provide training on HIV/AIDS prevention and provide condoms. Incorporate HIV/AIDS aspects in training curricula for natural resource managers, including impacts and mitigation strategies.

## Use innovative training approaches and more short courses

Adapt training approaches to reduce HIV transmission during training. This includes new, innovative and cost-effective training approaches such as distance learning, web training, and email courses that enable people to study at home where they are less likely to practice risky behavior. This type of training is often cheap and quick, and may be extended to a larger number of people. E-learning also allows staff to learn while continuing to perform their jobs.

If possible, increase the number of people who receive training so that all staff members have a broad skill base and can take on new responsibilities if necessary. Train junior staff in leadership skills so they are prepared to take on expanded responsibilities, and mentor them when they first take them on.



Peer educators play a key role in promoting HIV/AIDS awareness and prevention in rural communities in Africa.

© USAID

## Rebuild community conservation capacity

Provide training and mentoring to rebuild community conservation and natural resource management skills lost due to AIDS. Capacity building efforts should focus on different groups including orphans, youth, elderly, women and men. Activities need to be flexible in order to deal with the new social structures caused by HIV/AIDS in communities and people's availability.

# Community resource management

## Promote prevention and wellness programs

Integrate HIV/AIDS awareness, prevention and wellness activities into community conservation programs in remote areas if communities have poor access to health services. This provides a very important social service and helps to maintain community capacity for conservation. It is best done with a health sector partner. In areas with high natural population growth rates and large, unmet needs for family planning, HIV/AIDS programs can be combined with family planning using the same service delivery. Improvement of kitchen gardens can significantly improve household diets, an important factor for people living with AIDS.



Integrated HIV/AIDS education and community conservation programs provide an opportunity to reach people in remote areas with poor access to health services. © WWF-Canon /

Meg Gawler



## Seek alternatives to unsustainable resource use

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Work with communities to find alternatives, e.g., alternative materials for coffins if timber is scarce. Promote sustainable use of medicinal plants, including sound harvesting and more efficient extraction of active ingredients. Where use is very heavy, encourage cultivation of species that can be grown domestically.

## Develop sustainable natural resource-based micro-enterprises

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Seek opportunities with low labor requirements to relieve environmental pressures and support AIDS-affected communities (e.g., honey production, agroforestry, ecotourism). It may be difficult to single out AIDS-affected households for these enterprises, but it is important to ensure that they benefit from them and are not excluded by more powerful community members.

## Empower women resource users

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Support women's leadership and strengthen their capacity for resource management by promoting women's groups and providing training. Arrange access to microfinance for women so the household can better withstand shocks and develop microenterprises.

## Conserve indigenous knowledge

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Document indigenous knowledge of local land and resource use. If there is no older generation, mentor the youth and help them apply the knowledge.

## Support survivors so they can stay on their land

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Encourage adults to write wills when appropriate, so widows and children can inherit the property and land. Promote education for all children – including girls and AIDS orphans – so they can have better opportunities when they get older.

## Establish community funds to promote alternative livelihoods

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Provide microfinance for communities to tackle HIV/AIDS, develop small-scale enterprises and develop demonstration projects.



*Promotion of sustainable micro-enterprises for women resource users helps them support their families.* © Wildlife and Environmental Society of Malawi / Daulos Mauambeta

## Scaling up responses

### Advocate for action

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Look for opportunities to advocate for more action through conservation. For example, a resolution on HIV/AIDS was passed at the 2004 World Conservation Congress in an effort to scale up the response. It requested that the World Conservation Union (IUCN) highlight the disease and the problems it causes, promote solutions, and take action. Implementation has started, but, in 2007, a huge amount of work remains to be done. Advocate for more action.

## Encourage champions to speak out about HIV/AIDS

Often a little initial support produces strong peer champions who are very effective in influencing others. Developing national and international networks of champions will help to spread the word and stimulate action.

## Pilot new approaches to reduce conservation impacts

Try out promising ideas; we are still learning about best approaches and where to focus most effectively. Document results.

## Share experiences and best practices

Communicate with other organizations what does and doesn't work regarding the linkages between HIV/AIDS and conservation. Share interest and coping strategies through on-line resources such as [www.abcg.org](http://www.abcg.org).

## Collaborate with other sectors

Work with the health, development, agriculture and labor sectors. The conservation community cannot and should not fight this battle alone; we need to take part in a multisectoral approach on HIV/AIDS.

## Advocate for better policies and strategies

Where appropriate, advocate for better policies, such as inheritance policies for land and resource rights.

## Encourage donors to fund integrated HIV/AIDS activities in conservation programs

Express interest in undertaking integrated programs; encourage donors to fund multisectoral approaches to HIV/AIDS.



Awareness and prevention poster for high-risk groups in the Congo Basin. © WWF Central Africa Regional Program Office



By taking action on HIV/AIDS now, we can help conserve Africa's natural resources for the next generation. © USAID

## Conclusion

*The HIV/AIDS epidemic is having serious impacts on conservation and natural resource management, particularly in sub-Saharan Africa. Impacts will also occur in "next-wave" areas as HIV increases there – for example, in Eastern Europe, the Caribbean, and South and Southeast Asia.*

*While the conservation community cannot stop the epidemic, we can take measures to try to maintain our capacity, reduce transmission in the areas where we work, and reduce impacts on natural resources and land use. We cannot afford to ignore HIV/AIDS in these parts of the world if we are to achieve our long-term conservation goals. And experience has shown that the sooner action is taken, the more effective it is.*

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*The Africa Biodiversity Collaborative Group (ABCG) comprises U.S.-based international conservation nongovernmental organizations with field-based activities in Africa. ABCG organizations include: African Wildlife Foundation, Conservation International, IUCN-The World Conservation Union, The Jane Goodall Institute, Wildlife Conservation Society, World Resources Institute, and World Wildlife Fund. ABCG explores emerging conservation issues, shares lessons learned, and seeks opportunities for collaboration. Recent issues explored by ABCG include the following: The Linkages between HIV/AIDS and Natural Resource Management; Community-Based Natural Resource Management in Southern Africa, Parks and Poverty, etc. ABCG has been funded by The John D. and Catherine T. MacArthur Foundation, The Critical Ecosystem Partnership Fund, the U.S. Agency for International Development, the U.S. Fish and Wildlife Service, and our members.*



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