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# **Biodiversity Analysis and Technical Support (BATS) for USAID/Africa**

## **FY08 Annual Report**

### **Africa Biodiversity Collaborative Group (ABCG)**



Photo credit: Ephraim Mwangomo, Serengeti, Tanzania

## **December 2008**

# BIODIVERSITY ANALYSIS AND TECHNICAL SUPPORT (BATS) FOR USAID/AFRICA

**AWARD # RLA-A-00-07-00043-00**

## FY 08 ANNUAL REPORT FOR THE AFRICA BIODIVERSITY COLLABORATIVE GROUP (ABCG)

10/1/2007 to 9/30/2008

DECEMBER 30, 2008

SUBMITTED BY WORLD WILDLIFE FUND ON BEHALF OF ABCG MEMBER  
ORGANIZATIONS:



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## ACRONYMS

ABCG	Africa Biodiversity Collaborative Group
AWF	African Wildlife Foundation
CAWM	College of African Wildlife Management, Mweka, Tanzania
CI	Conservation International
EI	Extractive Industries
FS/IP	USDA Forest Service/International Programs
IUCN	IUCN-The World Conservation Union
JGI	the Jane Goodall Institute
TNC	The Nature Conservancy
USAID	United States Agency for International Development
WCS	Wildlife Conservation Society
WRI	World Resources Institute
WWF	World Wildlife Fund

## INTRODUCTION

The Biodiversity Analysis and Technical Support (BATS) for USAID/Africa program helps to build capacity within the Bureau for Africa, its field missions, and partners to more effectively incorporate biodiversity conservation into programming decisions. Through timely assessments, targeted analyses, generation of technical materials, and other program development support activities, BATS helps missions and partners integrate biodiversity best practices into operational plans, and serves as a platform for strategic planning of USAID's biodiversity conservation agenda in Africa.

The BATS program is a multi-partner USAID Bureau for Africa effort that included Chemonics International under the Environmental Policy and Institutional Strengthening Indefinite Quantity Contract (EPIQ II), the USDA Forest Service International Programs under an interagency agreement, and the Africa Biodiversity Collaborative Group (ABCG)<sup>1</sup> under a cooperative agreement. While all groups have separate funding and work plans, the three entities met regularly with USAID to coordinate their activities. This report details the activities of the BATS program over the first year of the ABCG grant from October 2007 through September 2008.

Organized by the five primary BATS task areas plus communications, this report provides an overview of FY08 BATS program activities through the first year of the ABCG grant and next steps planned for FY09.

## PROJECT OVERVIEW

Through BATS, ABCG received a two-year \$500,000 grant to provide technical support and share lessons learned to assist USAID/AFR/SD, Africa Missions and local and national organizations in Africa to increase their effectiveness to tackle major existing and emerging threats to Africa's biodiversity and contribute to sound development based on wise use of natural resources and maintenance of ecosystem services.

The BATS program develops practical documentation of USAID's biodiversity conservation experience and resulting best practices and policy considerations, describes extractive industries partnerships with conservation initiatives, provides technical assistance for biodiversity conservation programs in conflict and crisis states, conducts biodiversity and tropical forestry country-level assessments, and identifies and conducts analysis and outreach on emerging African conservation issues. This project serves as a support facility that provides services to meet mission and partner needs in:

- Reviewing USAID/Africa's conservation history, lessons learned, and way forward (Task A)
- Managing extractive industry alliances for environmental gain (Task B)
- Addressing biodiversity conservation in states vulnerable to crisis, in crisis, or recovering from crisis (Task C)

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<sup>1</sup> ABCG is a collaboration by the major US-based international conservation non-governmental organizations (NGOs) with field activities in Africa (including African Wildlife Foundation, Conservation International, IUCN-The World Conservation Union, the Jane Goodall Institute, The Nature Conservancy, Wildlife Conservation Society, World Resources Institute and World Wildlife Fund). ABCG has extensive experience in sharing lessons learned on high priority conservation issues affecting Africa. See: [www.abcg.org](http://www.abcg.org)

- Supporting country-level 118/119 biodiversity and tropical forestry assessments, including threats, analysis, and actions necessary for biodiversity conservation (Task D)
- Conducting analysis and outreach on future paths for biodiversity conservation in Africa to inform future strategies (Task E).

## PROJECT ACCOMPLISHMENTS

ABCG's FY08 activities build upon the efforts of BATS carried out by the USDA Forest Service International Programs (FS/IP) and Chemonics International.

Through the grant, from October 07 to September 08, the eight international conservation NGOs belonging to ABCG organized:

- five workshops in Africa for analysis and outreach including: 1) Workshop on *HIV/AIDS and Conservation: What can be done?* held at the College of African Wildlife Management, Mweka, Tanzania, in February 2008 with 20 participants, 2) Workshop on *The Future of Biodiversity in Africa* organized by IUCN/ABCG in Dar es Salaam, Tanzania, with more than 40 African conservation leaders attending, 3) Green Infrastructure Workshop during Infrastructure Day on 3 June 2008 at the Leon Sullivan Summit VIII in Arusha, Tanzania, including speakers from Conservation International-Madagascar and WWF-Tanzania, 4) Ecotourism Workshop during Tourism Day on 4 June 2008 at the Sullivan Summit in Arusha, Tanzania, with more than 100 people attending including speakers from the WWF LIFE Programme in Namibia, Volcanoes Safaris in Uganda, and African Wildlife Foundation-Kenya, and 5) Environment Day Workshop on 5 June 2008 exploring climate change, private sector alliances, and conservation and conflict with more than 700 people attending at the Sullivan Summit in Arusha, Tanzania.
- five meetings in Washington, DC, on: 1) *Capacity Building on Bushmeat in Eastern Africa Meeting* held at The Nature Conservancy in April 2008 with 25 people participating, 2) *Population, Health and Environment (PHE) Meeting* held at The Nature Conservancy in May 2008 with more than 30 people attending including speakers from Conservation Through Public Health in Uganda, the Jane Goodall Institute in Tanzania, and the Il Ngwesi Group in Kenya, 3) *Mapping Future Trends and Interventions Meeting* held in May 2008 at WWF with more than 45 participants, 4) *HIV/AIDS: Impacts to Conservation Capacity Meeting* by Hubert H. Humphrey Fellow Julius Zelothe, Medical Practitioner at the College of African Wildlife Management, Mweka, Tanzania, held at WWF in July 2008 with 35 people attending and repeated for a small group at USAID, and 5) *Emerging Infectious Diseases in Africa Meeting* held at WWF in August 2008 with 25 participants.
- four short-term assistance assignments in Africa on: 1) Bushmeat in Eastern Africa by Dr. Heather Eves of the Bushmeat Crisis Task Force at the College of African Wildlife Management, Mweka, Tanzania, in February, March and August 2008, 2) Environmental Impacts of Avian Influenza by Dr. Dan Schar in Ghana in May 2008, 3) Public/Private-Sector Alliances on Logging by John Poulsen in the Republic of Congo in June 2008, 4) Environmental Impacts of Emerging Infectious Diseases by Dr. Dan Schar in Arusha, Tanzania, in July 2008.
- three modules for a total of four weeks of training to post-graduate students at the College of African Wildlife Management, Mweka, Tanzania, including developing curriculum and giving lectures on: 1) Conducting a Bushmeat Field Assessment (2 weeks in March 08), 2) Environmental Impacts of Emerging Infectious Diseases (1 week in July 08), and 3) Lessons on Private/Public

Partnerships with Extractive Industries and Others to Achieve Conservation Goals (1 week in July 08) by the Wildlife Conservation Society (WCS) and African Wildlife Foundation (AWF).

- six analytical projects started on: 1) Partnering with the private-sector for biodiversity conservation: Lessons learned from the Buffer Zone Project in northern Congo through a subgrant to WCS, 2) Success stories on extractive industries engagement in Africa by Conservation International on their experiences with mining companies, 3) Monitoring socio-economic impacts from biodiversity conservation program interventions by AWF, 4) Sharing lessons learned from Private Sector Alliances on biodiversity conservation program interventions by AWF, 5) HIV/AIDS and conservation manual by WWF, and 6) Assessing the environmental impacts of emerging infectious diseases with special attention to Avian Influenza by ABCG consultant, Dr. Dan Schar.
- one exhibit booth at the Leon Sullivan Summit VIII in Arusha, Tanzania, from 2-6 June 2008, showcasing the conservation work of the eight ABCG member organizations and highlighting the USAID BATS program. The exhibit was open to visitation by more than 3500 Summit delegates. The exhibit provided a unique opportunity to highlight USAID BATS, other USAID programs such as LIFE and CARPE, and to conduct outreach on key emerging biodiversity conservation issues such as HIV/AIDS and conservation. The Summit was hosted by Tanzanian President, H.E. Jakaya Kikwete. U.S. Interior Secretary Dirk Kempthorne led the U.S. delegation to the Summit. ABCG member organizations helped to organize environmental events throughout the Summit.
- a communications strategy that is being designed and implemented that includes using the USAID-supported FRAME website and other approaches to share materials produced by BATS and ABCG.

## GOAL

The goal of the ABCG grant from BATS is to support USAID AFR/SD, Africa Missions and African partner organizations to increase their effectiveness to tackle major existing and emerging threats to Africa's biodiversity and contribute to sound development and security based on wise use of natural resources and maintenance of ecosystem services.

## PROJECT OBJECTIVES

The project objectives are to:

1. Conduct outreach on BATS by:
  - 1.A Equipping USAID field missions and African partners with lessons learned from the BATS assessment of USAID/Africa's biodiversity investment and identified emerging priorities to inform future strategies (Task A);
  - 1.B Providing capacity building and sharing lessons learned on ways to reduce biodiversity impacts from extractive industries in order to increase USAID's access to sound guidance and hence reduce biodiversity impacts of future investments in extractive industries (Task B);

- 1.C Supporting elaboration of the USAID ‘Foreign Assistance Framework’ covering tactics and indicators that conserve biodiversity and natural resources while fulfilling other objectives in rebuilding and developing countries, to better equip USAID/Africa to help governments to resolve crises and promote stability, recovery and democratic reform in African fragile states (Task C); and
- 1.D Supplying limited technical assistance when feasible through ABCG member organizations to develop or update Environmental Threats and Opportunities Assessments for certain countries in Africa preparing country-level 118/119 Tropical Forestry and Biodiversity assessments based on best available scientific biodiversity knowledge (Task D).
2. Forecast future conservation needs and opportunities in Africa by identifying selected critical and/or emerging conservation issues and linkages in Africa as priorities for future USAID and donor support in order to better prepare the conservation sector and in some cases follow up directly or catalyze actions by others (Task E).
3. Implement a focused, effective multi-tiered ABCG communication strategy to articulate trends and conservation linkages and identify key messages and lessons on emerging and high priority issues to more effectively build the capacity of the target audiences in Africa and to direct extensive outreach efforts (Task E).

## PROJECT ACTIVITIES

### Biodiversity Assessment and Path Forward (BATS Task A)

Photo credit: Ephraim Mwangomo, Serengeti, Tanzania



USAID has been working on biodiversity and conservation issues for more than 30 years. Research into what has been done, the results, and an examination of the reasons why activities were successful or not provide valuable understanding for building on previous successes and learning from past challenges. With this in mind, the first objective of this task was to document lessons learned from USAID/Africa’s biodiversity conservation initiatives, which was conducted through Chemonics International that produced the report entitled, *Protecting Hard Won Ground: USAID Experience and Prospects for Biodiversity Conservation in Africa*. The second objective was for ABCG to catalyze discussions on priorities for future action.

As ABCG members have considerable understanding of African conservation issues and insight about USAID’s investments over the last 30 years, we were well positioned to review and evaluate the historical perspectives of the report by Chemonics entitled *Protecting Hard-Won Ground*. USAID, African governments, leading international and national conservation partners and other stakeholders can learn important lessons from the BATS assessment and participation in the review. Assessing future paths for conservation will help to strengthen the capacity of these conservation institutions. By participating in workshops, drafting recommendations, and analyzing emerging conservation themes,

ABCG is building on the base developed by BATS and working to apply lessons of the past 30 years to future challenges facing biodiversity in Africa.

ABCG shared *Protecting Hard-Won Ground* with audiences at a meeting in DC, a workshop in Africa, and through our website and other outreach activities. ABCG also moved forward by examining issues affecting the future of biodiversity in Africa with the goal of informing USAID's strategic programming in biodiversity conservation in Africa for the path forward.

This work is taking place in three parts as described below with: 1) an expert consultation meeting in Washington, DC, with the conservation NGOs, U.S. government agency representatives and other partners (15 May 2008); 2) a workshop in Dar es Salaam, Tanzania, with leading conservationists from throughout Sub-Saharan Africa (17-19 September 2008), and 3) information sharing at the IUCN World Conservation Congress in Barcelona, Spain, (October 2008) and through a special session on "The Future of Biodiversity in Africa" at the U.S. National Council for Science and the Environment (NCSE) conference on "Biodiversity in a Rapidly Changing World" in Washington, DC (8-10 December 2008).

### Mapping Future Trends and Interventions for Biodiversity Conservation in Africa Over the Next Ten Years Meeting in Washington, DC

On 15 May 2008, ABCG hosted a conservation experts meeting in Washington, DC, entitled "*Mapping Future Trends and Interventions for Biodiversity Conservation in Africa Over the Next Ten Years*" to share the findings of *Protecting Hard-Won Ground* and to assess trends on the future of biodiversity in Africa. More than 45 participants representing international conservation NGOs, U.S. government agencies such as USAID, U.S. Fish and Wildlife Service, U.S. Peace Corps, U.S. Department of Defense, and private sector firms participated in the day-long meeting. The meeting attempted to respond to the question:

*"What are the priority interventions for biodiversity conservation in Africa over the next ten years?"*

The meeting sought to:

- review the USAID BATS report entitled *Protecting Hard-Won Ground* that looked at 30 years of USAID support for biodiversity in Africa;
- identify the drivers of past, present, and future change; and
- map trends.

The participants tried to identify what trends were predictable and where key uncertainties lie. Issues discussed included:

- Global Change Trends:
  - climate change, water scarcity, population and urbanization, migration, HIV/AIDS, emerging infectious diseases, food insecurity, and market impacts on biodiversity
- Economic Growth and Natural Resource Use:
  - extractive industries, bushmeat, and agriculture
- Governance and Institutions:
  - governance and human rights, conflict and security, and entrepreneurship and sustainable use.

Small groups were held to discuss "What Conservation Looks Like in Different Scenarios?" with feedback from an expert panel on "How Scenarios Might Play Out?". The meeting ended with a group discussion on "What USAID and Other Stakeholders Can Do to Maximize African Countries' Ability to



Deal with Different Scenarios?". The results of this meeting fed into the Dar Workshop on the Future of Biodiversity in Africa described below.

## Dar Workshop on The Future of Biodiversity in Africa

The DC Meeting was followed by a workshop on *"The Future of Biodiversity in Africa"* held in Dar es Salaam, Tanzania, in September 2008, where African conservation leaders applied their expertise to narrate alternative futures for biodiversity in Africa, including interventions for biodiversity conservation appropriate for USAID and other stakeholders over the next horizon.

From 17 to 19 September 2008, the two and a half day workshop for African conservation leaders and stakeholders shared the findings of *Protecting Hard-Won Ground* and recommended actions on "The Future of Biodiversity in Africa" through the Dar Workshop Vision Statement. The workshop brought together 41 African conservation leaders from 12 countries Africa representing diverse regions (East, Southern, Central, and West Africa), different disciplines (natural and social sciences), various types of institutions (governments, NGOs, academia), and a variety of biomes (forest, marine, freshwater, and savanna). The leaders reviewed achievements in biodiversity conservation, scanned the horizon for emerging challenges, and articulated a vision statement for the biodiversity from the standpoint of the year 2025. The goal was to provide input into donor programs on the links between biodiversity and emerging challenges such as climate change and intensified investment in extractive industries. The vision statement on the future of biodiversity in Africa made recommendations to reduce the impact of stressors, promote good conservation practices, and reach out to faith communities for dialogue and collaboration. The workshop was coordinated and funded through a subgrant to IUCN- US and hosted by the IUCN-Regional Office for East Africa in Nairobi, Kenya.



Photo credit: John Waugh

### VISION

By 2025, environmental degradation and biodiversity loss in Africa have been significantly slowed, people and nature are adapting to climate change, and species and ecosystem services are providing a foundation for human welfare in a society committed to sustainable economic development and equitable sharing of natural resource benefits.

During the keynote address at the workshop, Dr. Mohamed Bakarr, Senior Vice President of Conservation International, said that African conservation leaders should "move beyond piecemeal projects" and "make biodiversity the foundation of African development," by bundling ecosystem services to recognize nature as an asset for the well-being of society. He reminded participants of the tremendous accomplishments of conservation in Africa, particularly in protected areas, which have preserved assets that otherwise could have been lost. The challenge, he said, was that "people and nature are not separate, they are one and the same. We now have a chance to recognize that the well-being of people and of the planet depend upon the well-being of natural resources....we cannot keep creating protected areas if we can't put them in the context of the services that are critical for the well-being of both people and ecosystems".

In the opening message to the workshop, the Director of Tanzania's Ministry of Environment, Dr. Eric Mugurusi, conveyed a statement from the Minister of State for Environment, Dr. Baltilda Burian that "Africa is the most vulnerable continent to climate change." Burian noted that climate change would have a severe impact on national parks, wildlife conservation, agricultural lands and tourism, and called for the development of climate adaptation strategies, increase in the use of renewable energy, and improved land management including restoration of degraded lands.

The workshop produced a vision statement that has been shared with the USAID and other donors and partners for use in their biodiversity programming. The Vision Statement (see Box 1 and Appendix 1 for the Portuguese translation) was distributed to African Environment Ministers and participants at the Fourth World Conservation Congress in Barcelona, Spain, in October 2008. As part of our on-going outreach efforts, the outcomes will be presented at the upcoming National Council for Science and the Environment (NCSE) conference in Washington, DC, in December 2008 that seeks to inform the next U.S. Administration on key policy issues.

#### **Box 1.**

### **The Future of Biodiversity in Africa Vision Statement**

**Dar es Salaam, Tanzania  
September 2008**

#### **Background**

Biodiversity remains the fundamental basis of Africa's development, and underpins the well-being of current and future generations. With swelling human demand upon natural resources and inadequate institutional infrastructure, however, Africa has witnessed the destruction and degradation of vast natural areas, from forests and savannahs to freshwater and marine areas. Nevertheless, significant areas in Africa still remain where the habitat is relatively intact, and Africa holds much of the world's biodiversity and natural resources. However, climate change, ongoing population growth till late in the century and globalization of trade pose serious threats for the future. But there are also opportunities which we must seize, building on existing successful approaches to biodiversity conservation as well as new innovation, to take urgent and renewed action. For the great majority of Africans, biodiversity represents the only lifeline that can no longer be ignored.

Experts in biodiversity conservation from across Africa, convened by IUCN and the Africa Biodiversity Collaborative Group in Dar es Salaam on September 17-19, 2008, articulated the following vision for the future of biodiversity in Africa, and call upon donors and partners to join them in realizing this vision.

#### **Vision**

By 2025, environmental degradation and biodiversity loss in Africa have been significantly slowed, people and nature are adapting to climate change, and species and ecosystem services are providing a foundation for human welfare in a society committed to sustainable economic development and equitable sharing of natural resource benefits.

#### **Recommendations**

A. Mainstream biodiversity in human well-being and development agendas

A.1. Promote climate change mitigation, and climate adaptation for biodiversity and people (including: ensuring Africa plays a significant role in climate change mitigation advocacy; keeping African greenhouse gas emissions low; linking carbon credit schemes to poverty alleviation and biodiversity conservation, integrating climate science in vulnerability assessments; undertaking disaster preparedness and mitigation efforts; ensuring multi-sectoral and multi-level collaboration and partnerships; and networking to share solutions)

A.2. Harness biodiversity and ecosystem services for improved agriculture (including using innovative techniques to increase productivity and yields and improve food security; and adopting conservation agriculture or “ecoagriculture” approaches)

A.3. Enhance greater accountability for sustaining biodiversity and ecosystem services by private sector institutions (including developing alternatives; promoting fuel efficiency and alternative energy sources; and limiting pressure on freshwater sources through more efficient uses of water)

A.4. Promote restoration/rehabilitation of degraded systems and natural resources (including research, monitoring and evaluation of montane, forest, arid, savannah, mangrove, coral, and freshwater systems) in order to provide livelihoods while increasing biodiversity.

A.5. Enhance the role of healthy ecosystems in mitigating risk and impact of emerging diseases (e.g. reducing risk of disease transfer among wildlife, people and livestock; mitigating the impacts of emerging diseases on wildlife and the environment)

A.6. Promote increased understanding and awareness of biodiversity and environmental issues (through greater scientific research, improved communication of scientific results and issues, and enhanced awareness raising)

B. Promote good conservation practices

B.1. Promote conservation of existing biodiversity (by practicing effective management of protected areas and endangered species management, and adopting matrix approaches to conservation using broad landscape areas)

B.2. Promote sound nature tourism development (including empowerment and strengthening capacity of local communities to have greater control and ownership of ecotourism)

B.3. Demonstrate biodiversity and ecosystem services as fundamental bases of human well-being (promoting livelihood security and reducing pressure on biodiversity through alternative economic activities)

B.4. Promote sound governance and rights-based approaches (promoting rights of local people, sharing benefits, engaging civil building capacity, ensuring stakeholder access to information and decision-making processes, empowering women, undertaking multisectoral approaches and partnerships; and promoting sound policy at all levels)

B.5. Promote innovative conservation funding mechanisms (including promoting conservation investment and new funding mechanisms; promoting payment for environmental services)

C. Strengthen the role of Social and Development institutions in Biodiversity Conservation and Human Well-Being

C.1. Reach out to faith communities for dialogue and collaboration - The global urgency for a sustainable world demands multidimensional approaches and a persistent push for ideals based on innovative and pragmatic strategies. Faith-based communities comprise the largest social organizations in Africa, representing a repository of opportunities to spread the cause for sustainability in the continent. Conservation leaders should reach out to religious communities to collaborate in implementing these recommendations, with a view to enhancing the capacity for value-based sustainability decisions that link nature and human well-being.

C.2. Reach out to relief and development organizations for mitigating impacts of migration and natural population growth (including improving access to healthcare and family planning services and information; promoting girls education and women’s empowerment; and reducing the impacts of migration).

In FY09, ABCG will organize an 8 December 2008 session on “The Future of Biodiversity in Africa” at the upcoming National Council for Science and the Environment (NCSE) Conference on “Biodiversity in a Rapidly Changing World” with the goal of making recommendations to guide the new U.S. Administration and other partners. ABCG will continue to conduct outreach in Africa on lessons learned and future paths, and will produce a report on “The Future of Biodiversity in Africa”.

The anticipated results for this BATS activity is to help USAID, the new Obama Administration, African governments, leading international and national conservation partners and other stakeholders to learn important lessons from past support and the assessment of future paths for conservation in Africa. We must help to spread the message that biodiversity remains the fundamental basis of Africa’s development, and underpins the well-being of current and future generations. However, climate change, population growth and globalization of trade pose serious threats. Opportunities must be seized building on successful conservation approaches and new innovation.

### Managing Extractive Industries to Protect Biodiversity (BATS TASK B)

In light of USAID’s planned support to extractive industries through its Strategic Framework for Africa, this task sought to assist USAID/Africa to undertake new initiatives in extractive industries in a more sustainable and less environmentally damaging way. As there are several new initiatives in this sector, often under the Global Development Alliance (GDA) framework, it is important to look at public-private sector partnerships, emerging trade standards, and corporate social responsibility as tools to connect surging consumer interests in environmentally friendly products.

Through BATS, Chemonics took the lead to document USAID’s experience in extractive industries initiatives and prepared a guidebook entitled, *Partnering with Extractive Industries for the Conservation of Biodiversity in Africa: A Guide for USAID Engagement*. As ABCG member organizations have entered into multiple initiatives with extractive industries groups and have extensive expertise working on biodiversity and extractive industries (EI) issues, we arranged for technical experts from African Wildlife Foundation, Conservation International, IUCN-The World Conservation Union, Wildlife Conservation Society, World Resources Institute, and WWF to conduct an extensive review and help to rewrite the extractive industries and biodiversity conservation guidebook developed by Chemonics and FS/IP. The electronic sharing of information by ABCG member organizations and meetings to provide feedback and help to redraft the Chemonics guidebook were an excellent example of collaboration and the strength of ABCG in getting conservation partners to work together to share best practices.

The guidebook, *Partnering with Extractive Industries for the Conservation of Biodiversity in Africa: A Guide for USAID Engagement*, has the following objectives:

- To identify opportunities for USAID engagement with EIs for the conservation of biodiversity in Africa.
- To analyze the types of partnerships and alert interested parties to potential pitfalls.
- To identify the potential impact and examine tools, approaches, and initiatives that may be used to mitigate or prevent damage to biodiversity.
- To Direct interested parties to sources of information about biodiversity-centered partnerships with EIs.

The guidebook is organized into five sections, plus annexes, as follows:

- Section I: provides an analysis of risk and the potential impact of EIs in Africa on conservation.
- Section II: examines tools for partnerships between USAID, other actors, and EIs for conservation in Africa.
- Section III: discusses the different actors and organizations in the EI sector.
- Section IV: details industry structures, issues, impacts, and best practices for conservation in each of four industries: mining, oil and gas, logging, and fishing.
- Section V: discusses governance issues related to EIs and conservation in Africa and provides a business case for EI companies to engage in conservation activities and partnerships.
- Annexes: provide a list of the references consulted in the process of compiling the guidebook, as well as details of current and past USAID partnerships and activities in the EI sector in Africa by country.

The guidebook is being distributed electronically by the USAID Bureau for Africa and ABCG will help with outreach activities.

As described below, ABCG member organizations also began analysis and outreach on ways to reduce biodiversity impacts from extractive industries in order to increase USAID's access to sound guidance and hence lessen the effects to biodiversity of future investments in the major extractive industries including mining, oil and gas, forestry and fisheries.

## Private-Sector Partnership Case Study on Logging

Photo credit: WWF



FY08 BATS activities included Wildlife Conservation Society consultant, John Poulsen, beginning a case study to share lessons learned by the conservation NGO in partnering with the private-sector for biodiversity conservation. The case study communicates lessons from the Buffer Zone Project (BZP) in northern Congo, Project for the Management of Ecosystems Adjacent to the Nouabalé-Ndoki National Park (PROGEPP) to work with the logging industry to mitigate impacts of logging. As the drivers of deforestation and biodiversity loss have changed, so too must the tools for preventing and mitigating their impacts. New strategies can involve the private-sector in the conservation of tropical habitats and their biodiversity. One

strategy for involving the private-sector in conservation is the development of private-sector partnerships for conservation (PSPC's). PSPC's are alliances between private companies and conservation organizations, public agencies and/or local communities that seek to conserve habitat and biodiversity through ecologically and socially responsible activities. Such alliances could take on many different forms, but most importantly they take advantage of two trends. On the one hand, globalization and resource extraction is playing a larger role in tropical deforestation and biodiversity loss. On the other hand, public concerns about environmental sustainability put pressure on companies to protect forests and resources. By working with industry, there is now an unprecedented opportunity to change the way it does business that may ultimately be good for both the company and biodiversity.

The PROGEPP BZP case study examines the necessary elements for building successful private-sector partnerships for conservation that encourage sustainable resource use and wildlife and biodiversity conservation. It describes management structures required to achieve effective partnership. The BZP

manages wildlife and conserves biodiversity in three forestry concessions (Kabo, Pokola, Loundoungou/Toukoulaka) adjacent to the Nouabalé-Ndoki National Park. Established in 1999, BZP is a partnership of the Congolese Ministry of Forestry Economy, WCS, and the Congolaise Industrielle des Bois (CIB). The partners collaborate to achieve three principle objectives: 1) to protect the Nouabalé-Ndoki National Park from hunting pressure coming from logging operations and increasing numbers of immigrants; 2) to manage wildlife in the concessions for sustainability; and 3) to identify, monitor, and mitigate potentially negative effects of logging on people and wildlife. Unlike conservation of most protected areas, the BZP's goal is not to reduce hunting to zero. Rather, the idea is to reduce hunting to sustainable levels so that biodiversity is conserved and indigenous people and CIB workers have access to wild meat. The project seeks to evolve towards a locally-managed solution where incentives exist to ensure that local people and local law enforcement work towards the sustainable management of wildlife. The working paper on PROGEPP BZP will be completed in FY09.

The best practices from the PROGEPP BZP case study on how to develop successful private-sector partnership were developed into a week-long module on conservation partnerships for post-graduate students and faculty at the College of African Wildlife Management, Mweka, Tanzania. The module conducted in July 2008 sought to develop knowledge, skills, attitudes and practices (KSAPs) for forging successful conservation collaborations with multiple stakeholders. (See: Appendix 2: CAWM Module on Private-Sector Partnerships.)

## **Lessons Learned on Extractive Industry Engagement on Mining and through Biodiversity Offsets**

Started in FY08, Conservation International (CI) is compiling lessons learned and success stories on extractive industries engagement in Africa that highlights experiences with mining companies. CI's field programs, in collaboration with the Center for Environmental Leadership in Business (CELB), have gained experience in engaging extractive industries, especially with mining companies. Until now, however, these experiences have not been captured as well as they should in order to be shared. CI plans to draft fact sheets describing the lessons learned and the success stories from countries such as Liberia, Ghana, Madagascar and Southern Africa. This project will complement the Chemonics extractive industries guidebook by providing concrete examples.

CI also plans to hold a one day Biodiversity Offset Workshop in Washington, DC, in FY09 for USAID, conservation and private sector partners to present biodiversity offsets as a tool for conservation actions in Africa. This will complement the work that USAID is currently doing through the Business and Biodiversity Offset Program. Biodiversity offsets are designed to compensate for the unavoidable impact on biodiversity caused by infrastructure projects, to ensure "no net loss," and, preferably, a net gain of biodiversity. Offsets are only appropriate in the context of developments that are legal and appropriate, and when the developer has first used best practice to avoid and minimize harm to biodiversity. The Business and Biodiversity Offset Program (BBOP), currently supported by Alcoa, USAID, Richard and Rhoda Goldman Fund is a new partnership between companies, governments and conservation experts to explore biodiversity offsets. It aims at:

- Demonstrating conservation and livelihood outcomes in a portfolio of biodiversity offset pilot projects;
- Developing, testing, and disseminating best practice on biodiversity offsets; and
- Contributing to policy and corporate developments on biodiversity offsets so they meet conservation and business objectives.

The BBOP partners wish to show, through a portfolio of pilot projects in a range of industry sectors, that biodiversity offsets can help achieve significantly more, better and more cost-effective conservation outcomes than normally occurs in infrastructure development. The BBOP partners also believe that demonstrating no net loss of biodiversity can help companies secure their license to operate and manage their costs and liabilities. The BBOP vision and expectation is that biodiversity offsets will become a standard part of business practice for those companies with a significant impact on biodiversity. The routine mainstreaming of biodiversity offsets into development practice will result in long-term and globally significant conservation outcomes.

The sharing of lessons learned and resources developed through USAID BATS will help to strengthen in-country capacity to better understand the implications of extractive industries on biodiversity in order to better manage extractive industries in a way that minimizes adverse environmental and social impacts. ABCG member organizations' experience in engaging corporations and local communities in Africa is worth sharing more widely with partners in the U.S. as well as through African training institutions. This will reinforce USAID and its partners' knowledge and expertise on working with extractive industries and other stakeholders.

### **Biodiversity Conservation in States Vulnerable To/ Recovering from Crisis (BATS Task C)**

Maintaining natural resources and biodiversity is particularly challenging before, during, and after crisis situations. In a crisis, the poor are highly vulnerable and natural resources are often critical to their future livelihoods and can play a role in long-term peace prospects. However, in rebuilding and developing countries, investments in infrastructure, transportation development, and export agriculture often create the potential for damage to biodiversity and natural resources essential for local people's livelihoods. Yet, post-crisis can provide an opportunity to incorporate sound environmental policies through conflict mitigation, policy reform and practices.

Rebuilding and transforming governments must also be aware of the linkages between human rights, poverty and environment especially when establishing, expanding, and upgrading protected areas. Protected areas in Africa have been significantly increasing in recent years and conservation approaches are changing to deal with parks, people and poverty issues. Legal and social issues such as methods by which national parks are established and the use of free, prior and informed consent of local communities are getting increased scrutiny and require further exploration. At the same time, analysis is needed on the law and current practice of degazettement of protected areas whereby some governments are currently transferring land out of the protected estate into other public uses or into the private domain.

As Chemonics and FS/IP are taking the lead in drafting a folder packet of materials relating to pre- and post conflict in FY08, therefore, ABCG organizations will not begin our activities until FY09. In FY09, the World Resources Institute (WRI) will conduct background research on the law and practice of degazettement of protected areas in Kenya, Uganda and Tanzania. The research will focus on documenting the codified procedures and established practices to transfer land out of the protected estate into other public uses or into the private domain (privatization). It will examine current and past practice. This policy work will touch on issues of denotification and changing in-park land uses (denotification involves the downlisting or downgrading of the legal status of protected areas, such as from fully-protected national parks to multiple-use forest reserves). The findings will be presented in a policy brief and will include a set of options and recommendations. WRI will present their findings at a meeting in Washington, DC planned in FY09.

The anticipated result of this activity is to raise key issues that can cause natural resource conflict as well as link human rights and conservation. This will help USAID, African countries, and other partners impacted to protect to biodiversity and increase awareness during different stages of recovery from conflict.

### Support for Country 118/ 119 Operational Plans Biodiversity and Tropical Forestry Assessments (BATS Task D)

The FS/IP and Chemonics have been helping USAID missions to develop or update the country-level 118/119 biodiversity and tropical forestry assessments, including threats, analysis, and actions necessary for conservation. Depending on the country, Chemonics/US Forest Service used the following approaches: a) desk study sent to Mission, b) desk study followed by trip to Capitol city to interview donors and collect documents/resources that are then submitted to Mission, or c) desk study, Capitol city trip, and in-county field travel for data collection.

In FY08, the ABCG Program Manager helped to identify host country nationals and other contacts associated with ABCG organizations and partners to participate in assessments and provide background information. The anticipated output of this activity was to draft country operational plans to help to ensure sound assessments based on best available scientific biodiversity knowledge and conservation practices.

### Path Forward, Analysis, Communications and Outreach in Africa (BATS Task E)

With a focus on the future of biodiversity in Africa, ABCG identified critical themes for conservation requiring analysis and sharing of lessons learned including HIV/AIDS and conservation linkages, emerging infectious diseases, private sector alliances and conservation, and the growing illegal bushmeat trade in eastern Africa. To address these issues, ABCG conducted in-depth analysis, held meetings and workshops, and did training, as described below. For example, ABCG is working with the College of African Wildlife Management (CAWM) to address the impacts of HIV/AIDS. An HIV/AIDS and Conservation Workshop was held in February 2008 to discuss the role of the conservation community in implementing multi-sectoral solutions to the HIV/AIDS crisis. In another example, to help the conservation community to understand emerging infectious diseases, ABCG undertook activities including an investigation of the environmental impacts of Avian Influenza in Ghana, held meetings in Tanzania to learn about the wildlife disease data collected and current plans for preparedness, and presented lessons learned on the topic through a post-graduate training course at CAWM as well as holding a August 7, 2008 meeting in DC on the topic of "Emerging Infectious Diseases in Africa: What Can the Conservation Community Do To Prepare?".



Photo credit: USAID



## HIV/AIDS and Conservation Linkages

In FY08, WWF with input from African partners took the lead in drafting a manual specifically for conservation organizations on impacts and mitigating actions in response to the HIV/AIDS pandemic. Although general manuals exist on institutional responses (e.g. Futures Group 2004, Rau 2004, Smartwork Project 2004), there is no publication which specifically focuses on conservation impacts and the range of institutional and resource management responses available to the conservation community. The planned manual draws on existing experiences of impacts and coping strategies from government and conservation NGOs, projects, the private sector, communities and donor organizations in Africa. It showcases best practices, and will draw upon a series of case studies (described below). The manual will be completed in FY09.

In order to address the devastating impacts of HIV/AIDS on the conservation sector and natural resource management, ABCG is also working with the CAWM to teach future wildlife managers about coping strategies. A one day workshop was held at CAWM in February 2008 with faculty, post-graduate students, and conservation partners including African Wildlife Foundation and the Jane Goodall Institute. The workshop discussed the role of the conservation community in implementing multi-sectoral solutions to the HIV/AIDS crisis. Dr. Julius Zelothe, the medical practitioner from CAWM and a Humphrey Fellow, worked with WWF in Washington, DC, from June through August 2008 to develop plans to implement the College's HIV/AIDS Organizational Policy. Plans include organizing a teaching module on HIV/AIDS that addresses impacts to the conservation workforce, increased natural resource use by AIDS impacted communities, and changes in land use due to the disease. The proposed module could serve as a model to be shared with other wildlife training colleges throughout Sub-Saharan Africa.



### **Calculating the financial costs of HIV/AIDS to the environment: A case study of the Wildlife and Environmental Society of Malawi**

Many environmental organizations have to divert funds to cover the costs of medical expenses, sick leave, terminal benefits, funeral costs, and recruitment and training expenses for new staff due to HIV/AIDS and related illnesses. These expenditures are usually covered with money allocated for environmental projects, reducing available funds for environmental work. Yet these costs are rarely planned for in advance, or costed out afterwards. In addition, any proactive HIV/AIDS awareness and prevention programs for staff require funding, as does mainstreaming of HIV/AIDS into community conservation programs. Information on the cost of HIV/AIDS to environmental organizations will be very valuable in encouraging these organizations to mainstream HIV/AIDS into their operations. In this case study to be conducted in FY09, the Wildlife and Environmental Society of Malawi (WESM) will analyze its financial costs of HIV/AIDS. WESM is a national NGO that lost 10 of its 50 staff to health-related deaths since 2000.



### **Mainstreaming and scaling up HIV/AIDS in the communal conservancies of Namibia: The experiences of the Namibian Association of CBNRM Support Organizations**

Since 2003, the Namibian Association of Community-based Natural Resource Management Support Organizations (NACSO) has been working to mainstream HIV/AIDS into the communal conservancies in Namibia. Registered conservancies currently cover 100,000 remote underserved rural people, with the prospect of another 80,000 in emerging conservancies (potentially over one tenth of Namibia's

total population). The NACSO HIV/AIDS project assists NACSO partners, conservancies and communities to build HIV/AIDS awareness and prevention, and provide or access support for HIV/AIDS mitigation measures at these three levels. The project has some exciting results so far, and many valuable lessons are emerging about successes and challenges. Results and lessons need to be documented and shared with a broad audience. This case study will be conducted in FY09.



### **Incorporating HIV/AIDS into community based conservation and development activities: A case study of the Jane Goodall Institute's TACARE program in Tanzania**

The Jane Goodall Institute has integrated HIV/AIDS into their community based activities around Gombe National Park in Tanzania through the TACARE program. The case study will share their experiences and challenges over the years and make recommendations on how to incorporate HIV/AIDS into conservation and development program with local communities. This case study will be completed in FY09.

## **Environmental Impact of Emerging Infectious Diseases in Africa**

African nations need to prepare for the potential impacts of emerging infectious diseases such as Avian Influenza on conservation and natural resource management. They must identify both direct impacts on wild bird populations in Africa as well as possible indirect conservation impacts if the disease becomes a human pandemic. To help the conservation community to understand and prepare to deal with emerging infectious diseases, ABCG conducted analysis and outreach with key partners in West and East Africa. ABCG hired a consultant to conduct an assessment of what the threats and opportunities are. For example, currently there are two foci of the Avian Influenza virus in Africa: in the west, centered around Nigeria, Ghana, Burkina and Togo; and in the east, Egypt, Djibouti and Sudan.

ABCG veterinary consultant, Dr. Dan Schar, traveled to Ghana in May 2008 to investigate the environmental impacts of Avian Influenza and gather lessons in areas where there have been active poultry outbreaks and where Avian Influenza is on the radar. Dr. Schar also met with wildlife research institutions and conservation partners in Tanzania in July 2008 to learn what wildlife disease data was collected and current plans for preparedness. He developed a curriculum on Emerging Infectious Diseases and Conservation and provided training at the College of African Wildlife Management, Tanzania, in order to teach wildlife managers how to prepare for and deal with human/ wildlife/ domestic animal disease outbreaks (see: Curriculum outline in Appendix 3). These lessons learned were presented through a week long training module for post-graduate students. Findings were shared at a 7 August ABCG meeting on "*Emerging Infectious Diseases in Africa: What Can the Conservation Community Do To Prepare?*" held in Washington, DC, that was attended by 25 participants from conservation NGOs and U.S. government agencies. ABCG is currently producing a factsheet for African conservation partners to help with preparedness on the environmental impacts of emerging infectious diseases. The factsheet will be completed in FY09.

## Private Sector Alliances and Conservation

In order to scale up efforts, the conservation community is actively engaging with the private sector on conservation related activities. Started in FY08, African Wildlife Foundation is conducting case studies of their experiences in dealing with the private sector on ranching and on ecotourism. They shared best practices and lessons from these experiences by teaching students at CAWM in August 09. They are currently compiling information about the various steps involved in engaging the private sector and developing multi-stakeholder alliances.

## Bushmeat in Eastern Africa

Photo credit: Mwenja



One of the greatest conservation challenges facing eastern Africa today is the rapid decline of wildlife populations hunted for food as part of the illegal bushmeat trade. Through the BATS grant, ABCG has tapped key conservation experts to work with the College of African Wildlife Management, Tanzania, and the U.S. Fish and Wildlife Service on the development of a comprehensive curriculum to address bushmeat challenges and bushmeat solutions. Bushmeat in eastern Africa includes species ranging from rodents to elephants that are sold for meat. Experts from the Bushmeat

Crisis Task Force ([www.bushmeat.org](http://www.bushmeat.org)) have advised eight post-graduate diploma students from Kenya, Southern Sudan, Tanzania, and Uganda, and have given them the knowledge, skills, attitudes, and practices (KSAPs) to begin to build a regional bushmeat network for addressing the bushmeat trade in the eastern Africa region.

CAWM is currently building the capacity of their faculty and students to deal with the growing illegal and sustainable bushmeat exploitation in eastern Africa. In FY08, experts assisted the College by sharing approaches from other regions in Africa. The Bushmeat Crisis Task Force and key partners who are implementing multi-pronged approaches to address the bushmeat trade such as TRAFFIC, the Lusaka Agreement Task Force, and others are sharing their lessons learned on this emerging conservation issue through curriculum development and teaching. (See: Appendix 4 Bushmeat Trade and Management in Eastern Africa.)

## COMMUNICATIONS STRATEGY

It is important to forecast future conservation needs and opportunities in Africa in order to prepare partners to address critical emerging issues and linkages. Identified issues require analysis and sharing of lessons learned. Best practices and coping strategies must be effectively communicated and shared with USAID Missions and partners in Africa. By implementing a focused, effective multi-tiered communication strategy, ABCG through its networks and partnerships can articulate trends and conservation linkages and identify key messages and lessons in order to build the capacity of target audiences in Africa. Key audiences include USAID, African governments, NGOs, academia, donors, private sector, and community based organizations.

Through USAID BATS, ABCG is developing communications materials to be presented to African field partners and USAID missions. ABCG is leveraging the collective access and communications capacities of ABCG member organizations to conduct outreach efforts to assist policy makers and donors to make informed decisions with regard to biodiversity conservation in Africa. The purpose is to equip USAID and partners with lessons learned from different initiatives to deal with threats to biodiversity and to identify emerging priorities to inform future strategies for conservation programs in Africa. ABCG organizations can use their extensive networks and partnerships in Africa to widely circulate the completed products and seek to implement the future path set forward.

In FY08, ABCG communications activities included meetings in Washington, DC, workshops in Africa, short-term assistance assignments in Africa, teaching at the College of African Wildlife Management, Mweka, Tanzania, analytical projects, an exhibit booth at a major high level international conference, and other opportunities for networking, awareness building, and information and experience sharing. Materials from the meetings, workshops, and trainings such as powerpoints and summaries are being posted on the ABCG partner's page on USAID-supported FRAME. (See: [www.abcg.org](http://www.abcg.org))

Lessons from USAID BATS activities on emerging infectious diseases, public/private sector partnerships, and bushmeat were used to build the capacity of emerging African conservation leaders who are studying at the College of African Wildlife Management, Mweka, Tanzania. CAWM is the leading regional wildlife training institution for Anglophone Africa. It has trained African conservation leaders for the past 45 years. Following the Arusha Manifesto in 1961, the College was established in 1963 as a pioneer institution for the training of African wildlife managers with support from USAID and others. Since this time, the College has been a leader in providing quality wildlife management training in Africa, and has trained over 3,000 wildlife managers from 28 African countries and 18 non-African countries.

To share the knowledge and resources generated by the BATS program, materials produced were made available on multiple online sites utilized by the conservation and development communities including USAID FRAME: *Knowledge Sharing for the Natural Resource Community*. FRAME is USAID-sponsored a peer-to-peer network of natural resource management practitioners. It seeks to facilitate knowledge transfer and relationship building, and to enable members to grow best practices around development challenges, see: [www.frameweb.org](http://www.frameweb.org).

ABCG hosts a partner's page on FRAME in order to provide information to USAID Missions, partners, and the general public on emerging trends for the future of biodiversity in Africa ([www.abcg.org](http://www.abcg.org)). ABCG currently has more than 35 themes on our website that we have focused on and more than 600 items of materials that include many that ABCG and our members developed in addition to key weblinks.

To improve communications, we have upgraded our ABCG-Listserv to make it easier for USAID staff and partners to join and share materials on issues impacting biodiversity conservation in Africa. The ABCG-Listserv is an informal email list for sharing information on upcoming meetings in DC, conferences in Africa, conservation publications, grant announcements, and job postings.

To reach target audiences, especially USAID mission staff in Africa, Chemonics created a BATS brochure to be shared in printed and electronic form to explain the services that BATS could provide. The brochure presented the tasks and related services available, and gave contact information for key people involved. Since a key audience was USAID missions, Tim Resch, Bureau for Africa Environmental Advisor and BATS CTO, provided first-hand marketing. ABCG has also helped to circulate the BATS brochure to key partners.

In FY09, BATS communications and outreach by ABCG on future paths for biodiversity conservation in Africa will continue help to inform future strategies for USAID and the national governments and partners with whom they assist. By articulating trends and conservation linkages, sharing key messages and lessons, teaching future African conservation professionals, and directing extensive outreach efforts, the capacity of the target audiences in Africa will be built.

## Key ABCG Contacts Working on BATS

ABCG:	Nancy Gelman (Tasks A, B, C, D and E)
AWF:	Kaddu Sebunya (Task A and E)
CI:	Marion Salaün Fairbanks (Task B)
IUCN:	John Waugh (Task A and B)
JGI:	Alice Macharia (Task E)
TNC:	Kristen Patterson (Task E)
WCS:	Monica Wrobel (Task B)
WRI:	Peter Veit (Task C)
WWF:	Judy Oglethorpe (Task A and E)

## SUSTAINABILITY

The BATS program helps USAID/Africa to target future funding and build synergies to promote sound development in Africa, making effective use of Africa's natural resources for positive development while helping to promote improved governance and stability in Africa's current fragile states. Social sustainability will be promoted by increasing focus on the importance of sound governance of natural resources for the benefit of Africa's people. Financial sustainability will be supported through promotion of best practices in extractive industries, promoting comprehensive efficiency of operations in the long term, and helping to internalize more of the external costs of extractive industries in the private sector, rather than leaving them to be borne by poor people without a voice. USAID's long-standing commitment and leadership in supporting biodiversity conservation will help ensure sustainability into the future.

The FRAME Internet framework that is supported by USAID which hosts the ABCG website provides sustainability for investments made by the BATS program. Documents on FRAME and through ABCG members' websites will be available for years to come, as they operate independently of the BATS program.

Communications have played a critical role for BATS, a program that generates reports, builds and shares knowledge, and makes recommendations for future programming of development funds. By taking advantage of existing Internet frameworks and websites, seeking synergies between partners, and reaching out to numerous USAID missions, governments, NGOs, civil society organizations, and program beneficiaries, BATS is reaching a large audience and make materials available to decision makers. These materials will continue to reach an ever wider audience as BATS partners move related programs forward.

### Appendix 1: Portuguese Translation of Dar Vision Statement

#### O Futuro da Biodiversidade na África Declaração de Visão Dar es Salaam, Tanzânia Setembro 2008

##### Justificativa

Biodiversidade continua a ser a base fundamental para o desenvolvimento da África, e sustenta o bem-estar das gerações actuais e futuras. Com a crescente demanda humana por recursos naturais, e infra-estrutura institucional inadequada, no entanto, a África tem testemunhado a destruição e degradação de vastas áreas naturais, incluindo florestas, savanas, zonas marinhas e água doce. Ainda assim, na África existem áreas extensas onde o habitat permanece relativamente intacto, e a África possui grande parte da biodiversidade e dos recursos naturais do mundo. No entanto, as alterações climáticas, o crescimento contínuo da população em até o fim do século passado, e a globalização do comércio representam sérias ameaças para o futuro. Mas há também oportunidades à aproveitar, partindo das abordagens actuais bem sucedidas para a conservação da biodiversidade, bem como inovações, para tomar medidas urgentes e renovadas. Para a grande maioria de Africanos, a biodiversidade representa a única salvação que não pode mais ser ignorada.

Especialistas em conservação da biodiversidade de toda a África, convocados pela IUCN e a África Biodiversity Collaborative Group, em Dar es Salaam em setembro 17-19, 2008, articularam a seguinte visão para o futuro da biodiversidade na África, e convocam todos os doadores e parceiros para juntos apoiarem a realização desta visão.

##### Visão

Ao ano 2025, a degradação ambiental e a perda da biodiversidade na África têm sido desacelerado significativamente, o povo e a natureza estão se adaptando às mudanças climáticas, e os serviços ligados às espécies e aos ecossistemas dão base ao bem-estar humano numa sociedade comprometida com o desenvolvimento econômico sustentável e a divisão igualitária dos recursos naturais.

##### Recomendações

###### A. Integrar biodiversidade nas agendas do bem-estar humano e do desenvolvimento

1. Promover a redução das mudanças climáticas, e a adaptação às alterações climáticas para a biodiversidade e as pessoas (incluindo o seguinte: assegurar que a África desempenhe um papel importante na advocacia de mitigação das alterações climáticas; garantir que as emissões de gases de efeito estufa da África permanecem baixas; vincular regimes de créditos de carbono à redução da pobreza e à conservação da biodiversidade; realizar a integração da ciência climática em avaliações de vulnerabilidade; empreender esforços concentrados na mitigação e prontidão para desastres; promover colaborações e parcerias multi-sectorial e multi-nível; e "networking" (redes de relacionamentos) para compartilhar soluções)
2. Aproveitar os serviços ligados à biodiversidade e ao ecossistema para melhoria da agricultura (incluindo o seguinte: a utilização de técnicas inovadoras para aumentar a produtividade e os rendimentos agrícolas e aprimorar a segurança alimentar; adoção de abordagens de agricultura de conservação ou "ecoagriculture")
3. Realçar a responsabilidade das instituições do setor privado para a sustentação dos serviços ligados à biodiversidade e ao ecossistema (incluindo o desenvolvimento de alternativas; promoção da eficácia de combustível e fontes alternativas de energia; e limitação de pressão sobre fontes de água doce através de uma utilização mais eficiente da água)

4. Promover a restauração / reabilitação de sistemas degradados e dos recursos naturais (incluindo a investigação, monitoração e avaliação dos sistemas de montanha, floresta, áridas, savana, manguezais, corais, e de água doce), a fim de proporcionar meios de subsistência e ao mesmo tempo aumentar a biodiversidade.

5. Reforçar o papel dos ecossistemas saudáveis na redução de riscos e impacto de doenças emergentes (por exemplo, redução dos riscos de transferência de doenças entre a fauna selvagem, os seres humanos e o gado; mitigação dos impactos de doenças emergentes sobre a vida selvagem e o meio ambiente)

6. Promover maior compreensão e conhecimento de questões ambientais e questões ligadas à biodiversidade (através de mais pesquisas científicas, da melhoria na divulgação de questões e resultados científicos, e maior conscientização da população)

#### B. Promover boas práticas de conservação

1. Promover a conservação da biodiversidade existente (através de gestão eficaz das áreas protegidas e das espécies ameaçadas, e adoção de uma abordagem matricial de conservação utilizando amplas paisagens ou “landscapes”)

2. Promover o desenvolvimento prudente do turismo de natureza (incluindo o empoderamento e o reforço da capacidade das comunidades locais para que tenham maior controle e propriedade de ecoturismo)

3. Demonstrar que a biodiversidade e os serviços ligados aos ecossistemas são bases fundamentais para o bem-estar humano (promoção da segurança dos meios de subsistência, e redução de pressão sobre a biodiversidade através de actividades económicas alternativas)

4. Promover boa governação e abordagens baseadas nos direitos humanos (promoção dos direitos das populações locais, a divisão de benefícios, a capacitação civil, a garantia de acesso dos interessados às informações e aos processos decisórios, capacitação das mulheres, empreendimento de abordagens e parcerias multisectoriais, e promoção da boa política em todos os níveis )

5. Promover mecanismos inovadores para o financiamento da conservação (incluindo a promoção de investimento na conservação e novos mecanismos de financiamento, e a promoção de remuneração por serviços ligados aos ecossistemas)

#### C. Reforçar o papel das instituições sociais e instituições de desenvolvimento na conservação da biodiversidade e no bem-estar humano

1. Contactar comunidades de fé para diálogo e colaboração - A urgência global para um mundo sustentável exige abordagens multidimensionais e uma ênfase persistente dos ideais baseados em estratégias inovadoras e pragmáticas. Comunidades religiosas constituem as maiores organizações sociais na África, e representam um repositório de oportunidades para divulgar a causa de sustentabilidade no continente. Os líderes da conservação devem contactar as comunidades religiosas para colaborar na implementação destas recomendações, com o objetivo de reforçar a capacidade para decisões que promovem a sustentabilidade e que estabelecem a conexão entre a natureza e o bem-estar humano.

2. Abordar organizações de assistência à vítimas de desastres e de desenvolvimento para abrandar os impactos da migração e do crescimento natural da população (incluindo melhoria do acesso aos serviços de saúde, de planeamento familiar, e à informação; promoção de educação de meninas da capacitação das mulheres; e redução dos impactos da migração)

Appendix 2:

**CAWM Module:  
Private Sector Alliances and Partnerships**

Module Outline

<b>Module Name</b>	<i>Bushmeat Solutions: Private Sector Alliances and Partnerships</i>	<b>Weeks: 1</b>	<b>Dates: 28 Jul. – 1 Aug. 2008</b>
<b>Rationale</b>	<p>Nearly 50% of the world’s biodiversity is found in tropical forests, and it is recognized that the number, area, and extent of protected areas are inadequate to conserve most species. Despite the pending biodiversity crisis, governments of tropical countries often depend on extractive industries, like logging, mining and oil exploitation, to generate revenue. These industries exert pressure on natural resources and open access to wildlands, thus leading to immigration, higher levels of hunting, and commercial trade of bushmeat. But at the same time that industry poses a problem for biodiversity and resource management, it also presents an opportunity. By partnering with the private sector, additional resources can be applied to resource management and to extend conservation outside of protected areas. There is a need to build capacity in the identification, negotiation, and implementation of private sector partnerships as a solution to the bushmeat and biodiversity problem. Some key components of building alliances include: role of industry in driving bushmeat trade, company responsibility to the environment and people, motivations of industry to partner with NGO’s, pros and cons of working with industry, defining responsibility to make partnerships functional.</p>		
<b>Module Goal</b>	<p>The goal is to provide fellows with necessary knowledge, skills and attitudes to enable them to effectively identify, develop and work with potential private sector alliances.</p>		
<b>Competences</b>	<ol style="list-style-type: none"> <li>1. Understand the potential impact of industry on wildlife and bushmeat trade</li> <li>2. Develop potential partnerships with the private sector to reduce pressure on wildlife and bushmeat trade</li> <li>3. Design a wildlife and bushmeat monitoring system to assess the impact of industry</li> <li>4. Design an assessment system to evaluate the success of a partnership</li> <li>5. Determine the roles of NGO’s, government, and the private sector in curbing the bushmeat trade</li> </ol>		



<b>Module Syllabus</b>	<ol style="list-style-type: none"> <li>1. Wildlife Management Principles</li> <li>2. Wildlife Economics</li> <li>3. Bushmeat Trade and Socioeconomic Case Studies</li> <li>4. Assessment Methods</li> <li>5. Assessment Plan Development and Report Writing</li> </ol>		
<b>Principle Learning Outcome</b>	<b>Enabling Learning Outcomes</b>	<b>Sub Enabling Learning Outcomes</b>	<b>Lecturers</b>
Develop private-sector partnerships as a solution to the bushmeat trade	Understand the potential impact of industry on wildlife and bushmeat trade	Explain traditional approach to conserving biodiversity in protected areas	John Poulsen  Univ. of Florida/  Wildlife Conservation Society
		Discuss the impact of industry on local people and communities	
		Describe potential impact of industry on protected areas	
		Describe different types of industries and their potential impacts on the environment	
		Explain the impact of industry on wildlife	
		Discuss the impact of industry on social and power structures within local communities	
	Develop potential partnerships with the private sector to reduce pressure on wildlife and bushmeat trade	Describe the structure of a multi-sector partnership to conservation	
		Describe the activities necessary to reduce the bushmeat trade	
		Identify potential private sector partners and other actors	
		Explain the considerations and process for entering into a private sector partnership	
		Evaluate the pros and cons of entering into a private sector partnership for conservation organizations, communities, and industry	
Understand the motivation for industry to partner with NGO's			
Design a wildlife and bushmeat monitoring	Describe the information necessary to evaluate the impact of industry on wildlife and bushmeat		

	system to assess the impact of industry	Analyze best methods for assessing the direct and indirect impacts of industry on biodiversity	
		Analyze best methods for assessing the direct and indirect impacts of industry on bushmeat and demography	
		Analyze best methods for assessing the direct and indirect impacts of industry on livelihoods of local people	
	Design an assessment system to evaluate the success of a partnership	Discuss how to evaluate the success of a multi-sector relationship	
		Describe the best methods for evaluating the efficacy of project activities	
		Discuss how to evaluate if law enforcement efforts are working	
Determine the roles of NGO's, government, and the private sector in curbing the bushmeat trade	Explain the importance of defining relationships within a partnership		
	Explain the process of defining relationships within a partnership		
	Discuss the role of management plans		
	Discuss the role of certification schemes		
	Evaluate the role that NGO's, government, and private industry can play in law enforcement		
	Evaluate the role that NGO's, government, and private industry can play in land-use planning		

Date	Session Topic	Method	Lecturer
Monday 28 Jul. 2008	1.1 What is the potential impact of industry on wildlife and the bushmeat trade?	Lecture	JRP
	1.2 Solutions for mitigating the impact of industry on the bushmeat trade: PROGEPP as a model of a multi-sector partnership for conservation	Lecture	JRP
	1.3 What is the potential for replicating the PROGEPP model in other countries, regions, and with different industries?	Lecture/ Discussion	JRP
Tuesday 29 Jul. 2008	1.4 Assess the pros and cons of partnering with industry	Lecture/ Discussion	JRP
	1.5 Determining when to partner with industry	Lecture	JRP
	1.6 Defining the roles and responsibilities of partners	Lecture	JRP
Wednesday 30 Jul. 2008	1.7 Assessing the impact of industry on bushmeat – socio-economic and biological monitoring	Lecture	JRP
	1.8 Assessing the success of a multi-sector partnership – livelihoods and attitudes	Lecture	JRP
	1.9 Work on activity plans	Individual work	JRP
Thursday 31 Jul. 2008	2.1 Law enforcement and the role of industry?	Lecture	JRP
	2.2 Adaptive management and land-use planning	Lecture	JRP
	2.3 Influencing industrial practices from the inside	Lecture	JRP
Friday 1 Aug. 2008	2.4 Presentation and discussion of activity plans	Individual presentations	JRP
	2.5 Presentation and discussion of activity plans	Individual presentations	JRP
	2.6 Wrap-up and forgotten issues...	Lecture	JRP

## Appendix 3:

**CAWM Module:  
Environmental Impacts of Emerging and Zoonotic Infectious Disease**

<b>Module Name</b>	<b>Environmental Impacts of Emerging and Zoonotic Infectious Disease</b>	<b>Weeks: 1</b>	<b>Dates: 14 to 18 July 20 08</b>
<b>Rationale</b>	A multi-pronged approach is needed to address the bushmeat problem in eastern Africa involving wildlife policies, law enforcement, working with local communities, addressing wildlife-human disease issues, choosing alternatives (protein and economic) and effective program planning.		
<b>Module Goal</b>	The goal of the Module is to provide knowledge, skills and attitudes to enable the Fellows to examine emerging infectious diseases, zoonoses, and the human-livestock-wildlife health interface		
<b>Competences</b>	<ol style="list-style-type: none"> <li>1 Explain the threat of emerging infectious diseases, zoonoses, and the human-livestock-wildlife health interface.</li> <li>2 Discuss how these threats relate to illegal bushmeat exploitation and other conservation issues</li> </ol>		
<b>Module Syllabus</b>	<ol style="list-style-type: none"> <li>1. Emerging Infectious Disease, Zoonoses, and the Human-Livestock-Wildlife Health Interface</li> <li>2. Highly Pathogenic Avian Influenza: Threats to Biodiversity Conservation in Africa</li> <li>3. Preparedness and Response: Proactive Solutions in a Dynamic Environment</li> <li>4. Emerging Infectious Disease and Bushmeat Linkages</li> </ol>		
<b>Key Texts</b>	<ol style="list-style-type: none"> <li>1. Wildlife Trade and Global Disease Emergence. WB Karesh, et. al. <i>Emerging Infectious Diseases</i> Vol. 11. No. 7. July 2005.</li> <li>2. Preparedness for Highly Pathogenic Avian Influenza Pandemic in Africa. RF Breiman et. al. <i>Emerging Infectious Diseases</i>. October 2007.</li> <li>3. Wildlife, Exotic Pets, and Emerging Zoonoses. BB Chomel et. al. <i>Emerging Infectious Diseases</i>. Vol. 13. No. 1. January 2007.</li> <li>4. Disease Management Strategies for Wildlife. G. Wobeser. <i>Rev. sci. tech. Off. int. Epiz.</i> 2002. 21 (1). 159-78.</li> </ol>		
<b>Assessment</b>	Theory: 0 % Practical: 100 %		
	<b>Assessment Plan</b>		
	Group Project: 70 % grade Group Presentation: 30% grade		

<b>Detailed Syllabus</b>			
	<ol style="list-style-type: none"> <li>1. Emerging Infectious Disease, Zoonoses, and the Human-Livestock-Wildlife Health Interface</li> <li>2. Highly Pathogenic Avian Influenza: Threats to Biodiversity Conservation in Africa</li> <li>3. Preparedness and Response: Proactive Solutions in a Dynamic Environment</li> <li>4. Emerging Infectious Disease and Bushmeat Linkages</li> </ol>		
<b>Principal Learning Outcome</b>	<b>Enabling Learning Outcomes</b>	<b>Sub Enabling Learning Outcomes</b>	<b>Proposed Lecturers</b>
Demonstrate Bushmeat Solutions	Explain wildlife-human disease interactions	<p>Explain the threat of emerging infectious diseases, zoonoses, and the human-livestock-wildlife health interface.</p> <p>Discuss how these threats relate to illegal bushmeat exploitation and other conservation issues</p>	Dan Schar, Veterinary Consultant
<u>Dates</u>			<u>Lecturers</u>
Monday, 14 July 2008	8:00 to 10:00am	<p>Structured Lecture:</p> <p>Welcome and Introduction on Emerging Infectious Disease, Zoonoses, and the Human-Livestock-Wildlife Health Interface</p>	Dan Schar
	10:30 to 12:30pm	<p>Self Directed Study:</p> <p>Research/Reading Period</p>	
	2:00 to 4:00pm	<p>Self Directed Study:</p> <p>Research/Reading Period</p>	
Tuesday, 15 July 2008	8:00 to 10:00am	<p>Self Directed Study:</p> <p>Research/Reading Period</p>	
	10:30 to 12:30pm	<p>Structured Lecture: Highly Pathogenic Avian Influenza: Threats to Biodiversity Conservation in Africa</p>	Dan Schar
	2:00 to 4:00pm	<p>Self Directed Study:</p> <p>Research/Reading Period</p>	

Wednesday, 16 July 2008	8:00 to 10:00am	Presentations: Groups 1 & 2  Discussion	
	10:30 to 12:30pm	Presentations: Groups 2 (continued) & 3  Discussion	
	2:00 to 4:00pm	Structured Lecture: Preparedness and Response: Proactive Solutions for a Dynamic Environment	Dan Schar



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Appendix 4:

**CAWM Module:  
Bushmeat Trade and Management in Eastern Africa**

**Credits:** 12

**Dates:** 3 March – 28 March 2008

**Duration:** 4 Weeks (132 hours)

**Lecturers:** NBG (Module Coordinator) / EM, WO, HE, TB, JM, Kahana (Module Lecturers)

**Location of the Module:** Mweka campus, Sanya Juu, Ngarenanyuki, Pasua, TAWICO offices (Arusha)

**Rationale:** Since 1999, wildlife experts and professionals have gathered emerging evidence that the bushmeat trade may be contributing significantly to reduced numbers of wildlife in eastern Africa. Nonetheless the extent and impacts of the bushmeat trade are not fully understood for the region. There is a need to build capacity and to more comprehensively assess the illegal bushmeat trade process, impacts and potential solutions in the eastern Africa region. Key components of concern include: drivers (economic, social, cultural), bushmeat target species (trends), economics, hunters, traders, sellers, markets, transport and distribution networks, policies, impacts on tourism, enforcement and governance processes, intelligence and general status of the bushmeat trade in eastern Africa.

**Goal:** The goal is to provide fellows with necessary knowledge, skills and attitudes to enable them to effectively assess and document bushmeat networks and associated systems.

**Principal Outcome:** Analyze the Bushmeat Challenges in eastern Africa

**Competencies:**

1. Describe wildlife values, management principles and approaches
2. Explain wildlife economic concepts and principles
3. Analyze trends, causes, and effects of the bushmeat trade
4. Evaluate potential solutions to the bushmeat trade
5. Understand and apply bushmeat assessment techniques
6. Develop a bushmeat assessment plan

**Syllabus Outline:**

- Principles of wildlife management
- Socio-economic concepts and principles
- Status of the bushmeat trade in eastern Africa
- Bushmeat assessment

**Assessment:**

70% for bushmeat field assessment proposal

30% for presentation of bushmeat field assessment proposal

## Module Outline

<b>Module Name</b>	<i>Bushmeat Trade in eastern Africa</i>	<b>Weeks: 4</b>	<b>Dates: 3-28 March 2008</b>
<b>Rationale</b>	<p>Since 1999, wildlife experts and professionals have gathered emerging evidence that the bushmeat trade may be contributing significantly to reduced numbers of wildlife in Eastern Africa. Nonetheless the extent and impacts of the bushmeat trade are not fully understood for the region. There is a need to build capacity and to more comprehensively assess the illegal bushmeat trade process, impacts and potential solutions in the eastern Africa region. Key components of concern include: drivers (economic, social, cultural), bushmeat target species (trends), economics, hunters, traders, sellers, markets, transport and distribution networks, policies, impacts on tourism, enforcement and governance processes, intelligence and general status of the bushmeat trade in Eastern Africa.</p>		
<b>Module Goal</b>	<p>The goal is to provide fellows with necessary knowledge, skills and attitudes to enable them to effectively assess and document bushmeat networks and associated systems.</p>		
<b>Competences</b>	<ol style="list-style-type: none"> <li>1. Describe wildlife values, management principles and approaches</li> <li>2. Explain wildlife economic concepts and principles</li> <li>3. Analyze trends, causes, and effects of the bushmeat trade</li> <li>4. Evaluate potential solutions to the bushmeat trade</li> <li>5. Understand and apply bushmeat assessment techniques</li> <li>6. Develop a bushmeat assessment plan</li> </ol>		
<b>Module Syllabus</b>	<ol style="list-style-type: none"> <li>1. Wildlife Management Principles</li> <li>2. Wildlife Economics</li> <li>3. Bushmeat Trade Case Studies</li> <li>4. Assessment Methods</li> <li>5. Assessment Plan Development and Report Writing</li> </ol>		
<b>Principle Learning Outcome</b>	<b>Enabling Learning Outcomes</b>	<b>Sub Enabling Learning Outcomes</b>	<b>Lecturers</b>
Analyze the Bushmeat Trade	Describe wildlife values, management principles and approaches	Explain wildlife biology and ecology concepts	Evans Mwangi, Univ of Nairobi
		Describe principles of wildlife management	
		Apply wildlife management techniques	
		Explain protected area management concepts	
		Analyze protected area categories and institutions	
		Analyze people-wildlife conflicts, including problem animal management	
		Analyze wildlife-based tourism	



		Explain Ex-Situ Wildlife Management	
		Relate the concepts of biodiversity to wildlife management concepts	
		Explain eco-regional (landscape) planning approach	
	Explain wildlife economic concepts and principles	Explain economic concepts and principles	Kahana, Mweka Faculty
		Relate economic concepts and principles to bushmeat trade	
		Explain wildlife economics as it relates to bushmeat crisis	
		Undertake wildlife valuation	
		Use economic theories to address bushmeat trade	
	Examine status of the bushmeat trade in eastern Africa	Explain the nature and extent of the bushmeat trade	William Olupot, WCS-Uganda and Heather E. Eves, BCTF
		Describe key species affected by the bushmeat trade	
		Describe causes of the demand for bushmeat (lack of protein, availability of arms, taste, poverty, etc)	
		Describe stakeholders of the bushmeat trade (hunters, traders, transport, markets, legal meat and game industries, consumers)	
		Explain the impacts of the bushmeat trade	
		Analyze bushmeat solutions (alternatives, awareness, law enforcement, policy and legal instruments, etc)	
		Identify bushmeat and explain DNA and other identification technologies (e.g. bushmeat detection dogs)	
		Explain licensing of game meat utilization and linkage with bushmeat trade	
		Analyze bushmeat (including socioeconomic) case studies	
	Evaluate and prioritize information sources and needs	Identify potential sources of useful information for assessing the bushmeat trade in Eastern Africa	Heather E. Eves, BCTF
		Describe criteria necessary for effectively evaluating bushmeat for a given scope (region, area)	

	Evaluate information sources and their potential impact on developing an improved understanding of bushmeat in the study area	
	Create an information gathering plan for targeted bushmeat assessment area	
Explain theory and methods for key informant interviews	Describe basic theory of social science research in relation to wildlife conservation (and bushmeat)	William Olupot, WCS-Uganda
	Identify available methods for gathering information from key informants in the bushmeat trade	
	Design a list of interview questions and plan for analysis of results	
Describe purpose, process and methods for stakeholder meetings	Describe purpose of and components to creating a successful stakeholder meeting	William Olupot, WCS-Uganda
	Explain process and methods employed for stakeholder meetings with individuals representing different bushmeat user groups (wildlife authority, consumer, trader, hunter, etc.)	
	Explain process and methods employed for a group stakeholder meeting	
	Evaluate appropriate stakeholder meeting for planned bushmeat assessment	
Create a map of the ecological, social and decision-making context of study area for bushmeat assessment	Describe Policy Sciences theory and methods	Heather E. Eves, BCTF
	Evaluate the ecological trends, conditions and projected outcomes of a sample bushmeat assessment area	
	Identify key participants engaged in the social context for a sample bushmeat assessment area	
	Analyze drivers and power players in decision making with regard to bushmeat trade in a sample bushmeat area	
Apply key informant interviewing skills	<b>Field Practical:</b> key informant interviews in the Kilimanjaro region on bushmeat trade (wildlife officials, consumers, traders, hunters)	Julian Machange, Mweka
Apply stakeholder group meeting skills	<b>Field Practical:</b> set up a group stakeholder meeting (bushmeat consumers) to form a 'listening group' for developing better understanding of perspectives	Julian Machange,

		(concerns, attitudes, knowledge) of bushmeat consumers	Mweka
Explain steps and process for conducting a bushmeat assessment		Review considerations and components for conducting a bushmeat assessment (literature review, list of key informant contacts, key questions to be answered, mapping context information, survey question drafts, timeline/plan)	William Olupot, WCS-Uganda
		Develop an outline for bushmeat assessment for Fellow study areas	
		Evaluate bushmeat assessment outlines for one another	
Identify points of intervention (for managing bushmeat trade)		Evaluate context map based on existing ecological, social, and decision-making knowledge and identify points of intervention that could affect trends	Heather E. Eves, BCTF
		Describe applied solutions for each point of intervention based on case-study review of existing bushmeat solutions	
		Identify points of intervention in provided case studies through group analysis	
Draft an assessment plan for bushmeat study area		Describe components of an assessment plan with list of information needed to complete each section of the assessment for use in developing an adaptive management proposal for a project	Heather E. Eves, BCTF
		Draft an example assessment plan as a group	
		Develop a draft assessment plan for bushmeat assessment area to be studied in next module	
Describe key elements for effective report writing		Review types of reports and standard components of each	Heather E. Eves, BCTF
		Describe steps to developing an informative and effective report	
		Outline bushmeat assessment final report	

## Week 1

Date	Session Topic	Method	Lecturer
Monday	1.1 Explain wildlife biology and ecology concepts	Lecture	EM
3 March 2008	1.2 Describe principles of wildlife management	Lecture	EM
	1.3 Apply wildlife management techniques	Lecture	EM
Tuesday	1.4 Explain protected area management concepts and institutions	Lecture	EM
4 March 2008	1.5 Analyze people-wildlife conflicts, including problem animal management	Lecture	EM
	1.6 Analyze wildlife-based tourism	Lecture	EM
Wednesday	1.7 Explain Ex-Situ Wildlife Management	Lecture	EM
5 March 2008	1.8 Relate the concepts of biodiversity to wildlife management concepts	Lecture	EM
	1.9 Explain eco-regional (landscape) planning approach	Lecture	EM
Thursday	2.1 Economic Costs and Benefits of Wildlife	Lecture	Kahana
6 March 2008	2.2 Economic Costs and Benefits of Wildlife	Lecture	Kahana
	2.3 Economic Costs and Benefits of Wildlife	Lecture	Kahana
Friday	2.4 Economic Valuation of Wildlife	Lecture	Kahana
7 March 2008	2.5 Economic Valuation of Wildlife	Lecture	Kahana
	2.6 Economic Valuation of Wildlife	Lecture	Kahana

## Week 2

Date	Session Topic	Method	Lecturer
Monday	2.7 Socioeconomic Bushmeat Research Overview	Lecture	WO
10 March 2008	2.8 Socioeconomic Bushmeat Case Studies	Lecture	HE
	2.9 Socioeconomic Bushmeat Case Studies	Lecture	WO
Tuesday	3.1 Prioritizing Information Needs: Sources of Info	Lecture	HE
11 March 2008	3.2 Prioritizing Info Needs: Project Criteria	Lecture	HE
	3.3 Prioritizing Info Needs: Organizing Information	Lecture	HE
Wednesday	4.1 Gathering Key Informant Knowledge: Social Theory	Lecture	WO
12 March 2008	4.2 Interviewing Techniques	Lecture	WO
	4.3 Methods: Developing and recording questions, evaluating responses	Lecture	WO
Thursday	5.1 Organizing Stakeholder Meetings Theory	Lecture	WO
13 March 2008	5.2 Organizing Stakeholder Meetings Individuals	Lecture	WO
	5.3 Organizing Stakeholder Meetings with Groups	Lecture	WO
Friday	6.1 Mapping the Ecological Context	Lecture	HE
14 March 2008	6.2 Mapping the Social Context	Lecture	HE
	6.3 Mapping the Decision Making Context	Lecture	HE
Saturday	7.1 Identifying interviewees	Field Practical	TB
15 March 2008	7.2 Meeting with interviewees	Field Practical	TB

	7.3 Conducting interviews and processing results	Field Practical	TB
Sunday 16 March 2008	7.4 Preparing for a group meeting	Field Practical	TB
	7.5 Conducting group meeting	Field Practical	TB
	7.6 Processing and sharing results of group meeting	Field Practical	TB

### Week 3

Date	Session Topic	Method	Lecturer
Monday 17 March 2008	8.1 Conducting a Bushmeat Assessment	Lecture	WO
	8.2 Conducting a Bushmeat Assessment	Lecture	WO
	8.3 Conducting a Bushmeat Assessment	Directed Study	WO
Tuesday 18 March 2008	9.1 Identifying Points of Intervention	Lecture	HE
	9.2 Identifying Points of Intervention	Lecture	HE
	9.3 Identifying Points of Intervention	Directed Study	HE
Wednesday 19 March 2008	10. 1 Developing an Assessment Plan	Lecture	HE
	10. 2 Developing an Assessment Plan	Directed Study	HE
	10. 3 Developing an Assessment Plan	Directed Study	HE
Thursday 20 March 2008	10.1 Writing a Report	Lecture	HE
	10.2 Writing a Report	Directed Study	HE

	10. 3 Writing a Report	Directed Study	HE
Friday 21 March 2008	Good Friday No Work Day		

## Week 4

Date	Session Topic	Method	Lecturer
Monday	Easterner Monday No Work Day		
24 March 2008			
Tuesday	11.1 Fellows to draft their Bushmeat Field Assessment Proposals	Self-Directed Study	JM
25 March 2008	11.2 Fellows to draft their Bushmeat Field Assessment Proposals	Self-Directed Study	JM
	11.3 Fellows to draft their Bushmeat Field Assessment Proposals	Self-Directed Study	JM
Wednesday	11.4 Fellows to draft their Bushmeat Field Assessment Proposals	Self-Directed Study	JM
26 March 2008	11.5 Fellows to draft their Bushmeat Field Assessment Proposals	Self-Directed Study	JM
	11.6 Fellows to draft their Bushmeat Field Assessment Proposals	Self-Directed Study	JM
Thursday	11.7 Fellows to draft their Bushmeat Field Assessment Proposals	Self-Directed Study	JM
27 March 2008	11.8 Fellows to draft their Bushmeat Field Assessment Proposals	Self-Directed Study	JM
	11.9 Fellows to draft their Bushmeat Field Assessment Proposals <i>(70% of Module Assessment)</i>	Self-Directed Study	JM
Friday	12.1 Fellows to present their Bushmeat Field Assessment Proposals <i>(30% of Module Assessment)</i>	Student Presentation	JM
28 March			

2008	12.2 Fellows to present their Bushmeat Field Assessment Proposals	Student Presentation	JM
	12.3 Fellows to present their Bushmeat Field Assessment Proposals	Student Presentation	JM

## Detailed Outcomes

### Wildlife Ecology and Management

#### 1.1 Explain wildlife biology and ecology concepts

- Explain what constitutes wildlife in the broader context, use and non use values
- Define population and describe its characteristics relating to natality, mortality, growth and dynamics
- Discuss population density, age and sex structure
- Explain the concept of carrying capacity and its limitations
- Review life history strategies and survivorship concepts
- Describe intra- and inter- population interactions

#### 1.2 Describe principles of wildlife management

- Define wildlife management
- Explain the genesis of wildlife management practices
- Describe the use of ecosystem and population manipulations, e.g. culling and prescribed burning management tools
- Review harvesting, and sustainable yield in the context of wildlife management
- Describe metapopulations and their relevance to management of rare species

#### 1.3 Apply wildlife management techniques

- Outline role of rarity, threat and vulnerability in choice of management techniques
- Describe importance of animal censuses and ecological monitoring
- Explain use of game ranching and game farming as form of management
- Expound on land use zoning for management

#### 1.4 Explain protected area management concepts and institutions

- Outline the history and development of national parks and reserves concept in Eastern Africa
- Describe classification of protected areas – the IUCN categories, UN list
- Describe island biogeography concepts and relevance to design of protected areas
- Describe ecosystem and population viability analysis
- National, local and community level institutions in conservation
- Determine compatibility of different uses with wildlife in Pas



### 1.5 Analyze people-wildlife conflicts, including problem animal management

- Examine the types and causes of human-wildlife conflicts
- Describe problem animals and their effects on human welfare
- Outline the use of technology and fencing in dealing with conflict

### 1.6 Analyze wildlife-based tourism

- Describe global tourism trends and role of wildlife in the industry
- Examine relation between tourism and development, including the environmental impacts of tourism
- Describe ecotourism, its marketing and the development of new tourism products

### 1.7 Explain Ex-Situ Wildlife Management

- Review the use of captive breeding in managing small populations and rare species
- Describe the role of re-introduction for conservation of locally extinct species
- Introduce the principles of population genetics and implications to wildlife management

### 1.8 Relate the concepts of biodiversity to wildlife management concepts

- Define biological diversity and its components
- Explain what creates, threatens and maintains biological diversity
- Outline biodiversity hotspots, centers of endemism in the global and Eastern African contexts

### 1.9 Explain eco-regional (landscape) planning approach

- Describe conservation and management beyond protected area boundaries
- Explain approaches to prioritization of landscapes as applied by various conservation organizations.
- Examine constraints to landscape planning



Photo credit: Emphraim Mwangomo, Serengeti National Park, Tanzania