Conservation news

People-oriented conservation: using cultural values in Uganda

A new approach to conservation in Africa is getting positive results after just 2 years, according to an initial assessment of the project completed in June 2008. Historically, African parks and protected areas have used an exclusion-based conservation model to protect wildlife and foster biodiversity but local communities often resent this approach, perceiving protected areas as a waste of precious land and resources. To overcome these objections conservationists have tried many economic and political enticements: raising community awareness, encouraging stakeholder involvement, and sponsoring local economic programmes. Despite these wellintentioned efforts, negative perceptions and resentment of wildlife and protected areas persist, undermining efforts to achieve conservation goals and sustain protected areas. In Uganda this problem is acute. Park managers face ongoing conflicts with local communities over boundaries and resource use, and local resistance threatens conservation objectives and drains financial and human resources.

An innovative project in Uganda aims to change this situation by demonstrating that improved relations between parks and people can result from integrating important local cultural values into the conceptual frameworks that inform the management of protected areas, thus fostering policies that accommodate local interests and creating a critical sense of local ownership. The Culture, Values and Conservation project was designed in 2005 by Fauna & Flora International (FFI, www.fauna-flora.org), and is being implemented with the Uganda Wildlife Authority (http://www.uwa.or.ug/) under the exclusive support of The John D. and Catherine T. MacArthur Foundation. The target parks-Rwenzori Mountains National Park (a World Heritage Site) and Lake Mburo National Park-are located in Uganda's Albertine Rift and interlacustrine regions, which have high biodiversity and natural resource value.

Both Parks are cultural landscapes. The Rwenzori Mountains have been the homeland to two peoples for generations. Bakonzo and Baamba farmers, with a distinct mountain culture and economy, view the high mountains as sacred and home to their gods. The Lake Mburo area is the traditional grazing rangelands for the Bahima people, pastoralists who depend on their cattle. The area is where Bahima's kings grazed selectively bred beautiful cows called *enyemibwa*—majestic cattle with a graceful build and impressive curved horns—representing the kingdom's grandeur, a defining principle of being Bahima. But historic Park management practices have excluded the Bakonzo and Baamba from their sacred mountains, and the Bahima from grazing their herds in now protected areas. In each case, this approach has created bitter struggles, sometimes resulting in armed conflict.

To address these problems, the Culture, Values and Conservation project is working closely with the local communities and Park management to identify the cultural sources of tension and develop workable solutions. Firstly, FFI and the Uganda Wildlife Authority surveyed and interviewed a broad cross-section of stakeholders around each Park. This resulted in two new community-based institutions, the Ankole Cow Conservation Association and the Rwenzori Mountains Cultural Association, established with the mandate to champion community cultural interests in the Parks, in close coordination with the Uganda Wildlife Authority.

The next step is to design actions to foster cultural values. In Lake Mburo National Park the Ankole Cow Conservation Association is working with Uganda Wildlife Authority to allow cultural Ankole cattle to graze in the Park. This addresses conservation as well as cultural goals, as the Ankole breed is currently threatened by crossbreeding for economic reasons and by loss of traditional rangeland due to human population pressures. Already, community members are eager to join the Association and are offering money and cattle to help establish this herd.

In Rwenzori Mountains National Park the project worked with local and ridge leaders to map sacred sites that the Bakonzo and Baamba believe bring health, rain, peace, good harvests and fertility. Next is an ongoing effort to develop practical, sanctioned ways for local communities to strengthen their cultural ties to, and use of, these sites. For example, in 2007, Park authorities worked with the Rwenzori Mountains Cultural Association to facilitate a sacred ceremony within Park boundaries. The occasion was the death anniversary of the Rwenzururu's first king. People came into the Park to celebrate at the burial site for one long special day, participating in ceremonial activities.

The initial project assessment, prepared by independent consultant Agrippinah Namara, in Kampala, found that the Culture, Values and Conservation project is creating interest and enthusiasm among local communities, has strengthened communication at all levels, and is improving relations between communities and protected areas. While challenges remain-as wildlife populations increase, so do damages to crops, farms and farming resources-hopes are high that this people-oriented project can find solutions that increase the sense of ownership local people have in the Parks. This early feedback suggests that by creating a fundamentally different way of conceiving national parks as a cultural construct, the Culture, Values and Conservation project is well on its way to establishing a tested conservation model that can succeed not just in these two National Parks, but throughout Uganda and across Africa.

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New resources for assessing the effectiveness of management in protected areas

One of the goals set out in the Convention of Biological Diversity's Programme of Work on Protected Areas (CBD, 2004; http://www.cbd.int/protected/) is to evaluate and improve the effectiveness of protected areas management across the world's protected area estate. A key activity is to implement management effectiveness evaluations for at least 30% of each Party's protected areas by 2010. To measure progress towards the CBD goal on management effectiveness various tools have been developed and applied worldwide, using the guidance provided by the World Commission on Protected Areas (Hockings et al., 2006, Assessing Effectiveness: A Framework for Assessing Management Effectiveness of Protected Areas. 2nd edition. IUCN, Gland, Switzerland).

One of the most widely applied of these has been the World Bank/WWF Management Effectiveness Tracking Tool (METT). The first version of the METT was released in 2003 and has since been applied to over 900 sites globally (Leverington et al., 2008, Management Effectiveness Evaluation in Protected Areas. The University of Queensland, Gatton, IUCN WCPA, TNC, WWF Australia), more than 400 of these by WWF (Dudley et al., 2007, Tracking Progress in Managing Protected Areas around the World: An Analysis of Two Applications of the Management Effectiveness Tracking Tool. WWF, Gland, Switzerland). The METT is also being used by GEF, Conservation International, BirdLife International, Ramsar and within projects supported by the Critical Ecosystem Partnership Fund. Together, these agencies have applied the METT in over 85 countries, primarily within national protected area agencies. Some of these agencies have also opted to adopt, and sometimes adapt, the methodology for their own use.

The first version of the METT was released 6 years ago, and comments and feedback were collected from many users. Based on this feedback a fully updated version of the METT was completed in 2007 and is now available (Stolton et al., 2007, *Reporting Progress in Protected Areas: A Site Level Management Effectiveness Tracking Tool*, 2nd edition. World Bank/WWF Forest Alliance, Gland, Switzerland http:// www.panda.org/about_wwf/what_we_do/forests/our_solutions/protection/tools/tracking_tool). The main changes in the revised METT are: (1) questions are less biased towards forest protected areas, (2) threats are aligned with the IUCN-CMP Unified Classifications of Direct Threats, (3) a new question looks at broad scale conservation, and (4) minor adjustments to improve recording of the assessment process. There has also been some rewording of questions for additional clarity and the structure has been simplified to aid statistical analysis. We hope that the new version of the METT tool will prove as popular as the first version and that its use will allow national protected area agencies, NGOs and development assistance agencies to measure the effectiveness of protected area management.

As an additional assistance to protected area managers, UNEP-WCMC, WWF and the World Commission on Protected Areas, with funding from the German Government, have recently developed a protected area management effectiveness website (http://www.wdpa.org/me). Launched in February 2008 this contains a summary of protected area management effectiveness methodologies, provides downloadable versions of various tools, and allows users to determine which protected areas have completed assessments. It also allows users to submit information on management effectiveness methodologies and assessments. The management effectiveness database is linked to the World Database of Protected Areas (http://www.wdpa.org), allowing users to obtain further information on protected areas.

Readers are encouraged to visit the site and help update the data it contains so that progress towards the CBD management effectiveness goal can be measured over time, and reported to the relevant international bodies and meetings.

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Rediscovered: the deer that science forgot

A supposedly lost species of deer has been rediscovered in the remote mountains of western Sumatra, Indonesia, almost a century after it was last definitely recorded by scientists. Fauna & Flora International (FFI) and the Kerinci-Seblat National Park Tiger Protection Team discovered the Sumatran muntjac *Muntiacus montanus* when they rescued it from a hunter's snare on an anti-poaching patrol at 1,950 m altitude in Kerinci-Seblat National Park.

The Sumatran muntjac was originally discovered in 1914 but had not been seen since 1930. FFI Kerinci-Seblat Programme Manager, Debbie Martyr, took photographs of the rescued deer—the first ever of a live specimen. This deer was originally named *Muntiacus muntjac montanus*, in 1918, but it has now been confirmed, based on the photographs, that this taxa is a full species rather than a subspecies. The encounter shows just how much there still is to discover about Sumatra's rainforests and the biodiversity of Kerinci-Seblat National Park.

Despite the fact it lives deep within the remote Kerinci-Seblat National Park the Sumatran muntjac's forest habitat is seriously threatened by slash-and-burn farming as well as illegal road building. In addition, poachers often set up snares, such as the one the photographed individual was caught in.

M. montanus has now been assessed, by R.J. Timmins, J.W. Duckworth and C.P. Groves, as Data Deficient on the IUCN Red List, meaning that research is urgently required to establish details of the deer's range, ecology and population status. FFI is now starting to work with the Indonesian Academy of Science and Indonesian Department of Forestry to develop and launch a field research programme for the species.

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Nature-based solutions to climate change

The World Bank's mission is to alleviate poverty and support sustainable development. Climate change poses a serious threat to achieving these objectives. Since the industrial revolution the mean surface temperature of Earth has increased by 1°C, and temperatures are likely to continue to rise, with serious consequences for agricultural productivity, food security and human livelihoods. While the key focus is on how to reduce greenhouse gas emissions, governments, communities and civil society are also wrestling with the need to develop strategies to mitigate and adapt to the current, and future, impacts of climate change. A new publication, Biodiversity, Climate Change and Adaptation. Nature-based Solutions from the World Bank Portfolio (http://siteresources. worldbank.org/INTBIODIVERSITY/Resources/Biodiversity_ 10-1-08_final.pdf), emphasizes the important role that biodiversity and nature-based solutions can play in the climate change agenda.

Through lending and grant support the World Bank is one of the largest international funding sources for biodiversity research worldwide. Over the last 20 years the World Bank has supported 598 projects in 122 countries, spending USD 3.5 billion and leveraging a further USD 2.7 billion in cofinancing. The major share (39%) of all funding for biodiversity projects went to Latin America and the Caribbean, with 29% to Africa, 12% to East Asia, 12% to Eastern Europe and South and Central Asia, and 3% to the Middle East and North Africa. A further 5% of this biodiversity funding supported global initiatives, such as the IFC Small and Medium Enterprise Fund, the Critical Ecosystems Partnership Fund and special programmes that support field guides, religious faiths and their environmental teachings, and capacity building to address invasive alien species.

Three of the greatest challenges over the coming decades will be biodiversity loss, climate change and water stress. Many of the activities supported under the Bank's Biodiversity Portfolio are already helping to enhance resilience to climate change and contribute to adaptation and mitigation strategies. Species and habitats are the building blocks on which human livelihoods depend-the foundation for productive forests, fisheries and agricultural crops. Ecosystem services provide life-giving utilities free of charge. Natural habitats protect important watersheds, afford coastal protection and reduce vulnerability to natural hazards. Traditional crop varieties adapted to local conditions may be more drought and pest resistant than higher-yielding modern varieties. Enhanced protection and management of ecosystems and biological resources can help to mitigate the impacts of climate change and contribute directly, and cost effectively, to solutions for adaptation.

The Bank's new Strategic Framework for Climate Change and Development focuses primarily on immediate actions to promote cleaner and renewable energy but it also recognizes the role that natural ecosystems and biodiversity can play in increasing resilience and reducing vulnerability to climate change. New climate investment funds afford the opportunity to reap benefits for biodiversity and local communities. The BioCarbon Fund, for instance, aims to deliver cost-effective emission reductions while promoting biodiversity conservation and poverty alleviation through projects that sequester or conserve greenhouse gases in forest, agricultural and other ecosystems. The Forest Carbon Partnership Facility and Forest Investment Program will assist developing countries in their efforts to reduce emissions from deforestation and degradation by giving added value to standing forests as carbon stores.

Climate change has become the key environmental concern of the decade, and governments and donors around the globe are focused on this issue. Much attention is rightly focused on reducing carbon emissions and greenhouse gases from industrial, energy and transport sources through reduction in fuel use and improved technologies. Nevertheless, as countries look to medium and long-term mitigation and adaptation measures, protection of natural habitats can also play a key role in climate change strategies. Strengthened support for protected areas, and more sustainable resource management, can contribute to adaptation strategies. The World Bank's new publication is a first step towards cataloguing ongoing efforts to support these nature-based solutions to climate change. KATHY MACKINNON World Bank, Washington, DC, USA E-mail kmackinnon@worldbank.org

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