Linking Conservation and Poverty Alleviation: A Discussion Paper on Good and Best Practice in the Case of Great Ape Conservation

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This paper is intended to act as a tool to stimulate discussion about good and best practice in linking conservation and poverty alleviation. Its publication signifies the start of a consultation process at the end of which we hope to produce a revised version for publication in the IUCN Primate Specialist Group series. We would much appreciate your feedback on the guidance provided and actively encourage you to contact us in order to agree, disagree or provide additional material. Please send any comments to alessandra.giuliani@iied.org

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All pictures were taken by Terry Sunderland. Starting from the left top corner and moving clockwise:

- Young male Nigeria-Cameroon chimpanzee (*Pan troglodytes vellerosus*), Afi Mountain Sanctuary, Nigeria. 2001.
- Members of the Boomu Women's Group making handicrafts, Murchison Falls National Park, Uganda, 2010
- Sub-adult western lowland gorilla (*Gorilla gorilla gorilla*) Limbe Wildlife Sanctuary, Cameroon, 2012
- Adult male orang-utan (*Pongo pygmaeus*) Tanjung Puting National Park, Kalimantan, Indonesia, 2010

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INTRODUCTION

Why Link Biodiversity Conservation and Poverty Alleviation?

Two of the greatest challenges facing humankind are the alleviation of poverty and the conservation of biological diversity. Rather than being perceived as separate issues, these two challenges are often closely linked. Poor people in rural areas of developing countries are often highly dependent on biodiversity to meet their day-to-day livelihood needs (Vira and Kontoleon 2010). At the same time their reliance and use of biological resources may cause pressure on some species and habitats. In turn, efforts made to conserve biodiversity may either exacerbate poverty (e.g. McShane 2003) or, conversely, contribute to its alleviation (e.g. Leisher et al 2010).

Where people live in poverty, there is a strong ethical and practical need to address conservation and livelihood goals in parallel. This impetus has driven a paradigm shift in conservation towards more integrated approaches (Sayer et al in press) and most practitioners now agree that landscape and ecosystem approaches provide the best way forward in reconciling the often-conflicting goals of biodiversity conservation and poverty alleviation (Sunderland et al 2008). Given the limited success to-date in establishing effective forest management strategies for optimising either conservation or development outcomes, practitioners and researchers are increasingly shifting their attention to the notion of "multi-functional landscapes", the management of whole systems for protection and productive functions. The optimisation of sustainable utilisation and conservation requires that inherent trade-offs between the two are explicitly negotiated and managed through effective land use allocation practices, as well as through the implementation of improved modalities for assessing and managing environmental services.

It is therefore with caution that conservation practitioners should consider their role in the alleviation of poverty. There are two facets of the "poverty question" that must form the basis of any considered action. Firstly, there is no single condition of "poverty" but rather it is a variable and multi-dimensional condition of deprivation (Sen 2000) or lack of well-being (MA 2003). Secondly, those natural resources vital to the livelihoods of the poor are only a subset of overall biodiversity.

The World Bank, addressing the multi-dimensional nature of poverty, describes poverty as *'a pronounced deprivation in well-being…. To be poor is to be hungry, to lack shelter and clothing, to be sick and not cared for, to be illiterate and not schooled. But for poor people, living in poverty is more than this. Poor people are particularly vulnerable to adverse events outside their control. They are often treated badly by the institutions of state and society and excluded from voice and power in these institutions' (*World Bank 2001: 15). Different development agencies use different definitions of poverty but all include

dimensions that can be broadly grouped into a number of categories: a minimum level of personal assets and income; access to basic social services (e.g. healthcare, education); access to basic infrastructure (e.g. piped water, roads); security (personal security and security of rights over resources such as land); and political power and voice.

Multidimensionality is, however, difficult to measure so traditional indicators of income have been retained. Within the MDGs, for example, MDG1 to "eradicate extreme poverty" refers to the more than a billion people whose income is less than US $1 a day. There are efforts to develop more complex indicators – either for application at the local level (e.g. Gonner et al 2007) or at the international level (Alkire and Santos 2010). All emphasize that income is an insufficient measure of poverty.

The second aspect of the "poverty question" that must be appreciated is that the natural resources which underpin the livelihoods of most of the rural poor are only a subset of biodiversity in all its components (genes, species, ecosystems) and attributes (composition, structure and function) (Redford and Richter 1999). So work on "resource" conservation is not equivalent to biodiversity conservation in its entirety, although it can represent a significant contribution (Vira and Kontoleon 2010, Roe et al 2011).

Great Ape Conservation and Poverty Alleviation

The distribution of great apes overlaps some of the poorest countries of the world, particularly in sub-Saharan Africa (Caldecott and Miles 2005, Sandbrook and Roe 2010). And within countries in which great apes are found, it is often in the poorest parts of the country that viable ape populations remain. Given the fact that most great ape populations are threatened, and have a strong intrinsic interest to humans it is no surprise that their plight has drawn considerable global attention and funding.

The threats to great ape survival most often consist of habitat loss or fragmentation, zoonotic diseases, hunting or trapping for meat or for the pet or commercial wildlife trade (Caldecott and Miles 2005). In many instances these threats are exacerbated by the poverty of people living in the proximity of great ape populations. The reliance of poor, rural communities on forest resources may result in threats due to: hunting practices that directly and indirectly target great apes for food or international trade; agricultural conversion or destructive gathering practices that directly degrade great ape habitats and; by virtue of their proximity, facilitate the transmission of human diseases to the apes. Conservation interventions directed at alleviating these threats may exacerbate the poverty that underlies some of this behaviour. For example, the most common conservation intervention has been the establishment of strict protected areas and management of these areas to exclude local humans and their

activities. While this has helped protect apes to some extent (as the majority live outside protected areas) it is well documented that strictly-enforced, state-run protected areas can have significant negative impacts on local, poor communities – for example reducing or curtailing their access to a wide range of natural resources that are critical to meeting their day-to-day livelihood needs, and in some case displacing them from their homes (e.g. see Brockington and Igoe 2006). Rural people are often further aggrieved when they are restricted from access to forested areas and they suffer damages caused by crop raiding by wildlife (Hockings and Humle 2009).

In some cases the loss of access to natural resources, or the damage inflicted on crops, has been compensated by the economic benefits that arise from living near great apes. For example, protected areas are one source of scarce jobs in rural areas and also, often have some form of benefit sharing scheme whereby local people receive a share of the revenues they generate from entry fees (Nielsen and Spenceley 2010). Furthermore, great apes are a valuable tourist attraction – where the conditions are right – and local people can benefit from jobs, support to local enterprises, joint ventures with the private sector, revenue-sharing from tourist permits and other direct benefits (e.g. Macfie and Williamson 2010).

The relationship between these countervailing dimensions of great ape conservation is of concern to both the conservation and poverty alleviation communities. From a development perspective, the valuable resource that is great apes can become one of the tools for achieving poverty alleviation if conservation is implemented carefully. This is critical because of the extreme poverty that is found in many great ape areas and the need to address it at the local and national level. From a conservation perspective, the negative impacts of great ape conservation – whether real or perceived - must be addressed in order to maintain support for conservation and assure the long-term survival of great ape populations.

As the human population continues to grow and land for both people and for great apes becomes increasingly scarce, these tensions between conservation and poverty alleviation can only be expected to increase. A recent study (Chao 2012) reports that there are already 30-60 million people living in forested environs in Central Africa and many tens of millions in Indonesia and Malaysia, many of whom are described as “poor”. It is clear that the conservation of great apes must take greater consideration of its potential role in poverty alleviation.

The Policy Framework for Poverty Alleviation and Great Ape Conservation

Conservation and poverty alleviation appear to be separate policy realms with little connection. The Convention on Biological Diversity (CBD) of 1992 was drafted in response to escalating biodiversity loss and provides an international

policy framework for biodiversity conservation activities worldwide. Similarly, the OECD International Development Targets of 1996 - reiterated as the Millennium Development Goals (MDGs) in 2000 – focus international development efforts on global poverty alleviation. Although ostensibly aimed at very different communities of interest, both of these policy frameworks recognise links between these two objectives.

The preamble of the CBD acknowledges that "economic and social development and poverty eradication are the first and overriding priorities of developing countries". In 2002 the Conference of Parties (CoP) to the CBD agreed to a Strategic Plan that included a target to "achieve by 2010 a significant reduction of the current rate of biodiversity loss… as a contribution to poverty alleviation and to the benefit of all life on Earth" (CBD 2002). The new Strategic Plan for Biodiversity 2011-2020 has as its mission to halt the loss of biodiversity thereby contributing to human well-being, and poverty eradication (CBD 2010). The 2010 CoP also adopted a decision on the "integration of biodiversity into poverty eradication and development" (Decision X/VI). Similarly within the MDGs, one goal focuses on environmental sustainability that includes biodiversity targets.

Beyond the CBD, at the UN World Summit in 2005, the secretariats of the five major biodiversity conventions (CBD, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Migratory Species of Wild Animals (CMS), the Ramsar Convention on Wetlands and the World Heritage Convention) issued a joint statement emphasizing the important role that biodiversity plays in the achievement of the MDGs, saying: "Biodiversity can indeed help alleviate hunger and poverty, can promote good human health, and be the basis for ensuring freedom and equity for all" (Biodiversity Liaison Group 2005).

Some international biodiversity policy is specifically focused on great apes. For example, the Kinshasa Declaration is an intergovernmental statement negotiated by the Great Ape Survival Partnership (GRASP) in 2005 which includes targets to:

- "Encourage the provision of long-term ecologically sustainable direct and indirect economic benefits to local communities, for example, through the introduction or extension of carefully regulated sustainable ecotourism enterprises in areas of great ape habitat, and the creation of long-term research projects operating in or near these areas" (Target 7); and
- "Develop ecologically sustainable local poverty-reduction strategies which recognize and integrate the needs of local communities sharing great ape habitats, while securing the lasting health of the environmental resources upon which they depend" (Target 10d).

Another great ape-specific international agreement is the CMS gorilla agreement, adopted in 2008 calling for action plans for each of the four gorilla taxa that would include both conservation actions and poverty alleviation actions (specifically, contribution to the sustainable development of local communities and reduction of human-gorilla conflicts). There is no equivalent regional policy or plan for great ape conservation in Asia, although national level policies and plans do exist – for example, the Indonesian Orangutan National Action Plan 2007-2017.

Activities Undertaken by Conservation Organizations to Address Poverty

For the various moral, political and strategic reasons discussed above, conservation organizations working on great ape conservation have begun to engage poverty alleviation in a variety of different ways (see Box 1 for an example). For some this has resulted in a direct engagement in poverty alleviation as an end in itself. For others, poverty alleviation is used as a strategy to adopt in order to obtain a conservation outcome – a means rather than an end. In yet other cases, tackling poverty alleviation has not necessarily led to the direct engagement of conservation organisations in such work, but to partnerships with organizations with expertise in development, health, and livelihood support.

Box 1: Good practice in conservation

Eight global conservation NGOs worked together to establish the "Conservation and Human Rights Framework" which outlines 10 steps for promoting the integration of human rights into conservation practice. These steps are also a useful guide for addressing the impacts of many types of conservation actions on the poverty of people living in and near areas of importance for great ape conservation.

1. Respect human rights
2. Promote human rights within conservation programs
3. Protect the vulnerable
4. Encourage good governance
5. Further develop these principles and implementation measures in consultation with constituencies
6. Establish relevant institutional policies
7. Ensure implementation capacity is in place
8. Address conservation-human rights links in the design, implementation and monitoring of programs
9. Establish accountability measures
10. Apply the policies and principles in agreements with subcontracting organizations and implementing partners.

Source: https://community.iucn.org/cihr/Pages/default.aspx

A review of experiences conducted in 2009 under the auspices of IIED's Poverty and Conservation Learning Group[1] (Sandbrook and Roe 2010) uncovered a wide-range of approaches taken by different ape conservation organisations at different sites. Specific examples include:

- Income generation:
  - As a means to incentivise investment in/tolerance of conservation (e.g. employment and/or revenue shares in tourism enterprises revenue shares from park entrance fees; payments for ecosystem services)
  - As a means to reduce pressure on natural resources though alternative livelihood strategies (e.g. beekeeping, improved agriculture, piggeries; facilitating market access for community products).
- Providing for subsistence needs (e.g. alternative sources of protein to bushmeat; energy alternatives to firewood, fuel efficient stoves; multiple use zones within protected areas)

[1] www.povertyandconservation.info

- Providing social services (e.g. human health and family planning initiatives; support to schools, clinics and other community projects)
- Sustaining the natural resource base (e.g. community involvement in protected area management; risk management/insurance: strategies to avoid or mitigate damage from wildlife (e.g. crop raiding, livestock predation))
- Capacity building (e.g. enterprise training, book-keeping, agricultural extension)
- Governance and empowerment (e.g. policy advocacy, community involvement in protected area management).

Conservation organizations have clearly been active in exploring the links between their activities and poverty alleviation. However, there has been only limited sharing of information and experiences on what works and doesn't. As a result there is much duplication of effort, a lack of learning from past failures and missed opportunities to replicate or scale up more successful approaches. Furthermore there has been little analysis of poverty impacts – beyond income generation (and even here the data are limited apart from some well-studied tourism interventions).

Purpose of This Document

This discussion paper is intended to provide guidance for conservation practitioners on whether and how to address poverty alleviation in the contexts in which they work. It addresses the overarching question: "What role should the practice of conservation play in the alleviation of poverty?" The paper provides a framework for evaluating how to ensure conservation actions do not exacerbate poverty and under what circumstances conservation actions could help *alleviate* poverty.

ADDRESSING POVERTY ALLEVIATION THROUGH CONSERVATION: GOOD AND BEST PRACTICE

A Common Framework for Describing Conservation Actions

Conservation is not a homogenous practice but entails a variety of different types of actions depending on the conservation objective, the context, the threat to biodiversity, and so on. A number of attempts have been made to classify conservation actions into a common framework. The most comprehensive is the IUCN - CMP Unified Classification of Conservation Actions (Salafsky et al 2008), an internationally agreed upon framework that provides a common lexicon for describing the range of conservation actions (a term that is interpreted as being synonymous with *intervention*, *activity, response,* and *strategy*) that conservation projects use to achieve their goals.

The framework identifies 23 different actions that are grouped into seven categories:

1) Land/water management: actions to identify, establish or expand parks and other legally protected areas, and to protect resource rights
2) Land/water protection: actions directed at conserving or restoring sites, habitats and the wider environment
3) Species management: actions directed at managing or restoring species, focused on the species of concern itself
4) Education and awareness: actions directed at people to improve understanding and skills, and influence behavior
5) Law and policy: actions to develop, change, influence, and help implement formal legislation, regulations, and voluntary standards
6) Livelihood, economic and other incentives: actions to use economic and other incentives to influence behaviour
7) External capacity building: actions to build the infrastructure to do better conservation

This framework is used to structure this paper.

Approaches to Poverty Alleviation

As with conservation, there is no single approach to poverty alleviation or poverty reduction – the actions taken depend upon local circumstances, the socio-political context and the level of engagement. Economic growth is clearly fundamental to poverty reduction (Chandy and Gertz 2011) but can leave many behind (Steele et al 2008). Targeted interventions are therefore needed that can reach poor people who have not benefited from macro-level development processes. In the Introduction we highlighted the multi-dimensionality of poverty, so reducing poverty means more than just increasing household income.

A brief review of experience from the development sector reveals that interventions that appear to be effective (Lawson et al 2010, Hanlon et al 2010, Steele et al 2008, Bass et al 2005) include:

- Building assets and income: including employment; selling local goods and services; increasing access to land and resources; increasing productivity of existing resources.
- Providing or improving infrastructure and services in order to reduce environmental health risks (including clean water, sanitation, safe housing) or mitigate impact of risks (clinics, health services etc.).
- Supporting basic needs through social protection and social assistance (including cash transfers) in order to protect people from shocks and reduces vulnerability, help conserve and accumulate assets, helps transform economic and social relations.
- Increasing voice and visibility - within national political structures and as well as locally.

Some of these interventions are short term, practical actions to meet immediate needs while others entail long-term support to organise and develop political power and voice. Many of these interventions are already carried out by conservation organisations (Table 1) and are consistent with the actions described in the IUCN/CMP framework.

Table 1:
How conservation actions can be used to help alleviate poverty

Development Intervention	***Conservation actions***
Building assets and income	Maintenance/restoration/enhancement of natural asset base as a result of biodiversity conservation Employment in biodiversity-based enterprises e.g. jobs in wildlife lodges; tour guides, game guards etc.) Revenue sharing from biodiversity-based enterprise (park entry fees, tourism ventures Small enterprise development e.g. tourism, sales of NTFPs; handicrafts; wildlife trade. Increasing agricultural productivity (as a strategy to reduce pressure on biodiversity resources)
Infrastructure and services	Maintenance/restoration/enhancement of pro-poor ecosystem services (e.g. medicinal plants; soil fertility; agricultural biodiversity; water purification); Extension to local communities of infrastructure/services provided for conservation personnel and or tourists (e.g. roads, communications, piped water) Provision of infrastructure/services from conservation income (e.g. support to schools, clinics, market links) Conservation-linked human health and family planning initiatives
Securing safety nets	Maintenance/restoration/enhancement of biodiversity-based healthcare, wild foods, etc. Insurance/risk management value conferred by diverse resource base Regular cash from revenue shares; Compensation for wildlife damage Fuel efficient stoves Alternative livelihood activities
Increasing voice	Community involvement in biodiversity management; Clarification/strengthening of land and resource rights Strengthening local institutions for sustainable resource management Formalising of community or co-management approaches

Good and Best Practice in Linking Ape Conservation and Poverty Alleviation – Scope of these Guidelines

While there are clearly significant overlaps in conservation practice and poverty alleviation practice, where problems often arise is in the potential trade-offs between them. For each of the actions within the seven categories of the IUCN/CMP framework we highlight the potential impacts on poverty – both positive and negative. We then suggest how the action can be implemented so as to at least "do no harm" to poor people. We consider this to be a minimum standard - or "good practice" - for all conservation actions. We then provide suggestions as to how the conservation action could move beyond doing no harm, to making a positive contribution to poverty alleviation – which we term "best practice".[2]

The accounts for the 23 actions are not all equivalent in length. There is more experience and more concern with those in categories 1, 2, and 3 and so these accounts are longer. When available we provide a box that illustrates the action through an account from a great ape conservation programme. The paper also provides pointers to additional resources that can support implementation of these practices. Not all of the resources are directly related to great ape conservation but serve as an entry point to the action being discussed.

While aimed specifically at those engaged in great ape conservation – for many of the reasons identified above relating to the proximity of great apes and poor people – much of the guidance provided in this document is applicable to other conservation contexts. Use of this common framework will allow comparison across projects and enable greater learning on the urgent tasks of both conserving great apes and alleviating poverty.

This document draws on two Poverty and Conservation Learning Group workshops that were organized by IIED and CIFOR and funded by the Arcus Foundation and U.S. Fish and Wildlife Service and held in Uganda (November, 2010[3]) and Indonesia (January, 2012[4]) and the existing literature on poverty alleviation and on great ape conservation. It provides no original analyses of the many efforts that are currently underway. It also does not provide details on any of the actions or suggested ways they could be modified to be poverty-neutral if not poverty-alleviating. Such details are available in the cited resources. There is a great deal that has been written on methods for alleviating poverty and these resources are a means to access this much-larger literature.

[2] See also : http://www.primate-sg.org/best_practices/
[3] http://povertyandconservation.info/en/pages/pclg-meetings-and-events
[4] http://www.cifor.org/events/linking-great-ape-conservation-and-poverty-alleviation-live-video-stream.html

ACTION 1. LAND/WATER PROTECTION

Actions to identify, establish or expand parks and other legally protected areas, and to protect resource rights

Policy Context
The 5th IUCN World Parks Congress in 2003 issued guidance that protected areas should not cause or exacerbate poverty (Rec.V29) while the CBD has called on Parties to ensure protected areas contribute to the eradication of poverty and to sustainable development. While these international norms are not binding they can be considered as an international view of good practice for this action

1.1 Site/Area Protection

Action definition

Establishing or expanding public or private parks, reserves, and other protected areas roughly equivalent to IUCN Categories I-VI (e.g. national parks, private reserves, community conserved areas).

Possible poverty impact

A protected area is defined by IUCN as "a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values."[5] Creation of these protected areas has sometimes resulted in the loss of access to resources by local human residents or even loss of land. Such loss can be exacerbated by the fact that areas likely to hold important populations of great apes also often hold very poor and/or marginalised people. The remoteness that has allowed the great apes to survive has also been a significant contributor to the poverty and/or marginalisation of people. The new Strategic Plan for Biodiversity 2011 – 2010 agreed at CBD CoP 10 includes a target to expand the coverage of protected areas to 17% of global land area (they currently cover just over 12%). This expanded coverage could herald even greater impacts on poor people as space for conservation competes for space with agriculture, human settlements and other uses.

Not all protected areas, however, are created or managed in ways that result in loss of land or resources. The presence of humans and the range of their activities that is permitted depend both on the protected area category (IUCN has six categories with categories I and II being the most strictly protected and the other categories allowing increasing levels of human use), the governance type (the CBD Programme of Work on Protected Areas recognizes four types – government

[5] http://iucn.org/about/work/programmes/pa/pa_what

run; co-managed; private; community-based) [6] and the extent to which management objectives and laws are enforced.

Good practice

One way that those establishing protected areas can minimize negative poverty impacts is for their creators and managers to think carefully about the management objectives of the protected area and therefore its IUCN category and governance type. Recent decades have seen some devolution of authority to increase engagement of local communities in the management of PA's. For example, from 1990 to 2010, the total protected area governed by non-government actors or under co-management arrangements has increased substantially from about 4% to 23% (Bertzky et al 2012).

Best practice

In 2004 Parties to the CBD adopted a comprehensive programme of work on protected areas that includes attention to social issues and which can be considered as best practice for this action. These include:

- Assess the social impacts arising from the establishment and maintenance of protected areas and adjust policies to avoid and mitigate negative impacts
- Promote local participation in decision making regarding the establishment and management of protected areas
- Ensure that any resettlement of indigenous communities as a consequence of the establishment or management of protected areas will only take place with their prior informed consent

Case study: Planning for a community-based protected area in Guinea Bissau

The CHIMBO Foundation is a Dutch NGO working to conserve chimpanzees in Guinea Bissau. It works in the Boe region of the country which forms the western fringe of the Fouta Diallon massif, an exceptionally important priority area for chimpanzee protection according to the Regional Action Plan for the Conservation of Chimpanzees in West Africa (SSC-IUCN). CHIMBO is working to have the Boe forest legally recognised as a community-based protected area. 27 village committees have been established to monitor chimpanzee populations, guard against hunting and evaluate incidences of human-wildlife conflict – particularly crop damage. Our objective is to establish a community based protected area that is financially self-supporting. Ecotourism offers a good option and may thus contribute to the long-term conservation of the chimpanzee population, the alleviation of poverty and the well-being of the local inhabitants.

[6] http://cmsdata.iucn.org/downloads/governance_of_protected_areas_for_cbd_pow_briefing_note_08_1.pdf

Resources

Guidance on undertaking a social assessment of protected areas is available at http://pubs.iied.org/14589IIED.html

The Convention on Biological Diversity (CBD) has a Programme of Work on Protected Areas, which can be seen at: https://www.cbd.int/protected

The IUCN has produced Best Practice Guidelines on engaging indigenous and local communities in protected areas management. Available at: http://www.iucn.org/about/work/programmes/gpap_home/gpap_capacity2/gpap_bpg/?2166/Indigenous-and-Local-Communites-and-Protected-Areas-Towards-Equity-and-Enhanced-Conservation

The CBD/IUCN has produced a resource kit to support practitioners implementing work in protected areas, including how to conduct governance assessments, raise awareness and develop national-level action plans. Available at: http://www.cbd.int/pa/doc/draft-governance-pa-2012-07-en.pdf

The UN REDD programme has produced guidance on free prior informed which although directed at REDD+ projects are also relevant to broader conservation projects: http://www.un-redd.org/Launch_of_FPIC_Guidlines/tabid/105976/Default.aspx

The FAO has produced guidelines on responsible governance of resource tenure – going beyond FPIC - which promote secure tenure rights and equitable access to land, fisheries and forests. These are available at: http://www.fao.org/nr/tenure/voluntary-guidelines/en

Trends in protected area coverage and categories can be found in: Bertzky B. et al. (2012) *Protected Planet Report 2012: Tracking progress towards global targets for protected areas*, IUCN, Gland and UNEP-WCMC Cambridge, UK. http://www.unep-wcmc.org/medialibrary/2012/09/14/eb3bb854/PPR2012_en.pdf

Details of the Conservation Initiative on Human Rights are available at https://community.iucn.org/cihr/ and more insights into rights-based approaches to conservation are available at: http://www.cifor.cgiar.org/Knowledge/Publications/Detail?pid=2800 and https://community.iucn.org/rba1/default.aspx

1.2 Resource & Habitat Protection

Action definition

Establishing protection or easements of some specific aspect of the resource on public or private lands *outside* of IUCN Categories I-VI (e.g. easements development rights, securing resource rights). This category is for efforts to legally protect some part of the overall resource rather than the entire entity.

Possible poverty impact

Many great apes live outside of protected areas, and conservation organisations are increasingly developing partnerships with private landowners, local community organisations and commercial companies – particularly timber companies – to secure their conservation. The main negative poverty impact that these types of actions are likely to cause are where poor people were previously hunting apes for meat, and the improved company practice or community management regime has reduced or prevented this activity. Or where management activities by the company exclude previously practiced harvesting of forest resources. Equally such interventions can have a positive impact where they empower community institutions to manage great apes and recognize their contribution to conservation.

Good practice

If great apes have been the subject of bushmeat hunting and the conservation intervention prevents this, ensure that alternative sources of protein are available -- non-threatened species or domesticated species – although noting the disputed success of many "bushmeat alternatives" projects. Where community management is supported ensure that existing community-based natural resource governance institutions are not undermined.

Best practice

Conservation organisations should seek the free prior informed consent of local communities for conservation actions on communal land. Where conservation actions entail work on private land or with private companies care should be taken to ensure these do not result in unnecessary restrictions on access to critical resources for poor people.

Case study: Working with timber concessions in Cameroon

The Zoological Society of London (ZSL) developed the Wildlife Wood Project (WWP) in 2007 and in Cameroon established a partnership with two progressive timber producers, Pallisco and SFID (Rougier) who together manage over 6,200 km2 of forest, larger than the adjacent Dja Biosphere Reserve. ZSL works with both the timber companies and local communities to improve the management of wildlife, including great apes, in and around the concessions. This includes:
- developing and implementing comprehensive wildlife management plans
- facilitating the involvement of local communities in the management of their forest resources
- assisting companies in identifying, managing and monitoring areas of High Conservation Value (HCV) with a particular focus on priority flagship species; the great apes and forest elephant.

Source: http://www.zsl.org/conservation/regions/africa/wildlife-wood-project

Resources

The IUCN has developed a set of best practice guidelines to support practitioners working with logging companies to implement sustainable policies that minimise impact on great apes. See Morgan, D. and Sanz, C. 2007. *Best practice guidelines for reducing the impact of commercial logging on great apes in western equatorial Africa*. Occasional Paper of the IUCN Species Survival Commission no. 34. http://www.primate-sg.org/storage/PDF/BP.logging.pdf

The integration of the private sector into partnerships to protect biodiversity and improve forest management is the focus of a handbook that draws on examples from the Congo basin. Clark, C.J. and Poulsen, J.R. (eds) (2012) *Tropical Forest Conservation and Industry Partnerships*, Wiley-Blackwell, Hoboken.

For a study of the impact of selected logging on primates, see: Plumptre, A. and Reynolds, V. (1994) The Effect of Selective Logging on the Primate Populations in the Budongo Forest Reserve, Uganda, *Journal of Applied Ecology,* 31 (4): 631-641.

For an example of research into the impact of selective resource protection, see the UK's DfID Research 4 Development programme, which is currently implementing a research project in Uganda entitled *The contribution of fruit eating primates to seed dispersal and natural regeneration after selective logging* http://r4d.dfid.gov.uk/Project/418/Default.aspx

This action overlaps several others (such as substitution, alliance & partnerships etc.) and readers may wish to look at the resources listed in these sections as well.

ACTION 2. LAND/WATER MANAGEMENT

Actions directed at conserving or restoring sites, habitats and the wider environment. This class contains all actions involved in directly managing habitats.

Policy Context
As with Action 1, the policy context addresses the concern that protected areas should not cause of exacerbate poverty and should actively strive to contribute to poverty alleviation and sustainable development. Outside of the protected area context The United Nations Declaration on the Rights of Indigenous Peoples (UN-DRIPS) 2007 is a non-binding universal framework that recognizes indigenous peoples' right to own and control their lands and resources. States are called upon to consult with indigenous peoples to obtain their free, prior and informed consent prior to approval of any project affecting their lands and resources.

2.1 Site/Area Management

Action definition
Management of protected areas and other resource lands for conservation (e.g. site design, demarcating borders, putting up fences, training park staff, control of hunting).

Possible poverty impact
Managing conservation areas for great ape conservation can result in loss of access to resources as discussed under Actions 1.1 and 1.2. However, conservation areas can also be managed in ways that generate benefits for poor people, for example by providing employment through projects such as guiding and fence construction. Where a protected area has an existing tourism product, or tourism potential there is even greater opportunity to generate benefits for local people, through jobs, support to small enterprises and so on.

Good practice
Undertaking a management effectiveness evaluation is a good starting point to explore social impacts, although tools are less well developed for this aspect of protected area management than, for example, managing visitor relations. A basic requirement is to ensure that management activities are undertaken in ways that minimize negative impacts on local communities and maximize benefits for example through jobs. For some species, including great apes, tourism has to be handled very carefully because of disease and safety issues, but proper training will allow local people to be engaged in protected area management.

Best practice

Actions to improve the impacts of site management include:

- Creating jobs that are specifically targeted at local people and at the poorer segments of the community
- Combine job creation with training to build the skills of local people
- Involve local people in protected area management and decision making – e.g. in agreeing boundaries for core areas
- Consider managing gate fees so that local people have a share of the revenue – either in the form of cash or contributions to *locally defined* priorities (e.g. clinics, schools)
- Where appropriate use PA websites and other public outreach channels to highlight local enterprises and attractions
- Consider seeking to get the protected area listed on the IUCN Green List of Well Managed Protected Areas which includes indicators on social impacts as well as on broader management effectiveness

Case study: Lack of attention to local concerns causes hostility to conservation in the gorilla parks of Uganda

Bwindi Impenetrable Forest in Uganda is home to a population of critically endangered mountain gorillas. Prior to 1991 it was a forest reserve that provided local people with access to firewood, medicinal plants and bushmeat. In 1991 Bwindi – and an adjacent forest Mgahinga - were gazetted as National Parks and the use of forest resources was made illegal. This had a major impact on the surrounding communities and most notably on the Batwa people who were most heavily dependent on forest products**.** Key products traditionally harvested by the Batwa, such as medicinal plants, honey, bamboo and fibres for basket making, all became scarce following park establishment due to increased policing efforts in the park. The closure of resource use, coupled with arrests of local people engaged in mining and timber harvesting, resulted in a heavy escalation in the conflict between local communities and park staff. Fires were started by local residents, and there were frequent attacks by local people on rangers and their families. Overall, the high levels of conflict and resistance from the surrounding communities, seriously threatened the ability of the protected area authority to manage the parks.

Source: Blomley et al 2010

Resources

A wide range of tools exist for assessing the effectiveness of different protected area management strategies. The World Database on Protected Areas has attempted to list these, and also provides details on which organisations use the tools and where they have been applied: http://www.wdpa.org/me/tools.aspx

Tools are less well developed for assessing social impacts of protected area

management but a review of over 30 such methodologies has been conducted by IIED and is available here: Schreckenberg, K., Camargo, I., Withnall, K., Corrigan, C., Franks, P., Roe, D., Scherl, L. and Richardson, V. (2010) *Social assessment of conservation initiatives: A review of rapid methodologies* http://pubs.iied.org/14589IIED.html

The new IUCN Green Protected Area List initiative seeks to highlight particularly good protected areas as well as sharing information on best practice and lessons learned. See: http://www.iucn.org/about/work/programmes/gpap_home/gpap_quality/gpap_greenlist/

The ProPoor Tourism website contains a wealth of information on how to maximize local benefits from tourism including for protected areas managers including through employment, supply chain management, visitor education and so on: http://www.propoortourism.info/Stakeholders/ProtectedAreas.html

Specific guidance on great ape tourism is provided by the IUCN Primate Specialist Group: http://www.primate-sg.org/storage/PDF/BP.tourism.pdf

2.2 Invasive/Problematic Species Control

Action definition

Eradicating, controlling and/or preventing invasive and/or other problematic plants, animals, and pathogens.

Possible poverty impact

Invasive/problematic species are a major threat to conservation and are a considerable driver of biodiversity loss. Invasive species can cause problems for both wildlife and people, destroying habitat and disrupting ecosystem services on which poor people are highly dependent.

Invasive species include pathogens that can be a major threat to great apes in particular. The occurrence of diseases that cross the human-wildlife divide, such as scabies, tuberculosis and dysentery, is often a symptom of the poverty that persists in many rural areas of developing countries. But disease transmission can also exacerbate poverty. For example, wildlife diseases can infect livestock that are often the major asset of poor people. For great apes in particular, pathogens are a major problem, particularly when they are in close proximity to human populations. The spread of infectious diseases between humans and apes can have major impacts on the health and survival of both.

Conservation actions can focus on increasing populations of target species, which may be "problematic" species for people living near the protected area. For example wildlife populations may move beyond protected area boundaries and

onto local people's land causing damage to crops, livestock, property and to people themselves. Human wildlife conflict is one of the key issues affecting the relationship between poor people and conservation on the ground (PCLG workshop 2010).

Good practices

A variety of actions can be taken to ensure that problematic and invasive species management does not exacerbate poverty.

- If invasive species that need to be controlled are being used by poor people then care needs to be taken to ensure that people have access to alternative resources
- Build on the local and traditional knowledge of people to help in managing problem animals
- If invasive species are pathogens and if vaccination of local peoples and/or their animals is considered then it is important to practice free, prior, and informed consent and engage in practices that are consistent with local practices (Ryan and Walsh 2011).
- Payment schemes that compensate farmers and other land users from crop losses can mitigate human-wildlife conflict to some extent.

Best practice

If invasive species control programmes are implemented then jobs should be made available to local people. Priority should be given to youth and women to involve them in meaningful employment opportunities.

Where movement of problem animals needs to be constrained then care needs to be taken to ensure that physical barriers such as fences are constructed within the park boundaries rather than on the land of local villages.

Where disease transmission is a problem, investing in primary health care and basic hygiene in local communities can make a significant contribution to poverty alleviation while at the same time reducing the risk to susceptible species such as great apes.

Case study: The "Health in Harmony" initiative, Indonesia

In West Kalimantan, Indonesia, poor health and severe poverty push human populations to engage in illegal logging. When families in Indonesia log tropical forests, often illegally, to pay for basic needs such as health care, the impacts are manifold: habitat for rare and endangered species is destroyed; fields are flooded and crops destroyed; increased standing water increases the incidence of diseases like malaria and dengue fever.

Health in Harmony believes that human and environmental health is inextricably linked, and their work encompasses multiple fields of impact. Health In Harmony partners with Alam Sehat Lestari (ASRI), an Indonesian non-profit organisation that means "Healthy Nature Everlasting". ASRI works with local communities to integrate high-quality, affordable health care coupled with strategies to protect the threatened rain forests of Gunung Palung National Park, Sukadana, West Kalimantan, Indonesia and the orangutan populations it supports.

Health In Harmony's mission combines health care, conservation, environmental education, and training in alternative livelihoods and medicine and work to provide an innovative, effective solution that empowers individuals to safeguard their own health and that of their families, while contributing to the preservation of the natural environment. This is undertaken through a holistic system that addresses the root causes of poor health in conjunction with ecosystem management.

Source: http://www.healthinharmony.org

Resources

For an assessment of the risk to great apes from infectious diseases, the impact of historical outbreaks and potential management interventions see. Ryan, S., and Walsh, P. (2011) Consequences of Non-Intervention for Infectious Disease in African Great Apes, *PLoS ONE,* 6(12): e29030. http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0029030

The IUCN/SCC Primate Specialist Group has developed best practice guidance on dealing with great ape-human wildlife conflict, which can be found at: http://www.primate-sg.org/best_practice_conflict/ Available in French, English & Bahasa Indonesia.

The Global Invasive Species Programme has published a booklet exploring the links between invasive species and poverty, and how both can be managed for

better human and ecosystem outcomes. GISP *Invasive species and poverty: exploring the links*
http://www.issg.org/pdf/publications/GISP/Resources/invasivesandpoverty.pdf

The WHO has attempted to review the impact of ecosystem changes on human health, which includes an assessment of the current situation and projection of possible future scenarios. WHO 2005. *Ecosystems and human well-being: health synthesis. A report of the Millennium Ecosystem Assessment*.
http://www.who.int/globalchange/ecosystems/ecosys.pdf

For an investigation of key issues related to diseases that affect both people and animals, particularly the impact on rural populations reliant on livestock, as well as priorities and suggested interventions, see Molyneux, D., Zuhair Hallaj, Z., Keusch, G., McManus, D., Ngowi, H., Cleaveland, S., Ramos-Jimenez, P., Gotuzzo, E., Kar, K., Sanchez, A. Garba, A., Carabin, H., Bassili, A., Chaignat, C., Meslin, F.-X., Abushama, H., Willingham, A. and Kioy, D. (2011) *Zoonoses and marginalised infectious diseases of poverty: Where do we stand?*
http://www.parasitesandvectors.com/content/pdf/1756-3305-4-106.pdf

2.3 Habitat & Natural Process Restoration

Action definition

Enhancing degraded, or restoring missing, habitats and ecosystem functions; dealing with pollution (e.g. creating forest corridors, riparian tree plantings, proscribed burns).

Possible poverty impact

Forest restoration projects are important parts of conservation activities in some great ape habitats (e.g. Rwanda, Indonesia). Restoration requires a great deal of labour, much of it unskilled, so such projects can provide work for local human populations including creation and management of tree nurseries, tree planting, and weeding. The impact of forest restoration can be beneficial or harmful to local human populations depending on the use and ownership of the land that is being reforested. If degraded and abandoned then restoration can provide important ecosystem benefits to humans. But if under agricultural uses or forest product harvesting then the impacts can be significantly negative, as per Action 1.1.

Good practice

Land that is used for restoration should not be the source of important products for local peoples. If this cannot be avoided due to the location of the land, and if significant access to resources is denied then comparable or more-valuable resources must be provided or just compensation must be provided.

Best practice

All appropriate work on restoration projects should be made available first to local peoples. This includes seed gathering, greenhouse work, planting and weeding.

New methods of ecosystem service valuation are suggesting that the economic benefits of restoration can outweigh costs. Payment for Ecosystem Service schemes could therefore provide incentives for restoration, but require development to ensure biodiversity and multiple services are enhanced and the needs of different stakeholders are met. Such approaches must be implemented widely if new global restoration targets are to be achieved.

Free, prior, and informed consent must be implemented for all land taken for restoration projects

Case study: Sabangau Peat Swamp Restoration

The Sabangau Forest is the largest non-fragmented area of lowland rainforest remaining in Borneo, and supports the largest extant population of the Bornean orangutan (*Pongo pygmaeus*). Prior to formal protected-area status being granted, the area was logged extensively, first by controlled legal logging and then by intense illegal logging. Illegal loggers used purpose-built canals to extract the timber, which has resulted in peatland drainage, putting the whole ecosystem at risk from peat degradation and, more immediately, from forest fires.

In order to maintain Sabangau's forest cover and peatland resource, and hence its rich biodiversity, large orangutan population, natural resource functions and carbon store, there is an urgent requirement to restore the natural hydrological conditions of the ecosystem, prevent further fire events, prevent illegal incursions into the forest and restore deforested areas.

The Australian Orangutan Project supports the protection and restoration of orangutan habitat in the Sabangau peat swamp forest in Central Kalimantan. This includes the damming of illegal canals and improving capability for fighting of forest fires by supporting, training and equipping fire-fighting teams in local villages. Existing local community forest patrol units also work to prevent illegal activities in the forest (e.g. fire-starting, logging, breaking dams, etc.). Seedlings will be grown to regenerate peat-swamp forest in degraded areas.

Source: http://www.orangutan.org.au/Projects/sabangau-peat-swamp-restoration

Resources

The ICUN has produced a set of best practice guidelines for restoration of habitats within protected areas, aimed at practitioners and drawing from examples across the world. Keenleyside, K., Dudley, N., Cairns, S., Hall, C. and Stolton, S. (eds.) (2012) *Ecological restoration for protected areas: principles, guidelines and best practices*: http://data.iucn.org/dbtw-wpd/edocs/PAG-018.pdf

For the details & wording of the CITES resolution on the trade and conservation of great apes see *CITES: Resolution Conf. 13.4: Conservation of and trade in great apes*
http://www.cites.org/eng/res/13/13-04.php

An overview of existing certification schemes & standards related to biodiversity that are available for use industry, and how the private sector can be supported to implement these standards is available at UNEP-WCMC (2011) *Review of the biodiversity requirements of standards and certification schemes: A snapshot of current practice,* CBD Technical Series No. 63.
http://www.cbd.int/doc/publications/cbd-ts-63-en.pdf

For a discussion of how habitat restoration can improve both biodiversity and delivery of environmental services, see Bullock, J., Aronson, J., Newton, A., Pywell, R. and Rey-Benayas, J. (2011) Restoration of ecosystem services and biodiversity: conflicts and opportunities. *Trends in Ecology and Evolution,* 1418: 9.
http://www2.uah.es/josemrey/Docencia/Materia1Master/Bullock_RestorationReview_TREE_2011_print.pdf

A background guide to planning and implementing forest restoration, including how to integrate restoration with other aspects of conservation and development can be found at Mansourian, M., Vallauri, D. and Dudley, N. *Forest restoration in landscapes*. Springer. http://www.bf.uni-lj.si/fileadmin/groups/2716/downloads/%C4%8Clanki_vaje/2.VS%C5%A0/Mansurian_Forest_restoration_landscapes.pdf

ACTION 3. SPECIES MANAGEMENT

Actions directed at directly managing or restoring species, focused on the species of concern itself.

Policy context

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) restricts the extent to which some species can be used for commercial purposes and/or traded across borders. All great apes are listed on CITES Appendix 1 meaning no trade is permitted. Gorillas are also listed on Appendix 1 of the Convention on Migratory Species (CMS) meaning there are obligations on Parties to strictly protect these animals, conserving or restoring the places where they live, and controlling other factors that might endanger them.

3.1 Species Management

Action definition:

Managing specific plant and animal populations of concern (e.g. harvest management, culling a species to keep population size within park carrying capacity).

Possible poverty impact

Great apes are subject to considerable pressure from hunting, so managing their populations inevitably means tackling hunting that can affect some poor people. Unlike many other species, great apes cannot be managed for sustainable harvesting due to their highly endangered status. Furthermore they are rarely subject to population management such as culling since no population of apes is at a level that requires this kind of intervention and such actions would be highly controversial if undertaken. Even if apes are causing significant problems for local people through crop raiding or attacks on livestock, property or person, culling is not permitted and local people may thus suffer significant costs. Great ape species management generally occurs through habitat management - the poverty impacts of which have been discussed under Action 1 above.

Good practice

Where great ape management requires controlling hunting then efforts should be made to ensure that this does not affect the food security of poor people and that alternative sources of protein are available. Where apes are responsible for crop-raiding or other forms of human–wildlife conflict impacts should be mitigated.

Best practice

The IUCN Primate specialist group has developed recommendations on great ape – human wildlife conflict corresponds to best practice (Hockings and Hulme

2009). Local people should be involved in all great ape management activities whenever possible. In cases where increasing populations of great apes require additional park guards, ensure that such jobs go to local people.

Case study: Working with communities to manage gorillas in Central Africa

The Cross River gorilla is the least known and rarest of the gorilla taxa, found only at the headwaters of the Cross River straddling the Nigeria-Cameroon border. A significant portion of the small remaining population is found outside of protected areas in forests used by local communities. In Cameroon a community network called "Gorilla Guardians", created by the Wildlife Conservation Society (WCS), works to improve gorilla survival by employing community members to serve as conservation ambassadors to their communities and carry out monitoring of gorillas and illegal activities.

In Nigeria, the largest population of Cross River gorillas is found within the Mbe Mountains, which is a community forest. Here WCS is working to establish the legal framework for community conservation of this area and its gorillas, and support the development of community institutions and management structures for its operations.

Source:
http://www.sospecies.org/sos_projects/mammals/crossrivergorilla

Resources

IIED has published a guide for decision makers on how to use financial mitigation measures to offset the livelihood costs (to both apes and people) created by human-ape contact. Bowen-Jones, E. (2012) *Tackling human wildlife conflict: A prerequisite for linking conservation and poverty alleviation. A decision-makers guide to financial and institutional mechanisms*. PCLG Working Paper.
http://povertyandconservation.info/sites/default/files/PCLG%20HWC%20discussion%20paper_0.pdf

The IUCN/SCC Primate Specialist Group has developed best practice guidance on dealing with great ape-human wildlife conflict, which can be found at: http://www.primate-sg.org/best_practice_conflict/ Available in French, English & Bahasa Indonesia.

Campbell-Smith et al sought to test the effectiveness of several techniques for managing and reducing human-ape conflicts with farmers living in proximity to orangutans in Sumatra. Changes in farmers' attitudes to apes over time (following use of management techniques) is also investigated. Campbell-Smith, G., Sembiring, R. and Linkie, M. (2012) Evaluating the effectiveness of human–orangutan conflict mitigation strategies in Sumatra, *Journal of Applied Ecology*, 49: 367–375.
http://www.ptes.org/files/1844_indonesia_orangutan_published_paper2.pdf

The FAO has produced a paper specifically examining wildlife-human conflict issues in African forests. Lamarque, F., Anderson, J., Fergusson, R., Lagrange, M., Osei-Owusu, Y. and Bakker, L. (2009)
Human-wildlife conflict in Africa: Causes, consequences and management strategies, FAO Forestry Paper 157.
http://www.fao.org/docrep/012/i1048e/i1048e00.htm

A useful 'how-to' guide for managing human-wildlife conflict is available at Decker, D., Lauber, T. and Seimer, W. (2002) *Human-Wildlife Conflict Management: A Practitioner's Guide,* Northeast Wildlife Damage Cooperative, New York. http://wildlifecontrol.info/pubs/Documents/Human-Wildlife/H-W%20Guide.pdf Although drawing on conflicts from north America, much of the guide is transferrable to other areas and some useful tools are presented such as a tool for assessing human attitudes towards wildlife contacts and tolerance of wildlife problems.

For a discussion on the ethics of wildlife conservation and how positive human-wildlife outcomes can be balanced, see
Gamborg, C., Palmer, C. and Sandoe, P. (2012) Ethics of Wildlife Management and Conservation: What Should We Try to Protect?, *Nature Education Knowledge*, 3(10): 8.
http://www.nature.com/scitable/knowledge/library/ethics-of-wildlife-management-and-conservation-what-80060473

For an innovative attempt to address wildlife conflict see Parker & Osborne's investigation into how chilli can be used as an alternative cash crop which is less vulnerable to wildlife damage. Parker, G. and Osborn, F. (2006) Investigating the potential for chilli Capsicum spp. to reduce human-wildlife conflict in Zimbabwe, *Oryx*, 40 (3*):* 343–346. http://www.tnrf.org/files/E-INFO-Oryx_Investigating_the_potential_for_chilli_Capsicum_spp_to_reduce_human-wildlife_conflict_in_Zimbabwe_Parker_and_Osborn_2006.pdf

3.2 Species Recovery

Action definition:
Manipulating, enhancing or restoring specific plant and animal populations (e.g.

vaccination programs, supplementary feeding, parasite management).

Possible poverty impact
As discussed above, the majority of species recovery work done with great apes is done indirectly through habitat protection and therefore has little direct impact on poverty alleviation except through some of the Actions discussed above.

Good practice
In the event that species populations recover substantially attention needs to be paid to the potential for greater human wildlife conflict as discussed above.

Best practice
As above

Resources
California State University has a program dedicated to endangered species recovery and regularly publishes reports, papers and news on the topic on its website. Data, maps, species-specific reports and other information is also available. http://esrp.csustan.edu/

The Durrell Conservation trust runs a number of courses aimed at professionals wishing to gain greater experience in conservation, some of which include courses dedicated to endangered species recovery.
http://www.durrell.org/academy/courses/

The USFW Endangered Species Programme website provides a wide range of materials on endangered species and initiatives aimed at improving recovery.
http://www.fws.gov/endangered/news/

In 1996 the Australian Nature Conservation Agency held an endangered species themed workshop entitled *Back from the Brink: Refining the Threatened Species Recovery Process*. Proceedings from the workshop, including recommendations made by the participants can be found at
http://www.environment.gov.au/biodiversity/threatened/publications/bftb/workshop.html

For a review of the key problems that programmes have suffered in using captive breeding for species recovery, see Snyder, N. Derrickson, S., Beissinger, S., Wiley, J. Smith, T., Toone, W., Miller, B. (1996) Limitations of captive breeding in endangered species recovery, *Conservation Biology,* 10: 338-348.
http://www.esf.edu/efb/gibbs/efb413/SnyderEtAl1996-Limits_of_captive_breeding.pdf

Gibbs and Currie conducted a valuable study using data from an 18-year time period to review of the effectiveness of legislative tools provided by the U.S. Endangered Species Act in species recovery. Gibbs K., and Currie, D. (2012)

Protecting Endangered Species: Do the Main Legislative Tools Work, *PLoS ONE,* 7(5): e35730. http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0035730

O'Connorr et al have performed a comparison of US National and Main State Conservation, with the aim of identifying best practice in recovery plans for endangered species using the case of Atlantic Salmon as an example. O'Connorr, R., Owen, R. and Rhymer, J. (2000) Best Practices in Endangered Species Recovery Planning: Lessons for the Conservation of Maine's Atlantic Salmon, *Maine Policy Review*, 9 (2): 72 -91. http://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=1297&context=mpr

3.3 Species Re-Introduction

Action definition:
Re-introducing species to places where they formally occurred for conservation purposes.

Possible poverty impact
Reintroducing great apes requires access to suitable areas. Acquisition of land for new protected areas, or changed management of existing land has the potential to negatively affect local human populations in ways discussed under previous Actions.

Good practice
Where reintroductions occur on land accessed by local communities ensure that any resulting restrictions on resource access are mitigated. Where reintroductions occur on communal land ensure the free prior informed consent of potentially affected communities is obtained.

Best practice
Involve local communities in identifying, planning and managing reintroduction sites. Where the reintroduction process requires employing additional staff make sure jobs (and associated training) are targeted at local people including the poorer members of the community.

Case study: Orangutan reintroduction in Kalimantan

The Borneo Orangutan Survival (BOS) Foundation manages two orangutan reintroduction programmes in Indonesia; Nyaru Menteng in Central Kalimantan and Samboja Lestari in East Kalimantan. The first stage is to rehabilitate orphaned orangutans so that they are equipped with the skills they need to survive once they are old enough to be reintroduced to the forest. During rehabilitation, orangutans are taught and encouraged to build nests, select appropriate natural foods and recognise natural predators. Skills acquired by each individual are assessed before moving them up through the levels. Orangutans then progress to one of pre-release islands, which is a halfway forest for the final stage of rehabilitation. Dependent on the age and existing skills each orangutan has, rehabilitation can take up to 7 years.

Once rehabilitated, the overriding goal is to reintroduce orangutans back to secure natural habitat to establish new viable long-term populations to bolster conservation of the species in the wild. The forest areas secured for the reintroduction programme in Kalimantan are established with camps, equipment and trained personnel to ensure that staff are able to continuously monitor each orangutan's adaptation to its natural habitat.

Source: http://orangutan.or.id/central-kalimantan-orangutan-reintroduction-program-at-nyaru-menteng

Resources

The IUCN has produced best practice guidelines specifically for re-introducing great apes, designed for rehabilitators and specialists in re-introduction. Available in English, French & Bahasa Indonesia. Beck, B., Walkup, K., Rodrigues, M., Unwin, S., Travis, D. and Stoinski, T. (2007) *Best Practice Guidelines for the Re-introduction of Great Apes,* IUCN/SSC Primate Specialist Group, Gland, Switzerland.
http://www.primate-sg.org/best_practice_reintroduction/

In 1998 the ICUN also produced guidelines for the best practice of species re-introduction more generally. These are intended to ensure that re-introductions deliver their intended conservation benefit without adverse side-effects of greater impact. They can be found at IUCN 1998 *Guidelines for Re-introductions* prepared by the IUCN/SSC reintroduction specialist group, Gland, Switzerland and Cambridge, UK http://www.iucnsscrsg.org/download/English.pdf

Until recently Bajomi was working on a protocol aiming to update and complement the IUCN guidelines based on accumulate data which has become available over the years since the guidelines were published. Although the work has since been discontinued, the draft version does provide some valuable information. Bajomi, B. (2010) *Reintroduction of endangered animal species: complimenting the IUCN Guidelines* http://www.environmentalevidence.org/Documents/Draft_protocols/Draftprotocol86.pdf

The London Zoological Society provides some information on work by the Society and its partners in breeding species for reintroduction: http://www.zsl.org/conservation/species/conservation-breeding/breeding-species-for-reintroduction,151,PS.html and http://www.biaza.org.uk/conservation/in-situ-conservation/reintroduction/

The University of Michigan produced a special edition of its regular publication Endangered Species Update which contains a large number of papers relating to conservation of endangered species recovery and includes work on reintroductions. Wallace, R., Clark, T. and Reading, R. (eds.) (2002) Interdisciplinary approach to endangered species recovery: concepts, applications, cases, *Endangered Species Update Special Issue,* 19 (4): 65-204. http://141.213.232.243/bitstream/handle/2027.42/91254/ESUjulyaugust2002.pdf;jsessionid=629763029F7EBFA1B4CC9437E495B7BA?sequence=1

For an illustration of how effective evaluation of potential reintroduction sites can be conducted, see Cheyne, S. (2006) Wildlife reintroduction: considerations of habitat quality at the release site, *BMC Ecology, 6(5).* http://www.biomedcentral.com/content/pdf/1472-6785-6-5.pdf

3.4 *Ex-situ* Conservation

Action definition

Protecting biodiversity out of its native habitats (e.g. captive breeding, gene banking).

Possible poverty impact

There is a great deal of work done on great ape conservation outside of their native habitat, particularly in zoos and research facilities. This has very little to no direct impact on local human populations. However, many zoos exhibit great apes and hundreds of millions of people visit the world's zoos each year. Many progressive zoos provide support to great ape field conservation and a portion of this is used on programmes that provide support to people living near great ape conservation areas

There are also a number of great ape sanctuaries, usually in range countries, established to care for individual great apes that have been removed from the

wild due to death of mothers, disease or injury. Some of these sanctuaries engage in alternative livelihood work with local communities and provide additional support of varying types.

Good practice

Ensure that funds collected from zoos include significant support for poverty alleviation activities. Ensure that where sanctuaries are established this is with the free prior informed consent of local people and that impacts associated with resource restrictions and great ape-human conflict are mitigated, as discussed above.

Best practice

Develop messaging to accompany all great ape exhibits that explains the links between poverty alleviation and great ape conservation and work with the development programmes of zoos to raise money for such work. Where in-country sanctuaries are established ensure any jobs created are targeted at local people.

Case study: Local employment at a chimpanzee sanctuary in Cameroon

The Sanaga-Yong Chimpanzee Rescue Centre in Cameroon was established to treat chimpanzees orphaned by the bushmeat trade. To foster goodwill, In Defense of Animals-Africa employs local residents at the sanctuary and school. Because medical care is difficult to find and afford, the program provides medical support to locals on a daily basis. This goodwill is the foundation necessary to establish the social and cultural conditions required to ensure that endangered great apes survive.

Source: http://www.idausa.org/africa

Resources

The IUCN has produced a set of Technical Guidelines on the management of ex-situ populations for conservation, aimed at assisting managers and policymakers in designing appropriate and effective ex-situ conservation programmes. IUCN 2002 *Technical Guidelines on the management of ex-situ populations for conservation*. http://data.iucn.org/dbtw-wpd/edocs/Rep-2002-017.pdf

A paper exploring whether ex-situ conservation should remain 'inferior' in priority to in-situ conservation can be found at Pritchard, D. and Harrop, S. (2010) A Re-Evaluation Of The Role Of Ex Situ Conservation In The Face Of Climate Change, *BGJournal* 7(1). http://www.bgci.org/resources/article/0632/

Nijman explores the roles of zoos and in-situ conservation efforts in a paper

focusing on a specific species that nevertheless has relevance to other apes and locations. Nijman, V. (2006) In-Situ and Ex-Situ status of the Javan Gibbon and the role of zoos in conservation of the species, *Contributions to Zoology*, 75 (3/4): 161-168. http://crs.itb.ac.id/media/jurnal/refs/critical_review/Referensi/00/Primer_berkaitan_dengan_metodologi/2006_Nijman_InSituAndExSituStatusOfJavanGibbon.pdf

Another paper discussing the relative importance of in-situ and ex-situ populations of lemurs and other species in Madagascar can be found at. Schwitzer, C., Schwitzer, N., Randriatahina, G., Rabarivola, C. & Kaumanns, W. (2006), *"Programme Sahamalaza": New perspectives for the in situ and ex situ study and conservation of the blue-eyed black lemur (Eulemur macaco flavifrons) in a fragmented habitat,* Proceedings of the German-Malagasy Research Cooperation in Life and Earth Sciences, edited by Schwitzer, C., Brandt, S., et al. http://aeecl.org/documents/13.pdf

The Association of Zoos and Aquariums (AZA) provides a range of information on ex-situ conservation efforts as well as the role of zoos in supporting in-situ conservation. More information can be found at http://www.aza.org/conservation-commitments-and-impacts/

The AZA Ape TAG Conservation Initiative is a specific ape-centred conservation programme that delivers multiple interventions including seeking to increase links between zoos and in-situ initiatives. The Initiative is funded primarily by donations from zoos. See: http://www.clemetzoo.com/apetag/ConservationInitiative.html

The World Association for Zoos and Aquariums (WAZA) has developed several conservation strategies that set out the position of many leading zoos on the role of zoos in topics such as education, in-situ conservation and research. For more details see http://www.waza.org/en/site/conservation/conservation-strategies

ACTION 4. EDUCATION & AWARENESS

Actions directed at people to improve understanding and skills, and influence behaviour.

4.1 Formal Education

Action definition
Enhancing knowledge and skills of students in a formal degree programme.

Possible poverty impact
There is no direct impact of this action on local people and their poverty levels.

Good practice
Support is available in many countries for scholarships to train people from range states in great ape conservation through masters and doctoral programs. Through their field research or after completion of their work such trained individuals have the potential to implement many of the poverty alleviation actions discussed in this report.

Best practice
Include modules on linking conservation and poverty alleviation into tertiary education programmes. Ensure that preference in scholarships is given to people from great ape range states with particular emphasis on those with ties to communities near great ape conservation projects. Allocate a proportion of the scholarships to students with interests in linking great ape conservation and poverty alleviation.

Resources
The WWF administers the Prince Bernhard Scholarships for Nature Conservation, aimed at professionals from certain countries currently working in conservation. The scholarships are provided to cover the cost of further training. More details are available at: http://wwf.panda.org/how_you_can_help/volunteer/prince_bernhard_scholarships

The Orang Utan Republik Foundation offers several sources of funding for research, training and other activities related to orangutans. More information is available at http://ourf.org/programs/education-initiatives/funding-education-proposals-mainmenu-7/recipients-of-our-funding

The ERuDeF Foundation of Cameroon has developed postgraduate professional training programmes related to great apes and conservation. More details can be found at http://www.erudefconservation.org/Professional%20Development.html and http://www.erudefconservation.org/IBINS.html

The United States Fish and Wildlife Service, via the Great Apes Conservation Fund, offers funding for a variety of activities including formal training & capacity building of local populations. Details are available at https://www.cfda.gov/index?s=program&mode=form&tab=core&id=47c88ee1e8b7a03191e18f9637586e0c

The Fossey Fund's Karisoke Research Center now offers training to Rwandan higher-education students including courses in Mountain Gorilla Conservation and Field Research Methods. More information is at http://gorillafund.org/page.aspx?pid=243

The Durrell Conservation trust runs a number of courses aimed at professionals wishing to gain greater experience in conservation. A wide variety of topics are available such as integrated conservation and species management, and endangered species husbandry. http://www.durrell.org/academy/courses/

Case Study: Djolu Technical College for Conservation & Rural Development
(*Institut Superieur de Developpement Rurale-ISDR*)

The Bonobo Conservation Initiative, an NGO, established the Djolu Technical College with local partners as part of the process of creating the Kokolopori Bonobo Reserve. Djolu is the only higher education institute within a 100,000 km² area in the Tshuapa region of the Equateur Province - the least developed and most heavily forested province in the Democratic Republic of Congo (DRC). Djolu offers courses in conservation management, sustainable agriculture, and micro-enterprise development. In addition to coursework, students participate in a number of projects and studies. In Kokolopori Reserve, for example, Djolu agronomists provide farming cooperatives with training, equipment, and seedlings. Students have also participated in bonobo studies and surveys with BCI, Harvard University, and the Max Planck Institute: "Our students are thirsty not only for technical knowledge and management skills, but also for the chance to rebuild hope for the future of their villages, and protect the biodiversity of their rainforest." (Albert Lokasola, president of Vie Sauvage and co-founder of Djolu Technical College).

Source: http://www.bonobo.org/programs/empowering-people/education-programs

4.2 Training

Action definition

Enhancing knowledge, skills and information exchange for practitioners, stakeholders, and other relevant individuals in structured settings outside of degree programs (e.g. monitoring workshops, learning networks, stakeholder education on specific issues).

Possible poverty impact

Skills and knowledge are key assets that can help lift people out of poverty by allowing them to progress to better paid jobs. Training opportunities are often highly limited – if not non-existent – in remote rural areas, so conservation linked training can be a vital source of skills development.

Good practice

Target training opportunities (e.g. in park management, tourism management, construction) at communities living in or around the conservation area rather than bringing in trainees from outside the areaBest practices
Ensure that training opportunities are discussed with the local community and that decisions on who is able to take up opportunities are made openly and transparently rather than inadvertently undermining local decision-making processes.

Resources

The pro-poor tourism website http://www.propoortourism.info/WaysToHelp/Training.html provides tips as to how to maximize the local benefits of training opportunities. While intended for those working in tourism, the guidance provided is equally relevant to the conservation sector.

A study into the involvement of local people in forest monitoring found that use of local people was more cost-effective and delivered better livelihoods and conservations outcomes than traditional monitoring approaches. Danielsen, F., Mendoza, M., Tagtag, A., Alviola, P., Balete, D., Jensen, A., Enghoff, M. and Poulsen, M. (2007) Increasing Conservation Management Action by Involving Local People in Natural Resource Monitoring, *Ambio*, 36 (7) http://www.nordeco.dk/assets/321/amFinnDanielsen.pdf

For an example of a bushmeat income-substitution programme, see the Lebialem Hunters' Beekeeping Initiative. This is a locally-led partnership based in Southwest Cameroon that aims to reduce financial dependence on bushmeat and the volume of species harvested by providing hunters with an alternative income through beekeeping. This includes technical support to beekeepers with equipment and establishing operatives and linkages to markets, as well as implementing anti-bush meat awareness programmes and evaluating the effectiveness of beekeeping as an alternative.

http://www.bee4bushmeat.org/about.htm

The FAO conducted a study into the impact of support (including training such as bookkeeping, business management etc.) for the establishment of conservation friendly small businesses in Uganda. Mujuni, C., Nicholson, K., van de Kop, P., Baldascini, A. and Grouwels, S. (2001) *Community-based forest enterprise development for improved livelihoods and biodiversity conservation: a case study from Bwindi World Heritage site, Uganda*, Paper submitted to the 12th World forestry Congress, Quebec City, Canada
http://www.fao.org/docrep/ARTICLE/WFC/XII/0910-C1.HTM

The United States Fish and Wildlife Service, via the Great Apes Conservation Fund, offers funding for a variety of activities including informal training & capacity building of local populations. Details are available at
https://www.cfda.gov/index?s=program&mode=form&tab=core&id=47c88ee1e8b7a03191e18f9637586e0c

Amongst other initiatives, Conservation International is working to mainstream conservation & biodiversity in tourism by identifying best management practices and developing training manuals and workshops in sustainable tourism management for local tourism businesses, including hotels, tour companies and cruise lines. Examples of the work can be found at
http://www.conservation.org/learn/culture/ecotourism/Pages/training.aspx

4.3 Awareness & Communications

Action definition

Raising environmental awareness and providing information through various media or through civil disobedience (e.g. radio soap operas, environmental publishing).

Possible poverty impact

There is little direct impact of this Action on poverty – although many conservation programmes fail to acknowledge the co-location of species of concern with poor people and can give the impression that conservation occurs in isolation from any social pressures. General messages on the importance of resource conservation - and the benefits it has for poverty alleviation as well as for conservation - may provide some benefit. Such awareness may contribute to social mobilization that may lead to improvements in resource tenure. However, any impact on poverty alleviation is probably slight.

Good practice

Any messaging should include information on the rights of and opportunities for local communities. Links should be provided to government agencies, religious organizations or civil society groups that can provide help to acquire and practice poverty alleviation tools.

Best practices

Ensure conservation messaging reflects the perspectives of local people. Use conservation messaging formats – such as protected area websites and promotional materials - to direct interested parties to local enterprises. Increase the reach of communications by translating into local languages and by using non-written media such as radio.

Case study: Pedal Power Cinema Raises Awareness About Ape Conservation Amongst the Remotest Communities in Uganda

The Great Apes Film Initiative (GAFI) aims to raise awareness about great ape conservation in a way that is accessible to local people who may have local language skills only and may be illiterate. It supports the transmission of television programmes on great apes in all the range states, produces films about local issues in local languages, and provides training for local communities to produce their own conservation films. In Uganda the screening of wildlife and great ape documentaries is helping to raise awareness of the importance of safeguarding gorillas and the forests they live in. In Uganda, GAFI is working in collaboration with The Gorilla Organisation to raise awareness about gorilla conservation to remote local communities in the Kisoro and Kabale Districts of Uganda, close to the Bwindi and Mgahinga gorilla parks.

In 2010 GAFI brought a new twist to the programme by powering screenings through power provided by pedaling a bicycle. Each session begins with the screening of a great ape documentary, with participants taking it in turns to pedal the bicycle that operates the cinema system. Following the film screening, participants take part in group discussions on what they have seen and how their understanding of gorillas and conservation has changed. Questionnaires relating to the documentaries, environmental awareness and ape conservation are distributed and are then used to assess the impact the films are having.

This invention has also made it possible to reach communities lacking electricity and has therefore increased the number of people that have access to the great ape documentaries. An estimated 68,000 people participated in screenings in the first year of the programme alone and it has now been extended to the DR Congo.

Source: www.gafi4apes.org

Resources

The Great Primate Handshake delivers education and awareness raising in the communities local to primate populations in Africa as well as to other parties abroad. This includes outreach work such as use of a mobile workshop, work with local schools, filmmaking and production of other media. Most initiatives are in partnership with great ape sanctuaries or conservation areas.
Http://www.primatehandshake.org/about/

The European Association of Zoos and Aquariums (EAZA) and the Jane Goodall Institute have implemented a programme specifically aimed at improving awareness of the value of great apes in the Congo region. A useful information sheet on the project can be found at
http://www.eaza.net/campaigns/eazaconservationfund/Documents/Project%208%20description%20sheet.pdf

The International Conservation and Education Fund (INCEF) has also worked in the Congo region to improve public awareness of the value of great apes. This includes the importance of translating materials into local languages. More information can be found at http://www.incef.org/node/43

The United States Fish and Wildlife Service, via the Great Apes Conservation Fund, offers funding for a variety of activities including outreach and education of local populations. Details are available at
https://www.cfda.gov/index?s=program&mode=form&tab=core&id=47c88ee1e8b7a03191e18f9637586e0c

Greater awareness of great apes is one of the six objectives of WWF's African Great Apes Programme. More information can be found at
http://wwf.panda.org/what_we_do/endangered_species/great_apes/apes_programme/

The Jane Goodall Institute carries out a variety of communication and awareness raising activities, the details of which can be found at
http://www.janegoodall.org/chimpanzees-awareness

The Gorilla Organisation has some information about communications and outreach work with local communities on its website, including a 2006 partnership with The Great Apes Film Initiative.
http://www.gorillas.org/Project/Detail/Great_Ape_Film_Initiative

Action 5. Law & Policy

Actions to develop, change, influence, and help implement formal legislation, regulations, and voluntary standards.

5.1 Legislation

Action definition

Making, implementing, changing, influencing, or providing input into formal government sector legislation or polices at all levels: international, national, state/provincial, local, tribal (e.g. Global: promoting conventions on biodiversity, wildlife trade laws; National: influencing legislative appropriations Subnational: data to state policy makers; Local: developing zoning regulations, species protection laws, hunting bans).

Possible poverty impact

Conservation organizations have the potential to influence policy and law at all levels from international conventions to local ordinances. Such influence can have positive or negative outcomes for poor people. Legislative actions directed at great ape conservation have the potential to negatively or positively affect the poverty of local communities through the actions already discussed. For example, legislation establishing or enforcing protected areas or other conservation regimes could mandate land expropriation or resource restrictions, but equally could facilitate progressive benefit-sharing schemes.

Good practice

Ensure that all relevant conservation legislation is at least neutral to people living near great ape conservation areas. This could include establishing "safeguards" tied to bi-lateral or multi-lateral funding or ensuring that when, for example, hunting bans are implemented, alternative protein programmes are introduced alongside.

Best practice

Formalizing user rights for communities bordering protected areas establishes the basis for cooperation in the conservation of the area's resources, as well as providing a means for local stakeholders to realize tangible benefits. Policy instruments affecting livelihoods can include pro-poor policies. There can be better coordination between conservation law and policy and the policies that govern poverty alleviation including the recognition of traditional law alongside formal legal instruments. Additionally, biodiversity issues can be mainstreamed into poverty alleviation policy and vice versa. Finally there can be adoption of voluntary standards by conservation organizations (see Box 1 on the Conservation Initiative on Human Rights) and by protected area agencies.

Case study: Factoring local people into great ape conservation planning – the CMS gorilla action plans

In 2007, Parties to the Convention on Migratory Species (CMS) adopted a new agreement on gorilla conservation (The Gorilla Agreement). As part of the agreement action plans have been developed for the conservation of each of the four taxa of gorillas and within each of these there is explicit reference to poverty alleviation and local economic development. The Mountain Gorilla action plan for example includes a section on community development which lists, inter alia:

• Reducing local human populations' poverty near the sanctuaries and reserves, in cooperation with the private sector and bilateral, multilateral partners including through road planning, school expansion, health centres and waterworks, water cisterns, fuel-efficient stoves and general support for alternative activities generating money.

• Establishing and reinforcing existing micro-credit systems

• Encouraging local community participation in the management of the reserves and sanctuaries

• Translating the legal wordings for the preservation of gorillas into local languages.

Source: http://www.cms.int/species/gorillas/

Resources

The FAO has published a set of *Principles for Developing Sustainable Wildlife Laws* that includes sections on how to minimise negative impact on local people, how to involve civil society in conservation and providing incentives to improve compliance with laws. FAO (2009) *Principles for Developing Sustainable Wildlife Laws*
http://www.cic-wildlife.org/fileadmin/Press/Technical_Series/EN/3.pdf

The FAO has also published a comparative study of the impact of a variety of national laws in Asia and Oceania on wildlife and poverty. The paper provides an overview of the legal framework in each of the countries studied, and aims to provide specific recommendations on how laws can be improved to assist in achieving wildlife and poverty outcomes. Tsioumani, E. and Morgera, E. (2010) *Wildlife Legislation and the Empowerment of the Poor in Asia and Oceania*
http://www.fao.org/fileadmin/user_upload/legal/docs/lpo83.pdf

The United Nations has published a manual aimed at assisting government officials with practical information on the planning and management principles and processes of sustainable tourism development. United Nations. (2003)

Poverty Alleviation through Sustainable Tourism Development. Economic and Social Commission for Asia and the Pacific.
http://www.unescap.org/ttdw/Publications/TPTS_pubs/To_poverty_2265.pdf

There is much overlap between activities in this area. For example, many resources applicable to the legislation section (5.1) are also applicable to the regulation (5.2) and enforcement (5.4) sections. For this reason, users may wish to look at other parts of section 5 for further resources.

5.2 Policies & Regulations

Action definition
Making, implementing, changing, influencing, or providing input into policies and regulations affecting the implementation of laws at all levels: international, national, subnational, local/community (e.g. working with local governments or communities to implement zoning regulations; promoting sustainable harvest of timber on state forest lands).

Possible poverty impact
Laws are only effective to the extent they are implemented and this applies to all laws and regulations directed at great ape conservation. Implementation of laws in harsh and capricious ways can alienate local communities and increase poverty impacts through destruction of property, denial of access rights and rent-seeking.

Good practice
Ensure that regulations take into account possible impacts on local people as highlighted in earlier Actions. Attempt to ensure law enforcement is not punitive and discriminatory.

Best practice
To the extent possible, work with local authorities to ensure that laws are enforced in fair and equitable fashion. Involvement of local populations in implementation – such as through community game guards - can be a useful way to increase support and possibly provide jobs through education campaigns, community mapping, and even community enforcement.

Resources
IIED has a Poverty and Conservation Learning Group which aims to address policy issues related to conservation and poverty reduction conflict and promote good practice amongst policy makers and practitioners. A sub project of this group is Linking Ape Conservation and Poverty Alleviation. More information at http://www.iied.org/poverty-conservation-learning-group

The Great Apes Survival Partnership (GRASP) conducts several activities aimed at improving policy and regulation surrounding ape conservation. For example, the production of National Great Ape Survival Plans for several countries.

http://www.un-grasp.org/conservation-planning

The Nature Conservancy has several resources on the impact of conservation on poverty and aims to assist policymakers in scaling up successful poverty/conservation projects. http://www.nature.org/ourscience/conservation-and-poverty-reduction-project.xml

A paper exploring the impact of conservation policies on local poverty in the Congo basin is Cernae, M., and Schmidt-Soltau, K. (2006) Poverty Risks and National Parks: Policy Issues in Conservation and Resettlement, *World Development,* 34(10): 1808–1830. http://www.eike-klima-energie.eu/fileadmin/user_upload/Bilder_Dateien/Jaeger_DokSpeicher/PovertyRisks.pdf

5.3 Private Sector Standards & Codes

Action definition

Setting, implementing, changing, influencing, or providing input into voluntary standards & professional codes that govern private sector practice (e.g. Marine & Forest Stewardship Councils, corporate adoption of forestry best management practices, sustainable grazing by a rancher).

Possible poverty impact

Practices governed or influenced by private sector codes can influence poverty in both positive and negative ways. If pro-poor actions are included in standards such as the Forest Stewardship Council then in areas adjacent to great ape conservation areas logging practices may help improve the wellbeing of local peoples. Likewise, tourism operators engaged in great ape tourism can improve local livelihoods as part of their operations. However, the absence of such standards and codes can lead to practices that, as so often in the past, exacerbate poverty in all its dimensions.

Good practice

Private sector standards for addressing conservation issues should ensure that they address the concerns of poor people.

Best practice

Ape conservation projects should seek to influence private sector operations in and adjacent to their areas to include pro-poor standards and codes into their practices. This should be particularly the case for forestry, tourism, development and sport-hunting operations.

Case Study: Working with the private sector in the Republic of Congo to link biodiversity conservation and improved local livelihoods

The Republic of Congo has large areas of intact tropical forest with significant populations of gorillas and chimpanzees. Much of this forest is allocated to logging concessions with considerable area being logged. The removal of trees by itself has not shown to be harmful to great apes but hunting associated with logging operations can be a major source of great ape mortality. Therefore, in order to conserve great apes in areas undergoing logging it is essential to manage hunting.

The Wildlife Conservation Society, worked with the Government of the Republic of Congo and the concessionaire, Congolese Industrielle des Bois (CIB) to reduce the negative effects of its activities on wildlife in four of these concessions. By creating a cadre of ecoguards to both patrol the forest and search vehicles, working on education of logging company employees, and closing logging roads hunting was decreased substantially. Subsequent surveys showed that if hunting on great apes is eliminated, some areas of forest are left unlogged and the area is a mosaic of areas with different logging history that logged forests can be important additions to protected areas in conserving great ape populations.

Source: http://www.wcs.org/conservation-challenges/natural-resource-use/industrial-business/logging-concession-in-congo.aspx

Resources

The IUCN has developed a set of best practice guidelines to support practitioners working with logging companies to implement sustainable policies that minimise impact on great apes. See Morgan, D. and Sanz, C. (2007) *Best practice guidelines for reducing the impact of commercial logging on great apes in western equatorial Africa*, Occasional Paper of the IUCN Species Survival Commission no. 34.
http://www.primate-sg.org/storage/PDF/BP.logging.pdf

The ISEAL Alliance works to improve the sustainability within the private sector by developing and supporting implementation of sustainability standards that can be applied across the globe in a variety of sectors and which include environmental, conservation, social and economic goals. More information can be found at http://www.isealalliance.org/about-us

In 2013 Smithsonian Institution will run a taught course on developing private sector standards and partnerships for conservation aimed at working

professionals. It is not yet clear whether this course will run in subsequent years. All information is at http://smconservation.gmu.edu/programs/graduate-and-professional/professional-training-courses/designing-and-implementing-a-biodiversity-action-plan-for-conservation-and-development-2/

Although from 2001, the African Wildlife Foundation has published a paper exploring the key issues of the private sector and conservation partnerships, such errors the risks, opportunities and requirements for effective partnerships. Not ape focused, but with some useful information. AWF 2001 *Conservation and Private Sector Partnerships A New Tool for Natural Resources Management* http://carpe.umd.edu/Documents/2001/ch19_conservation_and_private_sector_partnerships.pdf

An example of private-sector voluntary agreement in implementing conservation practices can be seen in The British American Tobacco Partnership; a union between BAT and NGOs including Earthwatch Institute and Flora and Fauna International which aims to integrate conservation management standards into the work of British American Tobacco. The partnership has also produced several resources and tools relevant to other conservation programmes such as the Biodiversity risk and opportunity assessment tool (BROA). http://www.batbiodiversity.org/groupms/sites/BAT_8A7ED8.nsf/vwPagesWebLive/DO8A8LDW?opendocument&SKN=1

Some resources relevant to certification schemes for private enterprise can be found in section 6.3.

5.4 Compliance & Enforcement

Action definition

Monitoring and enforcing compliance with laws, policies & regulations, and standards & codes at all levels (e.g. water quality standard monitoring, initiating criminal and civil litigation).

Possible poverty impact

Compliance and enforcement are often aspects of great ape conservation that are most sharply felt by poor people. At its worst, such behaviour can be applied capriciously, in discriminatory ways, for personal gain, or even in pursuit of illegal payments. This illegal version of enforcement is not only of direct negative impact on local peoples, but also brings about resentment against the laws and law enforcement staff with concomitant disregard for the law. But properly applied law enforcement can also be good for poor people in terms of increasing security and enforcement of laws and regulations.

Good practice

Good practice in enforcement has already been addressed to a certain extent under 5.2. Monitoring has a key role to play in ensuring that the abuses of enforcement mentioned above do not take place.

Best practice

Incorporating local people in enforcement activities is advisable where appropriate.

Case Study: Compliance through co-management in Guinea

Guinea is rich in natural resources, but almost half of its population lives in poverty. Rural areas particularly suffer from high levels of poverty, and people turn to forests for their needs. French colonial authorities attempted to restrict the degradation of the landscape in the 1940s and 50s by strengthening forest protection laws and forbidding use by local people.

This system of forest management didn't work, and illegal logging, wildlife poaching and land clearance continued. Guinea began promoting co-management as an alternative in the 1990s, but with limited buy-in from communities, who distrusted government agencies and their forest management structures.

USAID launched the Landscape Management for Improved Livelihoods (LAMIL) project in 2005 to help reorganise the existing co-management committees, to encourage greater participation by women and other vulnerable members of the population, and to help community groups comply with legislation, resulting in the creation of new co-management contracts between communities and the Forestry and Water Directorate.

The four-year project funded by USAID, in which the Center for International Forestry Research (CIFOR) and the World Agroforestry Centre (ICRAF) joined forces to reinvigorate community participation in forest management and improve rural livelihoods in villages surrounding the forests of Balayan Souroumba, Sincery Oursa, Souti Yanfou and Nyalama.

At the same time, the project introduced various agroforestry projects to improve livelihoods. For example, farmers were encouraged to plant improved, higher-yielding varieties of staple crops, and learned how to establish 'living fences' to pen in their livestock and provide fodder, fuel and food. Farmers were also taught domestication techniques to produce early fruiting, high-value indigenous fruit trees and medicinal plants.

The results have been impressive. Forests are now managed for many purposes including conservation, timber production, and farming. Incomes

have increased and ecological successes include the return of wildlife, notably chimpanzees, an increase in tree cover, and water sources beginning to flow again. The area affected by fire each year has been reduced by around 80 per cent, and illegal encroachment has declined significantly.

The system of co-management, involving local communities and government agencies, developed in the LAMIL project continues to generate interest in Guinea and throughout the region.

Source: http://blog.cifor.org/8637/investing-in-managing-forest-landscapes-improves-incomes-in-guinea

See also: Sunderland-Groves, J., et al. (2011) Impacts of co-management on western chimpanzee (Pan troglodytes verus) habitat and conservation in Nialama Classified Forest, Republic of Guinea: a satellite perspective, *Biodiversity and Conservation,* 20(12): 2745-2757.

Resources

The African Wildlife Foundation (AWF) has several projects aimed at incorporating local people into enforcing compliance with regulation. For example, see http://www.awf.org/projects/mountain-gorilla-rangers

Details of a strategy developed by a partnership between several Cameroonian NGOs to improve enforcement of wildlife rules and laws can be found at Ononino, A. (2011) *Establishing Regional Wildlife Law Enforcement: Lessons from an Unusual NGOs-Government Partnership in the Central African Subregion,* Proceedings of the Ninth International Conference on Environmental Compliance and Enforcement 2011 http://inece.org/conference/9/proceedings/63_Ononino.pdf

A useful review (mainly regarding elephants) of the literature surrounding enforcement of rules is provided by Keane et al. The authors attempt to create a model to assist policymakers in designing effective enforcement systems that minimise rule-breaking Keane, A., Jones, A., Edwards-Jones, G. & Milner-Gulland, E. J. (2008) *The sleeping policeman: understanding issues of enforcement and compliance in conservation*. http://onlinelibrary.wiley.com/store/10.1111/j.1469-1795.2008.00170.x/asset/j.1469-1795.2008.00170.x.pdf?v=1&t=hf1yh30n&s=2d4cce01578f4ee33d9afc493783dceebc680f17

ACTION 6. LIVELIHOOD, ECONOMIC & OTHER INCENTIVES

Actions to use economic and other incentives to influence behaviour.

6.1 Linked Enterprises & Livelihood Alternatives

Action definition

Developing enterprises that directly depend on the maintenance of natural resources or provide substitute livelihoods as a means of changing behaviors and attitudes (e.g. ecotourism, non-timber forest product harvesting).

Possible poverty impact

This represents one of the most frequent actions taken by great ape projects. Positive impacts of enterprise schemes can be numerous including greater income, social organization (e.g. marketing cooperatives) and education through training (e.g. handicraft creation). However, there is a well-documented history of such projects resulting in capture of benefits by elites and further marginalization of the poorest.

Good practice

Ensure that benefits from "alternative" livelihood enterprises are sufficient to cover the opportunity costs of the livelihood strategy foregone (e.g. brick-making is rarely a substitute for the benefits from non-timber forest product gathering). Understand the household and community dynamics before deciding how to target livelihood interventions and don't inadvertently undermine local institutional structures. Understand resource and land tenure arrangements so that local control is not undermined and/or power imbalances exacerbated. Understand and invest in existing small enterprises rather than necessarily creating something new

Best practices

It is important not to raise expectations about the benefits that might be expected from potential projects. When beginning projects ensure adequate training in areas such as business management. Target activities to ensure that the poorest participate and benefit.

Case study: Great Ape Tourism - a source of income and jobs for poor people

In 2008 the Sabyinyo Silverback Lodge opened on the borders of Volcanoes National Park in Rwanda. It is a joint venture between Musiara Ltd, International Gorilla Conservation Programme (IGCP), African Wildlife Foundation (AWF), Rwanda Development Board (RDB) and Sabyinyo Community Livelihoods Association (SACOLA). In its first year of operation it generated US$ 300,000 for SACOLA. The RDB has a policy (since 2005) of investing 5% of the revenue from park entry fees into community projects (such as schools, clinics) that has generated over US$100,000/year. Although the figures sound impressive, the actual impact on poverty levels may however be limited given the extremely high population density around some of these sites. The 5% revenue share from park fees in Rwanda, for example, works out at less than US$0.5/year/person to the 300,000 park-adjacent people. Nevertheless, tourism can be one of the few opportunities available in remote rural areas and can more direct impacts on poverty, through the creation of jobs and opportunities to sell goods and services. Sabyinyo Silverback Lodge employs 45 local people, purchases local produce and supports local tourist service enterprises such as handicrafts, dancing, guiding etc. while the Volcanoes National Park employs nearly 200 people as guides, guards and trackers.

Source: Nielsen, H. and A. Spenceley (2010) The Success of Tourism in Rwanda – Gorillas and More, World Bank and SNV. *http://siteresources.worldbank.org/AFRICAEXT/Resources/258643-1271798012256/Tourism_Rwanda.pdf*

Resources

Salafsky, N. et al. Conducted a review of ecosystem enterprises, examining whether local people would practice conservation if they benefited financially from enterprises that relied on local natural resources. Salafsky, N., Cauley, H., Balachander, G., Cordes, B., Parks, J., Margoluis, C., Bhatt, S., Encarnacion, C., Russel, D. and Margoluis, R. (2001) A systematic test of an enterprise strategy for community-based biodiversity conservation. *Conservation Biology*, 15: 1585-1595.
http://www.frameweb.org/adl/en-%EE%80%80US%EE%80%81/2416/file/263/systematic%20test.pdf

IIED has produced a review of best practice in supporting small forest enterprises, as well as providing a suggested framework and recommendations for improved SME support. Although this is not great ape-specific, much of the guidance is relevant to great ape conservation projects. Macqueen, D. (2008) *Supporting small forest enterprises: A cross-sectoral review of best practice*

http://pubs.iied.org/13548IIED.html

IIED has also produced a facilitators toolkit for individuals and organisations that are working to support small forest enterprises to work more efficiently. The toolkit explains how to manage capacity issues as well as providing direct practical advice based on field experience. Macqueen, D., (ed.) (2012) *Supporting small forest enterprises – A facilitator's toolkit. Pocket guidance not rocket science!* http://pubs.iied.org/13558IIED.html

The African Wildlife Foundation has produced a review of Community-Based Natural Resource Management, mostly based on its own experiences but drawing on others where necessary. The focus is what works well and for whom in conservation/Community partnerships and how these can be designed effectively Elliot, J. and Sumba, D. (2011) *Conservation Enterprise: What Works, Where and for Whom?* http://pubs.iied.org/14613IIED.html

USAID publishes a set of guidelines for practitioners working in the field that covers best practice for establishing CBNRM projects as well as how to improve the environmental performance of SMEs. Not ape-focused, and directed towards Africa, there is nevertheless some valuable information. USAID (2007) *Environmental Guidelines for Small-Scale Activities in Africa: Environmentally Sound Design for Planning and Implementing Development Activities* http://pdf.usaid.gov/pdf_docs/pnadk154.pdf

6.2 Substitution

Action definition

Promoting alternative products and services that substitute for environmentally damaging ones (e.g. farmed salmon as a replacement for pressure on wild populations, promoting recycling and use of recycled materials).

Possible poverty impact

As discussed in earlier Actions, many conservation projects in tropical forests have worked to create substitutes for products that threaten great apes or their habitats. Perhaps most frequent are projects directed at substituting protein sources for game meat, an important subsistence and commercial resource in many communities. Such projects have involved snail culture, small animal farming, fishponds, equipment for fishing from rivers and lakes, and increasing access to domestic animal meat provided from outside markets. They are often accompanied by increased enforcement of hunting regulations. Such activities can be beneficial if they provide significant protein that replaces bushmeat and frees time from hunting that can be used for other activities. They can also be detrimental if they are not successful in increasing the overall protein consumption or divert significant amounts of labour away from livelihood activities and towards the substitution activities.

Good practice

Before attempting substitution exercises it is important to consult with local peoples to ascertain that the proposed product is socially and culturally acceptable and that if successful, that the resource will be available to the most needy segments of the population.

Best practice

Identify activities/products that actively enhance and improve overall livelihood strategies rather than simply substituting one activity/product for another. Ensure that all segments of the population have access to the new products or activities.

Case study: Fuel efficient stoves reducing pressure on gorilla habitat and benefitting poor families

The Gorilla Organisation is working with the local NGO AIDE-Kivu (Appui aux Initiatives de Développement et Gestion de l'Environnement au Kivu) to produce and distribute 'Jiko' stoves, that reduce the consumption of firewood and charcoal by at least 55%. The overall aim of the project is to reduce reliance on the resources of the Virunga National Park, DR Congo which is home to the critically endangered mountain gorilla. In Virunga National Park, habitat destruction caused by firewood collection and charcoal production is a major threat to the gorilla's survival. However, the communities surrounding the Park have limited alternatives and are dependent on these resources to meet their day to day livelihood needs. The fuel efficient stoves not only benefit the environment, but also reduce the cost of fuel, as less is required, and produce less smoke than traditional stoves, improving families' health. The stoves cost $2 to buy but immediately save time and money by using just 1.5 sacks of charcoal per month instead of the four used by traditional stoves.

Source: http://www.gorillas.org/Project/Detail/Firewood_Saving_Stoves

Resources

An outline of the Zoological Society of London's work into substitutes for bushmeat, as well as some useful facts and figures for Equatorial Guinea can be found at http://rmportal.net/library/content/abcg-documents/an-evaluation-of-potential-bushmeat-alternatives-in-equatorial-guinea/at_download/file

The Bushmeat Crisis Task Force has developed a number of studies and reviews into alternatives to bushmeat for provision of both livelihoods and protein, such as reviewing the viability of farming popular wildlife species as well as a number of in-depth country profiles relating to bushmeat http://www.bushmeat.org/bushmeat_and_wildlife_trade/solutions/economic_and_protein_alternatives

The WWF *Living Forests Report 2011* has generated an interesting model for forest use that could help to identify where forest uses are not 'optimal' – IE deforestation is occurring unnecessarily. This may be useful in identifying alternative products/uses that could reduce deforestation. WWF 2011 http://assets.panda.org/downloads/living_forests_chapter_1_26_4_11.pdf

One example of a successful substitution is the use of Allenblackia oil in place of palm oil. The following paper argues that this has had conservation and biodiversity benefits (not ape-specific) as well as economic benefits for local people. Buss, C and Tissari, J. (2010) *Allanblackia – an ingredient for poverty reduction?*
http://www.rural21.com/uploads/media/R21_Allanblackia_0310_01.pdf

6.3 Market Forces

Action definition
Using market mechanisms to change behaviours and attitudes (e.g. certification, positive incentives, boycotts, negative incentives, grass & forest banking, valuation of ecosystem services such as flood control).

Possible poverty impact
This Action is primarily directed at consumers and as such has little direct impact on poverty alleviation at the local level. However, great ape conservation practitioners can work indirectly through, for example, influencing tourism operators to put in place pro-poor activities to be seen as a "sustainable tourism" operation.

Resources
The IUCN has established a set of best-practice guidelines for ape tourism Macfie, E. and Williamson, E. (2010) *Best practice guidelines for great ape tourism,* Occasional Paper of the IUCN Species Survival Commission No 38. Available online:
http://www.iucn.org/knowledge/publications_doc/publications/?6052/Best-practice-guidelines-for-great-ape-tourism

A handbook for users wishing to understand the process of obtaining sustainable tourism certification has been created by the Center for Ecotourism and Sustainable Development. The book also provides further references for technical aspects of certification. Bien,A. *A Simple User's Guide to Certification for Sustainable Tourism and Ecotourism*.
http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=1028822

Forest Trends & CIFOR have produced an informative reference on integrating forests with markets for sustainable outcomes. Although not ape-specific many of the topics related directly to ape habitats and poverty. Various issue such as the role of forests in rural markets, making markets work for low-income producers, how to assess market viability and a framework for action are explored. Scherr,

S.J., White, A. and Kaimowitz. D. (2003) *A New Agenda for Forest Conservation and Poverty Reduction Making Markets Work for Low-Income Producers*, Forest Trends and CIFOR.
http://lib.icimod.org/record/11339/files/3107.pdf

The impact of the Forestry Stewardship Council certification and other selective logging practices on great apes is the subject of a comprehensive review by WWF. The report examines how demand for FSC products has affected ape habitats and ape densities in a variety of locations. Van Kreveld, A. and Roerhort, I. *Great Apes & Logging,* WWF.
http://ic.fsc.org/download.great-apes-logging.a-572.pdf

A more general review of biodiversity in certified forests can be found at http://www.etfrn.org/file.php/17/etfrn_51-web.pdf . Over 30 articles discuss a variety of certification approaches, biodiversity impacts and sustainability in countries such as Nepal, Cameroon and Indonesia. There are some ape-specific sections. ETFRN News No. 51, September 2010 *Biodiversity conservation in certified forests*.

The IUCN has produced a set of ape-specific guidelines that aim to help forest managers implement specific measures that reduce the impact of logging on apes.
http://data.iucn.org/dbtw-wpd/html/ssc-op-034/section3.html

6.4 Conservation Payments

Action definition
Using direct or indirect payments to change behaviours and attitudes (e.g. quid-pro-quo performance payments, resource tenure incentives).

Possible poverty impact
Market mechanisms can be used by great ape conservation practitioners through mechanisms like direct payments for snares collected or for the number of young produced in monitored groups. Though not clear how frequently this Action is being implemented, it has the potential to provide additional resources to assist in poverty alleviation.

Good practice
As with many of the other Actions, a key practice is to ensure that any interventions of this sort do not – inadvertently or otherwise – disadvantage the poor. For example, the introduction of payment schemes may lead to the crowding out of the poor as more powerful groups seek to ensure they are best placed to capture the payments.

Best practice
Conservation organisations should seek to ensure that payments are shared equitably across all stakeholder groups. This can be done by targeting and

supporting local institutions and encouraging development of benefit sharing plans. Try to ensure that poorer members of the community get to participate in the first place

Case study: Paying local people for conservation services – establishing a chimpanzee corridor in Uganda

In Uganda, the majority of chimpanzees live outside of formal protected areas. In the Hoima district of western Uganda, a corridor area between the Budongo and Bugoma Reserves, is home to some of Uganda's largest chimpanzee populations. However, clearing of forests for cash crops such as tobacco and rice in this area is threatening the survival of these populations. This fragmentation of forests also risks isolating the populations in the Budongo and Bugoma Reserves therefore halting natural inter-breeding across different populations. A project led by the Chimpanzee Sanctuary and Wild Conservation Trust (CSWCT) is implementing a payment for environmental services (PES) scheme as a means to generate incentives for farmers to conserve and restore forest habitats important for chimpanzees and other flora and fauna. Cash payments and in-kind support measures are offered to the farmers in return for forest conservation activities.

Source: http://ngambaisland.com

Resources

A useful guide to a variety of payment mechanisms, including advantages and drawbacks of each, and based on direct evidence from implementation in the field can be found at Bowen-Jones, E. (2012) T*ackling Human-wildlife Conflict: A prerequisite for linking conservation and poverty alleviation; A decision-makers guide to financial and institutional mechanisms,* IIED, London. http://povertyandconservation.info/sites/default/files/PCLG%20HWC%20discussion%20paper_0.pdf

An IIED-organised workshop in 2010 produced a valuable report outlining experiences in a variety of great ape conservation approaches, including payment for services. The report can be found at: Poverty and Learning Conservation Group Workshop, *Linking Great Ape Conservation and Poverty Alleviation: Learning from Experiences and Identifying New Opportunities.* *http://pubs.iied.org/pdfs/G02770.pdf*

A review of payments for ecosystem services in the Congo Basin, focusing on carbon, general biodiversity (not ape-specific) and watershed protection can be found at Lescuyer, G., Karsenty, A. and Eba'a Atyi, R. *A New Tool for Sustainable Forest Management in Central Africa : Payments for Environmental Services* http://www.observatoire-

comifac.net/docs/edf2008/EN/SOF_08_Payments%20for%20Environmental%20Services.pdf The paper covers a broad range of issues related to PES including assessment of opportunity costs, market demand and evaluation of existing projects.

Wunder provides a critical look at arguments surrounding payments for conservation. Although it is an older paper, many of the issues raised remain valid and the author also provides some useful classification of payment approaches. Wunder, S. (2006) Are direct payments for environmental services spelling doom for sustainable forest management in the tropics, *Ecology and Society*, 11(2): 23. http://www.ecologyandsociety.org/vol11/iss2/art23/

6.5 Non-Monetary Values

Action definition

Using intangible values to change behaviours and attitudes (e.g. spiritual, cultural, links to human health).

Possible poverty impact

These Actions generally tend to have a positive poverty impact – enhancing cultural and spiritual wellbeing and increasing external recognition of local cultures and traditions.

Good practice

Making sure to understand the nature of cultures in the project area especially where there is a diversity of cultures. Ensure that all cultures are included and valued.

Best practice

Ensure that it is local communities themselves who define what is and isn't of cultural significance and the degree to which they wish their cultural values to receive external exposure.

Case study: Linking ape conservation with cultural values

Rwenzori Mountains National Park is a World Heritage Site that was established in 1991. It is also a site of high cultural importance to the local Bakonzo and Baamba people who view the mountains as a sacred landscape and home of their gods. The gazettement of the Park, however, resulted in the displacement of the Bakonzo and Bamba from their sacred site and was a source of much conflict and resentment towards conservation. Recently, Fauna & Flora International has partnered with the Uganda Wildlife Authority to better understand the cultural values of the Bakonzo and Bamba and to incorporate these values into park management practices.

The Bakonzo's Bathangyi clan believe chimps are kinspersons and deserve great respect and it is the responsibility of this clan to ensure that the chimp is properly protected. FFI and UWA are supporting the community-based Rwenzori Mountains Cultural Values Conservation Association (RweMCCA) in their efforts to engage the clan in the conservation of chimps. This includes developing chimpanzee conservation campaign materials based on cultural values; raising awareness about chimps as totems through inter-clan games, presentations on local radios and working through the highly revered Rwenzururu kingship.

RweMCCA is also working with members of the *Bathangyi* clan to help UWA rangers monitor the Mountains' chimps and identify critical chimp forest patches, and to identify local hunters and engage them in activities to reduce chimp killing.

Source: http://www.fauna-flora.org/wp-content/uploads/FFI-Culture-Conservation-in-Uganda-2011.pdf; http://www.fauna-flora.org/news/ffi-launches-new-chimp-project-in-uganda

Resources

Flora and Fauna International has a team focused specifically on improving knowledge and capacity for cultural awareness in its conservation programmes and is working to produce, tools and guidelines for best practice. More information can be found at: http://www.fauna-flora.org/initiative/cultural-values/

During the Johannesburg conference in 2002 UNEP/UNESCO held a roundtable on integrating cultural diversity with biodiversity aims. The report generated by the roundtable can be found at: UNESCO (2002) *Cultural diversity and biodiversity for sustainable development*. http://unesdoc.unesco.org/images/0013/001322/132262e.pdf

Mulongoy, K.J. and S.B. Gidda (2008) *The Value of Nature: Ecological, Economic, Cultural and Social Benefits of Protected Areas*, Secretariat of the

Convention on Biological Diversity, Montreal.
http://www.cbd.int/doc/publications/cbd-value-nature-en.pdf

A review of different cultural attitudes to conservation can suggests that conservation goals must incorporate different cultural views. Science for Environmental Policy, European Union.
http://ec.europa.eu/environment/integration/research/newsalert/pdf/289na6.pdf

The IUCN/WCPA has a special working group on Cultural and Spiritual Values in protected areas - the World Commission of Protected Areas (WCPA) Cultural and Spiritual Values Specialist Group. Their website provides a variety of publications and resources on related issues.
http://www.iucn.org/about/work/programmes/gpap_home/gpap_people/gpap_tilcepa/gpap_spiritual/

ACTION 7. EXTERNAL CAPACITY BUILDING

Actions to build the social infrastructure to do better conservation.

7.1 Institutional & Civil Society Development

Action definition

Creating or providing non-financial support & capacity building for non-profits, government agencies, communities and for-profits (e.g. creating new local land trusts, providing circuit riders to help develop organizational capacity).

Possible poverty impact

Designed to build capacity, this action would be expected to have few negative impacts on livelihoods of local people. Negative impacts could result through the actions of those groups that are being strengthened. For example inequities between genders, age or ethnic groups might result if all groups do not benefit from the strengthened organizations. On the other hand, empowerment through capacity development can be a significant element of poverty alleviation.

Good practice

Ensure that groups that are being strengthened include the entire range of stakeholders in the local population.

Best Practice

Ensure that building the capacity of one organisations/institution does not occur at the expense of poorer groups – e.g. through shifting power relationships

Resources

A model for increasing civil society participation in environmental protection – particularly within the UN system – is provided by Gemmil & Bamidele-Izu. Not ape-specific. Gemmil, B. and Bamidele-Izu , A. (2002). The Role of NGOs and Civil Society in Global Environmental Governance. *Global Environmental Governance: Options & Opportunities* 77
http://environment.research.yale.edu/documents/downloads/a-g/gemmill.pdf

Rodrigues argues that capacity building is increasingly becoming essential to the success of conservation efforts. Rodrigues et al. (2007) Globalization of conservation: A view from the south, *Science*, 307.
http://www.ecotips.com.mx/Bioconservacion/Rodriguezetal2007.pdf

An overview of capacity building for ape conservation, including how capacity building helps apes, potential negative aspects of capacity building and how to implement capacity building can be found at the Apes Portal:http://apesportal.eva.mpg.de/status/topic/conservation/capacity_building

An evaluation of a capacity building programme that was implemented in Tanzania can be found at: *Building African Capacity for Conserving Biodiversity in a Changing Climate in the Albertine Rift Region*. International START Secretariat. http://start.org/download/publications/BiodiversityReport_web.pdf

Berkes provides a review of multi-level linkages required for successful community conservation programmes including diagnostic questions framework that will be particularly useful for projects at the planning stage. Berkes, F. (2007) Community-based conservation in a globalized world, *Proceedings of the National Academy of Science*, 104: 15188–15193. http://www.pnas.org/content/104/39/15188.short

Hill, C.M. (2002) Primate Conservation and Local Communities: Ethical Issues and Debates, *American Anthropologist New Series*, 104 (4): 1184-1194.

A paper generated by the International Primatological Society provides guidelines for involving communities in conservation planning based around 4 thematic areas (Planning, Implementing, M&E and Funding). Reynolds, V. and Bettinger, T. (undated) *Guidelines for Conservation through Community Involvement* [International Primatological Society] http://www.internationalprimatologicalsociety.org/docs/guidelines_conservation_through_community_involvement.pdf

7.2 Alliance & Partnership Development

Action definition

Forming and facilitating partnerships, alliances, and networks of organizations.

Possible poverty impact

As with the previous Action, forming and facilitating partnerships and alliances will usually be positive for local poverty alleviation activities as long as all categories of stakeholders are directly or indirectly involved. Exclusion of significant categories may lead to increased marginalization and antagonism towards great ape conservation activities.

Alliances and partnerships can effectively strengthen the capacity and voice of small local organisations and significantly empower them and their members. Networks also increase the collective bargaining power of their members.

Alliances can also be created between organizations working in a given area as illustrated in many of the examples given above. Of particular importance to the topic of this paper are alliances between conservation organizations and poverty-alleviation organizations that can bring much needed expertise to help local human populations.

Good practice

When developing networks or alliances ensure that all major groups of local peoples are involved either in their own networks, or as stakeholders or beneficiaries of other activities. Ensure a range of partnerships between organizations so that the skills necessary to provide the Actions discussed above are properly deployed.

Best practice

Make linking conservation and poverty alleviation a core focus of partnership activity

Case Study: The Great Ape Survival Partnership (GRASP)

GRASP was launched by UNEP in 2001 and was joined by UNESCO in 2002. It works as a partnership with a range of organisations including range state governments, donor country governments and conservation NGOs. It is intended to add value to existing ape conservation efforts through high level national and inter-governmental dialogue (by virtue of its UN affiliation) and international, regional and national coordination of individual conservation efforts.

The need to link ape conservation and human wellbeing is a central objective of the GRASP Partnership. In 2005 GRASP convened an inter-governmental meeting in Kinshasa which resulted in the adoption of a Global Strategy for the Survival of Great Apes and their Habitat, and the Kinshasa Declaration - a high-level political statement on the future of great apes which highlights the links between conservation success and improved local livelihoods. Poverty reduction is also a key theme of GRASP's National Great Ape Survival Plans (NGASPs) and other conservation planning processes.

In addition to these policy and planning interventions GRASP supports practical projects and research initiatives that support community conservation and livelihoods in ape range states. Examples include a study on economic incentives and livelihood options for communities surrounding Cross River gorilla habitat in Takamanda National Park, Cameroon; and a study on economic incentives and alternative forms of income generation for human well-being and orangutan conservation in Batang Toru and Tripa, Sumatra, Indonesia.

Source: http://www.un-grasp.org

Resources

Pan African Sanctuary Alliance (PASA) provides a variety of resources that cover primate sanctuary development. In particular, their Operations Manual provides

best practice guidelines to support conservation in cooperation with local people: http://pasaprimates.org

Congo Basin Forest Partnership (CBFP) provides several useful resources including mapping tools, state-of-the-forest summaries and research publications focused on the Congo. Not always with an ape focus, the issues addressed are relevant to conservation & poverty: http://pfbc-cbfp.org/home.html

Great Ape Survival Partnership (GRASP) hosts ape-focused information including e-books that explain the current knowledge regarding apes and conservation projects: http://www.un-grasp.org

Central African Regional Programme for the Environment (CARPE) provides some similar tools to the CBFP, as well as useful lessons-learned documents related to 'landscape area' conservation in central Africa: http://carpe.umd.edu

A comparison of partnerships between mining companies and conservation NGOS, including lessons learned from the partnerships can be found at: Smuts, R. (2010) *Are partnerships the key to conserving Africa's biodiversity?* Conservation International, Washington, D.C. http://www.cbd.int/impact/case-studies/cs-impact-USAID-africa-mining-conservation-en.pdf

7.3 Conservation Finance

Action definition
Raising and providing funds for conservation work (e.g. private foundations, debt-for-nature swaps).

Possible poverty impact
This Action should have little direct impact on local populations. Indirectly it could have impacts through funding of all the other Actions previously discussed.

Good practice
Ensure that funding does not target projects that disenfranchise the poor – for example through the use of project screening and other safeguards.

Best practice
Make the inclusion of appropriate pro-poor activities a key criterion for funding support

Resources
Jenkins et al. provide an academic analysis of the how ecosystem services can fit into market systems that incentivise conservation, and outline some of the key issues involved in developing these markets. Jenkins et al. (2004) *Markets for biodiversity services.*
http://teebforbusiness.earthmind.net/files/Markets_for_Biodiversity_Services-

Potential_Roles_and_Challenges.pdf

A useful source of information on market-based approaches is the Ecosystem Marketplace. The site provides a variety of tools such as guidelines, academic papers and models alongside other resources such as a directory of service providers for work on market-based interventions such as the Centre for Conservation Finance: http://www.ecosystemmarketplace.com/pages/dynamic/organization.page.php?page_id=2217&section=directory

The Conservation Finance Alliance is a collaborative network of academic institutions, private sector entities, governments, experts, NGOs and public sector bodies. Members participate in various working groups exploring issues such as 'innovative funding mechanisms' and 'protected areas financing' to generate toolkits that can be used by practitioners: http://www.conservationfinance.org

The Conservation Finance Forum brings together several interested parties to participate in working groups and fora on conservation financing. A variety of resources (mostly papers & books) is also provided: http://www.conservationfinanceforum.org

The IUCN has produced a set of guidelines for the sustainable financing of protected areas, evaluating various financing instruments and recommendations for their improvement: http://app.iucn.org/dbtw-wpd/edocs/PAG-013.pdf

CONCLUSIONS

Humans and great apes have shared the same forests for tens of thousands of years of relatively peaceful coexistence. This is no longer the case with growing human populations, rising demand for natural resources, increasing poverty, and decreasing availability of natural resources. Conflict has replaced coexistence throughout the habitats of great apes.

Conservationists have long had an interest in ensuring the survival of great apes. Widespread support from the organizations and citizens of the developed world reflect the strong affinity many people feel for these species. Dedicated scientists and conservation workers have set up programs throughout the ranges of great apes and are implementing diverse approaches to achieving conservation goals. These projects are often located in areas of great poverty that often are not served by governmental or non-governmental poverty-alleviation or development organizations. The onus and expectation is frequently on conservation projects to do something about the poor people living in the project area. Unfortunately, most of these great conservationists come from a background in the biological, anthropological or animal-welfare arenas and have limited background or experience in addressing poverty alleviation. Exacerbating this situation is a lack of clear specific advice on how to succeed at great ape conservation while simultaneously addressing poverty alleviation. Also lacking is information on when to undertake the actions yourself as a great ape conservationist and when to develop a partnership with a development organization.

The purpose of this paper is to help fill this gap. It is not a definitive or complete cookbook on what to do. Such a thing would be out of date by the time it was finished and would not be useful in all of the myriad social, political and ecological contexts within which great ape conservationists find themselves. Additionally, there are very few interventions, development or conservation, which have been adequately evaluated. Practitioners usually do not publish what they have learned and much of what is available has been written for purposes of publicity and fundraising and is therefore unsuitable for analysis. Finally, most of the available data originate from tourism studies (Sandbrook and Roe 2010) and do not extend to other dimensions of practice. What experience and data are available we have worked to include in these guidelines. It is hoped that not only will this prove useful to practitioners but also that it will stimulate the analysis and publishing of the many and dedicated efforts that are on-going.

Many great ape conservation projects are engaged in poverty alleviation work. However the nature of this engagement is not clear to those outside the project as little of it has been published. In a 2010 survey of projects, Sandbrook and Roe found only limited data but made a few general observations about the state of the practice.

- There has been an increase in recent years in the number of initiatives that seek to hand over some form of control over natural resource management to local people, and with it access to resource use within protected areas
- There continue to be a large number of Integrated Conservation and Development type projects that seek to substitute another activity for natural resource use, on the assumption that such activities will replace rather than add to the existing resource-destructive activities
- Ape tourism remains by far the most popular way of converting the presence of great apes into money for local development activities, and it continues to be seen as a first option by many new projects, even where ape tourism seems unlikely to be viable
- There are relatively few projects that work directly with forestry concessions, given that vast areas of ape habitat are within forestry concessions. However, rapid progress is being made in this area, particularly in the Congo basin countries covered by the CARPE project.
- Initiatives that seek to deliver general development benefits to local people, such as infrastructure like schools and hospitals, are far more common in areas with very high human population densities

This survey brings up the important issue of project context. There is tremendous variation between projects in historical, social, political, economic, ecological, and conservation dimensions. The choice of what actions to take will depend on all of these factors.

There is a clear imperative for great ape conservation practitioners to address poverty alleviation. Reasons for engagement range from strategic to moral obligations. We hope that this guide will encourage smart, informed, and sensitive actions taken by people with experience. It is only with such behavior that we will be able to conserve great apes and help in alleviating the poverty of people living in great ape habitats.

LITERATURE CITED

Alkire, S. and Santos, M.E. (2010) *Acute multidimensional poverty: A new index for developing countries*, UNDP Human Development Research Paper 2010/11, UNDP, New York. http://hdr.undp.org/en/reports/global/hdr2010/papers/HDRP_2010_11.pdf

Bass, S., Bigg, T., Bishop, J. and Tunstall, D. (2006) Sustaining the Environment to Fight Poverty and Achieve the Millennium Development Goals, *Review of European Community & International Environmental Law*, 15: 39–55. http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9388.2006.00502.x/abstract

Bertzky B. et al (2012) *Protected Planet Report 2012: Tracking progress towards global targets for protected areas*, IUCN, Gland and UNEP-WCMC, Cambridge. http://www.unep-wcmc.org/medialibrary/2012/09/14/eb3bb854/PPR2012_en.pdf

Biodiversity Liaison Group (2005) *Biodiversity: Life Insurance for our Changing World,* Convention on Biological Diversity, Montreal. http://www.cbd.int/doc/statements/mdg-2005-en.pdf

Blomley, T., Namara, A., McNeilage, A., Franks, P., Rainer, H., Donaldson, A., Malpas, R., Olupot, W., Baker, J., Sandbrook, C., Bitariho, R. and Infield, M. (2010) *Development and gorillas? Assessing fifteen years of integrated conservation and development in south-western Uganda*, Natural Resource Issues No. 23. IIED, London. http://pubs.iied.org/14592IIED.html

Brockington, D. and Igoe, J. (2006) Eviction for conservation: A global overview, *Conservation and Society*, 4: 424-470. http://www.conservationandsociety.org/text.asp?2006/4/3/424/49276

Caldecott, J., and Miles, L. (eds.) (2005) *World Atlas of Great Apes and their Conservation*, University of California Press, Berkley. http://www.unep-wcmc.org/world-atlas-of-great-apes-and-their-conservation_74.html

Chandy, L. and Gertz, G. (2011) *Poverty in Numbers: The Changing State of Global Poverty from 2005 to 2015,* The Brookings Institution, Washington. http://www.brookings.edu/research/papers/2011/01/global-poverty-chandy

Chao, S. (2012) *Forest peoples: numbers across the world*, Forest Peoples Programme, Moreton-in-Marsh, UK. http://www.forestpeoples.org/topics/climate-forests/publication/2012/new-publication-forest-peoples-numbers-across-world

Convention on Biological Diversity (CBD) (2002) *Strategic Plan 2002-2010*, Convention on Biological Diversity, Montreal. http://www.cbd.int/sp/2010/

Convention on Biological Diversity (CBD) (2010) *Strategic Plan for Biodiversity 2011-2020, Including Aichi Biodiversity Targets,* Convention on Biological Diversity, Montreal. http://www.cbd.int/sp/

Gonner, C., Cahyat, A., Haug, M., Limberg, G. (2007) *Towards Wellbeing: Monitoring Poverty in Kutai Barat Indonesia*, Center for International Forestry Research (CIFOR), Bogor. http://www.cifor.org/online-library/browse/view-publication/publication/2291.html

Hanlon, J. and Cunguara, B. (2010) *Poverty is not being reduced in Mozambique,* Crisis States Research Centre, Working papers series 2, 74, LSE Crisis States Research Centre, London. http://eprints.lse.ac.uk/28467/

Hockings, K. and Humle, T. (2009) *Best practice guidelines for the prevention and mitigation of conflict between humans and great apes*, Occasional Paper of the IUCN Species Survival Commission No 37. http://www.primate-sg.org/best_practice_conflict/

Lawson, D. Hulme, D. Matin, I. and Moore. K. (2010) What *Works for The Poorest: Poverty Reduction Programmes for the World's Ultra Poor*, Practical Action, Rugby. http://developmentbookshop.com/what-works-for-the-poorest.html

Leisher C, Sanjayan, M., Blockhus, J.,Kontoleon, A. and Larsen, S. (2010) *Does conserving biodiversity work to reduce poverty? A state of knowledge review*, The Nature Conservancy, University of Cambridge, and International Institute for Environment and Development (IIED), Cambridge. http://povertyandconservation.info/en/biblio/b1741

MA (2003) *Ecosystems and Human Well-being: A Framework for Assessment*, Island Press, Washington, D.C..

http://millenniumassessment.org/en/Framework.html

Macfie, E. and Williamson, E. (2010) *Best practice guidelines for great ape tourism,* Occasional Paper of the IUCN Species Survival Commission No. 38. http://www.iucn.org/knowledge/publications_doc/publications/?6052/Best-practice-guidelines-for-great-ape-tourism

McShane, T. (2003) Protected areas and poverty - the linkages and how to address them, *Policy Matters*, 12: 52-53. http://www.iucn.org/about/union/commissions/ceesp/ceesp_publications/pm/

Nielsen, H. and Spenceley, A. (2010) *The success of tourism in Rwanda – Gorillas and more*. http://siteresources.worldbank.org/AFRICAEXT/Resources/258643-1271798012256/Tourism_Rwanda.pdf

Redford, K.H. and Richter, B. (1999) Conservation in a world of use, *Conservation Biology*, 13: 1246-1256. http://onlinelibrary.wiley.com/doi/10.1046/j.1523-1739.1999.97463.x/abstract

Roe, D., Thomas, D., Smith, J. Walpole, M. and Elliott, J. (2011) *Biodiversity and Poverty: Ten Frequently Asked Questions – Ten Policy Implications*, Gatekeeper 150, IIED, London. http://pubs.iied.org/14612IIED.html?t=Ten Frequently Asked Questions&b=d

Ryan, S.J. and Walsh, P.D. (2011) Consequences of Non-Intervention for Infectious Disease in African Great Apes, *PLoS ONE* 6(12). http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0029030

Salafsky, N., D. Salzer, A. Sattersfield, C. Hilton-Taylor and R. Neugarten et al. (2008) A standard lexicon for biodiversity conservation: unified classifications of threats and actions, *Conservation Biology*, 22: 897-911. http://www.conservationmeasures.org/wp-content/uploads/2010/04/Classification-of-threats-and-actions.pdf

Sandbrook, C. and Roe, D. (2010) *Linking Conservation and Poverty Alleviation: the case of Great Apes. An overview of current policy and practice in Africa*. Poverty and Conservation Learning Group Discussion Paper No3. http://pubs.iied.org/pdfs/G02770.pdf

Sayer, J. et al [in press] Landscape approach: Ten principles to apply at the nexus of agriculture, conservation, and other competing land uses, *Proceedings of the National Academy of Science*.

Sen, A. (2000) *Social Exclusion: Concept, Application, and Scrutiny*, Asian Development Bank, Manila. http://www.gsdrc.org/go/display&type=Document&id=1916

Steele, P., Fernando, N., and Weddikkara, M. (eds.) (2008) *Poverty Reduction that Works: Experience of Scaling Up Development Success*, Earthscan, London.

Sunderland, T., Ehringhaus, C. and Campbell, B. (2008) Conservation and development in tropical forest landscapes: A time to face the trade-offs?, *Environmental Conservation*. 34(4): 276-279. http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=1778696

Vira, B. and Kontoleon, A. (2010) *Dependence of the poor on biodiversity: which poor, what biodiversity? A State of Knowledge Review*, International Institute for Environment and Development. London.

World Bank (2001) *Poverty Manual*, World Bank, Washington.

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[7] http://povertyandconservation.info/en/pages/pclg-meetings-and-events
[8] http://www.cifor.org/events/linking-great-ape-conservation-and-poverty-alleviation-live-video-stream.html

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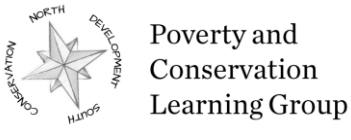

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