

symposium

AT THE ZOOLOGICAL SOCIETY OF LONDON

LINKING BIODIVERSITY CONSERVATION AND POVERTY REDUCTION: WHAT, WHY AND HOW?

Wednesday 28 and Thursday 29 April 2010

Organised by **Dilys Roe**
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The Meeting Rooms
The Zoological Society of London
Regent's Park
London NW1 4RY

www.zsl.org/science/scientific-meetings



Funding for this symposium and for the State of Knowledge Reviews presented here, has been provided through the generous support of a range of donors that support **IIED** including **Danida** (Denmark), **DFID** (UK), **DGIS** (the Netherlands), **Irish Aid**, **Norad** (Norway), **SDC** (Switzerland) and **Sida** (Sweden) and through **UNEP-WCMC**. The symposium is organised under the umbrella of the **Poverty and Conservation Learning Group** (PCLG) which is supported by the **Arcus Foundation** and whose funding has contributed specifically to the presentation on Great Ape conservation and poverty and to supporting the participation of delegates and poster presenters from developing countries.

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This symposium supports the **United Nations International Year of Biodiversity**

9.15–9.30 **Welcome from Ralph Armond, Director General, ZSL**

9.30–10.00 **INTRODUCTION: Linking biodiversity conservation and poverty reduction: how, what and where?**

Dilys Roe¹, Joanna Elliott² and Matt Walpole³

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There has been a long-running debate on the links between environment and development. Only recently, however, has the debate focussed specifically on the links between biodiversity conservation and poverty reduction. This presentation is intended to provide an introduction to the Symposium by exploring the rationale for focussing on a link between biodiversity conservation and poverty reduction, by highlighting some of the claims and counter-claims that are made about this link, and by noting some of the issues which constrain our understanding of this link – particularly in terms of understanding what we mean by biodiversity conservation and poverty reduction.

Since the 1990s, biodiversity conservation and poverty reduction have both become international societal goals. The Convention on Biological Diversity, agreed in 1992, was drafted in response to escalating biodiversity loss. The OECD International Development Targets of 1997 focussed the international development community on poverty reduction and were reiterated in the Millennium Development Goals. Although focussed on very different communities of interest, both of these overarching policy frameworks recognise a link between their objectives. The Millennium Ecosystem Assessment of 2005 re-emphasises this – the delivery of ecosystem services providing the link between biodiversity and human well-being.

Despite this apparent consensus at the international policy level, there is considerable divergence of opinion at the practical level as to the nature and scale of biodiversity-poverty links and the role and responsibilities of different interest groups in addressing them. One issue relates to the degree to which biodiversity can actually lift people out of poverty – rather than simply preventing them slipping into (or further into) poverty. Another relates to the degree to which biodiversity conservation interventions can, or do, target ‘the poor’ – as opposed to generic rural communities. Another relates to the degree to which ‘biodiversity’ is important compared to a few selected species, or to biomass, or to the ecosystem services that biodiversity generates.

These issues are all addressed within the Symposium and we use this presentation to provide a general introduction and to highlight some of the key questions that the subsequent presentations will address.

SESSION I: KEYNOTE PRESENTATIONS – THE GLOBAL CONTEXT

Chair: Jon Hutton (UNEP-WCMC)

10.00–10.30 Poverty reduction and biodiversity conservation: an economic perspective

Pavan Sukhdev¹, Heidi Wittmer² and Uta Berghöfer³

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Rural poor people have been able to survive largely through reliance on natural resources and sustainable management systems. Today, with the requirements of participating in 'modernizing' economies (that focus on specialization, technological innovation, information and market access), marginalization of the rural poor is exacerbated: the terms of access to and control over natural resources are changing.

Considering ecosystem services helps to understand the environmental and natural resource assets that are central to maintain and improve livelihoods. Furthermore, a focus on ecosystem services makes visible these linkages in an encompassing way, including most aspects of how human well-being depends on nature.

We discuss the perspective on ecosystem services, focusing on two policy levels: (1) the 'GDP of the poor' as an alternative indicator for national economic welfare and (2) local ecosystem services valuations for measuring the social impact of environmental policy decisions.

Getting the indicators right – 'GDP of the poor'

Traditional measures of national income, like GDP which measures the flow of goods and services, can be misleading as indicators of societal progress in mixed economies because they do not adequately represent natural resource flows. If all ecosystem services are systematically captured, we better understand the well-being of the rural poor. If natural capital losses are factored in, it becomes clear that in many countries the poor are less well off than before. In case studies from India, Brazil and Indonesia ecosystem services and non-market goods proved to be an important part of total income of the rural poor: India (46,6%), Indonesia (74,6%) and Brazil (89,9%). In regular accounts of GDP, such vital services go largely unnoticed. We advocate the need for an adapted measure of GDP – the 'GDP of the Poor'.

Valuing ecosystem services for measuring social impact

From an ecosystem services perspective, investments in sustainable resource management and conservation always provide bundles of provisioning and regulating services – benefit streams which cannot be dealt with separately. For some of these benefits, private or collective ownership can be easily attributed, e.g. drinking water, whereas others remain essentially public goods, e.g. reduction of waterborne diseases, or flood protection. While all services contribute (or are even pre-requisite) to human well-being, environmental policy instruments often focus on single ecosystem services, not on bundles of them. The fact that private and public services come in bundles further complicates their management.

With examples from local contexts we aim to show how the ecosystem services perspective can help to gain a better understanding of the multi-faceted nature of 'social impact' and of the policy instruments required to meeting this challenge.

10.30–11.00 Biodiversity and poverty: a political perspective

Bill Adams, University of Cambridge

The new Millennium has been a period of boom and bust for those who wish to combine biodiversity conservation and poverty alleviation. The rhetoric of win-win has been widely deployed by conservationists in speaking both to those outside their organizations and in conversations with each other. Yet win-win outcomes have proved elusive, and conservation debates have seen increasing amounts of airtime filled by calls for a renewed protectionism, and increasingly strident and confident critiques of the social impacts of conservation.

There are many reasons why ideas have ebbed and flowed as they have, but among them one issue stands out. Both conservation and poverty alleviation are intensely political activities. Largely as a result they are difficult – and we don't know how to do them with any real confidence. They are also expensive, complex to plan, slow to have the effects desired of them, difficult to get right, and with outcomes that are often controversial. Both generate losers as well as winners, whether some (or all) among the poor, or the rich, either locally or globally.

This presentation will reflect on the complex politics of conservation and development, and argue that the challenges of poverty reduction and biodiversity conservation must be understood within an explicitly political frame. There are no technical shortcuts around hard political questions. There are significant choices to be made about what elements of the earth's living diversity survive and where, who gets to benefit from them, and who gets to decide. Solutions need to be conceived that cross scales, from organism to biosphere, from individual consumer of life to humankind. The challenge is considerable.

11.00–11.30 POSTER SESSION (TEA/COFFEE)

SESSION II: BIODIVERSITY–POVERTY LINKAGES – STATE OF KNOWLEDGE REVIEWS

Chair: Eileen de Ravin (Equator Initiative)

11.30–12.00 The geographical overlap between biodiversity and poverty: a state of knowledge review

Monica Hernandez Morcillo, Philip Martin and Matt Walpole, United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)

Although it is increasingly held that poverty reduction and biodiversity conservation are linked issues, there is ongoing debate as to the extent of these linkages and the extent to which we should integrate our efforts to address both issues. Part of this debate has focused on the extent of geographical overlap between biodiversity and poverty: before deciding if and how to

integrate these agendas we need to identify whether they are happening in the same place. Some commentators have suggested that where poverty manifests itself most severely is not the same as where significant biodiversity is found. However, the multifaceted nature of both poverty and biodiversity makes this a complex question to answer.

A substantial body of work mapping the coincidence or areas of high biodiversity and areas of high poverty, at a range of scales, has emerged. In this state-of-knowledge review we synthesize the findings from a range of studies. We asked 'where are the poor?', 'where is biodiversity and the places prioritised for conservation action?' and 'how do the two overlap'? A suite of different measures of both poverty and biodiversity have been mapped and various studies have overlaid different single measures of each. Even this simplistic approach suggests significant areas of overlap, and we describe the major patterns.

What is arguably more important is to understand the multidimensional interactions and dependencies between biodiversity and poverty, which cannot be easily captured in a two-dimensional map. However, emerging efforts to map the distribution and flows of ecosystem services could be a valuable way of identifying where (and when?) the connection between biodiversity (that in part underpins the supply of ecosystem services) and the poor (who in part depend on such services) is most acute. This in turn could help to identify where conservation action could have most impact for the well-being of the poor.

12.00–12.30 Dependence of the poor on biodiversity – which poor, what biodiversity?

Bhaskar Vira¹ and Andreas Kontoleon²

¹Department of Geography, University of Cambridge; ²Department of Land Economy, University of Cambridge

This paper examines the evidence on the extent to which the poor depend upon biodiversity. It specifically focuses on the question: which groups of the (differentiated) poor depend, in which types of ways, on different elements of biological diversity? The review focused on two particular types of dependence: (1) biodiversity as offering a means of subsistence or income to the poor; and (2) biodiversity as offering insurance to the poor from risks and shocks which prevents them from falling deeper into poverty.

The methodology for the review included an examination of the peer-reviewed literature, as published in journals and books, and an examination of websites and portals of major organisations/forums working on biodiversity conservation and poverty alleviation. Literature identified through these processes was systematically analysed to examine the empirical evidence on the extent and nature of dependence. Aggregation of the findings from this meta-analysis is difficult, given the methodological differences in the underlying case studies, but this paper reports on the trends that have emerged from this review.

There is considerable variation reported in the extent of household income that is contributed by biodiversity-based resources. Some of this dependence is very specific to particular groups, especially the poor. Some multi-sited studies demonstrate variability across different sites, reflecting both the availability of alternative income sources, as well as access issues and previous resource-use patterns. Levels of participation in biodiversity-based livelihood activities are also high, although there is some variation when this is broken down by wealth class, with the poor typically showing higher levels of dependence.

The literature suggests that biodiversity provides the poor a form of cost-effective and readily accessible insurance against risk, particularly food security risks, risks from environmental hazards, and health risks. There is also some discussion in the reviewed material of the risks associated with declining ecosystem resilience. The evidence suggests that as the poor have few alternative sources for protecting themselves, they have a higher dependency on biodiversity for dealing with risk.

The reviewed studies suggest that the poor tend to depend disproportionately on relatively low value or 'inferior' goods and services from biodiversity, while the more affluent groups may get interested in such resources if they have higher commercial values (often crowding out the poor in the process). Similarly, risk dependence of the poor on biodiversity takes the form of a last resort, in the absence of alternatives. This dependence of the poor on low-value activities (and on biodiversity as a last resort against various forms of risk) may confirm the suggestion in some recent literature of a resource-based 'poverty trap'. This may have important policy implications, as it suggests that the poor may need to break their dependence on biodiversity in order to improve their livelihood outcomes.

12.30–13.00 Biodiversity as a poverty trap, safety net or route out of poverty?
Craig Leisher and S. Neil Larsen, The Nature Conservancy

We reviewed over 400 documents that focus on the nexus between biodiversity conservation and poverty reduction specifically seeking interventions—or 'mechanisms'—for which there is empirical evidence of benefits to both poverty reduction and biodiversity conservation. The aim was to understand what we know empirically about biodiversity conservation as a mechanism for poverty reduction. Our review did not gauge the quality of the evidence, only the weight.

To illuminate the pitfalls and highlight what works, we present the known poverty-conservation mechanisms, how they work, who they benefit, which components of biodiversity are important, and what are the uncertainties.

We found nine primary interventions or mechanisms with empirical evidence of benefits to both the rural poor and nature: NTFPs, timber, payments for environmental services, forest tourism, fish spillover, marine tourism, mangrove restoration, agroforestry and grasslands.

Sometimes these mechanisms are a route out of poverty for local people. More often, however, they are a safety net to keep people from falling deeper into poverty, and when up-ended, a few can become poverty traps.

The mechanisms with empirical evidence for being a route out of poverty are: community-based timber enterprises, forest tourism, fish spillover from no-take zones, marine tourism and agroforestry.

We also looked at the cross-cutting issues, including several inter-related problems: households with higher assets and higher levels of social capital are more likely to participate in a conservation initiative, elites often capture the benefits of a conservation initiative, and the need to build in provisions for reducing discrimination against women and the poor.

Finally, there are considerable gaps in poverty-conservation knowledge. There is a general knowledge gap in that the number of studies with hard evidence is not sufficient to allow solid

conclusions to be drawn. There are also a number of specific knowledge gaps including following Elinor Ostrom's lead in common-pool resources and identifying the 'design principles' or success factors that often lead to a conservation initiative benefiting both the poor and nature.

13.00–14.00 **LUNCH**

SESSION III: BIODIVERSITY–POVERTY LINKAGES FOR DIFFERENT GROUPS OF POOR PEOPLE

Chair: Nigel Leader-Williams (University of Cambridge)

14.00–14.30 **From Sahelian agropastoralism to global drylands: biodiversity-poverty linkages**

Michael Mortimore, Drylands Research

Using the model of co-evolving, interacting human and ecological systems presented in the *Drylands Development Paradigm*, a brief analysis is offered of biodiversity management among Sahelian agro-pastoralists in northern Nigeria and southern Niger, in terms of agro-diversity (cultivars), useful plants (spontaneously regenerating), protected and spontaneous on-farm trees, and domesticated livestock. The analysis identifies generic findings applicable to the Sahel biome and argues that values must be understood both in economic terms (correctly estimated) and in 'non-economic' terms. To restrict policy thinking to US \$ equivalents misses the balance achieved by some indigenous systems and invites alienation, accelerated land-use change and destructive exploitation. These conclusions are extended to global drylands based on a recently published Challenge Paper (IUCN/UNDP/IIED), *Dryland opportunities: a new paradigm for people, ecosystems and development*. An opportunistic framework for dryland development must replace the 'desertification scenario' that inspired many inappropriate and unsuccessful interventions. However, local ownership and strong community-based institutions and regulation are needed to secure 'useful biodiversity' for the benefit of poor people and the advancement of dryland development. A biodiversity strategy is needed at international and national levels that realistically conjoins local and indigenous values with those of external agendas and pressure groups.

14.30–15.00 **Pastoralists and conservation – who benefits?**

Katherine Homewood¹, Pippa Chenevix Trench¹ and Dan Brockington²

¹*Anthropology, University College London;* ²*University of Manchester*

Conservation business is booming in East Africa, with pastoralist destinations among the highest-earning and fastest-growing destinations, but is threatened by major long-term wildlife declines. At the same time, poverty in the pastoralist rangelands is both wide and deep, with mean incomes and development indices consistently below national averages in Kenya and Tanzania. Governments and conservation organisations see green development, often through some form of community-based conservation, as the key to sustainable livelihoods and biodiversity conservation in East African rangelands. This paper looks at the contribution

conservation makes to pastoralist livelihoods. It gives an overview of a multi-site cross border collaborative study of Maasai livelihoods in two Tanzanian (Longido, Tarangire) and three Kenyan sites (Amboseli, Kitengela, Mara). These sites are very different in terms of proximity to protected areas, to urban settlements, markets and infrastructure, and in their ability to generate wildlife related revenues, as well as being subject to major national differences in economic and political context.

All sites show a remarkable continuing centrality of livestock in people's livelihoods, however diversified. In one site, Mara, households adjacent to the Reserve earn over 20% of their income on average from conservation-related activities. However, the other four sites show remarkably low household-level returns from conservation, despite the very significant revenues accruing to conservation across the area as a whole. The paper quantifies and discusses the relative lack of importance to local households of conservation revenue compared to returns from livestock, cultivation, and off-farm work. In this light, the pace and scale of loss of access to resources driven by conservation has serious implications for livelihoods security and impoverishment.

Work remains to fulfil the promise of the many conservation, 'community-based conservation' (CBC) and 'conservation with development' initiatives. Currently these do not benefit most residents, presenting clear implications both for continuing decline of wildlife and for impoverishment (running counter to the professed Millennium Development Goals, Poverty Reduction Strategy Papers and NGOs' CBC aims). The case of the Mara shows that conservation business can bring local benefits but the special circumstances making this possible may rarely be achieved.

15.00–15.30 Forest conservation and poor people
Brian Belcher, Royal Roads University

Estimates of the number of 'forest-dependent poor people' range from the tens of millions to the hundreds of millions. People use forest products for their own subsistence, for trade, and for inputs into processed products. A smaller but still substantial number are employed in forest sub-sectors. This high current use and 'dependence' has been widely interpreted as an indication that forests have high potential to contribute more to poverty reduction. A common, related hypothesis is that efforts to increase the creation and capture of value from forests would create incentives for forest conservation. However, there are few examples where this anticipated potential has been realized, despite years of investment by conservation and development organizations. In practice, many forest products are economically inferior. Products that have higher potential value are often limited by poor market access, weak property rights, or other constraints that typically coincide with the conditions that favour both forest conservation and rural poverty – remoteness, steep topography, poor soils and poor education, health care and other social services. Under these conditions, forest products are available to the poor because they have low value. When forest products do have higher real value, they are often captured by elites and managed in ways that are not compatible with conservation. The context for forest-based poverty alleviation (FBPA) is changing. Devolution of resource management responsibilities, community resource management and other institutional innovations, growing and changing markets for both timber- and non-timber products, and tremendous new interest in payment for environmental services schemes (especially REDD) may create new opportunities.

15.30–16.00 **POSTER SESSION (TEA/COFFEE)**

16.00–16.30 **Biodiversity and poverty in coastal environments**

Jock Campbell and Phil Townsley, IMM

From a global perspective the coastal environment is one of the most biologically and ecologically diverse areas. This biodiversity has qualities that attract and provide opportunities for the poor. The ways in which the poor use this biodiversity, and benefit from it, is very varied. Some access the coast on a full-time basis, others part-time, seasonally or as a safety net. Their access to, and use of, biodiversity is often socially differentiated around factors, such as age, gender, religion, wealth and education, and is part of wider, complex household-livelihood strategies.

This complex interaction of biodiversity and livelihoods is undergoing increasing change as a result of coastal degradation, resource over-exploitation, climate change, increased competition, coastal development, policy and market changes and conservation strategies. Where such changes take place, it is the poor whose access to these benefits is most affected as they have the least influence over mechanisms that control that access and often have more limited capacity to adapt and respond to change.

Efforts to harmonise conservation and poverty reduction strategies into pro-poor approaches are broadly concerned with: (1) limiting and protecting the rights of some (albeit at the exclusion of others), (2) enhancing resource-dependent livelihoods to become more sustainable over time, (3) compensating for livelihood loss and (4) seeking livelihood alternatives.

Such pro-poor conservation efforts seem to have had mixed success. They are often localised, small-scale, and difficult to transfer; the benefits accrue to different groups of the poor in different ways; success may be measured in terms which are more meaningful to the resource manager than the poor and achievements are likely to be short-lived given the dynamic coastal environment.

These limitations are often due to the complexity of the livelihood change process. The factors that support or inhibit livelihood change are numerous and they depend upon the social, financial, physical, human, informational and natural assets which different groups have access to. They also reflect intangibles, such as a belief in the need for change, trust between stakeholders, vulnerability and perceptions of risk, and how the poor are able to interact with mediating institutions such as governance structures and the political economy. These factors differ greatly between households, locations, cultures and over time. They make the implementation of pro-poor conservation strategies very complex. Pro-poor coastal biodiversity conservation needs to embrace this complexity, and work with it in integrated and interdisciplinary ways.

16.30–17.00 Biodiversity: a strategic value in resilient food systems
Willy Douma, Hivos (The Netherlands) www.hivos.nl/english/bdf

Conservation of biodiversity and maintenance of ecosystem integrity may be a key objective towards improving the adaptive capacity of the poor and vulnerable groups to maintain productivity and cope with climate change. Functionally diverse systems may be better able to adapt to climate change and produce better than functionally impoverished systems. For the past 10 years the Hivos –Oxfam Novib Biodiversity Fund (BDF) has supported around 25 international Civil Society Organizations (CSOs) that have contributed to demonstrating the importance of biodiversity in the livelihood strategies of the poor.

Two angles are taken:

(1) Attaining more resilience with higher agrobiodiversity

Higher biodiversity in and around farms improves the resilience of food-production systems: soil fertility increases, water supply services improve and pests are better controlled. It will be argued that experiences of several international civil society organisations with participatory plant breeding and variety selection is worth up scaling and will benefit from open doors of public research institutions and government policies on farmers' rights.

(2) Scaling-up trade from biodiverse agricultural systems

Demand for products from biodiverse farms is an important incentive for farmers and other stakeholders in the value chain. Voluntary social and environmental standards systems, i.e. for organic agriculture (IFOAM) or sustainable agriculture (Rainforest Alliance), both members of ISEAL (the alliance of voluntary standards systems) aim to have a positive impact on biodiversity and poverty but impact studies are scarce. What is required to bring these systems and their support structures further to scale?

Both angles highlight the importance of empowerment of the poor as a basic starting point for setting research, trade and policy agendas and the need to support and enhance the work of a limited number of international civil society organisations that base their policy work on experiences on the ground.

17.00–18.30 POSTER SESSION with cash bar

18.30 End of Day One

19.00–21.00 Symposium dinner for speakers and guests with tickets

SESSION VI: DIFFERENT RESPONSES TO BIODIVERSITY LOSS AND THEIR POVERTY IMPLICATIONS

Chair: Matthew Hatchwell (Wildlife Conservation Society)

9.00–9.30 **Payments for environmental services – benefits for conservation and poor people**
Sven Wunder and Jan Börner, CIFOR (Center for International Forestry Research), Brazil

Payment for environmental services (PES) schemes carry the promise to convert hard conservation tradeoffs into win-win situations because the winners from environmental interventions are able to pay off the losers. In spite of somewhat sketchy evidence, based on observations from all three tropical continents, there is good reason to believe that poor service providers can broadly gain access to PES, and generally become better off from that participation, in both income and non-income terms. This contradicts widespread suspicions about poor service providers becoming ‘trapped’ in PES schemes that are to their disadvantage. The various participation filters of a PES scheme contain both pro-poor and anti-poor selection biases. Quantitative welfare effects are bound to remain small-scale, compared to national poverty-alleviation goals. Voluntary participation and consolidated rights over environmental assets are the most essential safeguards to avoid hypothetical negative scenario. However, poverty effects need to be analysed in a conceptual framework looking not only at poor service providers, but also at poor service users and non-participants that are affected indirectly. Effects on service users are positive if the environmental goals are achieved, while those on non-participants can be positive or negative. The latter derived effects, in particular, deserve more attention for potentially large-scale interventions like Reduced Emissions from Deforestation and Forest Degradation (REDD), analyzing the downward linkages and multiplier effects from conservation-induced programmes: until now, this constitutes basically a lacuna in our knowledge about PES welfare effects. Some pro-poor interventions are possible, but increasing regulations could curb excessively PES efficiency and implementation scale, which could eventually harm the poor. While equity and welfare considerations constitute key preconditions for PES implementation, the prime focus of PES design should remain on the environment, not on poverty.

9.30–10.00 **Conservation priority areas, poverty, and payments for ecosystem services: a global view**
Will Turner¹ and Thomas Brooks² (presented by Katrina Brandon¹)
¹Conservation International; ²NatureServe

The loss of biodiversity and the persistence of poverty are two of the world’s most dire challenges. There is a general expectation that conservation actions should benefit human well-being, help secure livelihoods, and pose little risk to the poor. Yet claims of the contribution of conservation to poverty alleviation are controversial. Here we assess the flows of ecosystem services provided to people by priority habitats for terrestrial conservation, by overlaying global maps of biodiversity, physical factors, and socioeconomic patterns. We estimate the value of these habitats to the poor, both through direct benefits and through ‘payments for ecosystem services’ (PES) to people living near natural habitats. Results show that the global potential for biodiversity conservation to support poor communities is high, with

the top 25% of biodiversity conservation priority areas providing 56–57% of these benefits. The magnitude of these services is substantial: aggregate benefits are three times the estimated opportunity costs, and their value exceeds US\$1/person/day for 331 million (30%) of the world's poorest people. The value of some services may increase as they help ameliorate climate change and its negative impacts. Although tradeoffs remain, these results show that win-win synergies exist between conservation and poverty alleviation, indicate that effective PES mechanisms can capitalize further on these synergies, and suggest biodiversity conservation as a fundamental component of sustainable economic development.

10.00–10.30 Conservation priority areas, poverty, and payments for ecosystem services: a global view

Chris Sandbrook, Consultant, IIED

Despite a recent trend for 'landscape' conservation, much conservation action around the world remains focused on particular species that are considered valuable because of their rarity, charisma, or the support of a famous champion. This species-based approach to conservation is highlighted by the MEA as a promising response to biodiversity loss, but what difference does it make to poverty reduction? This paper explores this question, using the conservation of African great apes as a case study. These species attract enormous conservation attention, and live alongside some of the world's poorest people. They should therefore be ideally placed to make a positive contribution to poverty reduction.

The paper begins by highlighting the role of species conservation in attracting attention to sites where the species in question is found.

Those attracted can include species-focused NGOs, tourists, donors, the private sector, politicians and celebrities. These actors influence the strategies adopted for both conservation and poverty reduction at great ape sites, and their outcomes. The paper then examines in more detail some of the strategies used at great apes sites and their poverty impacts, including tourism, various Integrated Conservation and Development approaches, forms of Community Based Natural Resource Management and traditional conservation activities, such as enforcement. In each case the influence of great ape conservation is considered. The paper then assesses the overall impacts of great ape conservation for poverty, and identifies ten factors that influence outcomes. These include, among others, the role poverty plays as a driver of threat to apes, the scale of poverty at ape sites, the role of governance regimes, the level of local capacity, the quality of information available, and the ways in which benefits are accessed and distributed.

The paper concludes that species-based conservation can generate a lot of attention for sites and bring in a lot of resources. Under certain circumstances this can have a very positive impact on the livelihoods of some people and reduce poverty. However, the overall focus of species-based conservation is on species, not poverty reduction, and the benefits for local people are often too limited or too poorly distributed to make a significant difference to poverty levels. At the same time, the presence of species-based conservation can greatly increase the level of conservation enforcement, which is likely to lead to an increase in poverty for resource-dependent people in the short term.

10.30–11.00 POSTER SESSION (TEA/COFFEE)

11.00–11.30 Community-based approaches for linking conservation and livelihood objectives

Fikret Berkes, University of Manitoba

To involve local populations as partners in conservation, a direct linkage between biodiversity conservation and livelihoods strengthens incentives. That is, enhanced biodiversity conservation leads to increased livelihood benefits relative to old livelihood activities, giving incentives to the local people to protect resources and mitigate threats. This paper seeks a better understanding of the nature of these incentives, with focus on community objectives -- the benefits that communities themselves consider important: what makes the local people want to conserve resources? The main source of data is the UNDP Equator Initiative, which holds biennial searches for entrepreneurship cases that seek to reduce poverty and conserve biodiversity at the same time. The following findings are based on a sample of ten UNDP Equator Initiative cases studied in the field, supplemented by four non-UNDP cases:

1. Community objectives that create incentives for conservation are complex, and cannot be characterized as 'poverty reduction' in the old income-poverty sense;
2. Economic objectives are important, but in many cases, political, social, cultural objectives are more important than monetary objectives; empowerment is almost always a key objective;
3. There is almost always a mix of community objectives, but the mix is case-specific, making it impossible to design 'blueprint' solutions;
4. With indigenous groups in particular, the political objectives of control of traditional territories and resources are of prime importance because such control is seen as the first step to development.

The findings support the view that benefits and incentives seem to be much too narrowly conceived in the conservation literature, focusing on monetary benefits as if following the income-poverty model of the 1960s. The finding of a diversity of community objectives (economic, environmental, political, social, cultural) is consistent with the idea that poverty is not simply the result of low income but also reflects a deprivation of requirements to meet basic human needs. These findings may help design more appropriate community benefits for conservation partnerships.

11.30–12.00 Conservation enterprise – what works, where and for whom?

Daudi Sumba and Joanna Elliott, African Wildlife Foundation

The African Wildlife Foundation (AWF) works at landscape level in nine priority sites in Africa, covering parts of fourteen countries. Most of AWF's work is in remote rural areas of relatively high poverty, where sustainable development requires tackling the causes of rural underdevelopment and unsustainable resource use. Enterprise development has been one of five priority areas of AWF strategic intervention for the past decade, primarily because of the opportunities identified for delivering both conservation and local livelihood gains through improving wildlife-based business success. In drafting this paper AWF draws on its own experience and on the experiences of other organisations including WWF, FFI, SNV, CARE and Oxfam, to assess how successful this approach has been both in terms of conservation outcomes and of generating benefits and improving economic conditions for local people.

The paper concludes that conservation enterprise can be used to directly target specific groups within a community where it is possible to design a viable business project (e.g. handicrafts businesses to target specific groups of women with products that meet market demands) and that benefit-sharing mechanisms can be designed to target specific groups within the community (e.g. youth). Some evidence indicates that conservation enterprise can contribute to poverty reduction (though causality is often difficult to prove). Other evidence indicates that the very poorest and most marginalised members of society are hard to reach through enterprise and business-support programmes, and that these programmes require or assume some form of 'trickle down' model with supportive government welfare provisions to address the needs of the very poorest.

The paper concludes that enabling wildlife to 'pay its way' through flows of cash and other benefits from locally owned businesses can help address the linkages, and is an important step forward from the base case of ensuring that conservation activities 'do no harm' to the poverty reduction agenda. Where biodiversity and wildlife can demonstrate a clear value and contribution to national growth and poverty-reduction strategies, this contributes to a favourable local, national and regional environment for conservation. The paper describes how AWF has made significant progress over the past decade in working out how to develop conservation enterprises that are commercially successful, often in difficult operating contexts. It identifies and explores five characteristics of a conservation enterprise that is more likely to work well: (1) commercial success; (2) sound community partners with appropriate governance in place; (3) contractual community ownership and enforcement of benefit streams; (4) transparent intra-community benefit sharing arrangements; (5) clear conservation logic. The paper identifies the question of the true cost of supporting conservation enterprises, which generally involve large volumes of time and donor resources to be invested by communities and NGO partners that should be included in an assessment of the costs and benefits of this mechanism.

12.00–12.30 Protected areas and human well-being: benefits, costs and governance regimes

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Recent writings and research on the relationship between human well being and protected areas is steadily building up a body of literature reviews, meta-analyses, evaluations, case studies and designed comparisons. In this paper we parse the literature, exploring all these forms. There is growing acceptance of the importance of this issue within the conservation community and a number of new developments and findings to report, particularly when we include insights from indigenous and community-conserved areas. There remain, however, persistent difficulties. Some of these pertain to the quality of the research and the lack of systematic data. It can be difficult to extrapolate from single studies, no matter how good. Some comparative studies have been afflicted by weak data. The most important task, however, is to address the conceptualization of protected areas and the way they affect people. Protected areas need to be understood within their broader political contexts as part of larger political and economic regimes. Their effects tend to be localized, but what matters here is their distribution within and between different neighbouring and resident communities. We suggest ways to improve findings and research in later work.

12.30–13.00 CBD – framework for poverty reduction and development beyond 2010
Alberto Vega, Secretariat of the Convention on Biological Diversity

Efforts to link biodiversity and poverty alleviation are still facing a number of obstacles. The new CBD strategic plan beyond 2010 recognizes again the dual challenge of conservation and sustainable use of biodiversity by simultaneously contributing to development and poverty reduction.

To address these challenges and fill the current implementation gap of the CBD and other Multilateral Environmental Agreements a comprehensive and coherent biodiversity mainstreaming strategy needs to be developed and implanted worldwide.

This mainstreaming strategy requires a global and well structured dialogue between the so called environment and development community: biodiversity concerns have to be integrated into broader development and poverty reduction processes, and conversely, the development and poverty dimension has to be integrated into the environmental agenda.

Working at the interface of biodiversity, development and poverty reduction in a globalized world also requires the actors and stakeholders involved at each level to interact and coordinate their agendas with those working at other levels in order to generate vertical coherence between global and regional agreements, national policies and local implementation.

To generate the desired awareness, behaviour change, and at least informed and responsible decision-making, a worldwide capacity development process on mainstreaming biodiversity and ecosystem services has to be implemented. Capacity development needs to work on the knowledge-policy interface, as well as on the policy-practice interface, translating emerging scientific/traditional/local knowledge and practical evidences into policy and practice-relevant information.

In developing countries, where the most biodiversity-rich regions are located but where the first priority is poverty reduction, impacts from environmental and socio-economic global changes are expected to be disproportionately intense for the forthcoming decades. Capacity development therefore represents more than ever an indispensable strategic task to meet basic development needs and priorities by simultaneously maintaining biodiversity as a foundation for vital ecosystem services.

Through capacity development scientists from different disciplines, politicians and decision-makers from the various development sectors and other stakeholders and practitioners, such as indigenous people, local communities, business and private sector, need to develop sound competencies to integrate actively biodiversity concerns and ecosystem services as indispensable assets into their own sustainable development and poverty reduction processes.

The establishment of regional nodes for capacity development and networking hosted by regional organisations with the political mandate to integrate their member states could be the proper global response to generate mainstreaming processes through south-south and north-south cooperation worldwide.

13.00–14.00 LUNCH

SESSION V: “REAL WORLD” EXPERIENCE
Chair: Joanna Elliott (African Wildlife Foundation)

14.00–15.00 **Policies, plans or practice – what works best for linking biodiversity conservation and poverty reduction?**
Panel presentations followed by discussion

Approaches to conservation and poverty reduction: entry point – working with local organisations

David Thomas, BirdLife International

There seems to be widespread institutional consensus that working with local organisations as an entry point for conservation and poverty reduction is a ‘good thing’. Perspectives of biodiversity and environmental conservation policy – Articles of the Convention on Biological Diversity for example, or findings of the Millennium Ecosystem Assessment – and those from institutions focused on development and poverty reduction – such as the OECD Development Assistance Committee – seem to converge on the desirability of working with local organisations.

Working with local organisations can help to ensure that actions are informed by local perspectives and controlled by local stakeholders. Local organisations don’t see ‘environment’ and ‘poverty’ as discreet areas, but as part of the same issue. Their lives are intricately connected to the environment, the goods and services it provides, and the vulnerabilities they face, such that the two are inseparable and the understanding of this relationship is immediate and directly related to local experience. Ultimately this brings the prospect of interventions being more relevant and more effective. Working with local organisations also brings potential benefits in terms of sustainability, efficiency, legitimacy and fulfilment of rights.

BirdLife has built relations with local organisations at sites of high priority for biodiversity – Important Bird Areas (IBAs) – worldwide. National BirdLife Partners collaborate with these groups, to identify a common agenda, and work in partnership towards an agreed set of objectives. For those sites in developing countries, it is often essential to address together the linked challenges of conservation and poverty reduction.

Experience to date shows that there is potential for delivering on both conservation and poverty reduction goals through this approach. Examples show how biodiversity has been enhanced, threats have been reduced, and measurable development benefits – in terms of health, incomes, employment, and empowerment – have been achieved.

However, there are challenges that need to be overcome. Examples from BirdLife’s experience of working with local organisations show how issues have been addressed relating to:

- alignment of local organisation priorities with those of national or international conservation organisations (the search for win-win outcomes and the need to deal with trade offs).
- representativeness and accountability of ‘issue-based’ local organisations.

- the ability of local organisations to address national or international drivers and root causes.
- effective targeting of the poorest by local organisations focused on conservation (and vice versa).

Entry point – natural resource governance

Phil Franks, Care International

The contribution of biodiversity to supporting the well-being of poor and vulnerable populations in the Developing World is widely recognized in the Millennium Ecosystem Assessment and many other studies at global, regional and national levels. Less clear is the contribution of the activities of governments, civil society and private sector agencies that are conducted in the name of conservation, and there is a tendency for the positive social impacts of ecosystem services to mask the negative impacts of some conservation activities. Increasingly the key issue is not whether conservation efforts are justified, but what type of conservation activities should be implemented and, ultimately, the issue of whose conservation interests are, or should be, setting the agenda. Integrated conservation and development projects have tended to tinker around the edges of this issue which is ultimately an issue of governance. This presentation will look at why and how governance has become central to linking biodiversity conservation and poverty reduction. Results from two studies comparing the social outcomes of different approaches to forest governance will be presented. In terms of the “how”, the presentation will include case studies on how CARE and its partners have used a rights-based approach focusing on procedural rights to address this issue. Taking a broad brush overview of the results achieved from the increasing emphasis on natural resource governance over the last 10–15 years, the presentation will examine the assumption that “better” governance leads to more equitable social outcomes, and, in conclusion, highlight the need for a stronger focus on assessing the social outcomes of natural resource governance interventions.

Namibia: Entry point – national policy and programmes

Brian T. B. Jones, Environment and Development Consultant, Namibia

In 1996 Namibia passed legislation enabling rural communities to gain user rights over wildlife and tourism through forming common property-management institutions called conservancies. There are now 60 registered conservancies, covering more than 15% of the total land surface and with about 10% of the national population.

This Community-Based Natural Resource Management (CBNRM) approach has been adopted in the country's Vision 2030 for Sustainable Development, National Development Plan III, national food security strategies, and the National Poverty Reduction Action Programme.

Conservation successes have been well documented. Namibia is the only country in Africa where the government is re-introducing black rhino to communal land. In 2008 the then 53 conservancies earned a total of just more than N\$26 million (about US\$3.25 million) in direct cash income and the value of game meat distributed by conservancies to members was N\$3.06 million (about US\$382 500).

The direct contribution to poverty *reduction* is low. Those that gain full-time jobs can be lifted out of poverty: Conservancies employed 154 people in 2008, there were 605 full-time jobs

generated by tourism and hunting in conservancies and 2,267 part-time jobs. In the remote community of Puros virtually all adults are able to get jobs in the conservancy or associated tourism enterprises, but this situation is rare.

A few conservancies provide direct cash payments to households ranging from about N\$100 to N\$300 per conservancy member. These amounts going to some of the poorest people in Namibia can help to *alleviate* poverty but there are many other livelihood impacts; for example, the Marienfluss Conservancy in Kunene Region uses its income to provide transport to clinics and other services nearly 200 km away. Several conservancies provide support to local schools and other social projects, such as soup kitchens for pensioners and support to HIV-AIDS affected orphans.

The policy change was facilitated by the independence of Namibia in 1990. Giving rights to black communal farmers reformed discriminatory policies of the former *apartheid* regime. Despite official government endorsement of CBNRM, factions and interest groups within government often negatively affect implementation of the policies and legislation. Recent attempts to further extend rights to communities foundered because some officials are reluctant to give up power and because politicians and others are beginning to realize the value of the wildlife and tourism assets and want a slice of the pie.

Entry point – celebrating local success in linking conservation and poverty reduction

Eileen de Ravin, Equator Initiative

The Equator Initiative is a partnership that brings together the United Nations, governments, civil society, businesses, and grassroots organizations to build the capacity and raise the profile of local efforts to reduce poverty through the conservation and sustainable use of biodiversity.

Started in 2002, the Equator Initiative evolved in response to the fact that the world's greatest concentrations of biodiversity are found in countries also beset by the world's most acute poverty. It recognises the evolving trend of local leadership in advancing innovative projects in biodiversity conservation and poverty reduction.

As sustainable community initiatives take root throughout the tropics, they creating local successes that collectively make a significant contribution to achieving the Millennium Development Goals (MDGs), as well as adapting to the effects of climate change.

The Equator Initiative is dedicated to:

- Celebrating successful local initiatives
- Sharing community experience and good practice
- Informing policy to foster an enabling environment for local action
- Building the capacity of grassroots organizations to deliver results and scale-up impact

The Equator Initiative works in three action areas.

The Equator Prize is awarded biennially to recognize outstanding community efforts to reduce poverty through the conservation and sustainable use of biodiversity.

Equator Dialogues is an ongoing series of community-driven meetings and exchanges, held in conjunction with related international forums.

Equator Knowledge is the research and learning program focused on synthesizing lessons from local practice in conservation and income generation that can serve to inform policy and advance research.

15.00–15.30 **Discussion** – facilitated by Steve Bass (IIED)

15.30–16.00 **POSTER SESSION (TEA/COFFEE)**

16.00–17.00 **Research needs and practice gaps**
Concluding panel presentations and discussion – facilitated by Matt Walpole (UNEP-WCMC)
Panel to include Bill Adams, University of Cambridge; Willy Douma, Hivos; Katrina Brandon, Conservation International; and Steve Bass, IIED

17.00 **End of Symposium**