



Luc Hoffmann
Institute

DIVERSIFYING LOCAL LIVELIHOODS WHILE SUSTAINING WILDLIFE

Exploring incentives for community-based conservation



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FOREWORD



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Gearing up for the wildlife conservation of tomorrow

For years now, trophy hunting and tourism have been the two main ways for many communities across Africa to generate revenue from wildlife. The benefits generated by these activities have provided significant conservation incentives for people to share land with sometimes dangerous wildlife. The result has been large-scale conservation and often dramatic restoration of wildlife populations and habitat^[1] in many areas.^[2]

Today, both these ways of generating revenue from wildlife on communal land face a challenging future, with potentially substantial consequences for the conservation of iconic species and entire ecosystems.

Trophy hunting is under increased pressure from animal protection activists and organisations,

and is being increasingly challenged on ethical and welfare grounds in developed countries – where most buyers of hunting permits live. Even science-based conservation organisations, which point to the evidence of significant revenue and conservation benefits in specific cases, find their arguments sidelined in the face of concerted, and often very emotional campaigns^[3]. In a world increasingly dominated by the simplicity and reach of social media, technocratic responses are ineffectual and can put the membership and revenue of conservation organisations at risk. As such campaigns gain ground, critical financial incentives for conserving wildlife across communal and private lands are being lost.

Photographic and ‘eco-tourism are often cited as possible ways to fill this revenue gap. There are some notable examples of community-private sector partnerships that generate significant benefits for communities from this kind of tourism. Yet that too faces challenges.

First, photo-tourism is not viable in many areas due to their remoteness and relative paucity of scenery and wildlife. Second, poorly managed tourism can itself have significant negative impacts on wildlife populations, such as disrupting breeding and feeding patterns^[4]. Badly managed tourism has also had wider environmental, social and cultural effects, including pressure on scarce water resources, littering, and cultural exploitation. Third, tourism is a notoriously unreliable industry, and vulnerable to perceptions of risk linked to disease outbreaks (sometimes far away on the same continent), economic and political instability, as well as the potential for local saturation of the market. The industry is also largely reliant on tourists flying in from long distance and producing large amounts of greenhouse gas emissions, challenging ‘eco’ credentials. As a result, while tourism is often presented as a straightforward replacement for trophy hunting and a form of non-consumptive use of wildlife, it is not a panacea either in terms of its revenues or its impacts.

In the absence of economic or other incentives that encourage the husbanding of wildlife, communities across Africa will put their land to more profitable use through livestock grazing or cropping.

It is this scenario that prompted the Luc Hoffmann Institute and WWF-Norway to instigate a study on the options for economic activity based on wildlife in rural Africa. We are interested in preparing for a future in which pressure on land sees wildlife displaced in favour of less ecologically appropriate uses. In time, we hope to identify, map and promote innovative ways of providing communities a genuinely ecologically-friendly living from their natural environment.

This report is just a beginning.

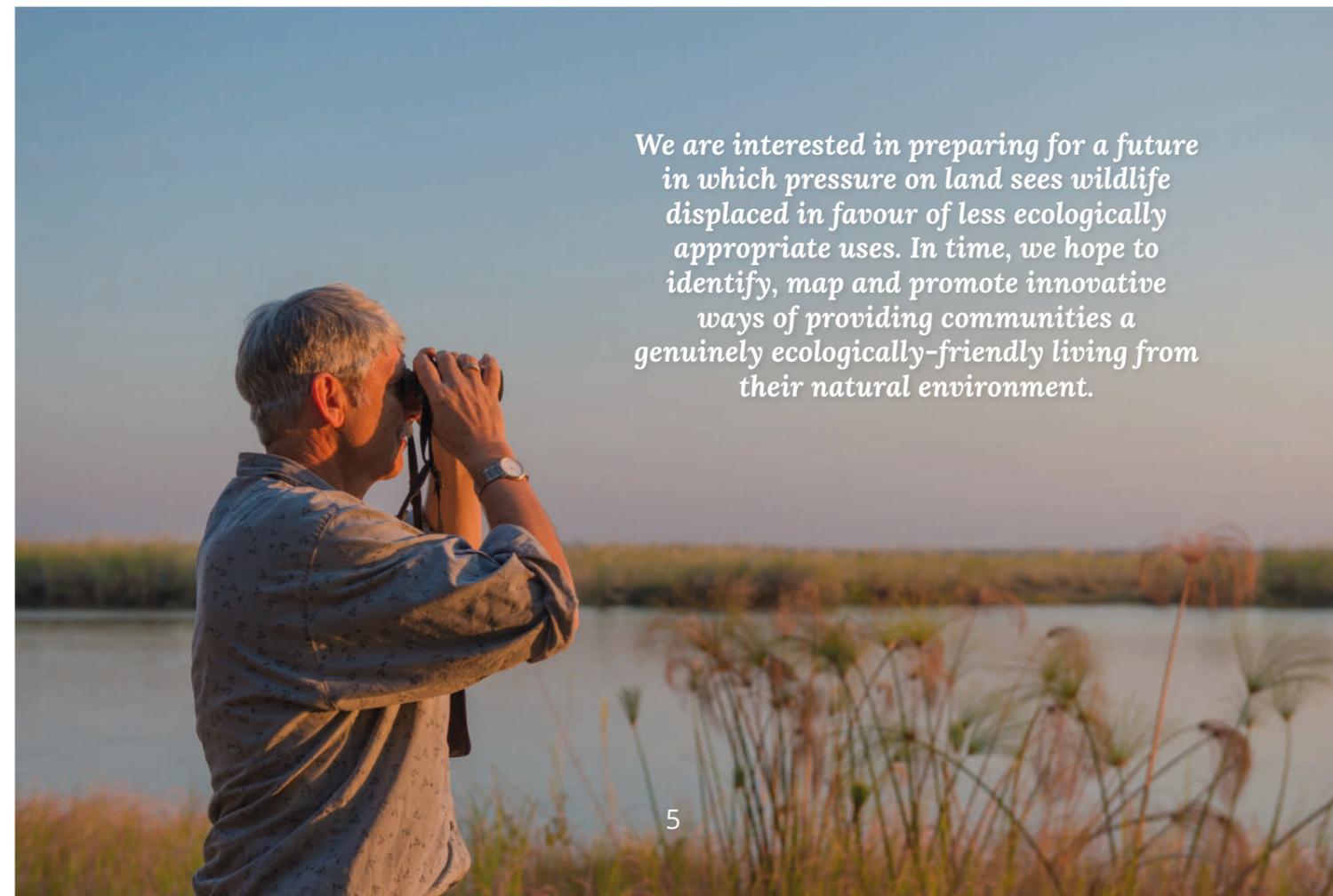
[1] Spenceley, A. 2010. Responsible Tourism. Critical Issues for Conservation and Development. *Routledge*

[2] The state of community conservation in Namibia – a review of communal conservancies, community forests and other CBNRM activities (Annual Report 2017). MET/NACSO, 2018. See also IUCN 2016. *Informing decisions on trophy hunting*. (Online) (Accessed 9 December 2019) Available from: https://www.iucn.org/sites/dev/files/iucn_sept_briefing_paper_-_informingdecisionstrophyhunting.pdf

[3] Example: Zac Goldsmith's move to ban the import of trophies to the UK

[4] Roe, D. et al. 1997. Take only photographs, leave only footprints: The environmental impacts of wildlife tourism. London, UK: International Institute for Environment and Development. <https://pubs.iied.org/7761IIED/>

We are interested in preparing for a future in which pressure on land sees wildlife displaced in favour of less ecologically appropriate uses. In time, we hope to identify, map and promote innovative ways of providing communities a genuinely ecologically-friendly living from their natural environment.



EXECUTIVE SUMMARY

This report from the Luc Hoffmann Institute and WWF-Norway is an initial high-level exploration of additional models for supporting wildlife conservation on community lands and which could be potentially applied to diversify community income in Southern and East Africa. It involved a survey of relevant initiatives via desk-based review, a callout to global networks, and interviews with people and organisations involved in innovative projects.

This undertaking was carried out by the Institute for International Environment and Development (IIED) and the IUCN CEESP/SSC Sustainable Use and Livelihoods Specialist Group. They built and reviewed an inventory of over 130 community conservation initiatives or groups of initiatives, developed a typology for understanding how different approaches promote wildlife conservation, and explored the pros and cons of each.

Overall, few truly novel ways of generating income were found in this study – familiar forms of conservation incentives still dominate, and there are no silver bullet solutions. Promising options that could diversify community business models include the generation of carbon credits, payment for ecosystem services (PES), sustainable agriculture, wild product trade and sustainable forestry, with certification playing a strengthening role in the three latter options. While the role of the private sector is increasing, donor funding still plays a central role.

Carbon credits and PES approaches have strong potential

Generation of carbon credits appears to be the mechanism with greatest potential for scaling-up. It is delivering impressive returns in some cases, and benefits to communities can include job creation both on an individual and community level. Finding buyers for credits is the current major constraint. There is, however, some cause for optimism given that emerging methodologies for assessing soil carbon may also make carbon credits feasible in more arid and forested areas.

PES approaches aimed at species and habitat conservation can deliver a wide range of individual-, household- and community-level benefits. Their main drawback is their reliance on an ongoing source of external finance, which is often lacking. The insecurity of community land tenure may also present a considerable barrier to PES schemes over much community-managed land.

Sustainable agriculture to underpin ecosystem health

A dynamic area of experimentation is incentivising wildlife-friendly agriculture through better prices, market access or other benefits for producers. These might include managing grazing livestock in sustainable ways, sometimes coupled with certification and labelling. And there is considerable potential for expansion of more sustainable agricultural/grazing practices. Such practices could include holistic rangeland management and rotational grazing. These methods would support greater ecosystem health and may enable (if not incentivise) more wildlife conservation. That being said, agriculture cannot produce the sort of landscape level retention or restoration of wildlife populations that sustainable use has in some places. However, it has the advantage of aligning with mainstream development and regulatory structures, and may be simpler to implement.

Innovation around revenue-generation is limited, yet there is a great deal of innovation occurring in conservation finance, particularly with the growth of impact investing. Impact investments typically yield a return for the investor through familiar mechanisms such as tourism and sustainable agriculture. However, they do not represent new ways to incentivise conservation so much as new ways to finance these approaches. Private finance may be combined with donor funding in new ways at different scales. Moreover, new organisations and partnerships have emerged to access and structure these in innovative ways. There is also

considerable innovation in new technology such as augmented reality or blockchain-supported digital collectables.

Enabling communities to determine their own way forward

It is important to understand that social and cultural values that communities associate with land and natural resources, as well as their sense of ownership over these, can be an important factor. These are sometimes even more important than financial benefits in a community's motivation to sustainably use and manage land and natural resources. In some cases, communities place an intrinsic value on wildlife that is unrelated to income.

Building community rights and capacity to manage and benefit from wildlife is key to long-term wildlife conservation on community lands. It may also be a powerful step towards conservation, even in the absence of economic incentives. Overall, approaches surveyed here still appear heavily externally-driven. Strengthening communities' ownership, rights and capacities is a key first step in that it enables communities to be the agents of innovation on their lands. It also can facilitate negotiations about what income streams communities wish to employ.

It is recommended that further research be conducted on the most promising models. The aim here would be to analyse their potential for being scaled up and replicated in community conservation activities in Southern and East Africa.



WHAT'S THIS REPORT ABOUT AND WHY?



This publication focuses on community-based conservation projects in Southern and East Africa. However, it also looks at a few similar initiatives in other continents.

This report focuses largely on Southern and East Africa. It looks at communal land where trophy hunting and tourism still provide the primary means of income for organised community-based conservation initiatives, such as community conservancies. However, the scope also goes beyond this region to look at experiences globally.

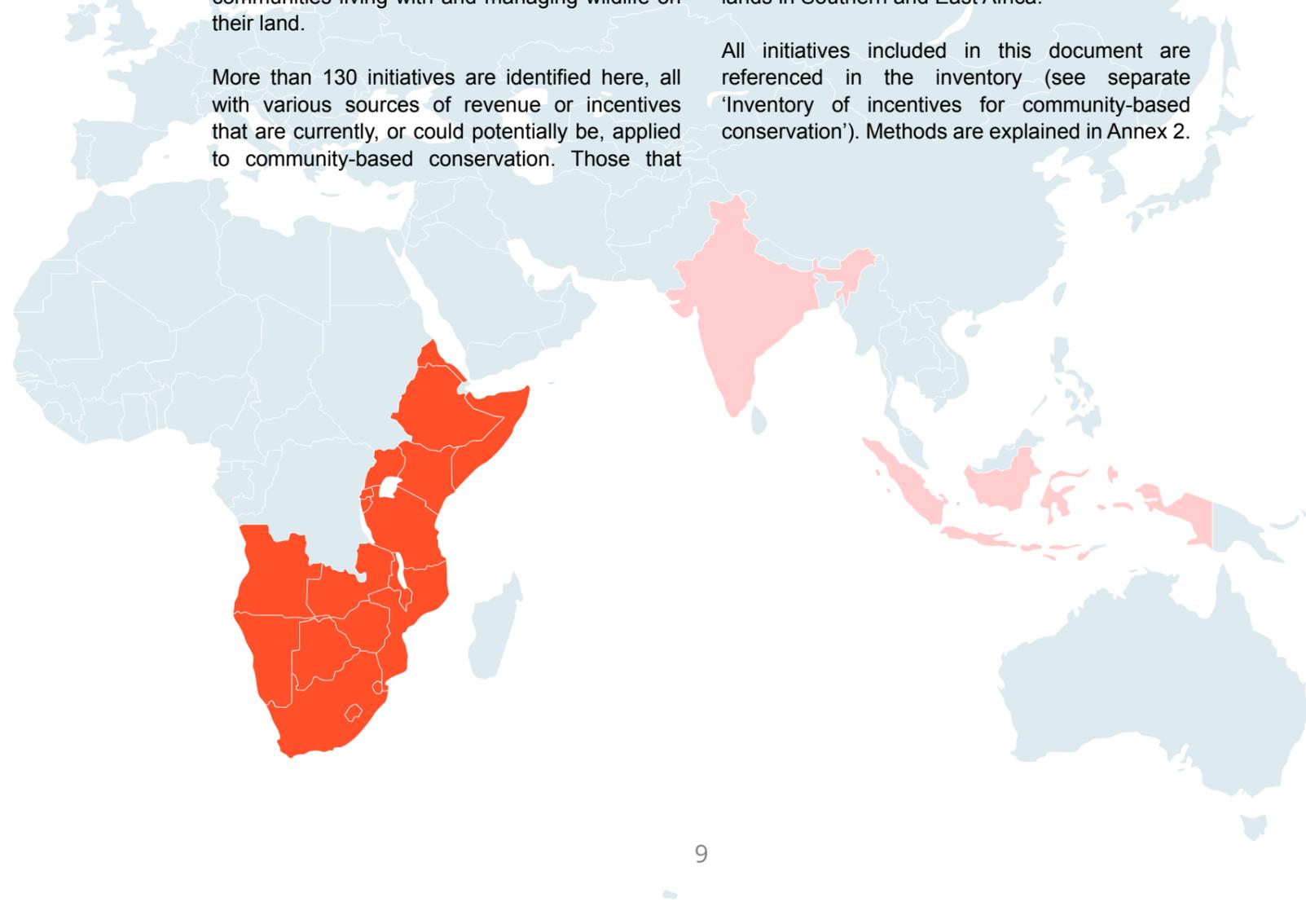
The initiatives included provide a snapshot of different models, other than trophy hunting and tourism, with varying levels and types of benefits. It additionally explores the pros, cons, and potential of these various options. It is a starting point from which to develop some of these models further and can also be used to inform the development of entirely new business and financial models. The latter can provide additional benefits for communities living with and managing wildlife on their land.

More than 130 initiatives are identified here, all with various sources of revenue or incentives that are currently, or could potentially be, applied to community-based conservation. Those that

could potentially be applied include large-scale payment for ecosystem services (PES) models, sustainable agriculture and rangeland management approaches, carbon and biodiversity offset programmes, and newer innovations such as impact investments.

This report is an initial high-level review and is not a comprehensive description or analysis of all incentive models for community conservation (see Annex 2 for more details on study limitations). Likewise, the exploration of pros and cons is necessarily provisional. However, this report is based on extensive review and significant expert consultation. Moreover, it captures the majority of approaches – beyond hunting and tourism – for generating conservation incentives on community lands in Southern and East Africa.

All initiatives included in this document are referenced in the inventory (see separate 'Inventory of incentives for community-based conservation'). Methods are explained in Annex 2.



WHAT KIND OF CONSERVATION INCENTIVES ARE OUT THERE?

Examples of approaches

To clarify and categorise classes of approaches and understand how they incentivise conservation, the authors developed a simple typology which is summarised in the box below.

These approaches differ in terms of some key variables, particularly how they seek to make conservation important and/or achievable for people, and the source of finance. The latter includes whether it is self-generated (for example from harvesting, trade or other uses of particular species) or externally derived from public sources, private philanthropic sources or private investments.

Category A: Approaches that directly incentivise conservation

A1: Sustainable use of key species of conservation concern (leading to wider habitat protection)

These approaches are the most directly analogous to trophy hunting and tourism, following the same logic of making wild species of conservation concern more valuable to community landowners/managers. The revenue stream is self-generated at



Box 1: The typology

- **Category A:** Approaches that directly incentivise conservation.
 - **Category A1:** Approaches that involve sustainable use of key species of conservation concern
 - **Category A2:** PES schemes incentivising species-based conservation
 - **Category A3:** PES incentivising area-based conservation
- **Category B:** Approaches that indirectly incentivise species or landscape conservation
- **Category C:** Approaches that support agricultural or other “mainstream” livelihood approaches that enable wildlife co-existence.
- **Category D:** Approaches that strengthen and support customary community rights, values and capacities
- **Category E:** Conservation-linked social protection approaches

These are explained and discussed in turn.

References to initiatives included in the inventory are bolded in the text.

the local level through various forms of sustainable use of the target species. These forms are usually not reliant on external funding, although they may depend on access to markets. They may also depend on access to technical skills and advice as well as on partnerships with external organisations.

Well-established approaches found here include:

- **Subsistence use including own hunting and harvesting**, where communities are motivated to conserve their land to maintain and conserve cultural and subsistence uses, such as in many indigenous and community conserved areas (ICCAs). In practice, these are not readily distinguishable from Category D approaches.
- **Wild harvesting of species or products for trade** [for example shearing of wild vicuña (**Vicuña Management**) for their fibre, fishing

for food or for aquarium trade, collection of medicinal/aromatic wild plants, reptiles for pets or skins]. Some recently established examples have had dramatically positive impacts for both communities and conservation. These include community management of Arapaima gigas (**Arapaima Management**), a very large freshwater fish from the Brazilian Amazon, which is traded internationally for leather and meat. Community monitoring, management and rights to legally fish have formed the basis for striking recoveries of Arapaima gigas, after decades of illegal harvest/trade and widespread depletion.

- **Wild harvesting for ranching then trade** – for example collecting of reptile eggs including snakes, crocodilians, turtles – followed by hatching and rearing of juveniles for exotic skin trade and meat (**Ranching of crocodilians**). A form of ranching for butterflies and other insects has also been used in some countries.



- **Eco-labelling of wild-harvested products** in order to generate additional financial value. Notable here is the **FairWild** standard for wild medicinal plant trade, which can enable producers to gain better prices and market access from sustainably/equitably harvested products. For example, an initiative in Zimbabwe is establishing trade in FairWild-certified baobab products (TRAFFIC, 2017). There is also interest in wild plant trade from community areas in Namibia, although this remains very small-scale.

A2: Payment for ecosystem services (PES) and similar species-based conservation

These approaches include various forms of conditional payments, or schemes for species-based conservation services/actions. Some of these use either innovative sources of funding or innovative means of verifying their performance.

The main types include:

- **Performance-based payments (from external sources) directly linked to local presence of species.** Examples include the Namibian **Wildlife Credits** programme which includes the Save the Rhino Trust's (SRT) bonus scheme for rhino sightings in communal conservancies. This works by ensuring that a bonus payment is made every day a conservancy sees a rhino and takes a proof-of-life photo of it. Similar schemes exist in northern Europe to pay the Sami people for continued presence of wolf or lynx through **Conservation Performance Payments**, and in Tanzania where payments are linked to camera-trap recordings of predators in the **Ruaha Carnivore Project**.
- **Direct payments for protection.** For example, under **The Bird Nest Protection programme** in Cambodia, local people are offered a reward of up to USD 5 for reporting nests, and

are then employed to monitor and protect the birds until the chicks successfully fledge.

- **Species conservation banking schemes** – these are market-based approaches linked to offset requirements, primarily regulatory (see Box 2 for more detail). No examples of these were found operating in developing countries, although they are well established in some developed countries (notably the USA – Box 2).

It is important to highlight the link here between providing positive incentives for conservation and the need to reduce the costs of living with wildlife. Where wildlife populations are predators, the challenge might not be to further increase populations since this could lead to more conflict with local people. Rather, the challenge is how to reward people for tolerating the conflict and not taking retaliatory action against wildlife. A number of approaches address increasing people's tolerance of living with costly wildlife. Similar to the SRT rhino sightings payments, the Namibian Wildlife Credits programme provides payments for tolerating lions (Box 3).

Other approaches include:

- **Compensation for losses.** Examples of projects enabling such compensation in new ways include the International Institute for Environment and Development (IIED) **Livelihoods Insurance from Elephants** project. This is developing and testing private sector micro-insurance schemes to insure smallholder farmers for damage caused by wildlife, primarily from elephants, in Kenya and Sri Lanka.
- **Assistance to reduce vulnerability to harm.** Some projects combine multiple elements. For example, the **Community-based management of jaguars** initiative in Costa Rica involves payments to ranchers who have a camera-verified jaguar presence on their land. This project also assists them in reducing the vulnerability of their livestock, hence reducing the cost of living with jaguars.

Box 2: Species Conservation Banking in the USA

Conservation Banking started in 1995 as an innovative form of species conservation, and by 2017 there were 154 listed species banks across the United States. Species banks are areas of land conserved and managed under the *Endangered Species Act* according to guidance issued by the federal and state level Fish and Wildlife Services (FWS). 'Species credits' are approved by the FWS according to the provision of management plans and endowment funding agreements, and can be purchased by developers to offset loss of species elsewhere. Rather than requiring developers to sustain species in small areas, species banks allow more cost-effective conservation over a larger area.

Species banks (also called conservation banks) vary significantly in size, ranging from approximately 5 acres to 5,500 acres, with an average size of 741 acres. In 2016, species banks covered nearly 196,000 acres. The creation of species banks is contingent on the number of species listed as endangered in a particular state. Credit prices vary depending on challenges to establish and conserve the species.

Source: Porras and Steele (2019), and links in inventory.

Box 3: The Namibia Wildlife Credits Scheme

The pilot Namibia **Wildlife Credits** programme is a combination of initiatives for both rewarding improvements in conservation status and/or for tolerating dangerous wildlife. The aim is to generate funds from local, national, and international sources that can pay for independently-verified conservation performance by communal conservancies. The first phase of Wildlife Credits payments being piloted are for i) the sightings of iconic wildlife species at joint venture lodges, and ii) the management and performance of corridors used by elephants. Wildlife Credits payments to the conservancies can be invested back into conservation costs. For example, funds have been used to protect livestock from predators and pay offsets to farmers that have incurred losses. The revenue stream is intended to complement the existing revenues the conservancies earn from tourism and trophy hunting.

Source: Interview with Richard Diggle, WWF-Namibia, <https://wildlifecredits.com/>, and links in inventory.

A3: PES schemes for area-based conservation

Many approaches found directly incentivise broader landscape-level conservation. They involve maintaining or improving conservation aspects rather than focusing on specific species and fall into the broad category of conditional payments or PES schemes for conservation services/actions/outcomes. These approaches operate on a wide variety of scales and with a broad variety of types of payments. However, all are ultimately similar in that they aim to transfer benefits from an external interested party to local land-owners/managers in return for area-based conservation action. In recent years there seems to have been increased innovation in the types of finance and in the modes for fundraising.

Such types of approaches include:

Conservation stewardship schemes: These involve payments to private or communal landowners for conservation-friendly practices. They include large-scale, government-led initiatives such as the regional European-Union programme whereby farmers are paid by governments to maintain hedges, and include wide margins around

arable fields (in the UK called the Countryside Stewardship Scheme). Other examples in this context are the national PES Programme in Costa Rica and **The Ecuadorian Socio Bosque programme**. Here, the government provides economic incentives to owners of land with native forests to guarantee its protection over the medium-to-long-term. Similarly, in the USA's **Conservation Reserve Programme**, farmers on private land are paid a yearly rental payment to remove land from agricultural production and instead plant species that improve environmental health and quality, including providing wildlife habitat.

Also, these are more site-based approaches, such as Conservation International's **Conservation Stewards Programme**, which involves offering direct incentives for conservation through a negotiated benefit package in return for conservation actions by communities. A conservation agreement links conservation funders, such as governments, the private sector or foundations, to people who own and use natural resources. Benefits typically include investments in social services like health and education as well as investments in livelihoods, often in the agricultural or fisheries sectors. The programme currently involves 51 agreements in 14 countries, it benefits a total of 35,000 people and leads to the protection of 1.5 million hectares of key

habitat at a cost of USD 7 million in grants, with an additional USD 10.3 million leveraged by those grants.

Broader social/community benefits in return for pro-conservation behaviour: For example, the **Bolsa Floresta** programme in Brazil combines transfers at the household and community level as incentives to conserve forests in Brazil. Incentives are a mix of household-level cash payments, support to alternative income generating activities, payments to reserve associations and investment in social infrastructure like schools. Participants agree to activities that reduce deforestation and prevent forest fires, as well as to social requirements, such as sending children to school. Financing for the schemes comes from a fund capitalised by a mix of donors including the Amazonas government, the Norwegian government and the Brazilian Development Bank.

Land leases: These instruments entail paying landowners to turn their land over to conservation rather than use it for grazing or agriculture. For example, in the land leasing at Olderkesi Wildlife Conservancy in Kenya, part of the **Community partnerships for the production of carbon offsets**, Masai landowners have entered into land lease agreements. These contracts are with an

entity established by a tourism operator, by which the landowners are paid to set aside areas of land for conservation and ensure no poaching takes place on these areas. The community takes responsibility for enforcing these agreements. The lease payments are calculated to cover the opportunity cost of other land uses. Penalties are deducted from the payments for any anti-conservation behaviour such as poaching and cattle incursions.

REDD+ schemes: These sell carbon credits to voluntary buyers to offset the emissions of the latter as a source of ongoing funding for activities that increase storage of carbon or—more commonly in Africa—reduce its loss through deforestation and forest degradation. While national-level **REDD+ implementation** has yet to deliver substantive outcomes (Duchelle et al., 2018), there are several effective and promising site-based examples of wildlife conservation projects that are successfully selling carbon credits across several countries. Carbon Tanzania has succeeded in generating and selling carbon credits into the voluntary carbon market in Tanzania (Box 4). Wildlife Works, part of the Kasigau Corridor REDD project, is running projects financed through the sale of carbon credits in Kenya, Democratic Republic of Congo and Cambodia. In addition, **the Lower Zambezi REDD+ Project** of BioCarbon Partners and others are operating in Zambia.



Equally there have been failures. The Sofala Community project which operated in the buffer zones of Gorongosa and Marrromeu National Parks in Mozambique was one of the first carbon projects in the world at the community level. It started in 2003 and by 2015 reached almost 3000 participants in 28 groups. Its aim was to promote agroforestry and avoid deforestation, and it distributed more than USD 2.14 million in direct farmer payments. Certified by the Plan Vivo Foundation² and managed by Envirotrade³, the programme managed to sell

carbon offsets in international markets but was always reliant on donor subsidies. It was compelled to close down in 2015, following persistent financial difficulties linked to declining international carbon prices, the end of donor support, and increasing local management costs.

² www.planvivo.org/project-network/sofala-mozambique

³ <http://envirotrade.net>

Box 4: Carbon Tanzania

Carbon Tanzania is part of **Community partnerships for the production of carbon offsets**. It works with a wide range of partners (including forest communities) on land and forest restoration initiatives funded by selling carbon credits from avoided forest loss and degradation into voluntary carbon markets. In September 2019, the three sites spanned roughly 352,000 ha and benefitted around 34,000 community members.

The local Hadza community made a contract with Carbon Tanzania, committing to relevant forest and rangeland conservation and sustainable management. The Hadza community also authorised Carbon Tanzania to sell carbon offsets on their behalf. Carbon credits were sold before they were even created, in order to fund project start-up costs. Over USD 300,000 has so far been raised from this area. Credit buyers include Tanzanian clients (ecotourism operators, airlines, local businesses) and four international resellers in Europe and America. Of the revenue raised from the sale of carbon offsets, 60% is returned to the community. The sale of carbon offsets has generated around USD 219,000 in revenue for the community over the past five years. Besides cultural tourism, this is the most significant financial income for the community and the only notable source of revenue from their communal natural resources. The whole community plans how funds will be allocated, usually to school fees, healthcare, reserve supplies of food for the dry season, and ad hoc community development projects.

Beyond financial support, the initiative has created a shift in the way the Hadza community relates to management and governance of land. It now pushes back against incursions on its land, as opposed to moving away when other groups arrive, in line with its tradition and culture. Remote sensing data shows that the core Hadzabe territory of 20,790 ha has brought about a roughly nine percent decline in deforestation rates over the past five years, even while deforestation has increased by over 50% in the wider region. There is emerging evidence that the improvements in forest management have benefitted wildlife conservation in Yaeda Valley. Rare species such as lion, elephant and wild dog have been recorded recently in Yaeda, with wildlife possibly recovering as a result of improved enforcement, habitat condition, and anti-poaching measures. The initiative was awarded the 'Equator Prize' 2019 in recognition of its innovative work in developing nature based solutions to climate change and promoting sustainable development.

Source: See inventory

Habitat banking: Where revenues will be generated from destruction of habitat elsewhere, regulatory frameworks require that residual impacts of development be offset. For example, the **Eco Accounts** schemes in Baden-Württemberg, Germany, let landowners accrue points for improvements to conservation features, which can be "purchased" by developers to offset their impacts. No current operating examples of this were found in developing countries, although South Africa has been discussing a scheme.

Biodiversity credit banking and trading: Similar to carbon or habitat trading, there have been some efforts to trade biodiversity credits. One example is **The Malua BioBank** – a private-public sector partnership – which generated and traded 'credits' from restoring degraded timber concessions and protecting intact rainforest. Each 'Biodiversity Conservation Certificate' sold at USD 10 represented 100 square meters of rainforest restoration and protection. The certificates were entered in the TZ1 Limited global registry (later acquired by Markit Environmental Registry), in the same way as voluntary carbon certificates. Although not marketed as instruments to offset biodiversity losses actions elsewhere, the certificates initially targeted (and had support from) four Malaysian palm oil companies which bought USD 215,000 of certificates in 2012. The revenues were used to recover costs incurred. They were also used to endow a perpetual conservation trust and generate a return for the bank's investors, including the Sabah government and various private equity firms. The bank collapsed, however, due to the challenge of creating and trading certificates in an immature market with little regulation. The

voluntary nature of purchases failed to pass the test of shocks to economic markets, failing to obtain enough predictable demand to make the initiative financially viable (Halley [2015], Porras and Steele[2019]).

Other approaches that directly incentivise conservation (but do not pay its costs) include:

Tax incentives for private protected areas: For example, South Africa offers tax benefits to landowners declaring private protected areas (see **Fiscal Benefits Project** in inventory). Tax incentives here create financial sustainability for management costs, and lead to business growth for activities that are compatible with protected status. For example, tourist lodges or other compatible commercial activities may take many years to yield a financial return. Tax incentives enable the creation of an assessed loss and enhance liquidity, thereby allowing more investment in the enterprise.

Provision of healthcare or other social benefits to people if they avoid poaching or otherwise support wildlife conservation: This innovative indirect method, which appears to have been very successful in Indonesia, is **Alam Sehat Lestari's Health in Harmony** initiative. People continue to generate livelihoods through agriculture and other mainstream approaches.

Providing a bespoke array of local services such as training and other business/livelihoods support in return for pro-conservation behaviour: One example of this is **Yayasan Planet Indonesia** (see Box 5).



Box 5: Yayasan Planet Indonesia

The work of **Yayasan Planet Indonesia** focuses on environmental conservation and community empowerment. Empowerment is key: they aim to support communities to make their own choices, determine their own futures, build their skills and capacities, and eventually become independent of external support. Yayasan Planet Indonesia chooses appropriate villages, and holds extensive dialogues to determine what the village wants and what they can build together. The NGO works through supporting the creation of 'conservation co-operatives', which individuals choose freely to join. They provide a tailored set of pre-designed services to group members and respond to their specific needs, such as business training, microcredit schemes, literacy, sustainable agriculture, or agroforestry. In return, when members join these groups they commit to carrying out conservation activities such as tree planting, protecting mangroves, and community involvement in anti-poaching. Hunting is a key threat to many wildlife species in Indonesia, and many interventions focus on diversifying livelihoods so that people have reduced incentive to hunt. The approach has proved highly successful in Indonesia and has expanded dramatically over the last few years.

Source: Interview with Novia Sagita, Yayasan Planet Indonesia, and links from inventory.

Category B: Approaches that indirectly incentivise species or landscape conservation

This group of approaches incentivises species or landscape conservation indirectly in various ways – by incentivising activities that also result in conservation. Conservation outcomes help benefit other activities. Approaches include:

Enhanced prices for agricultural (including livestock) products, or other agriculture-related benefits such as market access, business support, or access to credit, if producers act in ways that support conservation. This is an important category, with a range of innovative and emerging approaches globally that use this logic.

Good examples include:

- The Northern Rangeland Trust (NRT)'s **Grazing WORKS/LivestockWORKS** programme in Kenya. This was established in 2011 as a 'mobile market', which buys cattle directly from

participants who practise sustainable grazing – saving them from having to walk their cattle long distances to market, and allowing them to achieve a better price. A number of interviewees, however, raised concerns about whether this programme was actually incentivising more sustainable behaviour, which may point to challenges in ensuring conditionality of benefits in similar programmes.

- South Africa's *Meat Naturally* in the **Herding for Health Programme** follows the same logic. This involves communal farmers living adjacent to Kruger National Park gaining improved market access for their livestock as well as shareholdings in Meat Naturally. In exchange they are required to improve rangeland management and wildlife protection in the buffer zone.
- The **Wild medicinal plant trade** programme in Vietnam helps shrimp farmers gain organic certification under the **Naturland** label, which requires each farm to have at least 50% mangrove cover. Farmers who can demonstrate this have the option of selling their certified shrimp to the Minh Phu Seafood Corporation.



- The **MaliVerde** (green wealth) programme in Mozambique, Tanzania and Kenya is another example where small-scale producers who engage in sustainable land and marine resources management are given access to a revolving credit scheme.
- In the **Snow Leopard Enterprises** initiative in Mongolia, handicrafts produced from the wool from villagers' sheep are bought at favourable prices, provided villagers agree to avoid poaching snow leopard.

Enhanced prices or otherwise better terms for wild-harvested species (which are not themselves the target of conservation concern). With this approach, harvesters benefit provided they follow practices that support conservation of landscapes or species of higher concern. For instance, ranching and trade of butterflies in Kenya's **Kipepeo Butterfly Project** provides

incentives for the conservation of the biodiversity-rich Arubuko-Soko Forest.

Certification/eco-labelling of agricultural or other products. Either of these approaches may be supported by certification and eco-labelling. For example, in the **COMACO** programme in Zambia, villagers who avoid poaching gain better prices and market access for their agricultural products, and these are marketed under the 'Its Wild' label as wildlife-friendly. In Nepal, sustainably harvested wild, non-timber forest products are marketed as Wildlife Friendly for the Himalayan musk deer for approaches following this logic under the **Wildlife Friendly Certification** programme. This is part of a management framework with strong sanctions for poaching and illegal trade. The Wildlife Friendly Enterprise Network (WFEN) now provides global umbrella certification for approaches following this logic (see Box 6).

Box 6: The Wildlife Friendly Enterprise Network (WFEN)

The Wildlife Friendly® trademark was developed under the Wildlife Friendly Certification programme as an umbrella eco-label that could bring together a range of certification/labelling initiatives that were already being trialled. WFEN develops standards for, and labels, agricultural output, tourism, and handicraft items that are produced in a way that is positive for wildlife conservation. For example, tea from Nuxalbari Tea Estate in India is certified as 'Elephant Friendly', on the basis of the plantation contributing to elephant conservation. WFEN has a small number of wild plant products and envisages expanding these. It is also in the process of working out how to certify Wildlife Friendly® carbon credits, working with Wildlife Works. Benefits to producers will likely be about market access, bringing in new customers, and generating brand loyalty, rather than generating a price premium. Trust within the network has been high, with certified operations contacting WFEN proactively in situations where they thought they may have problems with compliance. A key challenge is refining a sustainable business model that can cover the cost of running the central organisational infrastructure. It is hoped that a local licensing fee can be charged to end retailers.

Source: interview with J. Stein, R. Victorine and M. Altmann.

Category C: Supporting agricultural or other “mainstream” livelihood approaches that enable wildlife co-existence

All the above Category B approaches provide direct or indirect incentives for wildlife conservation, and those that involve agriculture/grazing involve building in incentives for more conservation-friendly practices. However, some sustainable agricultural/grazing practices offer the potential both for greater productivity and returns to landowners as well as conservation benefits. For example, rotational grazing in the various forms inspired by Allan Savory's seminal work on holistic rangeland management in Zimbabwe supports rangeland health, climate resilience, and increased biodiversity.⁴ Adoption of such practices more widely could help reverse land degradation and desertification while boosting benefits for landowners. These approaches do not directly incentivise conservation, but they facilitate it as a by-product of delivering broad livelihood benefits.

Category D: Strengthening and supporting customary community rights, values and capacities

Some approaches that enable and result in positive conservation outcomes on community lands, particularly many led by communities themselves, are not primarily premised on or motivated by economic incentives. Rather, they are motivated by securing customary rights and responsibilities for land, resource management, biodiversity conservation, food sovereignty, and/or cultural integrity. These are very powerful motivations for many traditional and indigenous peoples. For example, the **Salween Peace Park** was declared in December 2018 by the Karen indigenous minority in Myanmar. It covers 5,485 square kilometers and is home to tigers, gibbons, pangolins, leopards, elephants and great hornbills. The population chose to declare this territory a “peace park” with three aims: peace and self-determination, environmental integrity,

and cultural survival. Livelihoods are based on small-scale agriculture, hunting, fishing, and non-timber forest products. Use of the forest and land management is guided by traditional practices that include respect and care for species conservation.

Strengthening indigenous and community rights to conserve and manage areas better enables local people to defend their lands and territories areas from 'outsider' intent on poaching, deforestation or illegal grazing. Sustainable use of wild resources for food, income, and culture are typically involved here, but are only a part of a broader imperative of securing territorial and management rights.

Category E: Conservation-linked social protection

Social protection refers to public-funded transfers to poor, vulnerable and marginalised groups to reduce their vulnerability and livelihood risks, and

to enhance their rights and status. Collectively, lower-middle-income countries spend around 1.5% of their GDP on social protection annually. Generally, these schemes include programmes such as cash and in-kind transfers as well as employment guarantee schemes. Some of these initiatives are linked to conservation. For example, the **Working for Water** programme in South Africa generates jobs by employing people to clear invasive plants and restore degraded water. A novel approach has recently been proposed involving unconditional payments, or a **Conservation Basic Income (CBI)** which is modelled on a cash transfer type of social protection. It is proposed that a CBI be paid on an unconditional basis to, for example, inhabitants of high-value conservation areas, based on the logic that this is likely to decrease destructive behaviours. While intuitively challenging, and currently untested, piloting and testing such an approach would be worthwhile.

⁴See <https://www.savory.global/holistic-management/>



INNOVATIVE SOURCES OF FINANCE OR FUNDRAISING

While many of the conservation incentive approaches are perhaps not that novel, more innovation was discovered in the sources of finance or the approaches to fundraising. A considerable number of new forms of conservation finance are emerging, tapping into new sources of finance or finding new ways to raise funds from familiar sources.

The global deficit in conservation funding has provoked a dramatic increase in mobilisation of private finance for conservation over the last decade, including experimentation with new forms of public/private funding involving both grants and investment finance.

Impact investing

Recent years have seen growth in interest in impact investing: investments of private or public investment capital in ventures that deliver social or environmental benefits as well as yield a revenue stream. Conservation remains a small proportion of impact investment, with limitations seen as related to insufficient of large projects, unpredictability of returns, and absence of a pipeline for investment. The lack of clear agreed standards for what constitutes 'positive' or 'green' investments in the conservation context may be a further hindrance.

Conservation projects may generate a revenue stream through ecotourism, generation of carbon credits, sustainable forestry, sustainable agriculture, or wild resource trade. These do not represent new ways to incentivise conservation per se, but rather new ways to finance these approaches, potentially enabling greater scale and shorter timelines than might otherwise be possible. Impact investment may attract 'patient investors' who are willing to wait for a return.

Grants from private and public sources may be combined to finance conservation activities, and

investment finance may be combined with grants. Investment structures can take a range of forms, such as green bonds, mezzanine finance and blended finance⁵. Sovereign debt restructuring can be undertaken to free up capital to invest in conservation.

Here are a range of examples drawn from current experiences:

The Nature Conservancy and JP Morgan Chase have developed **NatureVest** to raise and structure impact investments supporting conservation outcomes. They are investing in a range of projects from sustainable timber and ranching to water and carbon offset markets. NatureVest has also facilitated the restructuring of the sovereign debt of The Republic of Seychelles⁶, using a combination of investment capital and grants to convert a portion of its debt to other countries into a lower level of debt through a locally established public-private trust fund. This trust fund then directs capital toward climate change adaptation and marine conservation.

WildlifeWORKS has raised funding from impact investors (Source: personal communication with M. Korchinsky), enabling the establishment and growth of conservation initiatives that primarily raise money through sale of carbon credits from avoided deforestation.

(Two examples of impact investment in action are shown in Box 7 and Box 8.)

⁵See e.g. <https://www.blendedfinance.earth>

⁶<https://www.nature.org/en-us/about-us/who-we-are/how-we-work/finance-investing/naturevest/ocean-protection/>

Box 7: Africa Wildlife Capital

The African Wildlife Foundation (AWF) and Conservation Capital established **Africa Wildlife Capital** (AWC) to access private investment for conservation projects that generate both conservation and financial benefits. They provided the first private investment into community conservancy in Namibia, traditionally financed by the philanthropic sector. They also made significant investments into sustainable and pro-conservation agriculture. This includes the Rungwe Avocado Company, which introduced export-quality avocados to villagers surrounding high-value conservation areas in Tanzania, increasing livelihood opportunities and incomes and alleviating their need to encroach into forest habitat.

AWC also invested in a range of other community projects, including **COMACO** in Zambia and Silverback, the first community-owned tourist lodge in Rwanda. The latter combined grant and debt finance and, in addition to returning benefits for communities, has proved to be a significant financial success.

Source: Interview with K. Fitzgerald and M. Rice (Conservation Capital), references in inventory.



Box 8: Rhino Impact Bonds

An important gap in conservation funding is the need for resources to finance today's efforts in order to ensure tomorrow's conservation outcomes. The **Rhino Impact Investment Project**, involving Rhino Impact Bonds, has emerged as a form of innovative 'pay-for-results' impact investment, which transfers the risk of funding conservation from donors to impact investors by making financial performance conditional on conservation performance. The way the bonds work is that an intermediary agency agrees a contract with a donor (public or private) based on specific outcomes. Based on this contract, credits or bonds are generated which are sold to impact investors to raise funds to implement conservation actions on the ground. If the outcomes are achieved, the donor releases the funds to pay back the investors, totally or partially depending on the level of outcomes achieved. The advantage is the transfer of risk to investors. The downside is that the initiative requires two rounds of fundraising – the first to identify investors to take the initial risk for conservation performance, and the second to identify more conventional conservation donors to pay back the investors if the project is successful.

Source: Porras and Steele (2019), references in inventory.



Examples of mixed multi-donor, public-private financing include the **Bolsa Floresta** programme in Brazil, which is mainly funded by Bradesco Bank and the Amazon Fund but also from private funding including Coca-Cola, Samsung, Abril Media Group and Marriott International. The **Programme of Payments for Ecological Services in Costa Rica** was funded initially through an allocation of 5% of fuel tax revenues and is now supplemented with a portion of water fees collected from hydroelectric companies. The **Ecuadorian Socio Bosque programme** is funded through central budget allocations but the government is exploring other forms including green taxes; industry payments (from resource extraction licences); voluntary contributions from national and international sources; and REDD+ (Porras and Nhamtumbo, 2019).

Blended finance structures typically operate on large scales (investment vehicles of over USD 1 billion) and most commonly focus on development infrastructure, with few experiences related to conservation. However, one example that potentially provides a model relevant to conservation on community land is the Tropical Landscapes Finance Facility in Indonesia. Here donor capital is used to finance long-term loans to landowners for early-stage development of sustainable land use projects. Once projects reach maturity and are generating steady returns, these are securitised and sold as notes to private investors. The only project for which information is currently available is a commercial sustainable rubber plantation, for which lending is tied to social and environmental outcomes. It is intended to provide a large number of local jobs and contribute to conservation in various ways.⁷

In addition to novel sources of finance, a range of novel fundraising approaches have emerged to encourage the public to contribute to wildlife conservation, some of them using new technology. For example, the **Zoterra** platform enables members of the public to become a 'Guardian of Nature' by buying digital tokens called 'terras'. Each terra token is a unique collectible associated with one hectare of natural area from around the world. Proceeds from each terra directly support a specific project linked to its terra habitat, wildlife or the local community, which the terra holder can view through geolocation. The **Internet of Elephants** is an innovative new enterprise that aims to make members of the public feel connected with conservation, and seeks to partner in various ways with conservation organisations. Launched in October 2019, the crowdfunded 'Wildeverse' is their first product and described as the "Pokemon Go" of conservation. It is a mobile, location-based augmented reality game, enabling players to beam far away wild places to their own neighbourhood and track real wild animals. This approach may offer conservation organisations new ways to attract and keep public attention and donations for specific conservation sites. While it is a for-profit social enterprise, its website states that "the majority of proceeds generated through our games will be redirected to our wildlife conservation partners and other wildlife conservation initiatives that meet our grant criteria".⁸

⁷<http://tiffindonesia.org/rlu-transaction/>

⁸<https://www.internetofelephants.com/custom-project/#conservation-challenges>



WEIGHING THE PROS AND CONS

Familiar conservation incentives still predominate. Promising options that can complement hunting and tourism are sustainable agriculture, wild product trade, carbon credits and PES schemes. However, these will require far more research and development to be able to support communities on their own.

An initial - and key - point is that very few models for generating nature conservation incentives are taking place at the community level. There is a great deal of innovation taking place in relation to different approaches for raising funds and mobilising private investment. However, at ground level these typically translate to familiar forms of incentive generation. As revenue streams that could supplement, or in the future even replace hunting or tourism, the main available options are the following:

- Carbon credits
- Payment for ecosystem services
- Sustainable agriculture

These approaches all have considerable potential, but each comes with pros and cons. While a comprehensive review is beyond the scope of this publication, the approaches described do reveal a number of key findings.

Carbon credits - potential for high revenue but with constraints

Generation and sale of carbon credits appears to offer the potential for very high revenue flows, at a level considerably higher than tourism. For example, Wildlife Works' **Kasigau Corridor**

REDD project covers one-hundredth the land area of Tsavo National Park, but generates roughly equivalent revenues to the whole park. It generates both jobs and skills development for locals, at a much higher rate than tourism. It also produces shared community benefits that can be invested in local development needs. However, current schemes all rely on avoided deforestation or avoided forest degradation. They are therefore only suited for areas with high rates of deforestation or degradation where these rates can be slowed, stopped or reversed.

However, generation of credits through increasing soil carbon is also possible, and in recent years methodologies for assessing soil carbon have become available. Using this approach in more arid areas (such as parts of Southern Africa) now appears feasible as well. A key constraint on broader uptake and success of this approach is the availability of buyers of carbon credits. Given the lack of any current compliance markets relevant to Africa, the demand relies on the willingness of corporations to offset their emissions voluntarily. However (at least according to some interviewees), the prospects for increased interest and demand in coming years are very positive.

Another constraint is that successful implementation requires a specific and unusual skill set. M. Korchinsky emphasises that **Wildlife Works** takes a very different approach to NGOs, establishing a long-term, substantive 24/7 presence on the ground and bringing business as well as conservation and social skills. Finally, another external verification required to meet international standards for carbon credits brings a high level of robustness and transparency around decision-making structures, social benefits and their distribution.



Payment for ecosystem services (PES) - versatile delivery of benefits

PES schemes take a wide range of forms. Key questions for the success of such schemes include how benefits should be linked to conservation outcomes and what to monitor. There is considerable innovation in this respect, for instance with payments being tied to wildlife sightings in camera traps. And there is also innovation in how, to whom and in what form payments are made. The various examples discussed here include a range of community and individual - or household - level payments. The benefits include cash, investments in conservation-linked enterprises and other forms of livelihood support as well as investments in social benefits such as healthcare and education. As such, these examples show that such schemes

can be designed in ways that deliver benefits in similar forms to those delivered by hunting and tourism. A number of these schemes are national level, involving the establishment of large-scale funds to provide ongoing rewards and incentives for conservation practices. There may be scope for African governments to explore similar national approaches based on raising finance for establishing funds that can provide ongoing conservation investments.

Sustainable agriculture - labelling and other incentives

A dynamic area, with many interesting new approaches emerging, is the use of indirect methods to incentivise conservation – particularly approaches that incentivise agricultural production in ways that support conservation. One approach

would be paying people better prices or other advantages if they graze their livestock in sustainable ways. This is sometimes coupled with certification and labelling in order to attract market advantages. Such a method has some clear pragmatic advantages compared to sustainable use of wild products: firstly, national and international policy frameworks and systems are generally far more conducive to agriculture than use of wild resources; secondly, despite the high costs involved, communities are in control and can themselves pursue and manage the income-generating activity. Thirdly, markets and incentives being established and structured so as to favour wildlife. Moreover,

these approaches do not run into the problems of social acceptability or reliance on fickle tourist markets. This approach has a great deal of potential both for conservation and livelihoods. For example, tourism, handicrafts, and some wild products can benefit from **Wildlife Friendly Certification**. The certification increases returns to producers. However, the approach does not produce large-scale transformation in the way that hunting and tourism has transformed domestic stock back into wildlife in some parts of Africa.

Despite the limited scope of nature conservation incentives surveyed here, certain dynamics and patterns are visible. These concern the scalability and replicability of incentives, the degree to which the benefits they deliver are similar to hunting and tourism, and the implications for communities themselves.

have management rights. They generate benefits themselves, make decisions regarding how they are spent, and often build much greater personal and institutional capacities in the process.

There is a considerable distinction between this situation and the case where communities are dependent on external financial flows that they do not control themselves, as with most PES schemes. It is possible, depending on how the latter are implemented, that they raise risks of locking communities into long-term donor dependence and forcing communities to cede measure of decision-making power over their land and resources. On the other hand, interviewees from both Conservation Capital and Wildlife Works highlighted that mobilising conservation financing from various sources had helped decision-making frameworks, benefit flows and benefit distribution within contractual relationships.

Much potential for adopting for sustainable agriculture, even without nature conservation incentives

More sustainable agricultural practices, such as rotational grazing, can benefit ecosystem health and biodiversity. Some grazing practices are beneficial to at least certain biodiversity components, such as birds and invertebrates. Such practices can also reduce land and resource degradation, thereby supporting larger wildlife species. However, such grazing practices are likely to deliver considerable benefits for some components of biodiversity at least, such as birds and invertebrates, and to reduce land and resource degradation that is detrimental to larger wildlife species. However, their scalability is limited in regard to many species of the most intense conservation concern, particularly those that directly compete with domestic stock or otherwise impose large costs on humans. For these species, additional direct or indirect incentives for coexistence are likely to be required.

Further, PES schemes are reliant on an ongoing stream of external funding becoming available to provide the payments for conservation. This is in contrast to hunting, tourism, and other sustainable use approaches where the revenue is generated by the wild species/landscapes themselves, albeit often requiring start-up or expansion financing.

Donor funding still has a major role

It was fundamental in early PES schemes that they would tap into markets for the services they could offer. In practice, however, most PES reviewed here rely on donor funding. This may come from governments, philanthropy, or the private sector. Examples of the latter include tourism companies for land leases, hydro-electric companies for the **Programme of Payments for Ecological Services in Costa Rica** and the myriad of private sector companies that provide funding for the Amazonas Sustainability Foundation (FAS), responsible for the **Bolsa Floresta** programme in Brazil. In the Latin American PES schemes, although funding is external, significant portions come from the government in the form of tax revenue. For example the Costa Rica scheme was initiated with funding from fuel tax revenue. This perhaps accounts in part for the relative success of PES in Latin America - where

Different models have different impacts on communities' rights

A key variable across different models is their implications for the rights, autonomy, and management capacity of local communities. With some forms of hunting and tourism, as well as wild product use and trade, communities usually



governments collect significant tax - and most of the countries are relatively prosperous. There are no equivalent large-scale PES schemes in Africa, where there is far less tax revenue that could support such schemes.

PES schemes may also be limited, or at least made difficult, where communities have unclear or insecure land tenure. In general, communities will be unable to commit to long-term management of the land to secure specific conservation values if they do not have the ability to control land use. This is the case in Tanzania, for example, where weak tenure means that communities do not exercise control over trophy hunting taking place on their land (Nelson, 2009). Given that communities hold clear land tenure rights only over an estimated 20% of the land that they use and manage (Oxfam et al., 2016), this may be an important limitation of such approaches. Conversely, communities' limited tenure rights do add weight to the arguments that these should be strengthened. That being said, M. Korchinsky of Wildlife Works has pointed out that entering into contracts to generate carbon credits over long time horizons has actually strengthened the land tenure claims of the communities he has worked with.

Beyond economic incentives

It is important to keep in mind that not all successful models for entrenching or restoring conservation as a land use on community lands rely on economic incentives. The growth in indigenous and community conserved areas demonstrates the strong motivations many indigenous and local communities have for securing a measure of territorial control. It also highlights their ability to continue cultural and livelihood practices, including sustainable use of wild species. Here, rights and culture may be much more powerful than economic incentives. Of course, the benefits that will be most important in determining communities' decisions on land use are those most important to that particular community – and they will vary widely.

A general point applicable to all approaches is that the level of incentive for conservation

will need to be higher when wildlife imposes significant existential or economic costs on communities. This could apply when predators and elephants pose threats, or where the returns from conventional agriculture or other land uses are high. For example, strengthening rights and culture may be a strong enough motivation for communities to maintain conservation-friendly land uses. But to tolerate significant densities of particularly high-cost species may require additional tangible compensatory benefits.

Strengthening institutions as well as boosting incentives

Some approaches set out here result in better conservation on community land. However, they are not based on boosting incentives so much as enabling and supporting communities to self-organise, cooperate, and holistically manage their natural resources over a long time horizon. In other words, these approaches support communities to overcome commons problems and establish their own rules and mechanisms to conserve resources. Such approaches include conserving wildlife that communities may value highly for intrinsic rather than instrumental reasons.

For example, the **Mali Elephant Project** provides few economic incentives to villagers for conservation, and villagers rely on livestock and crops for their livelihoods. Instead, the project has focused on assisting and enabling the community to develop its own approach to conserving elephants. This approach builds on a community's own values. Within this project, the community has thereby developed ways on its own to both detect and deter poaching, protect the community from theft, as well as monitor and manage rangeland and water resources. Again, the replicability of this approach depends in part on the costs of living with wildlife, and to what extent coexistence between conservation and livelihood strategies is possible. In the Mali case, there is relatively little human-elephant conflict due to very low elephant and human population densities.



KEY TAKEAWAYS

No obvious alternatives to trophy hunting and tourism

To date, trophy hunting and tourism have generated significant returns on a large scale to enable wildlife conservation on community-owned or community-managed land. With challenges facing both those models, there are no easy or obvious new business models that can generate the same returns on the same scale. A range of approaches has emerged. Some of them are geared towards increasing the value of nature to communities. Others aim to generate funds to diversify income for communities. However, all have constraints and all are likely to be practicable only in certain contexts.

Communities cannot conserve what they cannot manage

A key priority for efforts to conserve wildlife on community land is to strengthen community rights and capacities to manage and benefit from wildlife, as well as a community sense of ownership over the resources and land. These remain weak in many contexts. Moreover, many current approaches remain externally conceived and fail to recognise the values wildlife may have for communities that are unrelated to income. A concern with many approaches reviewed here is that they focus primarily on income, without this income being underpinned by empowerment, rights and ownership. They risk locking communities into long-term external dependency on external funding rather than, like tourism and hunting, enabling them to generate income from managing their own resources. That being said, there remains considerable scope for conservation interventions to strengthen partnerships with communities, understand their priorities, and strengthen these enabling conditions. This, in itself, may generate positive conservation outcomes, and can lay the basis for community-led innovation.

Role of the private sector is increasing

From providing micro-insurance schemes for smallholder farmers to offering finance for establishing conservation-friendly businesses, the private sector is playing an ever-increasing part in catalysing conservation gains.

Significant innovation in both conservation financing and fundraising

Innovation in conservation financing and fundraising is emerging, particularly in the impact investing space. At field level, however, this generally translates into enabling traditional income streams from tourism, sustainable agriculture or Payment for Ecosystem Services schemes (PES), rather than novel income-generating approaches. Many of these approaches are in their infancy and their impact and scalability is currently unclear. A key priority is improving collaboration between people in the conservation sector and those with the expertise to tap into private investment/capital.

New methods and new tools

There are innovative ways to make agriculture, wild resource harvesting or other livelihood activities conservation-friendly. These include the use of labelling and certification. There is also considerable scope to further explore the use of regenerative agricultural practices like holistic management of rangelands. However, a key point is that such approaches must better support ecosystem health and the co-existence of wildlife with mainstream livelihoods.



Emergence of numerous PES-type approaches

Likewise, a wide range of PES-type methods has emerged to incentivise either species or habitat conservation. Their main limitation is their reliance on a steady and sustained source of external finance, something which is often missing. They do, however, appear to generate some emerging opportunities:

- Large-scale, national-level PES schemes have been highly significant in some Latin American countries. These schemes sometimes include a social protection component, and offer an important model for exploration in the African context. But where will the money come from? Stated willingness to pay for conservation – for example by northern hemisphere NGOs – rarely translates into sufficient payments to cover the

cost of conservation. This approach will mean convincing national governments of the value of investing in nature in this way, and that the tax base and governance context are appropriate.

- Generation of carbon credits at project scale for sale into voluntary markets is in its infancy. However, despite some failures, it appears to be the approach with most dramatic potential to scale up, particularly if compliance markets are established. Current successful examples are limited in number. However, some examined in this publication show very impressive results both in terms of conservation outcomes and community empowerment. While REDD+ has failed to deliver on its promise at the national level, there are some promising site-level examples that are successfully selling carbon credits into voluntary markets and generating important benefits for communities and for biodiversity conservation. Some site-level examples have

also failed, however, and success may require an unusual combination of skills and expertise.

New ways to measure and monitor conservation performance

A further key question for PES schemes and agriculture-based approaches concerns effective verification of conservation performance – what to monitor and how. Again, novel methods have emerged, such as payments based on tourist sightings or camera trap records of species of concern.

Seizing the opportunities

This review raises as many questions as it answers. Trophy hunting is under fire. Tourism is not viable everywhere and raises its own risks. Communities need additional benefits from wildlife – often dangerous – on their land.

To support the future of conservation on community land, where most of the world's wildlife can be found, readers are challenged to take the following steps:

- Examine potential diversification options presented in this report to determine their viability
- Pilot additional or alternative mechanisms
- Address the political, financial and institutional barriers to conservation
- Ensure that viable mechanisms for conservation support do not undermine rights and livelihoods, and that they instead facilitate community empowerment and rights
- Take a more holistic approach to integrating technical - and people - focused solutions that address autonomy, values, culture, or capacity

These can be daunting challenges, but they do need to be tackled urgently to ensure local wildlife conservation and community livelihoods.

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ANNEX 1: ANALYTICAL FRAMEWORK – DATA COLLECTION CATEGORIES

For this publication, data was collected on over 130 community conservation initiatives or groups of initiatives. Data was collected according to the categories below. All initiatives are listed with a selection of data categories in the separate 'Inventory of incentives for community-based conservation' document.

- Name of initiative
- Implementing body
- Location being applied (region, country and specific location)
- Whether economic or non-economic incentive scheme
- Type of initiative (as per typology)
- Conservation target (e.g. particular species or landscapes)
- Brief description
- Community approach (i.e. degree of control over the scheme from passive recipient to active engagement)
- Type of benefit (e.g. employment, healthcare, cash, compensation, in-kind)
- How benefit is delivered (e.g. to individuals, to a committee)
- Reported scale of beneficiaries
- Reported scale of conservation target (e.g. land area)
- Driver (i.e. origin of funds and scheme – government, donor, NGO, private philanthropy etc.)
- Source of funds (e.g. carbon credits, trust fund)
- Scale
- Reported conservation impacts
- Reported livelihood and wellbeing impacts
- Sources of information

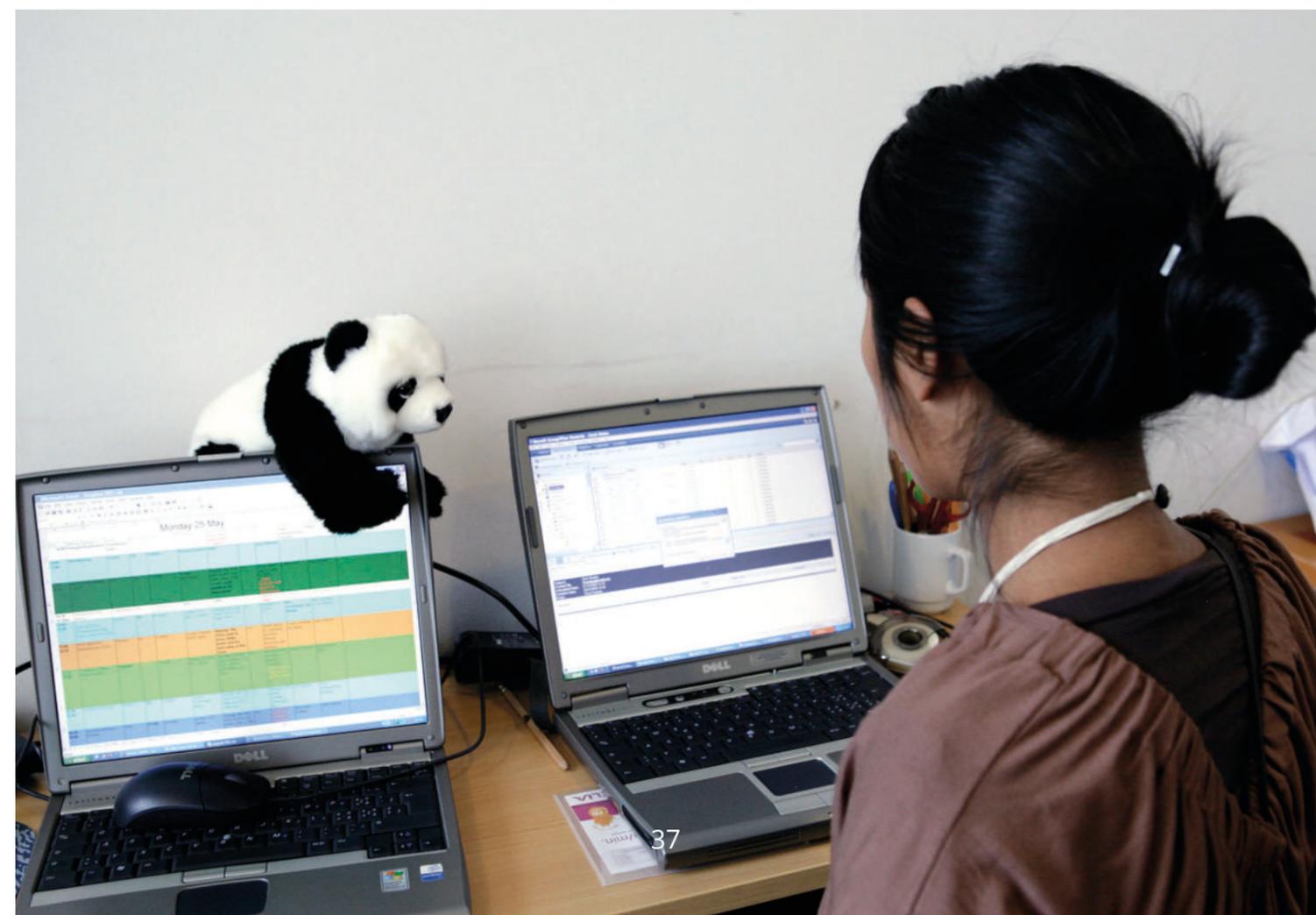
ANNEX 2: METHODS

To assess additional conservation finance models currently in use and which provide income and other benefits to communities, the tasks undertaken in developing the data and analysis for this publication included:

Developing an analytical framework and an inventory of projects

The International Institute for Environment and Development (IIED) and the International

Union for the Conservation of Nature (IUCN) first developed an analytical framework for identifying relevant initiatives and extracting salient information on ecological, economic and social performance as well as on enabling and disabling factors. They focused on financial incentive measures, but included others where readily identifiable. They then examined relevant initiatives from around the world via, among other things, a desk-based literature review covering academic literature, websites and a call out through their global networks. They focused on schemes specifically targeted at wildlife conservation but also included those used in other natural resource sectors that could potentially be transferred to wildlife conservation.



Engaging with people and organisations involved in innovative projects

In the course of developing the publication, the IIED and the IUCN interviewed experts to gain deeper insights into key innovative approaches and new developments as well as into the overall approach to the study. Interviews were conducted via skype, phone and email.

Describing the concept, assessing its efficacy and scalability, and providing examples of where it has and hasn't worked

Based on reviews and interviews, the IIED and the IUCN generated an inventory of initiatives, detailing for each example the approach, where it was applied, how it works, the reported economic and socio/cultural benefits and costs, the scale at which it has been applied, the source of funding, and the key sources of information. Review of this inventory enabled observations and conclusions on:

- what approaches were being applied to support conservation on community lands;
- what new and innovative approaches were emerging;
- what appeared to be working and where; and
- which approaches appeared to hold the most promise for scalability and replicability.

Limits of the analysis

This was an initial, high-level study with various limitations. Time and resources did not permit an exhaustive review of the enabling and disabling conditions for effective community-based conservation as they applied to these funding mechanisms. It did not include an analysis of

the viability of the models, nor did it undertake any kind of scientific assessment. As specified in the response to the call for proposals, the authors were limited to compiling an inventory of initiatives and extracting as much data as they could from those initiatives within the time available. The data presented here are therefore not necessarily comprehensive, and do not support any quantitative assessment of the prevalence, popularity or effectiveness of different approaches.

There is likely to be a significant bias in the results towards approaches that represent a government/NGO/private sector project or programme, rather than those that represent a community's own efforts to generate income. This is because the former are more likely to be represented in literature with details accessible from web-based searches. This important bias should be kept in mind in follow-up work.

Despite time and resource limitations, the authors were able to consult with a number of knowledgeable individuals on the methods of analysis and the contents of the inventory. The authors are therefore confident that they have captured the majority of existing types of approaches to generating conservation incentives.

ANNEX 3: INDIVIDUALS CONSULTED

Individual	Organisation
Julie Stein, Ray Victurine, Marissa Altmann	Wildlife-Friendly Enterprise Network
Mike Korchinsky	Wildlife Works
Holly Dublin	Independent consultant, IUCN Eastern and Southern Regional Office, IUCN SULi
Fred Nelson	Maliasili Initiatives
Kathleen Fitzgerald and Matt Rice	Conservation Capital
Novia Sagita	Yayasan Planet Indonesia
Maxi Louis	Namibia Association of CBNRM Support Organisations (NACSO)
Angus Middleton	Namibia Nature Foundation
Frank Vorhies	African Wildlife Economy Initiative
Ina Porras	International Institute for Environment and Development (IIED)
Rodgers Lubilo	Zambia CBNRM Forum
Virgilio Viana and Steve Bass	Amazonas Sustainability Foundation (FAS)
Helen Suich	Australian National University, IUCN People in Nature initiative
Elisson Wright	Global Wildlife Program, World Bank

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