

ENSURING ELEPHANT SURVIVAL THROUGH IMPROVING COMMUNITY BENEFITS

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ABSTRACT

The demand for ivory products exceeds the available supply of elephant tusks, resulting in the extensive illegal killing of elephants. It is therefore imperative that demand-reduction campaigns help consumers to make the link between elephant poaching and ivory consumption. At the same time, however, for as long as community members perceive ivory to be of a higher value than a living elephant the illegal killing will continue. It is thus crucial that community members are incentivised to conserve rather than kill (or enable the killing of) elephants. However, even if the illegal killing were to stop altogether in the next two years, habitat loss remains a significant threat to securing a future with elephants. Outside of formally protected areas, the land-use choices made by local communities will determine the extent to which wilderness landscapes are preserved.

This paper interrogates community-based natural resource management (CBNRM) as the preferred policy vehicle through which to achieve benefit transfer to local communities that live with or near elephants. It also suggests ways in which CBNRM can be improved, in light of a changing international ivory and general development landscape. It begins with a historical overview of CBNRM in Southern Africa before examining its success in improving rural livelihoods without sacrificing biodiversity preservation. It concludes by highlighting some of the lessons learnt and considerations for the improved institutional design of CBNRM programmes.

One salient lesson is that institutional design needs to improve accountability and transparency within the decision-making structures of communities and governments to ensure revenues are distributed fairly. Such design needs to be incentive-compatible with local values or it runs the risk of being undermined by competing development priorities. There is also a need for continued, long-term support – too many donor-funded projects end prematurely, before the programme and its institutions have become self-enforcing and therefore sustainable.

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These papers recognise the emergence of a 'new reality' in elephant conservation, where the majority of African elephant range states and the two largest ivory markets, the US and China, have decided that to secure a future with elephants across Africa, the international ban on ivory trade must continue and all ivory domestic markets must close. Humans will only continue to make space for elephants if we value them and if local communities derive benefits from them. In the emerging new reality of a world without ivory trade, these five papers are a timely and essential contribution to our thinking and policymaking as we look to secure a meaningful future for elephants and people. The hope is that these papers will assist African elephant range states and other countries in their discussions as to how to achieve this together.



Stop Ivory is an NGO registered in the UK and US committed to protecting elephants, stopping the ivory trade and securing a meaningful future for elephants and communities. Stop Ivory is the joint-secretariat of the Elephant Protection Initiative with Conservation International.

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ABBREVIATIONS AND ACRONYMS

CAMPFIRE	Communal Area Management Programme for Indigenous Resources
CBNRM	community-based natural resource management
CBO	community-based organisation
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
HEC	human–elephant conflict
JVP	joint-venture partnership
NGO	non-governmental organisation
PGR	private game reserve
PES	payment for environmental services
WMA	wildlife management area

INTRODUCTION

In a remote enclave of northern Botswana, elephant herds migrate in and out of the Okavango Delta – north to Namibia and Zambia, and west to Angola. Approximately 15 000 elephants compete with 15 000 local inhabitants for food, water and land. Botswana is home to the world’s single largest remaining population of elephants. Their migratory routes place them, in many instances, on a collision course with local communities, especially in the context of droughts becoming more frequent and water more scarce. Living with or near elephants can be terrifying and frustrating. Elephants are expert crop raiders, intelligently detecting the most nutritious food sources. Local communities move towards the delta’s fertile floodplains to plant and harvest crops. Most families depend on these crops as their principal food source. Waiting patiently for crops to germinate and grow, only to have them immediately raided by elephants, can lead to intense human–elephant conflict (HEC). However, crop raiding is predominantly opportunistic, and can be mitigated by ‘affording elephant pathways protection with a 1km development-free buffer zone’.¹ Such a buffer zone would also help to prevent the relatively frequent occurrences of elephants killing people (and vice versa) simply because they are in close proximity to each other.

HEC is only the tip of the iceberg when it comes to the question of elephant conservation, and the preservation of wilderness landscapes more generally. HEC can be managed, but only in the broader context of ensuring functional community-based natural resource management (CBNRM) systems. This is not only because community members who live with or near elephants tend to come into conflict with them but also because the temptation to poach may also be strong in certain contexts. Moreover, it remains essential to galvanise ‘political will among local and national land authorities’² to implement appropriate land-use planning measures that are built on the scientific study of elephant pathways and effective measures of deterring elephants from human settlements.

At present, the demand for ivory products exceeds the available supply of elephant tusks, resulting in the extensive illegal killing of elephants.³ It is therefore imperative that demand-reduction campaigns help consumers to make the link between elephant poaching and ivory consumption. At the same time, however, poaching will continue for as long as community members perceive ivory to be of a higher value than a living elephant. It is crucial that community members are incentivised to conserve rather than kill (or enable the killing of) elephants.

Incentives are generated by the ecology of an institutional setting. In exploring Hardin’s classic ‘tragedy of the commons’, a recent paper argues that problematic ‘open access’, which unsustainably depletes a resource, is largely attributable to the development of

1 Songhurst A, McCulloch G & T Coulson, ‘Finding pathways to human–elephant coexistence: A risky business’, *Oryx*, 2015, p. 6.

2 *Ibid.*, p. 7.

3 Wittemyer G *et al.*, ‘Illegal killing for ivory drives global decline in African elephants’, *Proceedings of the National Academy of Sciences*, 111, 36, 2014, pp. 13117–13121.

institutions supporting market exchange. In the absence of these exchange mechanisms ‘herders would graze cattle only for their use value, thereby reducing pressure on the pasture’.⁴ The authors further note that whether exchange value exists is a function not only of scarcity of supply but also of the institutional context that creates demand for the product. A number of institutions, including cultural heritage and lucrative illicit trade networks, some of which are storing ivory for speculation purposes, currently drive up the exchange value of ivory. This arguably undermines the use value of living elephants. The presence of legal domestic ivory markets alongside an international ban on the import and export of ivory has also driven the illicit harvesting of elephant tusks. This is, however, changing, as the world’s largest consumer markets move to shut down their domestic ivory trade.⁵

Nonetheless, moving the *exchange* value of elephants downwards does not necessarily increase their use value. Therefore, as another recent paper argues, it is necessary to ensure that ‘economic exchange value lost through the abolition of the ivory trade is replaced by greater use value, such as increased wildlife tourism. It is particularly important that this use value accrues to near-park communities, who are critical allies in the fight against poaching syndicates and habitat loss.’⁶ Poaching syndicates are able to co-opt local elites and recruit poachers from near-park communities relatively easily.⁷ Therefore, innovative approaches are required to transfer a greater share of the elephant-conservation benefits to these communities. Or, as Challender and MacMillan of the Durrell Institute of Conservation and Ecology put it, conservationists should ‘focus more on policies and strategies that reduce the price of illegal wildlife products and increase the opportunity costs of poaching by contributing to the eradication of rural poverty’.⁸

This paper interrogates CBNRM as the preferred policy vehicle through which to achieve benefit transfer to local communities that live with or near elephants, and suggests ways in which it can be improved. It begins with a historical overview of CBNRM in the Southern African region before examining its success against the objectives of improving rural livelihood without sacrificing biodiversity preservation. It concludes by highlighting some of the lessons learnt and considerations for improved institutional design of CBNRM programmes.

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- 4 Cole DH, Epstein G & MD McGinnis, ‘Digging deeper into Hardin’s pasture: The complex institutional structure of “the tragedy of the commons”’, *Journal of Institutional Economics*, 10, 3, 2014, pp. 353–369.
 - 5 Alden C & R Harvey, ‘African countries square up for battle over future of ivory trade ban’, *The Conversation (Africa)*, 12 August 2016.
 - 6 Harvey R, ‘Preserving the African Elephant for Future Generations’, SAIIA (South African Institute for International Affairs) Occasional Paper, 219. Johannesburg: SAIIA, 2015.
 - 7 Bennett EL, ‘Legal ivory trade in a corrupt world and its impact on African elephant populations’, *Conservation Biology*, 29, 1, 2014, pp. 54–60.
 - 8 Challender DWS & DC Macmillan, ‘Poaching is more than an enforcement problem’, *Conservation Letters*, 7, 5, 2014, pp. 1–11.

WHAT IS COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT?⁹

CBNRM refers to the management of natural resources by local institutions for local benefit. As a policy tool for landscape conservation, it has expanded throughout Africa over the past three decades. This has happened largely as a response to the failure of centralised colonial and post-colonial policies to effectively manage natural resources, promote equitable benefit sharing and secure the co-operation of communities in sustainable resource governance practices.

Perspectives on CBNRM differ widely among stakeholders, and even within government departments themselves.¹⁰ CBNRM can take many forms in different locations according to the unique and varied socio-political and biophysical contexts of each country. CBNRM models may place greater or lesser emphasis on commercial or on subsistence resource utilisation respectively, and may rely on consumptive tourism, such as hunting, or non-consumptive revenue streams, such as photographic tourism, or any mix of the two. The benefit of relying on hunting, for instance, is that it can be more lucrative than photographic tourism – hunters generally tend to pay more for one elephant trophy than a photographer pays for a week of game-viewing, depending, of course, on the type of accommodation being used for the latter.¹¹ Hunting has an ostensibly lower environmental footprint, pays community members directly in the form of tracking employment and meat distribution, and provides a presence on land that may otherwise be converted to agriculture, cattle and goat grazing or other competing economic development activities. It also has the benefit of requiring fewer elephants per square kilometre than photographic

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- 9 This paper draws extensively on Chevallier R, 'The State of Community-Based Natural Resource Management in Southern Africa: Assessing Progress and Looking Ahead', SAIIA Occasional Paper, 240. Johannesburg: SAIIA, 2016.
- 10 Turner S, 'A crisis in CBNRM? Affirming the Commons in Southern Africa', Paper presented at the 10th Biennial Conference of the International Association for the Study of Common Property (IASCP), Oaxaca, Mexico, 9–13 August 2004.
- 11 The *New York Times* estimates the market value of elephant trophies as being anywhere between \$25,000 and \$60,000. See *New York Times*, 'The Big Five: Africa's most sought-after trophy animals', 10 August 2015, http://www.nytimes.com/interactive/2015/08/10/world/africa/africa-big-game-hunting.html?_r=0, accessed 31 August 2016. For an assessment of the debate about the real conservation value of hunting, see a report by the Democratic staff of the House Committee on Natural Resources: 'Missing the mark: African trophy hunting fails to show consistent conservation benefits', <http://democrats-naturalresources.house.gov/imo/media/doc/Missing%20the%20Mark.pdf>, accessed 31 August 2016. Also see iworry, 'Dead or alive: Valuing an elephant', <http://iworry.org/wp-content/uploads/2013/09/Dead-or-Alive-Final-LR.pdf>, accessed 31 August 2016. This report similarly argues that the hunting trophy values pale in significance when considered against the tourism value that one elephant generates over an entire lifetime – an estimated \$1.6 million. When compared with the raw value of a pair of tusks (\$21,000), a living elephant, in financial terms, is 'as valuable as 76 dead elephants' (p. 2).

Credit: Ross Harvey, 21 September 2015



Hundreds of elephants gather to drink at the Senyati Safari Camp, east of Kasane, on the unfenced border between Botswana and Zimbabwe

tourism.¹² Higher elephant densities may have adverse effects on the carrying capacity of the land to support other species in a biodiversity mix. For these reasons, countries such as Botswana that have implemented a hunting ban need to think carefully about how to ensure that communities still benefit from the presence of elephants.¹³ This is especially the case for those areas that are difficult to access and not scenic enough for general tourist offerings.

From a conservation perspective, CBNRM builds on the recognition among policymakers that wildlife must be an economically competitive land-use option if it is to persist outside protected areas on private and communal lands. Effective CBNRM should be understood as a means of achieving both conservation and livelihood improvement simultaneously.

Effective CBNRM should be understood as a means of achieving both conservation and livelihood improvement simultaneously

- 12 See Chevallier R, *op. cit.*, which makes the important point that, '[a]lthough meat is an in-kind benefit, it provides a very direct return. Apart from its nutritional value, game meat distribution strengthens local support for wildlife and conservancies, because people see the link between wildlife and conservation in the form of a tangible benefit. This is rated as a key benefit by most conservancy members, many of whom are poor and cannot afford to buy much meat.'
- 13 For a more in-depth discussion of Botswana's hunting ban and its likely impacts on elephant conservation, see Chevallier R & R Harvey, 'Behind the scenes: Botswana research feature', 7 January 2016a, <http://www.saiia.org.za/news/behind-the-scenes-botswana-research-feature>, accessed 10 August 2016. Also see Chevallier R, *op. cit.* A comprehensive study of a representative sample of communities needs to be conducted that quantifies the material and biological differences before and after the 2014 ban.

CBNRM policymakers need to calculate the opportunity costs associated with particular land uses, and consider how to adequately compensate those who are likely to lose out when conservation is chosen above other options.¹⁴ If ivory cannot be sold on world markets, conservationists must carefully consider how to increase the ‘use value’ of elephants.¹⁵ Conservation-driven revenue generation may be perceived as insufficiently lucrative to compensate those who are most likely to lose economically and politically from elephants’ exchange value being driven to zero. These are often the same community members who are susceptible to being co-opted by poaching syndicates or who are likely to kill crop-raiding elephants.

Southern Africa shows considerable diversity in the types of community conservation and co-management projects that are being implemented, and in the structure of local institutions and their levels of capacity.¹⁶ CBNRM makes sense in theory but its practical implementation often faces profound challenges, which are highly context-specific. It is an evolving idea, and far from having reached a stable equilibrium.

Community use and resource development rights vary across the region, with governments retaining ultimate resource ownership. Most of these rights are geographically defined and granted for the exclusive use of certain resources.¹⁷ In some countries, such as Zimbabwe and Botswana, resource rights are limited by the central government’s decisions. Communities may be consulted but have a limited part to play in decision-making. In most countries user rights can be transferred for a specific timeframe through tendering, auctioning or other mechanisms. Resource-use rights are often only allocated on the condition that a community-based organisation (CBO) is established with a governing constitution, a resource management plan and audited annual financial accounts.

EVOLUTION OF THE POLICY DISCOURSE IN SUB-SAHARAN AFRICA

Historically, rural communities self-regulated local resource use through traditional systems.¹⁸ Centralised authority in colonial and post-independence governing systems

14 See Orr T, ‘Re-thinking the Application of Sustainable Use Policies for African Elephants in a Changed World’, SAIIA Occasional Paper, 241. Johannesburg: SAIIA, 2016.

15 This is not a philosophical endorsement of the view that elephants should only stay ‘if they pay their way’. It is simply recognition of the fact that in a world where competing land-use options is a development reality, the intrinsic value of elephants and wilderness landscapes is not necessarily fully appreciated. For further discussion on these topics, see Duffy R, ‘Interactive elephants: Nature, tourism and neoliberalism’, *Annals of Tourism Research*, 44, 2014, pp. 88–101.

16 For an examination of different examples, see Chevallier R, *op. cit.*

17 Land rights would give communities greater security, control and flexibility. In some cases, increased land-tenure security leads people to develop their own property rather than contribute towards communally managed resource areas such as forestry, as their entitlement to the latter is less certain.

18 Dietz T, Ostrom E & P Stern, ‘The struggle to govern the commons’, *Science*, 302, 5652, 2003, pp. 1907–1912.

weakened many of these dynamic, sustainable local institutions, norms and rules. Consequently, many common property natural resources became de facto ‘open access’, with few communal management rules and no specific traditional institutions enforcing rule-based monitoring systems.¹⁹ Some authors have described the early post-independence approach to natural resource management, for instance, as state-dominated ‘fortresses, fines and fences’.²⁰ A number of communities in Southern Africa were dispossessed of their land and resettled elsewhere, often with little or no compensation. The path-dependent effects of this form of governance manifests today in deep-seated resentment towards conservation activities that are perceived to undermine community livelihoods.²¹

While the rest of the continent was transitioning to independence from colonial rule, white minority governments in Southern Africa devolved user rights over wildlife on freehold lands in Zimbabwe, South Africa and Namibia to private landowners. This transformed wildlife on private lands from a liability to an economic asset, and led to major recoveries of wildlife on freehold land. It also spurred the growth of wildlife-based industries in all three countries.²² These reforms, however, also laid the basis for extending the model of local management to communal lands. This resulted in the development of Zimbabwe’s Communal Area Management Programme for Indigenous Resources (CAMPFIRE), Zambia’s Administrative Management Design Programme in the 1980s, and Namibia’s communal conservancies in the 1990s.²³

CAMPFIRE inspired the replication of other CBNRM approaches in the region.²⁴ Zimbabwe, Botswana and Namibia formally established CBNRM legislation or specific

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- 19 Roe D, Nelson F & C Sandbrook (eds.), ‘Community management of natural resources in Africa: Impacts, experiences and future directions’, *Natural Resource Issues*, 18, 2009, p. 8.
- 20 Van der Duim R, Lamers M & J van Wijk, ‘Novel institutional arrangements for tourism, conservation and development in Eastern and Southern Africa’, in Van der Duim R, Lamers M & J van Wijk (eds.), *Institutional Arrangements for Conservation, Development and Tourism in Eastern and Southern Africa*. London: Springer, 2015, pp. 1–16.
- 21 For instance, the members of one CBO whom these researchers interviewed in September 2015 expressed their frustration at the centrally imposed loss of hunting revenues in Botswana, and asserted that poaching was a definite response option.
- 22 Bond I, ‘Private land contribution to conservation in South Africa’, in Child B (ed.), *Parks in Transition: Biodiversity, Rural Development and the Bottom Line*. London: Earthscan, 2004, pp. 29–62.
- 23 Jones B & MW Murphree, ‘The evolution of policy on community conservation in Namibia and Zimbabwe’, in Hulme D & MW Murphree (eds.), *African Wildlife and African Livelihoods: The Promise and Performance of Community Conservation*. Oxford: James Currey, 2001.
- 24 In 1986 Botswana released its wildlife conservation policy in which CBNRM principles were incorporated into government thinking, and in 1989 the first CBNRM pilot project was initiated in the Chobe Enclave Community Trust. In South Africa, in 1987, the government formally recognised wildlife ranching as an agricultural activity and subsequently legalised the private ownership of wildlife. In Namibia legislation devolving rights over wildlife to communal areas was approved by the Namibian Parliament in 1996.

programmes in 1989, 1992 and 1996 respectively. Countries such as Malawi, Mozambique and South Africa²⁵ followed in quick succession, but their programmes were smaller and more project-oriented.²⁶ CBNRM principles were broadly integrated into regional and continental institutions' development and environmental policies. However, according to Nelson and Agrawal, the widespread adoption of CBNRM in policy and legal reforms during the 1990s 'did not necessarily translate into radical changes in local rights or authority over natural resources in the years that followed'.²⁷

Today, the discourse tends to be polarised around the optimal means of revenue generation for communities (not that this can or should ever be divorced from the question of land-use rights). The polarisation tends to occur as a result of differing views over the likely effects of particular policy choices. The upshot is that some conservationists support consumptive use such as hunting,²⁸ game harvesting and farming, intensive breeding, live capture and sale of game, and processing of wildlife products. Others support non-consumptive use, including game viewing, photographic safaris, adventure and cultural tourism, the breeding of endangered species for reintroduction into wildlife zones, and the production of forestry and veld products for handicrafts and medicines. The latter are of the view that 'consumptive use' is ultimately unsustainable because of its unknown and often unintended negative consequences. For instance, captive breeding may not be able to satiate demand for rhino horn, and may even exacerbate it.²⁹ Also, corrupt hunting outfits may consume more than their allotted quota of elephants, especially where governance oversight lacks capacity or credibility.

A danger too is that the use value of elephants will be conceived exclusively in terms of the tourism revenue they may generate

A common touchpoint between these polarised views is an emphasis on increased tourism as an option for generating community benefits. Many African elephant range states are exploring new opportunities to expand and market wilderness-related activities. However, tourism is not a low-hanging fruit. It requires improved infrastructure and services to many areas that are at present effectively devoid of them. A danger too is that the use value of elephants will be conceived exclusively in terms of the tourism revenue they may generate. Moreover, unless partnerships with local communities are well governed and perceived to be mutually beneficial from the outset, both parties are likely to become

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- 25 In South Africa CBNRM has commonly been associated with the land restitution claims whereby the formation of national parks in the apartheid era saw people being removed from their former homelands.
- 26 USAID (US Agency for International Development), *Rural Livelihoods, Poverty Reduction, and Food Security in Southern Africa: Is CBNRM the Answer?*. Washington DC: USAID, 2007.
- 27 Nelson F & A Agrawal, 'Patronage or participation? Community-based natural resource management reform in sub-Saharan Africa', *Development and Change*, 39, 2008, pp. 557–585.
- 28 It must be noted that the game-hunting debate remains polarised across the region, with countries such Kenya and Botswana having banned hunting tourism in 1977 and 2014 respectively.
- 29 Crookes DJ & JN Blignaut, 'Debunking the myth that a legal trade will solve the rhino horn crisis: A system dynamics model for market demand', Economic Research Southern Africa Working Paper, 2015. http://www.econrsa.org/system/files/publications/working_papers/working_paper_520.pdf, accessed 30 August 2016.

frustrated.³⁰ This is because conservation-related tourism generates largely private and unevenly distributed benefits. Little of the revenue generated from tourism activities is retained within some developing countries and reinvested there, while the linkages between tourism and other sectors of the economy are often not well developed. For instance, the supply chain tends to benefit foreign players more than locals, for a host of reasons.

Innovative market-based instruments also play an increasingly prominent role in generating revenue for conservation, such as payment for environmental services (PES), carbon-related activities, wildlife credit schemes, biodiversity derivatives and environmental mortgages.³¹ While new narratives such as PES attract a flurry of interest from donors, governments and NGOs, the foundational success of these approaches rests on the familiar ground of local resource governance, tenure and institutional performance. PES initiatives further reinforce a commodified approach to CBNRM but often exclude the cultural or 'intangible' values of wildlife conservation. This is why any CBNRM approach should be supplemented with programmes that raise awareness of the non-monetary value of elephants. African elephants are a keystone species with remarkable value addition to the complex ecosystems that they support. 'Policymakers need to incorporate both market and non-market benefits into their development choices. This will help to attract additional investment into conservation rather than into alternative uses such as trade in wildlife products.'³² It may also help to change deep-seated beliefs about the inherent value of wildlife. A significant criticism of PES approaches, for instance, is that once the payment stops, conservation propensity may decrease rapidly. New beliefs about the importance of conservation cannot be forged through monetary benefit alone.³³

CURRENT REALITIES: CHALLENGES OF DEVOLUTION, GOVERNANCE CONSTRAINTS AND CAPACITY

A 2005 Millennium Ecosystem Assessment Report aptly notes that the key to biodiversity preservation success is 'strong institutions at all levels, with secure tenure and authority at local levels essential to providing incentives for sustainable management'.³⁴ The core paradox of CBNRM is that it requires strong local rights over resources that must be conferred on local people by the state, and that the state has the right to withdraw.³⁵ However, the degree to which decentralisation and devolution can take place greatly

30 See Chevallier R & R Harvey, 'Is Community-Based Natural Resource Management in Botswana Viable?', SAIIA Policy Insights, 31. SAIIA: Johannesburg, 2016b.

31 Whitelaw P, King B & D Tolkach, 'Protected areas, conservation and tourism: Financing the sustainable dream', *Journal of Sustainable Tourism*, 2014.

32 Harvey R, 2015, *op. cit.*, p. 23.

33 Hiedanpää J & DW Bromley, 'Payments for ecosystem services: Durable habits, dubious nudges, and doubtful efficacy', *Journal of Institutional Economics*, 10, 2, 2014, pp. 175–195.

34 Reid W *et al.*, 'Millennium ecosystem assessment', *Ecosystems and Human Well-Being: Synthesis*, Appendix B, World Resources Institute. Washington DC: Island Press, 2005, p. 124.

35 Roe D, Nelson, F & C Sandbrook (eds), *op. cit.*, p. 9.

depends on political priorities and influences, as well as the capacity of all governance actors.

This challenge is clearly illustrated in the case of Botswana.³⁶ Some analysts criticise the country for not devolving sufficient decision-making responsibilities to local institutions, commenting that communities in many areas have become passive recipients of income from private sector activities, rather than active resource managers.³⁷ This in turn does not promote stewardship over wildlife and further dilutes the link between responsibilities and rights. It also erodes the incentives for communities that live with wildlife to care for that wildlife.



Credit: Ross Harvey, 8 September 2014

Mbiroba Hippo Camp, Seronga, Botswana. This lodge was built with donor support for the Okavango Poler's Trust. Unfortunately the trust is not operating optimally. Subsequent to the withdrawal of donor funding, and a failed private sector joint venture, the lodge appears to be at risk of becoming a stranded asset

While the Botswana government recognises the need to deepen institutional devolution to the local level if wildlife is to be conserved, it also seeks to respond to the call for a more equitable distribution of revenues generated by wildlife resources (to communities that

36 Chevallier R & R Harvey, 2016b, *op. cit.*

37 Gujadhur T, 'Joint Venture Options for Communities and Safari Operators in Botswana', IUCN (International Union for Conservation of Nature)/SNV CBNRM Support Programme Occasional Paper, 6. Gaborone: IUCN/SNV, 2001.

do not have the benefit of living close to wildlife). As a result, Botswana's CBNRM, in its current iteration, is a hybrid model that blends centralised revenue distribution with some level of local autonomy in the hands of CBOs.

Credit: Ross Harvey, 9 September 2014



One of the members of the Poler's Trust conducting a day cruise down the Okavango Delta south-east of Seronga, Botswana

Besides the challenge of balancing centralisation and devolution, governance presents an on-going challenge at the central, district and community level across the region. As Gibson and others have highlighted, 'individuals and agencies within the heterogeneous fabric of the central state often possess strong disincentives to enact such reforms'.³⁸ As with broader economic policies, the design of natural resource governance institutions in sub-Saharan Africa is often driven not by considerations of technical efficiency but by an array of personal interests revolving around patronage networks and the exercise of political power.³⁹ Devolving or decentralising rights over valuable natural resources may conflict directly with such interests, and as a result many of the reforms called for by CBNRM initiatives have not been implemented. Communities also face their own

38 Gibson CC, *Politicians and Poachers. The Political Economy of Wildlife Policy in Africa*. Cambridge: Cambridge University Press, 1999.

39 Chabal P & JP Daloz, *Africa Works: Disorder as Political Instrument*. Oxford: James Currey, 1999; Van de Walle N, *African Economies and the Politics of Permanent Crisis, 1979–1999*. New York, Cambridge University Press, 2001; Nelson F & A Agrawal, *op. cit.*

governance challenges, with examples of revenue misappropriation and poor governance within community trusts and institutions, lack of transparency, poor financial decisions and resource capture by local elites. Furthermore, communities often lack the necessary skills, resources and technical capacity required to effectively govern natural resources themselves. In some cases, communities have the skills to manage resources but not the skills to manage the complex administrative/governance compliance requirements enforced by governments and financial reporting required by the private sector.

These governance concerns need to be urgently addressed, as all stakeholders at all levels have an integral part to play in the management of natural resources. National governments have a legitimate mandate to protect ‘public goods’ and to ensure the sustainable management of resources in the interest of the entire population. However, communities living in the vicinity of natural resources are equally important in monitoring and enforcing regulations at the local level. In reality, user management rights issued by a central government are often weak, limited and conditional, with the government retaining important decision-making control over when and how resources may be used. CBNRM often consists of enforcing government rules against poaching or the illegal harvesting of forest products in return for a share of the income derived from some form of resource use.

In many cases, communities are merely managing the income from wildlife rather than managing the wildlife.

In practice, contrary to the spirit of CBNRM’s design, direct local wildlife management by communities is thus often limited. Examples do, however, exist where there is a relatively strong mix of economic incentives, and devolution in and proprietorship⁴⁰ of policy and legislation, where communities are benefiting and where conservation is succeeding – as in the case of Namibia.⁴¹ Here, the government and communities meet jointly to review wildlife data from the previous year, and to agree on hunting quotas for the following year. The Namibian government still has the final say, but in practice there is rigorous debate and negotiation that allow communities to be an authentic part of the decision-making process. A number of communities are actively involved in managing the natural resources themselves. Instilling a ‘sense of ownership’ is often as powerful as *de facto* ‘legal ownership’.

Both the state and communities have a legitimate and important role to play in CBNRM. However, a better balance of power needs to be achieved between local and broader, state-level interests and objectives, where appropriate legal rights and status are awarded to local communities to assist the central government with management and enforcement. Beyond this, persistent challenges remain within both the government and community structures that cannot be resolved by giving either side more power. Instead, better governance, transparency and stronger institutions at both levels are required. At a local

40 Proprietorship is the right to use resources, determine the modes of usage, benefit fully from their use, determine the distribution of such benefits and determine the rules of access.

41 Nelson F & A Agrawal, *op. cit.*

level, more benefits need to flow directly to the most affected community members; these are too often captured by committees or elected representatives.⁴² For this reason, some conservationists have suggested the idea of moving beyond trusts and CBOs into formal corporate structures – community companies, for instance, based on norms of good governance and accountability.⁴³

Partnerships between governments and communities can only become more effective by devolving formal management responsibilities to communities.⁴⁴ In more sophisticated resource systems, management includes formal monitoring of the health and status of resources to inform thresholds and management decisions. For example, in Namibia community members are involved in restocking and resource monitoring. A primary function of these ‘game guards’ is maintaining a relationship with their communities. Their job is not primarily to catch poachers but to stop poaching altogether. The first is based on law enforcement, while the second is built on using effective communication as the foundational driver of behavioural change at community level. The latter is imperative for building sustainable CBNRM programmes.

Communication and collaboration also need to improve between sub-national actors such as municipal and district assemblies, and communities. These often operate in isolation from one another, with very little community involvement within broader district-level planning processes. To encourage political support for the integration of CBNRM into regional and district development plans, community organisations must be represented in local government structures. Official mechanisms can be used to attempt to bridge this gap and improve communication. In Botswana, district and national CBNRM forums help to co-ordinate activities among different stakeholders (national level co-ordination is facilitated through the Botswana National CBNRM Forum Based Organisation Network).⁴⁵

INSTITUTIONAL ARRANGEMENTS FOR TOURISM, DEVELOPMENT AND CONSERVATION IN SOUTHERN AFRICA TODAY

Naturally, various institutions – social systems comprising rules, norms, organisation and cultures that motivate regular human behaviour – exist in Southern Africa. Different

42 Orr T, *op. cit.*, also makes the important point that rent capture occurs not only at the local but also at the international level. Western consultants earn large rents from devising management plans and research briefings – revenue that could go straight into the pockets of local community members who could be paid to preserve wildlife. Obviously the options are not quite as simple as this, but the point remains that there is inefficient capture at all levels.

43 Email correspondence with Ian Craig, Director of Conservation at the Northern Rangelands Trust, Kenya, 24 August 2016.

44 Jones B, ‘Synthesis of the CBNRM Policy and Legislation in Botswana, Malawi, Mozambique, Namibia, Zambia and Zimbabwe’, WWF-SARPO (World Wide Fund for Nature Southern Africa Regional Office) Occasional Paper, 16, October 2007.

45 Also known as BOCOBONET, it is an umbrella body for community organisations involved in CBNRM.

conservation management models are employed within these institutions. They include conservancies,⁴⁶ CBOs, private game reserves, transfrontier conservation areas and tourism conservation enterprises. Although varying in structure and purpose, all of these arrangements ‘give wildlife a higher value (both in monetary and non-monetary terms) ... and to empower people with discretionary choice over wildlife – accepting that people, given such responsibilities, are normally responsible’.⁴⁷

Some of these arrangements and models reflect a greater level of ‘institutional embedding’ in national legislative systems than others.⁴⁸ Institutional variation is therefore extensive,⁴⁹ and the extent of land and wildlife rights devolution is country-dependent.

In Namibia community conservancies own wildlife and gain use rights over certain species. Conservancies consist of joint-venture partnerships (JVPs) with tourist lodges, where communities have been granted concession-holder rights over lodge developments. The Communal Land Reform Act of 2002 allows individuals to hold customary land rights on communal land.

In Botswana the government owns the land and leases it to eligible community trusts that in turn sub-lease it to private tourism operators.

In South Africa full ownership of the land and wildlife resides with individual landowners of private game reserves (PGRs). This is a unique situation, as on the rest of the continent the state is the custodian/owner of wildlife. It is through hunting and tourism partnerships that claimant, user or proprietor rights are granted to communities.

These institutional ventures are financed through a combination of private, public and donor funding. Conservancies and CBOs produce much of their own income through joint ventures with the private and public sectors, and the donor community. PGRs receive private funding and venture capital. Funding for tourism conservation enterprises is mainly leveraged from impact investments, loans and equity shares, through the private capital of the tourism entrepreneurs.

46 Conservancies are legally recognised, geographically defined areas that have been formed by communities that have united to manage and benefit from wildlife and other natural resources. Conservancies are common property resource management institutions.

47 Suich H, Child B & A Spenceley (eds), *Evolution and Innovation in Wildlife Conservation: From Parks and Game Ranches to Transfrontier Conservation Areas*. London: Earthscan, 2009, p. 429.

48 Van der Duim R, Lamers M & J van Wijk (eds), *op. cit.*, pp. 239–260. Namibian conservancies, Botswana CBOs and PGRs in South Africa are all recognised and incorporated within national legislation. CBOs in Botswana are registered legal entities, governed by a constitution and recognised in law. Transfrontier conservation areas are grounded on memorandums of understanding and related treaties that often do not provide actors with the authority and legitimacy to make claims over shared resources. Tourism conservation enterprises, based on contractual agreements between the private sector, government and the community, are not based on national legislation either.

49 For a more in-depth discussion of these models, see Chevallier R, *op. cit.*

These models have different economic earning potential and appeal to a variety of markets according to their product offerings, ease of access, cost and perceived value, and aesthetic attractiveness. These external factors (outside of CBNRM policy choice) largely determine the amount of revenue that each arrangement generates. A significant difficulty in the design of a CBNRM arrangement is the decision-making mechanism for how the money is allocated. Too often, the expenditure does not enhance conservation objectives.

Programmes in South Africa, Zimbabwe, Botswana, and Namibia focus on wildlife-based tourism activities such as photographic and safari hunting, crafts and cultural tourism. In Mozambique and Malawi projects also include other coastal, marine and forestry ecosystems. All these nations are trying to diversify their product offerings.

ARE SUCCESSFUL CBNRM MODELS TRANSFERABLE?

Namibia's communal conservancy model is typically held up as a 'best practice' case of CBNRM in Southern Africa.⁵⁰ Wildlife population numbers have largely recovered in these conservancies, including rare species such as black rhinos and predators such as lions.⁵¹

A number of aspects of the Namibian model are salient to the design of CBNRM initiatives. Firstly, the rights granted to communities over wildlife are broad and secure; they are conditional and can be revoked but they are not 'term-limited'. Secondly, there is no 'middleman' between communities and the private sector. Thirdly, there is no local or state government tax on the revenue earned – 100% of the benefits from wildlife are retained locally. Finally, Namibia's programme has had a long history of development prior to the involvement of external actors and donors.⁵² A further factor that explains the success of CBNRM in Namibia is the active network of local NGOs that have collectively championed and consistently provided technical support to CBNRM in Namibia for over two decades.⁵³ These tenets of success constitute essential lessons for replicating and scaling up CBNRM across the region.

Namibia does, however, have unique and favourable bio-physical characteristics: a low human population density; high soil aridity, favouring wildlife over crop agriculture; water scarcity; distinctive and attractive scenery; well-established infrastructure; and easy access for regional and international visitors. As mentioned earlier, it also has relatively low levels of institutional corruption, which has enabled the devolution of authority and effective CBNRM reforms. While many of these features are unique to Namibia, there are lessons that can inform the shaping of CBNRM discourse and practices in neighbouring countries,

A significant difficulty in the design of a CBNRM arrangement is the decision-making mechanism for how the money is allocated. Too often, the expenditure does not enhance conservation objectives

50 For an in-depth treatment of the Namibian case, see Chevallier R, *op. cit.*

51 NACSO (Namibian Association of Community-Based Natural Resource Management Support Organisations), *Namibia's Communal Conservancies: A Review of Progress and Challenges in 2007*. Windhoek: NACSO, 2008.

52 Balint PJ & I Bond, 'The learning curve for Southern African community-based natural resource management: From CAMPFIRE in Zimbabwe to conservancies in Namibia', *Society and Natural Resources*, 2008.

53 Chevallier R, *op. cit.*

especially in the devolution of use rights to communities through policy and legislative reform. These will be elaborated below.

CBNRM BEYOND CONSUMPTIVE USE: THE CASE OF BOTSWANA

In November 2012 the government of Botswana officially announced that it had decided to ‘indefinitely suspend commercial hunting of wildlife in public or controlled hunting areas’ from 1 January 2014.⁵⁴ It appears to believe that unregulated hunting poses a threat to the conservation of its natural heritage and therefore to the long-term prospects of its tourism industry. Since the implementation of the ban the government has been re-zoning controlled hunting areas to develop new management plans for each of the wildlife management areas (WMAs). This is to align them to the non-consumptive use of natural resources while helping to identify possible private sector investors to partner with communities in the development of photographic tourism activities within the concession areas.⁵⁵ The decision has proved controversial.⁵⁶ According to Mbaiwa,⁵⁷ for instance, trophy hunting was generating more income than photographic tourism prior to the ban. A number of areas are not scenic enough for photographic tourism, creating a risk that land that would have been conserved for elephants and other wildlife may now be turned over to competing uses.

Namibia relies heavily on hunting as the cornerstone of its CBNRM model. Karine Nuulimba says that ‘cash income and in-kind benefits from trophy hunting are generated shortly after the registration of a conservancy and the awarding of a trophy hunting contract, providing a timely reward to communities for their conservation efforts ... Conservancies may take longer to receive cash income from joint-venture lodges due to more complex negotiations and agreements, as well as much higher development costs’.⁵⁸

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- 54 Edmont B Moabi, Permanent Secretary, Press Statement from the Ministry of Environment, Wildlife and Tourism on suspension of hunting by 2014, released 29 November 2012.
- 55 Morula M, ‘Government bails out cash-strapped community and development trusts’, *Sunday Standard*, 18 June 2015, <http://www.sundaystandard.info/gov%E2%80%99t-bails-out-cash-strapped-community-and-development-trusts>, accessed 2 July 2016.
- 56 For detailed discussions of the Botswana hunting ban controversy, see Somerville K, ‘No longer at ease: clouds on the horizon for Botswana’s conservation success story’, *African Arguments*, 23 July 2015, <http://africanarguments.org/2015/07/23/no-longer-at-ease-clouds-on-the-horizon-for-botswanas-conservation-success-story-by-keith-somerville/>, accessed 30 August 2016; Onishi N, ‘A hunting ban saps a village’s livelihood’, *New York Times*, 12 September 2015, http://www.nytimes.com/2015/09/13/world/a-hunting-ban-saps-a-villages-livelihood.html?_r=0, accessed 30 August 2016; Cornell M, ‘Botswana’s hunting ban deserves better from the New York Times’, *National Geographic*, 13 October 2015, <http://voices.nationalgeographic.com/2015/10/13/opinion-botswanas-hunting-ban-deserves-better-from-the-new-york-times/>, accessed 30 August 2016. For a general discussion on the merits of hunting as ‘sustainable use’, see Orr T, *op. cit.*
- 57 Mbaiwa J, ‘Community-based natural resource management in Botswana’, in Van der Duim R, Lamers M & J van Wijk (eds.), *op. cit.*, pp. 59–80.
- 58 Email interview, Karine Nuulimba, Programme Director at Integrated Rural Development and Nature Conservation, 6 June 2016.

Joint ventures with photographic-orientated lodges have an indirect fee structure based on a percentage of the turnover, whereas hunting fees are based on a direct price per animal. Making the same point as the opponents of the Botswana ban, Nuulimba argues that hunting occurs in areas that have little or no tourism potential due to their location or lack of scenic interest.

Further research on alternative livelihoods needs to be conducted to ensure benefits accrue directly to those communities previously reliant on hunting revenues. This is particularly true for Botswana. To date, revenue diversification has been limited and only a few communities have developed alternative enterprises, due to substantial challenges around funding, market access, infrastructure and storage requirements. More research is also needed on the potential feasibility of new conservation-based livelihood products. These include non-timber forest products such as honey; ximenia; mongongo nuts; products produced from reeds, thatching grass and papyrus paper; seed oil extraction for cosmetic use; and crafts; as well as fisheries. While these alternatives cannot necessarily generate incomes on the scale that the hunting sector did, they serve to spread risk at CBO level, and have the potential to contribute to the livelihood security of a much larger number of resource users. It may also be worth pursuing PES projects, as they not only serve as a mechanism for conserving ecosystem services but may also benefit rural livelihoods. A recent benefit quantification exercise revealed, for instance, that 'community-based PES schemes may also enhance local experience in managing natural resource use, encourage the equitable sharing of benefits among a community, build expertise in managing natural resource enterprises, and support profitable community engagement in national and international markets'.⁵⁹

KEY ELEMENTS OF SUCCESSFUL CBNRM FOR SOUTHERN AFRICA

Regardless of the model chosen or the specific CBNRM context, we consider the following to be the main elements that provide the foundation for effective CBNRM in Southern Africa.

FLEXIBLE AND RESILIENT SYSTEMS OF MANAGEMENT

The world is changing fast, in almost every respect. Climate change is making Africa increasingly water-scarce, for instance. This means that places such as the northern banks of the Okavango Delta will become increasingly contested sites, as people and elephants migrate into the area. Elephants will also likely to continue to move there as they attempt to escape the growing levels of poaching in Zambia and Zimbabwe. CBNRM models will have to be sufficiently flexible to respond to these kinds of changing realities. They also have to effectively consider wider market developments in non-consumptive and consumptive tourism. The US, for instance, has shut down its domestic ivory market, and China is about to do the same, as is Hong Kong (which has announced that a ban will

59 Ingram JC *et al.*, 'Evidence of Payments for Ecosystem Services as a mechanism for supporting biodiversity conservation and rural livelihoods', *Ecosystem Services*, 7, 2014, pp. 10–21.

be implemented by 2021). While the international Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) ban expires in 2017, it seems clear that the Conference of the Parties meeting in September 2016 will see members vote to uphold the ban. Namibia and Zimbabwe want to remove their elephants from CITES protection altogether and trade ivory by open auction, ostensibly to raise revenues for conservation efforts. Pinning CBNRM plans on such an unlikely outcome does not seem wise, however, and may create serious risks for elephant populations elsewhere, as demand for ivory may spike as a result.⁶⁰ Moreover, many other range states are putting their ivory stockpiles beyond commercial use, which we believe is sensible.⁶¹

For CBNRM models that are dependent on trophy hunting, the world is also changing. After ‘Cecil the lion’ had been illegally shot in Zimbabwe, three US airlines moved to ban the shipment of all hunting trophies.⁶² A continuation of this trajectory would severely jeopardise CBNRM programmes that fail to adapt to this new reality. Also, with increased human and elephant conflict likely to arise, conservation agriculture will become more important. Cash crops such as chillies can be grown both as a means of deterring crop-raiding elephants and to generate revenue for local communities.⁶³ This dynamic approach serves the mutual or dual ends of elephant conservation and livelihood security simultaneously.

Having cautioned about a changing world, it nonetheless remains important for government policy practitioners to communicate effectively and consult extensively before unleashing radical changes. In Botswana, for instance, the implementation of the hunting ban created uncertainty and risks for communities, investors and entrepreneurs involved in conservation–development–tourism arrangements. Long-term policy stability therefore remains a crucial goal, even in a dynamic world.

CBOs WITH STRONG AND EFFECTIVE INTERNAL ORGANISATIONAL AND GOVERNANCE STRUCTURES

Effective CBOs require a strong, locally appropriate institutional framework. Governance systems operate within institutions, and will fail or succeed depending on the extent of

60 Alden C & R Harvey, ‘Ivory sales by Zimbabwe and Namibia could “create demand spike”’, *Business Day*, 17 May 2016, <http://www.bdlive.co.za/opinion/2016/05/17/ivory-sales-by-zimbabwe-and-namibia-could-create-demand-spike>, accessed 17 August 2017.

61 Alden C & R Harvey, ‘The case for burning ivory’, *Project Syndicate*, 29 April 2016, <https://www.project-syndicate.org/commentary/kenya-ivory-stockpile-destruction-by-chris-alden-and-ross-harvey-2016-04>, accessed 17 August 2016.

62 *The Guardian*, ‘Cecil the lion: Three US airlines ban shipment of hunting trophies’, 4 August 2015, <https://www.theguardian.com/environment/2015/aug/03/delta-bans-hunting-trophies-cecil-the-lion>, accessed 17 August 2016.

63 Some academics are skeptical as to whether chillies are an effective deterrent. See Hedges S & D Gunaryadi, ‘Reducing human–elephant conflict in a land-use mosaic’, *Journal of Applied Ecology*, 36, pp. 689–700. But it looks as though varied use may be appropriate, along with other deterrents such as capsicum oleoresin. See Songhurst A, McCulloch G and T Coulson, *op. cit.*

congruence between them.⁶⁴ Ideally, these systems should be transparent, with built-in, self-enforcing monitoring mechanisms to ensure that community trusts distribute resource rents equitably and efficiently. Differential inputs should result in differential benefits, especially for communities bearing the costs of wildlife conflict. Also, smaller communities tend to work better than an amalgamation of a number of disparate villages. For instance, wildlife management areas in Tanzania sometimes have upwards of 20 villages involved in governance, whereas the Botswana CBO structure mostly has fewer than five villages represented. Community land rights for small communities seem a preferable governance arrangement,⁶⁵ and this is being spearheaded in Tanzania at present.⁶⁶

TRANSPARENT BENEFIT DISTRIBUTION STRATEGIES WITHIN CBOs

Revenue distribution mechanisms within communities vary widely in practice. For example, in Zambia 40% of the revenues are passed on to individual community members – essentially a cash-to-citizen transfer. By way of contrast, in some CBOs in Botswana most benefits (as a percentage collected from the central government) stay within the community trusts for administrative running costs and project expenditures. The share of communal and individual benefits should ideally be based on the needs of the local community and households.⁶⁷ However, poor governance and cases of misappropriation of funds have led to major governance challenges and confidence issues arising between the CBOs, private tour operators and the broader community.⁶⁸

Governance challenges pertaining to effective revenue distribution must be addressed if CBNRM is to gain traction and benefit elephant conservation. First, a lack of continuity in leadership over time is problematic. Boards tend to rotate regularly, which is part of the ‘elite capture’ problem – board members often misappropriate funds and disappear, especially if they know they are likely to be voted out of office in the near future. Moreover, good leaders do not always make good managers, and CBOs are characterised by a general lack of management capacity. Second, community members themselves can be apathetic – formal trusts and boards are essentially foreign institutional practices that do not sit

64 See Levy B, *Working with the Grain: Integrating Governance and Growth in Development Strategies*. New York: Oxford University Press, 2014; Acemoglu D & JA Robinson, ‘The pitfalls of policy advice’, *Journal of Economic Perspectives*, 27, 2, 2013, pp. 173–192.

65 See Nelson F & T Blomley, ‘Peasants’ forests and the king’s game? Institutional divergence and convergence in Tanzania’s forestry and wildlife sectors’, in Nelson F (ed.), *Community Rights, Conservation and Contested Land: The Politics of Natural Resource Governance in Africa*. New York: Earthscan, 2010.

66 See Nelson F & E Loure, ‘The global land rights struggle is intensifying’, *The Guardian*, 27 April 2016, <https://www.theguardian.com/global-development-professionals-network/2016/apr/27/the-global-land-rights-struggle-is-intensifying>, accessed 17 August 2016.

67 Arntzen J *et al.*, ‘Rural Livelihoods, Poverty Reduction and Food Security in Southern Africa: Is CBNRM the Answer?’, USAID, 2007, p. 29, <http://unpan1.un.org/intradoc/groups/public/documents/cpsi/unpan026980.pdf>, accessed 2 July 2016.

68 Snyman S & A Spenceley, ‘Key sustainable tourism mechanisms for poverty reduction and local socioeconomic development in Africa’, *Africa Insight*, 42, 2, 2012, pp. 76–93.

comfortably within local institutions. However, community members will complain if they sense that funds are not being directed as they ought, suggesting some level of agency that should be harnessed more effectively. This issue is complex, however, as community members who could take more responsibility are often working (sometimes for the tour operators) and therefore do not have the time to attend lengthy board meetings. Third, in-fighting over resources and village-level politics can present a significant barrier to equitable revenue distribution.

The community trust should ideally adopt governance practices that are congruent with existing traditional institutions

CBOs should therefore design their own structures that engender transparency and accountability, and instil a sense of ownership of community investments. Appropriate checks and balances need to be in place to ensure that benefits and decision-making do not become controlled by local elites – it is not merely about how the money is spent, but also about who decides how the money is spent. The community trust should ideally adopt governance practices that are congruent with existing traditional institutions (such as *kgotlas*, which are fairly democratic).⁶⁹ Transparent financial reporting is also critical. In cases where this does not happen or where CBOs do not demonstrate the accountable use of income within a reasonable time span, this may result in the suspension of resource rights. In Botswana, for instance, the Khwai community experienced financial management problems, and as a result the government did not allocate their 2003 hunting quota until they could demonstrate reform.

EFFECTIVE CHANNELS OF COMMUNICATION AT ALL LEVELS

Good communication sounds like an obvious governance recommendation, but it is especially important in contexts of relatively low financial literacy – even if financial reports were available for public scrutiny (an important requirement, we think), it is not clear that they would mean that much to ordinary community members. Therefore, the board or an independent third party should communicate clearly about how and where benefits are transferred. This is essential to dispel perceptions in the community that the only people benefiting are trust employees and committee members.⁷⁰ Dialogue forums between JVPs, CBOs and the relevant government departments should therefore become more regular. This would improve transparency, minimise information asymmetry and ensure better overall communication between all stakeholders. It is also necessary to better articulate the limits of CBNRM to development, to ensure that the likely benefits are framed in a realistic way to reduce unrealistic expectations.

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- 69 On this question of local, historical institutions of democracy, see Hillbom E, 'Botswana: A development-oriented gate-keeping state', *African Affairs*, 111, December 2012, pp. 67–89. 'To keep the chief accountable and to hinder corruption, he was checked by the *kgotla*, a semi-democratic system building on public meetings, where male members of the tribe could air their opinions regarding the chief's actions', p. 78.
- 70 On the importance of better communication, see Snyman S, 'Partnership between a private sector ecotourism operator and a local community in the Okavango Delta, Botswana: The case of the Okavango Community Trust and Wilderness Safaris', *Journal of Ecotourism*, 13, 2–3, 2014, pp. 1–20.

DIRECT AND INDIRECT VALUE FROM CBNRM ACTIVITIES ACCRUING TO COMMUNITIES

Most of the best research suggests that a resource such as elephants must have a measurable value to the community,⁷¹ so that the benefits of managing elephants exceed the cost (or at least are perceived to exceed the cost). Sufficient revenue should accrue directly to local community members to create incentives for them to take ownership of conservation objectives. As Orr points out in a paper that is part of this series,⁷² CBNRM initiatives must also fare well in comparison with other land-use options such as agriculture and/or livestock. Communities that bear the opportunity costs of living with elephants should be compensated in whatever way possible if they do not receive direct benefits. Alternatively, elephant-themed revenue generation such as artwork and cultural tourism (plays and dances about living with elephants) should also be emphasised. There are major opportunities in this respect, as significant potential exists to promote cultural tourism, recreational tourism (river cruises and walking trails sold by the prospect of seeing elephants), volunteer tourism and adventure tourism. These activities do not compromise, for instance, the Botswana government's high-value/low-impact tourism model and would simultaneously protect ecologically sensitive areas. It is also important to promote opportunities that are not located exclusively in WMAs but rather within village/agricultural contexts.

Moreover, conservation imperatives need to be built into the mainstream development agenda. It is not sufficient merely to ensure that adequate benefits accrue to communities from elephants. Community welfare in general has to be part of the equation addressed by community companies. This would include improved education, healthcare and water quality. If conservation becomes a development driver, the conversation can move beyond what combination of consumptive or non-consumptive use may be optimal, as communities would figure it out for themselves as part of an overall development plan that inherently values conservation.⁷³

BIODIVERSITY IMPROVEMENTS AND THE ATTAINMENT OF CONSERVATION OBJECTIVES

Revenue accrued through CBNRM projects is often not used to attain conservation objectives, which creates a complex dynamic. Many communities reinvest wildlife-related revenue into livestock or agriculture, which can undermine conservation goals. Therefore, specific quantitative or zoning limitations need to be placed on ecologically destructive practices. A crucial point is that communities living with or near elephants should be

Communities living with or near elephants should be encouraged to diversify livelihood strategies instead of being reliant on CBNRM revenues from wildlife tourism, which is too volatile a market to depend on

71 Jones B, 'Community-based natural resource management in Botswana and Namibia: An inventory and preliminary analysis of progress', IIED (International Institute for Environment and Development) Evaluating Eden Series Discussion Paper, 6, 1999, <http://pubs.iied.org/pdfs/7799IIED.pdf>, accessed 2 July 2016.

72 Orr T, *op. cit.*

73 Email correspondence with Ian Craig, *op. cit.*

encouraged to diversify livelihood strategies instead of being reliant on CBNRM revenues from wildlife tourism, which is too volatile a market to depend on.⁷⁴

In light of these complexities, we need more innovative thinking around integrated land-use planning. Some experts have argued that ‘greater consideration should be given to models of wildlife–livestock integration’.⁷⁵ Although there are substantial downside risks to and legitimate concerns over the co-existence of livestock and wildlife,⁷⁶ a more integrated approach would minimise the current trade-offs between livestock farming and wildlife tourism revenue, and would also allow for the occupation of former hunting concessions that are currently uninhabited.

Good CBNRM programmes can operate as multispecies production systems, occupying a range of biological niches

As desirable as stronger tenure and devolved land rights are, they cannot guarantee conventional conservation outcomes.⁷⁷ In Southern Africa, however, there is a particularly high correspondence between ecological degradation (such as overgrazing and species destruction) and areas under insecure communal land tenure. Good CBNRM programmes can operate as multispecies production systems, occupying a range of biological niches. This should theoretically reduce the pressure on rangelands from single-species production systems (such as cattle ranching) and agro-pastoral systems. ‘The limited data available suggests that land which has reverted to wildlife production after a period of intensive single-species production systems, soon shows gains in diversity, resilience and ecosystem function.’⁷⁸

A caveat to the discussion thus far is in order: ensuring that communities benefit from elephants is not a sufficient condition for habitat preservation. As counter-intuitive as it sounds, even the better CBNRM programmes find it difficult to demonstrate a causal link between their efforts and habitat conservation. This is because of the general research difficulty of controlling for exogenous and relatively independent factors such as changes in rainfall and disease outbreaks. Nonetheless, it is well documented that Namibia’s CBNRM efforts have contributed to the recovery of wildlife populations.⁷⁹ But again, as wildlife numbers increase so too does the potential for human–wildlife conflict, and the consequent need for preventative, mitigation and compensation techniques. Biodiversity co-benefits, such as chilli planting and harvesting – mentioned above – should be encouraged through the re-investment of CBNRM funding into conservation-orientated business enterprise development.

74 A number of factors can deter visitors to Southern Africa, such as an outbreak in conflict, disease, hunting bans and changes in trophy-hunting trade export legislation.

75 Interview with Linn Cassidy, CBNRM specialist with Ecosurv, Maun, 17 September 2015.

76 Niamir-Fuller M *et al.*, ‘Co-existence of wildlife and pastoralism on extensive rangelands: Competition or compatibility?’, *Pastoralism: Research, Policy and Practice*, 2, 8, 2012, pp. 1–14.

77 Roe D, Nelson, F & C Sandbrook (eds), *op. cit.*, p. 13.

78 *Ibid.*, p. 93.

79 Nuulimba K & JJ Taylor, ‘25 years of CBNRM in Namibia: A retrospective on accomplishments, contestation and contemporary challenges’, *Journal of Namibian Studies: History of Politics Culture*, 18, 2015, pp. 89–110.

ROBUST WEALTH ACCOUNTING, ECOSYSTEM SERVICES VALUATIONS, AND THE NEED FOR BETTER DATA

In Southern African CBNRM, land tends to be allocated for activities that attract the highest expected material utility (or ‘value’) against competing alternatives. Conventionally, the highest value has been interpreted largely in short-term economic and financial terms, using a market-based approach. But natural resources and their ecosystems have diverse values that go far beyond those that can be measured in financial terms to include use values (direct and indirect) and non-use ‘existence’ values, such as spiritual and intrinsic values.

One important contribution in the environmental economics literature⁸⁰ describes the problem well: ‘The conventional framing of the choice [of land use] is one between accepting the power of markets and playing their game to win environmental concessions versus a purist perspective of saying no to any hint of money or markets in environmental policy.’⁸¹ This is a false dichotomy, and unfortunately many PES models are constructed essentially as a means of solving market failures, which ‘privileges market rationality and the economic discourse over alternative valuation languages’.⁸² An alternative approach – rooted in notions of distributional and procedural justice – emphasises PES as an instrument of redistribution towards environmental protection, a potential ‘mechanism to articulate compensations of ecological debts’.⁸³ These debts exist largely as a result of the inadequacy of our national accounting systems to capture the full value of natural capital as articulated above – we still tend to treat it as a free good.⁸⁴

Ecosystems clearly play an important role in alleviating poverty and enhancing the resilience of communities to the current and impending impacts of climate change. This knowledge needs to inform land-use decisions far more than it does at the moment. For instance, the contributions that elephants make to preserving ecological integrity and benefiting human welfare in the process are too often ignored.⁸⁵

Developing a full understanding of the local welfare impacts of CBNRM would require a more thorough range of quantitative and qualitative data, covering various dimensions of costs and benefits. Such data is largely unavailable except where it has been collected to evaluate the success of specific projects.⁸⁶ Consequently, too many ‘evaluations’ are opinions that rely on case-study analyses and anecdotal information that cannot be reliably generalised. This makes it difficult to assess the overall economic performance of CBNRM, and how best to replicate ‘successful’ programmes.

Natural resources and their ecosystems have diverse values that go far beyond those that can be measured in financial terms to include use values (direct and indirect) and non-use ‘existence’ values, such as spiritual and intrinsic values

80 Kallis G, Gómez-Baggethun E & C Zografos, ‘To value or not to value? That is not the question’, *Ecological Economics*, 94, 2013, pp. 97–105.

81 *Ibid.*, p. 103.

82 *Ibid.*

83 *Ibid.*

84 Daly HE, ‘Georgescu-Roegen versus Solow/Stiglitz’, *Ecological Economics*, 22, 3, 1997, pp. 261–266.

85 Ripple WJ *et al.*, ‘Collapse of the world’s largest herbivores’, *Science Advances*, May 2015, pp. 1–12.

86 See Snyman S, *op. cit.*

Ecosystem service evaluations and natural resource accounting should be included in CBNRM model development if these models are to be well received by policymakers, who are under pressure to deliver welfare benefits to citizens

The extent to which CBNRM has contributed to poverty reduction at the household level, for instance, remains largely unevaluated. Better data sets would therefore include household income and community-level income disaggregated by source, the value of benefits such as meat from hunting, jobs created, wages from tourism ventures and community enterprises, and the value of forest products/fish that are sold or used. Ecosystem service evaluations and natural resource accounting should be included in CBNRM model development if these models are to be well received by policymakers, who are under pressure to deliver welfare benefits to citizens, the ‘value’ of which is generally framed in narrow or exclusively material terms. Then, as mentioned above, we need to measure not only wildlife numbers but especially the extent of habitat preservation (or erosion). Elephant survival and the improvement of human welfare at the interface between population growth, climate change and water scarcity depend on the collection of better data, and help to inform more integrated land-use decision-making and planning.

CONCLUSION

Elephant survival ultimately depends on generating appropriate incentives for local communities and their governments (at all levels) to value elephants more holistically – not only in terms of the expected utility from their use value but also in appreciation of their inherent existence value. Moreover, even if poaching were to be eradicated today, the risk of elephant habitat loss would not disappear with it. Heated discussions on the international ivory trade ban are important, but they tend to dilute the question of ensuring that appropriate benefits accrue to communities that bear the risks of living with elephants. Local governments and communities also have to make difficult land-use decisions. Ultimately, well-constructed CBNRM programmes should generate development benefits that conserve elephants and their habitats, rather than converting land into competing economic uses such as agriculture, cattle grazing areas or industry. This is a significant challenge, which should be addressed more intentionally at international treaty conferences and in appropriate resolutions such as the UN’s Convention for Biological Diversity, the CITES conferences and in the AU and SADC’s integrated wildlife management and planning.

Since the late 1980s CBNRM policy development in Southern Africa has shifted considerably. Policies now incorporate, or at least attempt to ensure, participatory and authentically community-led management of wildlife and their habitats. These are increasingly embedded in formal institutional arrangements that are evolving and adapting as new understandings and needs emerge. CBNRM activities also differ broadly within the region, reflecting context-specificity.

If the purpose of CBNRM is to improve local capacity to halt the decline in wildlife and biodiversity resources, and to increase household and community income in the process, then it should be evaluated on the extent to which it accomplishes these objectives. Institutional design needs to improve levels of accountability and transparency within the decision-making structures of communities and governments to ensure revenues are distributed fairly. Such design needs to be incentive-compatible with local values or run the risk of a desired norm – biodiversity preservation – being undermined by its

incongruence with local aspirations and/or lack of management capacity and political will.⁸⁷

This paper has referenced a handful of meaningful JVPs, skills development and related job opportunities in remote communities that meet the intended objectives. CBNRM in general, however, has been subject to substantial criticism. In too many cases there is limited evidence of communities' actively engaging in conservation and taking responsibility for and ownership of their resources.

To improve institutional design and management capacity, continued, long-term support is necessary – too many donor-funded projects end prematurely, before the programme and its institutions have become self-enforcing.⁸⁸ For this reason, too, NGOs need to move away from being distant external providers to becoming genuine capacity builders and trusted partners.⁸⁹ The future success of CBNRM programmes will be determined by the extent to which they are able to balance existing wildlife, forestry and fisheries initiatives with new and innovative income-generating activities and alternative livelihood strategies. Having the correct institutions in place is critical to attaining this delicate balance.

The decline in the elephant population is driven predominantly by consumer demand for ivory – both in the end market and among those stockpiling ivory for speculative purposes, essentially betting on certain outcomes around domestic and international trade ban decisions. But even if demand were completely eradicated, it would do little to curb habitat loss. Habitat loss outside of formally protected areas is a significant risk in developing-country contexts where the benefits of globalisation have not been evenly distributed. It is almost inconceivable that food security should still be a major concern in Africa in the 21st century, but the reality of this is that agriculture is a competing land-use priority. If the world wants to secure a future with elephants, it will have to design far more optimal CBNRM institutions that incentivise communities to choose wilderness landscape preservation over the next-best alternatives.⁹⁰

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- 87 Rihoy E & B Maguranyanga, 'Devolution and Democratisation of Natural Resource Management in Southern Africa: A Comparative Analysis of CBNRM Policy Processes in Botswana and Zimbabwe', CASS/PLAAS Occasional Paper, 2007, <http://www.plaas.org.za/sites/default/files/publications-pdf/CBNRM%2018.pdf>, accessed 2 July 2016. Also see Rupp S, Wu Y & C Alden, 'Values, Culture and the Ivory Trade Ban', SAIIA Occasional Paper 244. Johannesburg: SAIIA, 2016.
- 88 For a discussion of the importance of self-enforcement, see González de Lara Y, Greif A & S Jha, 'The administrative foundations of self-enforcing constitutions', *American Economic Review*, 98, 2, 2008, pp. 105–109.
- 89 Email correspondence with Ian Craig, *op. cit.*
- 90 For a practical set of policy recommendations, see Chevallier R, *op. cit.*

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