

# CONTRACTUAL ARRANGEMENTS FOR FINANCING AND MANAGING AFRICAN PROTECTED AREAS: INSIGHTS FROM THREE CASE STUDIES

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#### **ABSTRACT**

Protected areas and conservation are inadequately funded throughout the world, especially in Africa. In response to this challenge, 'innovative financial mechanisms' are meant to make use of markets and contractual arrangements to provide for additional and secured funding. The use of these instruments within nature conservation has increased in recent years. Proponents of these instruments argue that they may soon fill the funding gap. Critics warn that such instruments may favour market priorities, which could undervalue the overall conservation goals. This paper analyses the practical functioning of three cases of innovative financial mechanisms for African protected areas. It draws insights about their potential replication, with respect to their contractual design, their associated impacts and success factors, as well as the challenges encountered. The paper argues that these contractual approaches critically depend on enforcing conditionalities, maintaining long-term relations through intermediary organizations, as well as finding champions and building capacities. Challenges to be assessed in the future include the variability of markets and the significance of transaction costs.

**Key words:** Protected area management, contractual approaches, funding gap, innovative financial mechanisms, Africa

#### INTRODUCTION

Aichi Biodiversity Target 11 has set an ambitious goal: "By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, integrated into the wider landscapes and seascapes." Although this target appears as one of the very few for which some achievement is observed, progress remains insufficient (Secretariat of the Convention on Biological Diversity, 2014; Juffe-Bignoli et al., 2014). Protected area coverage of terrestrial area including inland waters has increased from 10 per cent in 1994 to 14.7 per cent in 2016 (UNEP-WCMC & IUCN, 2016). To reach 17 per cent of terrestrial coverage an additional 3.1 million km2 of land needs to be protected. Additionally, most protected areas currently seem to be inadequately managed. Recent assessments show that most protected areas (62 per

cent) only display a basic level of management (Leverington et al., 2010).

Africa is no exception. It represents only 3.3 per cent of the total number of sites protected globally (both terrestrial and marine). Protected area downgrading, downsizing, and degazettement (PADDD) is also a worrying trend on the continent (Mascia et al., 2014).

New and additional funding as well as better governance systems are needed to expand the protected area network, effectively and adequately. The challenge is daunting, but not impossible. The Convention on Biological Diversity (CBD) estimated that achieving target 11 would require spending between US\$ 9.2 and 85 billion annually over the eight-year period from 2013 to 2020 (CBD, 2012). In Africa, more precise estimates of funding requirements for protected areas range from US\$ 460 to US\$ 2,048 per km² (Lindsey et al., 2016). Against these needs, available resources on the continent are really scarce.

To fill both these funding and management gaps, a broad range of instruments have been proposed to finance and manage biodiversity conservation within and outside protected areas, including economic and market instruments (McNeely, 1988; Emerton et al., 2006). In 2008, Parties to the CBD adopted the Strategy for Resource Mobilization and called to "explore new and innovative financial mechanisms at all levels with a view to increasing funding to support the three objectives of the Convention". Later in 2012, IUCN members further approved resolution 122 at the Vth World Conservation Congress in Jeju to promote such innovative financial mechanisms as complementary fundraising tools.

The leading group on Innovative Financing for Development<sup>1</sup> defines innovative financing mechanisms for raising funds that are complementary to official development assistance, predictable and stable (Sandor et al., 2009). The characterization, advantages, limits and applicability of innovative financial mechanisms have been largely discussed (Vatn et al., 2014; Galaz et al., 2016). Potential advantages include economic incentives being efficient signals, optimal allocation of resources, and filling of the funding gap (Lapeyre & Pirard, 2013). Drawbacks of these mechanisms include the volatility and uncertainty of such instruments, and the possible commodification of nature (Melathopoulos & Stoner, 2015).

From both perspectives, the central contractual nature of these instruments, be it an opportunity or a risk, is emphasized. Yet, to move beyond wishful thinking, CBD Parties, donor agencies and practitioners now need to better analyse how these so-called innovative mechanisms are actually linked to renewed governance and what difference they make *on the ground*, especially in Africa. By bringing actual practice to theory and concepts, this article thus aims to investigate these contractual instruments and uncover their decisive characteristics, conditions for success, and challenges.

Based on a review of experiences (Lapeyre & Laurans, 2016) this article presents three case studies from protected areas in Côte d'Ivoire, Sierra Leone and South Africa. Selected in close co-operation with IUCN, the sample is intended to encompass a variety of contractual approaches to explore the potential role of contracts in funding and managing protected areas in Africa. This article describes the contractual design of these protected area management models and presents the results with respect to biodiversity conservation efforts. It aims to highlight some of the key principles that should be considered before replicating such instruments. Finally, it addresses the challenges of such approaches.



Funding the Gola Rainforest National Park through a nonprofit company limited by guarantee (CLG) contributes to both conservation and development ©Renaud Lapeyre

## UNCOVERING CONTRACTUAL APPROACHES FOR PROTECTED AREA FINANCE IN AFRICA: THREE MECHANISMS AND THEIR IMPACTS

Investigating in depth three case studies, and their differences in terms of rationale, institutional set-up, actors involved, and scale, allows us to uncover the role of various contractual arrangements in funding protected areas in Africa and improving their management.

### A long-term innovative contractual approach in Sierra Leone

The Gola rainforest occupies 70,000 hectares along the Liberian border. Situated within seven chiefdoms with a total of 140,000 inhabitants, its biodiversity is threatened by local slash-and-burn agricultural practices and mining.

Until the mid-1990s, logging concessions were granted over the forest. Yet, in 2004 a Conservation Concession was declared by the Government of Sierra Leone (GoSL) whereby two NGOs, the Royal Society for the Protection of Birds (RSPB) and the Conservation Society of Sierra Leone (CSSL), agreed to conserve the forest and compensate local actors for the loss of logging rights (Belvaux, 2012). A Benefit Sharing Agreement (BSA) was



In South Africa, landowners sign management plans and are provided with incentives to conserve biodiversity on their private lands © Yann Laurans

signed in 2007, which was funded by both the European Union and the French Global Environment Facility (FFEM). Through the BSA, the seven chiefdoms have so far received US\$ 122,500 annually, conditional to their strict compliance with the forest management plan. In 2012, the Gola rainforest was eventually gazetted as a National Park (GRNP).

Since 2012, this contractual innovation was further developed into a REDD project in an attempt to sustainably fund GRNP over the longer term (Hipkiss & Tubbs, 2012). To sell credits for avoided deforestation on the voluntary carbon market, the project followed two leading international standards, the Verified Carbon Standard (VCS) and the Climate, Community and Biodiversity Alliance standard (CCBA). This created two important institutional changes. First, a Conservation and Cooperation Agreement was further signed with directly adjacent communities (within a leakage belt) to incentivize them and ensure enforcement of regulations. Second, a not-for-profit company limited by guarantee (CLG) was registered in 2015 to act as a legal entity to receive proceeds from the sale of verified carbon credits. Strategically, the government and both NGOs are the CLG's members. Operationally, the CLG is an autonomous, private body responsible for managing the GRNP area as a REDD project, meaning that it lawfully sells credits and pays for the management costs of GRNP and its leakage belt.

#### Signing biodiversity stewardship agreements with private landowners in South Africa

Since the turn of the century, enrolling private properties in land-use management and conservation has been identified by South African authorities as a key condition to reaching the country's biodiversity objectives (Marnewick et al., 2015). Biodiversity legislation was redrafted in 2004 allowing private land to be officially and perennially registered as protected areas. This policy organization in turn gave rise to a "biodiversity stewardship" (BDS) approach, whereby everyone in the country is potentially called to steward natural assets that sit on their properties, in view of collectively forming a network of conservation through varied individual contributions (Cumming et al., 2015).

This brought the South African environmental NGOs, including BirdLife South Africa, and the Federal environmental authorities to think about sustaining landowners' motivation and incentivizing voluntary conservation. As a result, attention was given to building into legislation the ability to pay lower taxes, so as to induce a fiscal reward for landowners who committed their land to the conservation and management standards (Selinske et al., 2015). After an initial stage, during which the tax incentives were inadequately drafted, the fiscal provisions were re-worded and better adapted to the logic of business and taxes, and were adopted in March 2015.



Kob antelope (Kobus kob) in Comoé National Park, Cote d'Ivoire. FPRCI conditionally funds OIPR to manage the protected area network in Côte d'Ivoire © Wikimedia Commons

Based on national priorities, NGOs and provincial conservation agencies reach out to landowners whose land is considered important for conservation. After a technical site assessment, a protection status is proposed for the site by the provincial conservation authorities and a specific management plan is drafted. The selected site must then be officially declared as a protected area as defined in the legislation by the official representative of the Province. A preliminary agreement between the Provincial authority and the landowner is submitted for official public consultation after which the agreement is gazetted and the management plan is officially approved by the Province. The surface area covered in the agreement is officially delineated, and the resulting maps, declaration and management agreement are sent to the governmental deeds office to be attached to the land parcels through a notarial contract. On this basis, landowners are then allowed to apply for a tax reduction in their annual tax declaration. The relevant provincial conservation authority is responsible for annual monitoring of the management plan implementation.

#### Sustaining the protected area network in Côte d'Ivoire: debt swaps and funding agreements

Forest area has been massively lost in Côte d'Ivoire, decreasing by 75 per cent in 50 years since 1960, in part due to rapid agricultural growth. Biodiversity in the country is highly threatened. To prevent further erosion Côte d'Ivoire has secured a network of eight protected areas and six natural reserves. One of these, the Tai National Park (TNP) consists of 536,017 ha of land in the west of the country. With one million people inhabiting

its surroundings, main pressures for the park include commercial agricultural activities, especially cocoa production (Varlet et al., 2013).

Three types of innovation have been at work in Ivorian protected areas. First, the Foundation for Parks and Reserves of Côte d'Ivoire (FPRCI-CI) was created in 2003 as a private not-for-profit institution, the first Ivorian trust fund dedicated to funding the country's protected areas. FPRCI-CI is comprised of a General Assembly of ten founding members, a Board of nine directors and two observing members. FPRCI-CI's goal is to mobilize funds to generate returns on the international financial market. For this purpose, a sister foundation was registered in the UK in 2009 (FPRCI-UK) to legally host the endowment fund. Financial interests from the latter are then used to fund protected areas through FPRCI-CI.

Second, to capitalize this endowment fund, debt-fornature swaps were undertaken. In this regard, both German and French governments signed debt swap agreements with the Government of Côte d'Ivoire, respectively in 2012 and 2014. Through these, the management of protected areas, including TNP, could be funded. In the latter case for instance, 9.5 million Euros were capitalized in FPRCI-UK's endowment fund to generate interests. To date, this has allowed FPRCI-CI to partially finance TNP's operational costs with 610,000 Euros every year <sup>2</sup>.

Third, such FPRCI funding is contractually granted to an ad hoc management body. Created in 2002, the Côte d'Ivoire Parks and Reserves Office (OIPR) is an autonomous parastatal entity governed by a management committee, although supervised by the administration. Under the FPRCI's new financing role, OIPR's management responsibilities and results are closely checked by FPRCI as well as its donors. A Framework Agreement is signed with the foundation to define modalities and eligible expenses for each protected area. A yearly funding agreement is further discussed and monitored to determine FPRCI's regular disbursements to OIPR.

#### Contractual approaches' contribution to Aichi target 11: safeguarding biodiversity while ensuring equity

When assessed against Aichi target 11, results suggest that innovative instruments potentially contribute to achieving three objectives simultaneously: increasing the geographical extent of protected areas, improving their management, and ensuring equity.

Table 1. Contribution of BDS to provincial protected area targets Source: Cumming et al., 2015.

Province	(a) Additional area still required in 2008 to meet the 2028 provincial protected area target (ha)	(b) Contract protected areas declared and in negotiation through biodiversity stewardship (ha)	(c) Percentage contribution of (b) to (a)	(d) Land acquired in the same time by the Provincial authority (other than with biodiversity stewardship) (ha)
Eastern Cape	1,570,000	234,074	15	0
Kwa-zulu Natal	842,000	268,668	32	1,165
Mpumalanga	632,000	129,325	20	0
Western Cape	1,004,000	87,447	9	100,026

First, cases in South Africa, Côte d'Ivoire and Sierra Leone suggest that innovative financial mechanisms are able to operate well beyond a pilot project's scale to encompass significant tracts of biodiversity-rich lands. In South Africa, based on the BDS approach, 70 different protected areas were declared and integrated in the national protected area register in 2014. This amounts to over 400,000 ha, i.e. 1 per cent of the total terrestrial protected areas. In March 2015, 153 sites totalling over 560,000 ha were in negotiation for protected area declaration (Cumming et al., 2015), potentially doubling these proportions. Overall, protected areas under BDS contribute to Provincial protection objectives in various proportions, from 9 to 32 per cent of surface area under protection (table 1).

In Côte d'Ivoire, the Taï national park (536,017 hectares) together with its peripheral zone (408,277 hectares) represents an area close to 3 per cent of Côte d'Ivoire inland territory where OIPR, with FPRCI's funding, manages and monitors biodiversity and human economic activities. Similarly in Sierra Leone, when counting the Gola Rainforest national park and its leakage belt, more than 132,000 ha of land fall under some sort of protected area management, approximately 2 per cent of the country's total territory.

Second, conservation activities in all these cases have proved successful in protecting biodiversity inside the concerned protected areas. In Sierra Leone, GRNP's budget is approximately US\$ 1.6 million. management unit permanently employs 170 local staff members, including 49 park rangers working full-time for the park's integrity. In 2015 and 2016, park rangers were provided with a patrol plan defined by the supervisor and assisted by a GIS specialist. They patrolled a total of 6,363 km and arrested several poachers and illegal miners 3. Patrols have served as a strong deterrent: illegal activities (poaching, slash-andburn farming) have decreased and deforestation is kept

to a minimal level, if not zero. In Côte d'Ivoire, the Taï national park's budget also amounted to around US\$ 1.68 million, out of which US\$ 610,000 of operational costs were allocated by FPRCI. The latter thus provided critical support for the Tai national park's 140 staff, including 120 field officers in the park. In 2015, 203 patrols have been carried out inside (and just outside) Taï national park with 9,933 working days involved, mainly concentrated in vulnerable areas where encroachment and small-scale gold mining are occurring. This eventually led to the arrest of 174 offenders during 2015 (including three-quarters of illegal miners and 15 per cent of poachers). In total, despite the south-west region being the biggest cocoa producing area and as a result a place of migration, Tai national park is probably the most intact and best protected park within the Ivorian protected area network. Deforestation is kept to a minimum and wildlife numbers have stabilized or increased since 2012.

Third, these positive environmental results were to a certain degree equitably obtained with the participation of local communities. In Sierra Leone, results look impressive in reducing resentment and gaining local support for the GRNP and conservation in general (Tubbs et al., 2015). Since 2007, due to the benefit sharing agreement, US\$ 122,500 has been spent annually for community development in the larger area and around 30 staff have been funded to provide critical support to communities around the park. The 122 forest edge communities (FECs), approximately 24,000 people living in the immediate surroundings of the park, have been supported with additional cocoa and agricultural assistance, 244 scholarships, as well as village savings and loan schemes. In South Africa, while sometimes criticized, the BDS approach actually also applies to land owned by communities, and the approach is cautiously kept neutral to all political criteria. The benefit acquired is limited in terms of fiscal resources, and the whole country benefits from the nature reserves.

Table 2. Principles to achieve success and their operationalization across the three cases

Case study Condition for success	Sierra Leone	South Africa	Côte d'Ivoire
Contractual agreements	1) Conservation Concession agreement between GoSL and both NGOs; 2) BSA between both NGOs and paramount chiefs, local authorities and FECs; 3) The same BSA between CLG and other actors; 4) Joint-venture agreement between GoSL and CLG.	1) BDS Agreement between Provincial Authority and private landowners. 2) Fiscal benefits agreement between Treasury, Province and landowners.	1) Debt swap agreements between the Ivorian government and its donor (France, Germany). 2) Framework Agreement (for each PA) between FPRCI-CI and OIPR. 3) Yearly funding agreement between FPRCI-CI and OIPR.
Conditionalities (Success condition #1)	To receive payments, Paramount Chiefs, local authorities and FECs should refrain from harmful practices in and around GRNP. BSA agreements shall be breached otherwise.	To benefit from land tax benefits, private landowners must implement their management plan. This is subject to annual verification by Provincial conservation authority.	To receive yearly annual funding from FPRCI, OIPR should implement its annual operation plan (completion rate). Subsequent disbursements shall be cancelled otherwise.
Intermediation for long-term relations (Success condition #2)	RSPB protecting biodiversity in the country and links with the government since the 1990s.	NGOS such as WWF and Birdlife SA protecting biodiversity in the country and linking with government authorities since 1995.	Bilateral donors (GiZ, KfW and AFD) in the country since independence.
Capacity building (Success condition #3)	Capacitate paramount chiefs, CSSL, National Protection Area Authority (NPAA), GoSL.	Capacitate Provincial authorities' reps, Treasury reps, etc.	Capacitate FPRCI-CI, OIPR, PA management teams at the decentralized level.
Sustaining 'champions' (Success condition #3)	A group of influential politicians actively support the project.	Very variable level of political willingness across Provinces, as evidenced with the different number of personnel recruited for BDS and contrasted smoothness of administrative processes.	Ministry for Environment involved from the beginning in setting FPRCI-CI; influential members of civil society on the FPRCI's board of Directors; very capacitated and motivated personnel at OIPR level.

## REPLICATING CONTRACTUAL APPROACHES? DISCUSSING SUCCESS CONDITIONS

Arguably, the contractual approaches described do not display much highly qualified financial engineering. Rather than supplanting public finance, in all three cases innovative private funding constitutes a complement. The analysed case studies indicate that the most significant innovation consists in the renewed governance, combining both public and private involvement through contractual approaches. To generate additional funding and improve protected area management these contractual approaches build on a number of common principles: 1) the enforcement of conditionalities, 2) the existence of intermediary organizations to build and fund long-term relationships, and finally 3) sustaining "champions" and building capacity at both the local and national level. Table 2 above displays how in each case under scrutiny these principles were operationalized on the ground, while the following explains this in greater detail.

#### Success condition #1: A contractual approach with conditionalities

Conditional agreements are central to the success of all three cases investigated. In each of them new governance architecture has emerged, where public, private and civil society actors' involvement is coordinated through institutional arrangements that define respective rights and responsibilities (Figure 1). Conditions attached to these contracts importantly explain the actual delivery of conservation results. Conditionalities induce verification and corresponding payments directly and explicitly depend on the observed realization of outputs. In the three cases studied, such conditional contractual agreements are applied at two different but complementary levels.

At the local level, individual farmers and rural communities are contracted to change their business-asusual practices and adopt more sustainable land-use techniques. In Sierra Leone, the government and RSPB

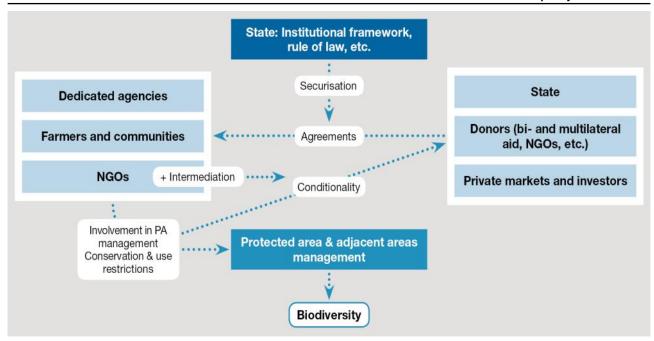


Figure 1: General governance design for contractual approaches Source: Lapeyre & Laurans, 2016.

first signed a conservation concession agreement to secure the Gola forest reserves' integrity, where local communities are compensated for the loss of rights and for adherence to the management plan (stopping logging and slash-and-burn agriculture). The newly registered company limited by guarantee and the government then additionally signed similar benefit sharing agreements with forest edge communities situated within the leakage belt. In South Africa, to be granted annual tax deductions private landowners need to respect a Biodiversity Stewardship agreement they have signed with the provincial conservation authorities. In both cases, contracts - be they payments for ecosystem services or conservation easements - are signed and involve payments that are, importantly, conditional to behaviours, actions and results agreed on in advance. In Sierra Leone, paramount chiefs must do all in their power to prevent poaching as well as slash-and-burn agriculture in and around the protected area. In South Africa, farmers must implement a management plan. In turn, if agreed conditions are not fulfilled, benefits can be withheld.

At the institutional level, the contractual approach is further reinforced by the design of new and innovative arrangements where public, private and civil society actors join to coordinate their efforts and improve protected area management. In Côte d'Ivoire, following typical concepts of New Public Management (Ferlie et al., 1996; Barzelay, 2001), a conservation-devoted agency, OIPR, was created by law to manage the national network of protected areas. The ad hoc entity is autonomous, and its board as well as its executive management independently manage funds based on

agreed operational plans, although under administration's supervision and with partial funding from the Ministry. In Sierra Leone, a specific private entity, a company limited by guarantee, was also set up where the government and NGOs share responsibilities and rights as regards the management of the Gola Rainforest National Park. This private company acts as an independent vehicle where public, private and NGO actors clearly define their respective roles, beyond political changes and funding cycles.

In both cases, the government is now 'steering not rowing', using market and quasi-market mechanisms in delivering public services, and separating politics from the management of public services (Marshall, 2008). Traditional boundaries of the State are modified (Birner & Wittmer, 2004) and a new principal-agent relationship is introduced, whereby the ad hoc agency is now responsible for reaching a set of negotiated objectives. In Côte d'Ivoire OIPR is accountable to both the Ministry, as well as the Foundation for Parks and Reserves in Côte d'Ivoire (FPRCI), which annually funds recurrent costs for several protected areas within the OIPR network. In the latter case, OIPR and FPRCI sign a yearly funding agreement where disbursements are conditional to fulfilling certain milestones.

In all, whether through public-private partnerships, comanagement structures, shared governance (Borrini-Feyerabend et al., 2013), service contracts, or other governance arrangements, the contractual approach with conditionalities attached is arguably successful in improving protected area management (European Commission, 2015). As compared with a situation where

conservation activities are totally integrated within governmental administration, the contractual approach replaces the hierarchical relationship involved in public administration, where incentives are diluted and monitoring costs are significant (Mookherjee, 2006), and thus may potentially prove more service-oriented. This can increase cost effectiveness, policy capacity, responsiveness, monitoring and evaluation.

#### Success condition #2: intermediary organizations are key for long-term relationships

The instruments described, based on contractual arrangements and attached conditionalities, are indeed complex tools. Hence, these need stability, continuity in time, as well as a good level of trust and understanding shared by all stakeholders. In turn, this requires organizations to link with all partners on a perennial basis to coordinate actions, mitigate conflicts and smooth processes and negotiations. NGOs and support agencies that provide technical assistance as well as multi- and bilateral donor money are therefore key to shape these mechanisms on the ground (Mermet et al., 2014).

Promoting and implementing innovative financial mechanisms requires the presence of already existing long-term relationships between support agencies and the involved local actors. In Côte d'Ivoire, German technical and financial cooperation agencies have been paramount in fostering funding and management of the Taï national park for many years. In Sierra Leone and South Africa, NGOs have also played, and still play, a crucial intermediary role. RSPB has been central in linking the Government of Sierra Leone, paramount chiefs and local communities on the ground, whereas environmental NGOs such as Birdlife South Africa play a crucial role as intermediaries between the Provincial administration, the national administration, the tax services and the landowners.

Innovative funding and incentive tools actually require a myriad of actors that already operate in and around protected areas and provide their expertise in cultural mediation, science, technical capacity, facilitation and brokering. The introduction of an innovative contractual approach is thus neither an absence of, nor a simplified role for, intermediaries and social-political processes. Rather, the promise lies in using players and processes differently from those of other instruments. Instead of starting new processes, innovative mechanisms open up space for new chains of intermediaries that may deliver better results in some cases where other instruments using other chains of intermediaries cannot (Mermet et al., 2014: 73-74).

#### Success condition #3: Building capacity and sustaining 'champions'

Innovative financial instruments are complex mechanisms that need long-term support. Hence, they are social constructs that require people to be involved in their design and implementation.

All three cases indicate the importance of highly capable 'champions'. At the political and regulatory level, these champions need to work in ministries and public administration. In Sierra Leone, few people strongly support GRNP. In South Africa, continued development of the Biodiversity Stewardship approach relies on Provinces' support. In the Western Cape, Provincial authorities have dedicated 24 staff members to the BDS approach. In Côte d'Ivoire, the Ministry for Environment has lobbied for the creation of FPRCI. Such champions form the backbone of innovations' success and sustainability; building trust and investing in longerterm relationships with influential and like-minded people is a priority that should be recognized.

At the local and operational level, building capacity allows for smooth implementation of mechanisms. For effectiveness and sustainability reasons, a multitude of stakeholders who understand the contractual mechanisms at work are needed. These stakeholders should include park managers, ad hoc agency managers, government officers, NGO field staff as well as representatives from local communities and individual farmers. Without such shared understanding, for instance from paramount chiefs in Sierra Leone, resentment and conflicts will emerge based on misunderstandings while participation will decrease. Explaining rules, rights and responsibilities stakeholders, as well as conditionalities and processes involved is an essential investment to guarantee the longer-term success of such innovative financial mechanisms.

## THE SCALE'S THE LIMIT? DISCUSSING CHALLENGES OF CONTRACTUAL APPROACHES

Achievement of these principles often brings challenges and institutional frictions. Indeed results from the three case studies also highlight a number of limitations. These challenges may jeopardize the sustainability of innovative financial mechanisms for African protected areas and their capacity to be further replicated at a larger scale.

First, mobilizing markets – be they carbon or financial – might prove limited and unpredictable for protected area funding. A recent report indicated a total market value of



Adjacent communities in the market of the town of Tai, near the Tai National Park in Ivory Coast © Kafougue (Wikimedia Commons)

only US\$ 216 million for forestry offsets in 2012 (Peters-Stanley et al., 2013), while the number of REDD+ projects has been decreasing since 2010 (Simonet et al., 2015). Easements, water credits, and carbon are actually not large fungible market revenue streams and cannot be considered "plain vanilla opportunities" (NatureVest & EKO Asset Management Partners, 2014). With respect to financial markets, the 2008 crisis and current low interest rates similarly limit possibilities to generate significant returns, for instance for environmental trust funds.

Second, the existence of significant transaction costs might hinder the implementation of this kind of instrument. The analysis presented here indicates that all three mechanisms strongly rely upon complex and numerous contractual arrangements: between landowners, NGOs and public administration; between private and public donors and dedicated ad hoc agencies; between donors and governments. Having to elaborate and then manage multiple contracts is a large burden felt by all partners. Future partners have to be looked for and approached, contracts and agreements have to be designed, negotiated and signed, and obligations need to be enforced and monitored. All these activities (commonly phrased as "transaction costs" in economic

analysis) are not directly related to protected area management and biodiversity conservation. In South Africa, private landowners need to liaise and contract not only with the Provincial government but also with the South African National Biodiversity Institute (SANBI), the national government as well as with the tax administration. Getting the agreement signed off by the Provincial authorities can impose more than a one-year delay. In Sierra Leone, RSPB first signed a Conservation Concession Agreement with the government and then a benefit-sharing agreement with all seven chiefdoms. Now a private company limited by guarantee has been set up to sell voluntary carbon units. For this, a joint-venture agreement has been signed with CSSL and the government, a benefit-sharing agreement was signed with chiefdoms, additional and specific agreements were signed with each of the 122 forest-edge communities, and hundreds of agreements were signed with all family landowners having traditional land rights inside GRNP.

Innovation involves significant transaction costs, which are to be accounted for when evaluating the real efficiency of the contractual arrangements designed (Williamson, 1991; Birner & Wittmer, 2004). Accounting for these costs might better inform decision makers and practitioners when deciding over the boundaries of the



In Sierra Leone, benefit-sharing agreements are signed with forest edge communities to incentivize them and ensure enforcement of regulations © Annie Spratt (Unsplash.com)

State in protected area management (Birner & Wittmer, 2004). Contractual arrangements should not, however, be ruled out because of their significant transaction costs. First, it remains to be seen whether contractual arrangements incur higher transaction costs than those that would be generated by more traditional arrangements. As demonstrated by Cumming et al. (2015) in South Africa, public costs may be significant. Second, transaction costs involved in designing innovative mechanisms are primarily supported during the instrument's starting phase. Hence, whereas this might be a significant burden in the beginning, this should dramatically decrease during the running phase, when results from the innovation (conditionality, incentives, monitoring) become tangible. In the mid- to long-term, such mechanisms may well be cost-effective.

Finally, it is necessary to examine other sources of institutional friction. To ensure its stability and sustainability the new complex governance architecture needs to be understood and legitimate at the local level. Clear understanding of the scheme was not always shared by local communities and their paramount chiefs around GRNP in Sierra Leone. Additionally, their real full participation in discussing agreements and contractual conditions is unknown. In TNP in Côte d'Ivoire, socio-economic measures for poor adjacent

communities were not always prioritized by FPRCI and OIPR when they contractually agreed on conditional yearly funding. The complex innovative institutional arrangements studied within the three case studies might have fallen short of widely including stakeholders, especially at the protected area local level. Without such equity – both procedural (actual participation, not mere tokenism) and distributive (economic support) – a resulting lack of legitimacy will trigger and accelerate misunderstanding, resentment, conflicts and park encroachment, and will increase transaction costs. Designing and respecting social and environmental safeguards are crucial when implementing innovative financial mechanisms on the ground.

#### **CONCLUSION**

In response to the challenge of filling both funding and management gaps for conservation in Africa, this paper has investigated three examples of "innovative finance" for protected areas. Our findings indicate that innovation can be found much less in finance than in governance. Financing sources do not make use of sophisticated and highly qualified finance engineering in all three case studies analysed. Rather, they are different forms of official development assistance mixed with NGOs' donations and public endowment or subsidies, with limited private funding so far.

Yet since financing sources of various origins are to work together, contracts and contract-based relations are paramount in this new type of organization. This contractual essence produces a need for security, accountability of the funds' recipients, and verifiable effectiveness of policy implementation. This contractual nature may explain both the main reasons for observed success as well as the challenges ahead, should this kind of organization be employed more extensively in the future.

Regarding success factors, the strength of conditions and enforcement thereof is favoured by the fact that funding is based on a specifically defined series of commitments to manage the areas as per plans, and that support from the funders is subject to the confirmation of implementation. The second success factor, the role of NGOs and development agencies as intermediaries, could go unseen since it is generally not present in explicit regulatory texts, nor in established institutions. Yet all three case studies proved highly dependent on support from such intermediaries. The third success condition is directly related to the human factor. Even the most streamlined and crafted mechanisms eventually benefit from individuals who are in a position to support the initiatives and are willing to invest their time, their credibility and their skills in the setting up and in the day-to-day running of these projects.

Considering such achievements and success factors, a question thus arises: why would conservation not be extensively financed and managed based on this kind of approach? Whereas the three studied cases proved up to the task of protecting areas on a quite large scale, it appears that their ability to provide for conservation at the national scale is limited by what makes their very success: their contracting and tailored nature, with associated transaction costs, their dependency on personal involvement, and the need for enduring support from well-staffed intermediary organizations. It is important to note that in all three cases support organizations were international NGOs or agencies rather than local grassroot ones; without increased local legitimacy this might become another, important, limit to the generalization of these approaches.

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#### **ENDNOTES**

- www.leadinggroup.org/rubrique20.html. Created in 2006 under the leadership of France, Chile, Brazil and Spain, the Leading group is an informal network that currently brings together sixty-six States and international organizations, non-governmental organizations (NGOs), local entities and private foundations dedicated to the eradication of poverty and preservation of global public goods (incl. biodiversity).
- <sup>2</sup> More precisely, part of the 9.5 million Euros was actually disbursed into FPRCI's sinking fund so as to immediately cover TNP's operational costs. The other part is capitalized on FPRCI's endowment fund so as to generate interest payments that will cover TNP's costs in the (near) future.
- 3 Although park rangers are not armed, they are allowed to arrest intruders and community members undertaking illegal activities within the National Park and hand them to the police for prosecution. If necessary, a Rapid Response Unit from the local Police is called to join the rangers to assist with the arrests.

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Elephants on the shore of Lake Edward, Queen Elizabeth National Park © Grégoire Dubois

#### **REFERENCES**

Barzelay, M. (2001). The New Public Management – Improving Research and Policy Dialogue. Wildavsky Forum Series. Berkeley and Los Angeles, California, USA: University of California Press. www.ucpress.edu/book.php? isbn=9780520224438

Belvaux, E. (2012). Final Evaluation Report – Conservation of the Gola Rain Forest: Sierra Leone, Report to the Fonds Français pour l'Environnement Mondial. Paris: Gret.

Birner, R. and Wittmer, H. (2004). 'On the 'efficient boundaries of the state': the contribution of transaction-costs economics to the analysis of decentralization and devolution in natural resource management'. *Environment and Planning C: Government and Policy* 22 (5): 667-685. doi.org/10.1068/c03101s

Borrini-Feyerabend, G., Dudley, N. Jaeger, T., Lassen, B., Broome, N.P., Phillips, A. and Sandwith, T. (2013). *Governance of Protected Areas: From understanding to action*. Best Practice Protected Area Guidelines Series 20, Gland, Switzerland: IUCN. cmsdata.iucn.org/downloads/governance\_of\_protected\_areas\_\_\_from\_understanding\_to action.pdf

CBD (2012). Report of the High-Level Panel on Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020. Montreal: Convention on Biological Diversity. www.cbd.int/doc/meetings/cop/cop-11/information/cop-11-inf-20-en.pdf

Cumming, T., Driver, A., Pillay, P., Martindale, G., Purnell, K., McCann, K. and Maree, K. (2015). *The Business Case for Biodiversity Stewardship*. Pretoria, South Africa: South African National Biodiversity Institute.

Emerton, L., Bishop, J. and Thomas, L. (2006). Sustainable Financing of Protected Areas: A global review of challenges and options. Gland, Switzerland and Cambridge: IUCN. dx.doi.org/10.2305/IUCN.CH.2005.PAG.13.en

European Commission (2015). Larger than Elephants. Inputs for an EU strategic approach to wildlife conservation in Africa — Synthesis. Brussels: European Commission, Directorate-General for International Cooperation and Development. ec.europa.eu/europeaid/sites/devco/files/eu-wildlife-strategy-africa-synthesis-2015\_en\_0.pdf

Ferlie, E., Ashburner, L., Fitzgerald, L. and Pettigrew, A. (1996).
The New Public Management in Action. Oxford, UK:
Oxford University Press. doi.org/10.1093/acprof:oso/9780198289029.001.0001

Galaz, V., Gars, J., Moberg, F., Nykvist, B. and Repinski, C. (2016). 'Why ecologists should care about financial markets'. Trends in Ecology & Evolution, 30(10): 571-580. doi.org/10.1016/j.tree.2015.06.015

Hipkiss, A. and Tubbs, N. (2012). 'Innovative financing for sustainable conservation of the Gola Rainforest, Sierra Leone'. NAPA News from African Protected Areas, (56): 6-8. papaco.org/wp-content/uploads/2015/03/lettreNAPA-56-0912-EN.pdf

Juffe-Bignoli, D., Burgess, N.D., Bingham, H., Belle, E.M.S., de Lima, M.G., Deguignet, M., Bertzky, B., Milam, A.N., Martinez-Lopez, J., Lewis, E., Eassom, A., Wicander, S., Geldmann, J., van Soesbergen, A., Arnell, A.P., O'Connor, B., Park, S., Shi, Y.N., Danks, F.S., MacSharry, B. and Kingston, N. (2014). Protected Planet Report 2014. Cambridge, UK: UNEP-WCMC. www.unep-wcmc.org/

- system/dataset\_file\_fields/files/000/000/289/original/ Protected\_Planet\_Report\_2014\_01122014\_EN\_web.pdf? 1420549522
- Lapeyre, R. and Pirard, R. (2013). Payments for environmental services and market-based instruments: next of kin or false friends? Working Paper 14/13. Paris: IDDRI. www.iddri.org/Publications/Payments-for-environmentalservices-and-market-based-instruments-next-of-kin-orfalse-friends
- Lapeyre, R., and Laurans, Y. (2016). Innovating for Biodiversity Conservation in African Protected Areas: Funding and Incentives. Insights from Côte d'Ivoire, Sierra Leone and South Africa. Study summary. Paris, France: ministère des Affaires étrangères et du Développement international, Institut du développement durable et des relations internationales, and France-IUCN Partnership. www.iddri.org/Publications/Innovating-for-biodiversityconservation-in-african-protected-areas-a-study"
- Leverington, F., Coasta, K.L., Courrau, J., Pavaese, H., Nolte, C., Marr, M., Coad, L., Burgess, N., Bomhard, B., and Hockings, M. (2010). Management effectiveness evaluation in protected areas—a global study. Second edition. Brisbane, Australia: The University of Queensland.
- Lindsey, P.A., Balme, G.A, Funston, P.J., Henschel, P.H. and Hunter, L.T.B. (2016). 'Life after Cecil: Channelling global outrage into funding for conservation in Africa'. Conservation Letters, 9(4): 296-301. doi.org/10.1111/ conl.12224
- Marnewick, D., Retief, E., Wright, D. and Theron, N. (2015). South Africa's Important Bird and Biodiversity Areas Status Report 2015. Johannesburg, South Africa: Birdlife South Africa. www.birdlife.org.za/images/IBA/Documents/IBA% 20Status%20Report%20low%20res.pdf
- Marshall, G.R. (2008). 'Nesting, subsidiarity, and communitybased environmental governance beyond the local level'. International Journal of the Commons 2(1): 75-97. doi.org/10.18352/ijc.50
- Mascia, M.B., Pailler, S., Krithivasan, R., Roshchanka, V., Burns, D., Mlotha, M.J., Roeber Murray, D. and Peng, N. (2014). 'Protected area downgrading, downsizing, and degazettement (PADDD) in Africa, Asia, and Latin America and the Caribbean, 1900-2010'. Biological Conservation 169: 355-361. doi.org/10.1016/j.biocon.2013.11.021
- McNeely, J.A. (1988). Economics and biological diversity: Developing and using economic incentives to conserve biological resources. Washington: Island www.iucn.org/content/economics-and-biological-diversity -developing-and-using-economic-incentives-conserve
- Melathopoulos, A.P. and Stoner, A.M. (2015). 'Critique and transformation: On the hypothetical nature of ecosystem service value and its neo-Marxist, liberal and pragmatist criticisms'. Ecological Economics 117: 173-181. doi.org/10.1016/j.ecolecon.2015.06.023.
- Mermet, L., Laurans, Y. and Leménager, T. (2014). Tools for what trade? Analysing the Utilisation of Economic Instruments and Valuations in Biodiversity Management. A Savoir, n°5. Paris: Agence Française de Développement. librairie.afd.fr/en/tools-for-what-trade-analysing-theutilisation-of-economic-instruments-and-valuations-inbiodiversity-management/
- Mookherjee, D. (2006). 'Decentralization, hierarchies, and incentives: A mechanism design perspective'. Journal of Economic Literature XLIV: 367-390. doi.org/10.1257/ jel.44.2.367

- NatureVest and EKO Asset Management Partners (2014). Investing in conservation: A landscape assessment of an emerging market. Washington DC: NatureVest. www.naturevesttnc.org/pdf/ InvestingInConservation\_Report.pdf
- Peters-Stanley, M., Gonzalez, G. and Yin. D. (2013). Covering new ground: State of the forest carbon markets 2013. Washington, DC: Ecosystem Marketplace. www.foresttrends.org/fcm2013.php
- Sandor, E., Scott, S. and Benn, J. (2009). Innovative financing to fund development: Progress and prospects. DCD Issues Brief. Paris: Development Co-operation Directorate, OECD.
- www.oecd.org/development/effectiveness/44087344.pdf Secretariat of the Convention on Biological Diversity (2014). Global Biodiversity Outlook 4. Montreal: CBD. www.cbd.int/gbo4/
- Selinske, M.J., Coetzee, J., Purnell, K. and Knight, A.T. (2015). 'Understanding the motivations, satisfaction, and retention of landowners in private land conservation programs: Landowner commitment to conservation'. Conservation Letters 8: 282-289. doi.org/10.1111/ conl.12154
- Simonet, G., Karsenty, A., Newton, P., de Perthuis, C., Schaap, B. and Seyller, C. (2015). REDD+ projects in 2014: An overview based on a new database and typology. Les Cahiers de la Chaire Economie du Climat, Information and debates Series 32. Paris: la Chaire Economie du Climat. www.chaireeconomieduclimat.org/publications/infodebats/information-et-debats-32/
- Tubbs, N., Barnard, J., Kamara, S., Bangura, W. and Garbo, M. (2015). 'Sierra Leone's Gola Rainforest National Park REDD project improving livelihoods of 122 Forest Edge Communities'. Paper presented at the XIVth World Forestry Congress, Durban, South Africa, 7-11 September 2015.
- UNEP-WCMC and IUCN (2016). Protected Planet Report 2016. Cambridge UK and Gland, Switzerland: UNEP-WCMC and IUCN. www.protectedplanet.net/c/protected-planetreport-2016
- Varlet, F., Kouamé, G. and Caspary, H.A. (2013). Etude de la production de cacao dans la zone riveraine du Parc National de Taï. Study commissioned by, and on behalf of, the Economic Development and Biodiversity in Rural Areas Programme (PRODEMIR). Abidjan: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).
- Vatn, A., Barton, D.N., Porras, I., Rusch, G.M. and Stenslie, E. (2014). Payments for Nature Values, Markets and Nonmarket instruments. NORAD Report 5/2014. Oslo: Norwegian Agency for Development Cooperation. www.norad.no/en/toolspublications/publications/2014/ payments-for-nature-values-market-and-non-market-
- Williamson, E.O. (1991). 'Comparative economic organisation: The analysis of discrete structural alternatives'. Administrative Science Quarterly 36 (2): 269-296, in: Williamson, O.E. and Masten, S.E. (Eds.) (1999). The Economics of Transaction Costs. Cheltenham, UK and Northampton, MA, USA: An Elgar Critical Writings Reader: 101-128. doi.org/10.2307/2393356

#### **RESUMEN**

Las áreas protegidas y la conservación se financian de manera inadecuada en todo el mundo, especialmente en África. En respuesta a este desafío, los "mecanismos financieros innovadores" están concebidos para hacer uso de los mercados y los acuerdos contractuales para facilitar financiación adicional y garantizada. El uso de estos instrumentos en el ámbito de la conservación de la naturaleza ha aumentado en los últimos años. Los proponentes de los instrumentos sostienen que pronto podrán cubrir el déficit de financiación. Sus críticos advierten que estos instrumentos pueden favorecer las prioridades del mercado, lo que podría llevar a subestimar los objetivos generales de conservación. Este artículo analiza el funcionamiento práctico de tres casos de mecanismos financieros innovadores para las áreas protegidas africanas. Reúne las percepciones sobre la posibilidad de reproducirlos, tanto con respecto a su diseño contractual, como a sus repercusiones y factores de éxito, y los desafíos encontrados. El documento plantea que estos enfoques contractuales dependen esencialmente de la imposición de condiciones, de mantener relaciones de largo plazo a través de organizaciones intermediarias, y de la búsqueda de líderes y la creación de capacidades. Los desafíos que se evaluarán en el futuro incluyen la variabilidad de los mercados y la importancia de los costos de transacción.

#### RÉSUMÉ

Les aires protégées et la conservation de la biodiversité restent sous-financées au niveau mondial, en particulier en Afrique. Afin de répondre à ce problème, les « mécanismes innovants de financement » visent à faire appel aux marchés et aux approches contractuelles pour mobiliser et sécuriser des flux financiers additionnels. Le recours à de tels instruments dans le domaine de la conservation de la biodiversité a ainsi augmenté ces récentes années. Pour leurs promoteurs, ces instruments vont rapidement permettre de combler les besoins de financement. Mais pour leurs détracteurs, leur utilisation favorise le développement de marchés aux dépends d'objectifs environnementaux plus fondamentaux. Afin de contribuer utilement à ce débat, cet article présente en détail comment, dans trois cas différents d'aires protégées africaines, ces mécanismes innovants de financement fonctionnent dans la pratique. Il fournit des éléments d'analyse sur leur potentielle réplicabilité, étant donnés leur architecture contractuelle, leurs impacts environnementaux et leurs facteurs de succès, ainsi que les limites qui y sont associées. En substance, cet article indique que des approches contractuelles innovantes mises en œuvre pour financer et efficacement gérer les aires protégées africaines dépendent fortement 1) du strict respect des conditionnalités négociées, 2) du maintien de relations de long-terme assurées par des organismes faisant office d'intermédiaires, 3) du renforcement des capacités des acteurs nationaux et locaux, et 4) de l'existence de « champions » qui soutiennent activement ces mécanismes. Bien sûr, des questions subsistent avant d'augmenter l'échelle de mise en œuvre de tels instruments ; au premier rang desquelles sont la fluctuation imprévisible des marchés (financiers ou carbone) et le niveau élevé des coûts de transaction qui sont associés à ces approches contractuelles.