

INNOVATING FOR BIODIVERSITY CONSERVATION IN AFRICAN PROTECTED AREAS: FUNDING AND INCENTIVES

Insights from Côte d'Ivoire, Sierra Leone
and South Africa

Study summary

EXPERT REPORT



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Chapter 1

INTRODUCING THE STUDY

This report aims to unpack the potential benefits and risks of innovative financial mechanisms at work in Africa in order to fund and sustain protected areas. It outlines the essential financial and institutional innovations at play and shows that these can be implemented at a significant scale. In this chapter we discuss how such innovations have emerged and why they should be researched in greater detail.

1.1. Protected areas: some key facts

Increasingly, scientific evidence demonstrates that protected areas (PAs) successfully promote biodiversity conservation in marine and forest areas in particular (Juffe-Bignoli et al., 2014), while their impact on poverty is variable (Clements et al., 2014). For these reasons, international organisations, both bilateral and multilateral official development banks (ODBs), individual nation states as well as international and local non-government organisations (NGOs) are concentrating their strategies and efforts on expanding and securing PAs in both marine and terrestrial environments.

Some 192 State Parties to the Convention on Biological Diversity (CBD) have embraced this priority and therefore included it in Aichi's Biodiversity Target 11. This sets 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, and integrated into the wider landscapes and seascapes".

On the whole, progress towards this target so far has been positive although insufficient (Juffe-Bignoli et al., 2014). At the global level, the 2016 World Database on protected areas reports that there are 202,467 protected terrestrial and inland water areas covering a total of 19.8 million km². Protected

coverage of terrestrial areas – including inland waters – has increased from 10% in 1994 to 14.7% in 2016, although not much progress has been recorded since 2012. An additional 4.12% (14.9 million km²) of the global ocean and 10.2% of coastal and marine areas under national jurisdiction (0-200 nautical miles from the coast) was protected in 2016 (UNEP-WCMC and IUCN, 2016).

Coverage statistics differ greatly at the regional level. Based on 2014 data (Juffe-Bignoli et al., 2014), Central and South America are the two regions with the highest percentage of protected terrestrial and inland water areas (28.2% and 25% respectively) while African protected areas lag behind. With 6,868 terrestrial PAs recorded in Africa, the continent protects 14.7% of its land. But Africa represents only 3.3% of the total number of sites protected globally (both terrestrial and marine).

Currently, PAs are not optimally located. Only 23% of sites listed by the Alliance for Zero Extinction sites (AZE) are within a PA (Juffe-Bignoli et al., 2014).¹ Besides, the current global PA network is not yet fully ecologically representative as less than half of terrestrial ecoregions' total surface (43% of the 823 terrestrial ecoregions of the world) count over 17% of PAs.

Most importantly, the management of PAs remains haphazard and below standard. Where the quality of management has been assessed (i.e. for 4,151 PAs out of some 100,000 listed in 2010), the majority of them (62%) only had a basic management plan; 13% had major deficiencies, while only 24% had a sound management plan in place. Unsound management practices question the real *de facto* level of protection these PAs provide for vital biodiversity. In turn, this clearly calls for new funding and better governance systems in order to expand the PA network, efficiently and adequately.

1 - The Alliance for Zero Extinction (AZE), a joint initiative of biodiversity conservation organisations from around the world, aims to prevent extinctions by identifying and safeguarding key sites, each one of which is the last remaining refuge of one or more endangered or critically endangered species. Criteria for designating AZEs are: endangerment, irreplaceability, discreteness.

1.2. The need for further funding

Current available funding world-wide, which amounted to some USD 53 billion annually in 2010, only covers at best one-third of the lowest needs estimate (Parker et al., 2012; CBD, 2012). In Africa in particular, little is known regarding the size of the funding gap, but the available evidence suggests that this is likely to be substantial (CBD High-Level Panel, 2014). Against this backdrop, identifying new funding sources becomes critical.

Conservation interventions that would specifically target PAs represent the bulk of these funding needs. CBD (2012) estimated that achieving Aichi Target 11 would necessitate on average spending between USD 9.2 and USD 85 billion annually over the eight-year period 2013/20. One-off investment needs would require impressive amounts – in the range of USD 66.1 to USD 626.4 billion – whereas recurrent expenditure would range from USD 970 million to USD 6.1 billion per annum. In Africa, more precise estimates of the funding requirements for effective management of protected areas range from USD 460 to USD 2,048 per km² (Lindsey et al., 2016). Against these needs, available resources for African protected areas are scarce.

In order to fill the identified funding gap, a broad range of instruments has been proposed to finance and manage biodiversity conservation, including economic and market instruments (Méral, 2015). In a report published by the IUCN, McNeely (1988) distinguished between four types of policy for biodiversity conservation: legislation, institution building, research and economic instruments. Focusing more specifically on protected areas, Emerton et al. (2006) proposed a typology of financing mechanisms. The latter were categorised according to a spectrum of public and private sources, with a further distinction made between mechanisms relying on self-generated revenues and those relying on external funding inflows. Building on this research, parties to the CBD eventually started to promote economic and market approaches to incentivise and finance biodiversity conservation, within and outside protected areas.

1.3. The call for innovative financial mechanisms

In 2008, during the 9th Conference of Parties (CBD Decision IX/11), Parties to the CBD adopted a plan titled Strategy for Resource Mobilization (SRM). SRM's Goal 4 calls to “explore new and innovative financial mechanisms at all levels with a view to increasing funding to support the three objectives of the Convention”. Among others, instruments such as payments for ecosystem services, biodiversity offset mechanisms, environmental fiscal reform, markets for green products, biodiversity in international development finance and biodiversity in climate change funding were thus promoted as innovative financial mechanisms. This trend was confirmed in subsequent CBD Conferences of Parties and further endorsed when IUCN members approved Resolution 122 at the Vth World Conservation Congress in 2012, which aimed to promote innovative financial mechanisms for biodiversity conservation as complementary fund-raising tools.

The definition, scope and characteristics of innovative financial mechanisms have been largely discussed, as have their advantages, disadvantages and applicability. Scientifically, Whitten et al. (2003) and Vatn et al. (2014), among many others, discussed the comparative strengths and risks of new economic instruments, including financial and market-based mechanisms. Potential advantages include economic incentives as efficient signals, the optimal allocation of resources and reducing the funding gap (Lapeyre and Pirard, 2013), while often-cited drawbacks are the volatility and uncertainty of such instruments and the possible commodification of nature. At the diplomatic level, important debates have also arisen within CBD arenas. Though innovative conservation tools are now widely called for to incentivise and fund biodiversity, several Parties as well as CBD workshops and decisions similarly highlighted the limitations associated with these instruments and the important safeguards which need to be put in place (Ituarte-Lima et al., 2014).

The Leading Group on Innovative Financing for Development² defines innovative financing as “mechanisms for raising funds which are complementary to official development assistance,

2 - See: www.leadinggroup.org/rubrique20.html.

predictable and stable". The Leading Group draws an essential distinction between, on the one hand, innovative sources which make new resources available from contributions by various economic sectors and, on the other, innovative mechanisms which enable the impact of existing public resources to be optimised, particularly by combining them with private funds.

In this context, Fétiveau et al. (2014) listed twenty financing initiatives that are potentially innovative for biodiversity. These mechanisms were grouped according to five major principles for biodiversity financing. First, the tax lever and the reform of harmful subsidies include environmental taxation and taxing financial transactions and CO₂ emissions; second, responsible investment mechanisms and the debt lever such as green bonds, trust funds and debt-for-nature swaps; third, direct economic valuation of biodiversity with ecotourism and the development of genetic resources; fourth, applying the principle of responsibility through offset mechanisms and transferable development rights; and fifth, the application of the eco-conditionality principle with certification schemes, payments for ecosystem services and REDD+ projects.

1.4. The need to investigate innovative financial mechanisms currently in use

Building on the wealth of fore-mentioned literature, this report presents detailed case studies of selected innovative financial mechanisms in use in and around PAs in Africa. It aims to contribute to the debate through in-depth descriptions of how these instruments actually work in the field, how they emerged and how they are designed, implemented and finally monitored. By giving precise descriptions of actors, legal conditions, institutions and organisational structures, as well as procedures, contractual arrangements and human relationships (Figure 1), we seek to disentangle these instruments' historical and institutional contexts and explore not only their conditions for success but also the reasons behind their weaknesses and the risks involved.

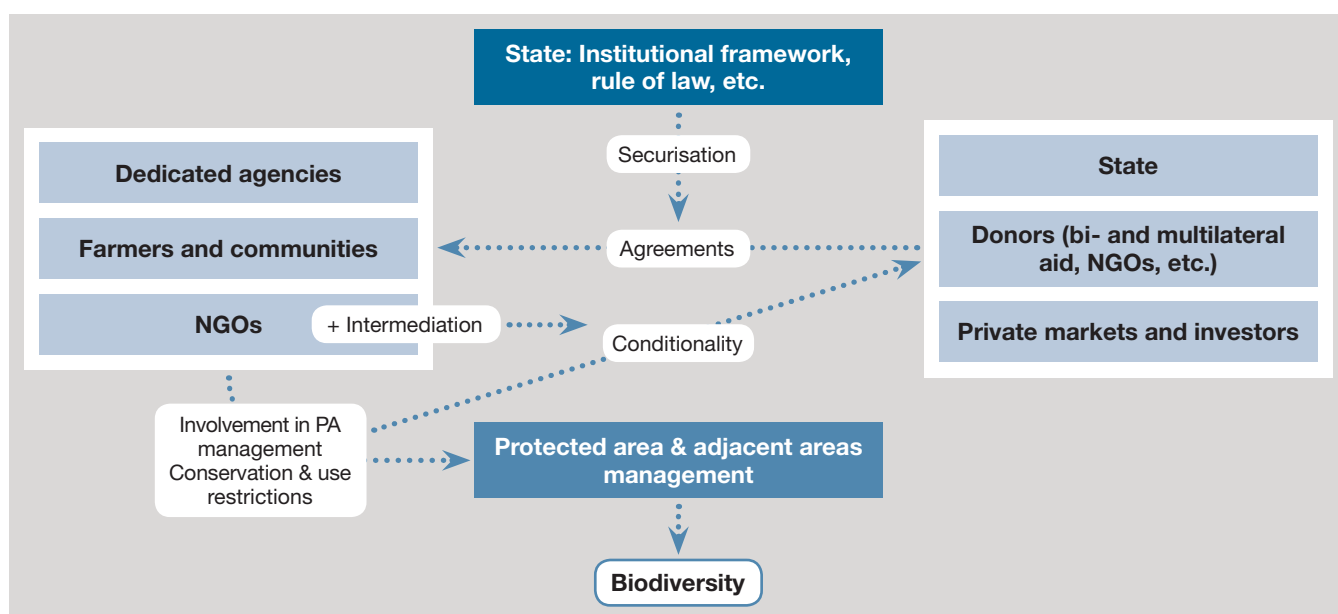



Figure 1. Governance diagramme for innovative financial mechanisms studied in this report



In this regard, this study will usefully complement earlier reports, in particular Fétiveau et al. (2014), by enhancing theory and concepts with actual practice, with a view to highlighting milestones, steps and procedures to be replicated and current practical challenges which need to be addressed.

Building on experts' experience, in particular within the IUCN network, we first screened a number of innovative financial mechanisms that are being implemented and contribute to funding and incentivising conservation in and around African PAs. These range from payments for ecosystem services to fiscal reforms, from conservation easements to environmental trust funds. On the strength of a shortlist of mechanisms, case studies were selected in order to analyse and illustrate mechanisms which were simultaneously:

- representative of a certain category of mechanism, as mentioned above;
- implemented at a significant scale in terms of the land cover and biodiversity protected, the number of different actors involved and the level of funding leveraged;
- innovative regarding both the source of funding and the institutional structure;
- in need of further research.

Following these selection criteria, three cases were studied in west and southern Africa so as to highlight both interesting differences and commonalities. The biodiversity stewardship (BDS) approach in South Africa represents a potentially successful example of fiscal incentives to encourage a number of landowners to create private PAs within their farms so as to conserve and utilise biodiversity. By contrast, the Gola Rainforest National Park in Sierra Leone and the network of national parks in Côte d'Ivoire are illustrations of mechanisms designed to fund public PAs. Whereas in the Gola Rainforest case the instrument which was used (a conservation concession followed by a REDD+ project in partnership with international and local NGOs) only funds one PA, the Foundation for Parks and Reserves in Côte d'Ivoire (FPRCI), a private environmental trust fund, currently funds several PAs within the national network managed by a parastatal entity. In all three cases, private as well as public actors have efficiently partnered in order to set

up an innovative institutional structure and then provide significant funding for the protection of biodiversity in and around the concerned PAs. Furthermore, in all three cases, legal frameworks and contractual security were necessary to back, implement, enforce and monitor the instruments. Finally, innovation was needed at three levels in order to allow for biodiversity conservation at scale in and around protected areas: innovatively combining public and private funding; innovatively combining stakeholders within a mixed governance structure; and innovatively combining public, NGO and private regulation.

The structure of the report is as follows: first, it synthesizes the main features of these new and innovative instruments as well as their conditions for success and challenges, which were revealed by the three case studies in question. The latter are then presented following a standard template covering different aspects: the context of the innovation; innovation at work; at scale; and finally, at risk.

Chapter 2

INNOVATIVE FINANCIAL MECHANISMS FOR THE FUTURE? SYNTHESIS OF RESULTS

By analysing innovative financial mechanisms implemented in Africa, this report aims to reveal their real potential to finance effective biodiversity conservation at scale in and around African protected areas. Beyond global scenarios, this report proposes a critical reality check: three in-depth case studies assess the reality of these instruments at work. Each of these case studies disentangles the mechanisms' governance, both institutional and contractual, and their strengths and weaknesses. *In fine*, this report reveals the innovative nature of these instruments and draws lessons for their future design and implementation.

2.1. Innovation lies in a combination of public and private involvement

Across the three African case studies presented in this report, innovation is present in various forms. All three of them have recourse, in one way or another, to a combination, or recombination, of public and private involvement. While the mechanisms we studied do not display a complex financial engineering structure (innovative finance), significant innovation tends to be characterised by efficient ways to foster and facilitate civil society's voluntary involvement, combined with the respective state and public administrations' attributions (innovative governance). This combination is found in three essential components: funding sources, contractual governance and institutional frameworks.

2.1.1. Combining public and private funding: not a substitute, but complementary

Mobilising financial resources requires innovatively combining sources from individuals, businesses and non-for-profit organisations with funding from official development assistance (ODA) as well as local, national or regional governments.

Credit Suisse (2016) recently estimated that conservation finance investment will potentially reach USD 200-400 billion within the next four years. However, markets remain unpredictable. Returns from investment on the financial market may be limited whereas results from carbon markets are likely to be mixed. Therefore, rather than being a substitute for public finance, private investment in conservation needs to be combined with public funds in order to generate and leverage finance. For example, in Sierra Leone, funds for the Gola forest first came from the European Union and the French Global Environment Facility (FFEM), then more recently from an NGO associated with private buyers of voluntary carbon units. In South Africa, individual private farmers off-set management costs incurred on their land with financial rewards from the government through tax deductions.

For this combination to happen and to work, experience from case studies shows that there are three conditions that need to be met: 1) security for investors and donors with respect to political stability, 2) long-term continuity in financial flows; and 3) payments are conditional on the effectiveness of action.

One possible solution is, first of all, to create a specific, private and autonomous body which possesses a moral identity, has the ability to receive private funds and is responsible for financing public conservation missions. While the Foundation for Parks and Reserves in Côte d'Ivoire (FPRCI) was created as a private foundation to fund the Ivorian network of PAs, in Sierra Leone the Gola Rainforest Conservation Private Company Limited by Guarantee (GRC LG) was recently created so as to receive proceeds from carbon markets and to fund operations conducted in the Gola Rainforest National Park (GRNP). In both cases, the private bodies allow private partners, donor agencies and governments to partner and fund conservation missions under the supervision of public authorities (the state is a member of the GRC LG, whereas ministry representatives sit on the FPRCI's board), yet private partners control the use of their funds.

2.1.2. Combining public and private action: contractual governance and new public management

Moving beyond finance, mechanisms can innovatively and efficiently combine both public and private roles. Two important trends have emerged at this governance level.

The first occurs when individual farmers and rural communities are contracted to change their business-as-usual practices and adopt more sustainable production techniques. In 2004, in order to secure the Gola forest reserves' integrity, representatives of the Government of Sierra Leone and the Royal Society for the Protection of Birds (RSPB) signed the Conservation Concession Programme with adjacent communities under which communities were compensated for foregone rights and for respecting the management plan. In South Africa, tax benefits are designed to partly compensate farmers' opportunity costs of using their land in a sustainable way.

In both cases, contracts are signed and involve payments that are conditional to actions and results agreed on in advance. While 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 PA, in South Africa farmers must implement a management plan. In turn, if agreed conditions are not fulfilled, payments can be withheld.

This contractual approach is further reinforced by the second trend: new governance arrangements are drawn up whereby public, private and civil society actors join forces to co-ordinate their efforts and increase PA management effectiveness. In Côte d'Ivoire, following concepts dear to new public management (NPM) (Barzelay, 2001), a conservation agency, the Côte d'Ivoire Office for Parks and Reserves (OIPR), was created by law to manage the national network of PAs. The *ad hoc* entity is autonomous and its executive office manages funds independently based on agreed operational plans, although under the administration's supervision and partial funding. Here the government is "steering, not rowing", using market and quasi-market mechanisms to deliver public services, and maintains a distance between politics and the management of public services. Thus, the traditional boundaries of the state have been modified (Birner and Wittmer, 2004) and a new principal

agent relationship has been introduced whereby the *ad hoc* agency is responsible for reaching a set of negotiated objectives.

In Côte d'Ivoire, OIPR is accountable to both the Ministry and the Foundation for Parks and Reserves in Côte d'Ivoire (FPRCI) and the latter annually funds recurrent costs for several PAs within the OIPR network. In Sierra Leone, a specific private entity, the GRC LG, was also set up as an independent vehicle for conservation. Overall, these public-private independent entities are more efficient and more service-oriented than single, public actors, and *in fine* the contractual approach is effective in improving PA management.

2.1.3. Combining public and private rules: securing conservation areas

Private and public involvements also complement each other at the institutional framework level (i.e. the rules of the game).

Contractual governance requires public legitimacy and a strong rule of law, so conditional contracts need to be backed by the judiciary. *Ad hoc* entities, be they private or a mix of public-private, need to be lawfully recognised and their prerogatives respected by the state. In all cases, private and civil society actors need to be assured that their contractual rights, and therefore their investments, are secure. Joint venture and benefit-sharing agreements in the case of Sierra Leone's Gola Rainforest need to be complied with and credible sanctions ultimately enforced. In South Africa, biodiversity stewardship agreements are binding and must be respected by the provincial state, the federal state as well as the fiscal authorities.

This in turn means that the state needs to clearly define and defend the boundaries of PAs, whether public, private or community-owned, and determine the respective responsibilities of all stakeholders *vis-à-vis* the PA in question. In Sierra Leone, the state needs to secure the legal status of the GRNP and its neighbouring community areas, as well as clearly define the rights of all actors involved. In South Africa, innovation lies in obtaining official and perennial recognition of voluntary PAs, and in explicitly integrating these private areas in country-wide conservation efforts. By giving and securing a status to privately protected areas, it means that a wide variety of land uses can be integrated into regional and national ecological networks.

2.2. Key points of innovative instruments

This triple combination usefully unlocks strong synergies and partly explains the effectiveness, on a significant scale, of innovative mechanisms in the three case studies presented below. Several characteristics of these tools and conditions for success are worthy of note.

2.2.1. Security of funding and contracting effectiveness

Innovative instruments are typically designed to maximise the security of funding. Establishing a trust fund, or at least its associated bank account, in a stable financial centre is, *inter alia*, a means to prevent the funding source from being seized or diverted from its initial purpose. Similarly, creating a dedicated and autonomous entity that is responsible for the effectiveness of conservation appears to be a good way to enhance the specification of activities, their control and evaluation. Of course, this again requires the rule of law for bodies to be ensured and sustained, and institutions to be stable. *In fine*, innovative financial mechanisms can only operate within a governance system that is secured by the government, and hence legitimate.

2.2.2. Ensuring conditionality

In all three case studies, the contractual approach stands out as an essential feature explaining the actual delivery of conservation results. Central to this contractual approach are conditions attached to signed agreements which define their respective responsibilities and rights. Conditions are to be fulfilled and corresponding payments are thus dependent on the observed realisation of outputs.

In South Africa, in order to be granted annual tax deductions, private landowners need to respect the biodiversity stewardship agreement they have signed with provincial conservation authorities. In Sierra Leone, communities adjacent to GRNP are to refrain from poaching and slash-and-burn agriculture in order to receive funds. Similarly, in Côte d'Ivoire, PA operational costs supported by OIPR are paid by FPRCI in accordance with the actual realisation of the yearly funding agreement.

Conditionality entails verification, and positively influences stakeholders' strategies towards PA effective management and biodiversity conservation. This is noticeable in a context where, on the one hand, funding instruments that rely on recurrent and indefinite payments often raise the problem of their guaranteed continuation over the long term and, on the other, one-off initial payments offer insufficient conditionality and bear the risk that initial requirements will not be fulfilled in the long run (Pirard et al., 2009). As seen with environmental trust funds (ETFs), innovative funding associated with contractual conditionality brings long-term guarantees with, however, the possibility to stop payments when conditionality is not guaranteed. At the same time it provides for recurrent although adaptive funding in cases where long-lasting support is needed and funding is difficult.

2.2.3. Building capacity and finding "champions"

Innovative financial mechanisms (IFMs) are basically social and human constructs which co-ordinate and govern actions and relationships between stakeholders. As a result, whether or not they operate in an efficient and sustained manner depends on those involved in their design and implementation.

In this regard, all case studies report the existence of "champions" at two levels. First, political champions need to be found in line ministries and public administrations. While the continued development of the biodiversity stewardship approach in South Africa depends on the provincial administration and its interest in fast-tracking the BDS, in Sierra Leone few politicians strongly support GRNP. In all cases, therefore, it is crucial to engage with high-level personalities and build up their understanding of the mechanism and as well as their capacity to act in favour of PAs.

Second, mechanisms can be smoothly implemented when capacity building takes place at the operational level. Park managers, agency managers, local administration officers and NGO employees, local communities and individual farmers alike all need to clearly understand the mechanism and its contractual approach. Without such common perception, resentment and conflicts can emerge. Furthermore, a lack of shared understanding could enable well-informed third party actors and organisations to take control of the scheme. In both cases, this would jeopardise the mechanism's sustainability.

2.2.4. Building long-term relationships: support and intermediary organisations are key

Innovative instruments are complex tools which need stability, continuity over time and to be trusted and understood by all stakeholders. This means that organisations need to link up with all partners on a perennial basis so as to co-ordinate actions, mitigate conflicts and smooth the implementation of processes and negotiations. Against this backdrop, NGOs and support agencies are actually key to shaping the mechanism at work. In Côte d'Ivoire, German co-operation agencies have been paramount since they have fostered and supported the funding and management of the Taï national park since the early 2000s. It is unlikely that an institutional and funding innovation (here OIPR and FPRCI) would suddenly allow for more efficient management; on the contrary, promoting and implementing IFMs actually requires a solid baseline shaped by pre-existing long-term relationships. In Sierra Leone and South Africa, NGOs have also played, and still play, a crucial role in intermediation. RSPB has been central in linking up the Government of Sierra Leone, paramount chiefs and local communities on the ground whereas Birdlife South Africa is absolutely necessary as an intermediary between the provincial administration, the federal administration, the tax services and private landowners.

Overall, innovating in funding and incentive tools need the myriad of actors which already operate in and around PAs and provide their expertise in cultural mediation, science, technical capacity, facilitation and brokering. Rather than launching new, more efficient processes, innovative mechanisms actually open up opportunities for new chains of intermediaries that may deliver positive results in some cases, whereas other instruments using other chains of intermediaries would not have done so (Mermet et al., 2014).

2.3. Challenges ahead and questions

Although the innovative tools presented above have succeeded in funding and incentivising biodiversity conservation at a significant scale in and around PAs, their sustainability in the longer term is questionable and needs to be ensured. To this end, some challenges need to be addressed first.

2.3.1. Transaction costs: too high?


Innovative financial mechanisms, as illustrated in Côte d'Ivoire, South Africa and Sierra Leone, are based on contractual arrangements, are extremely complex and involve a high number of contracts. These are, of course, typical features of such arrangements, which have long since been identified by economists and who term them “transaction costs”. Arguably, innovative mechanisms are indeed “real art”, as coined by several practitioners and donors. Yet art is generally very expensive and such tools are no exception.

In fine, innovation involves significant transaction costs which are to be taken into account when evaluating the efficiency of contractual arrangements (Williamson, 1991; Birner and Wittmer, 2004). Should the state itself fund and manage PAs as well as enforce PA regulations? Should this be outsourced or delegated? Should joint ventures with multiple stakeholders be prioritised? Answers to these questions will depend on the respective costs, time, effort and investment involved, and will in turn influence the governance arrangement chosen to implement conservation activities.

In this regard, contractual arrangements, a characteristic feature of the fore-mentioned innovative financial mechanisms, should not be ruled out because of their significant transaction costs. Indeed the latter should be assessed in the face of, and in comparison with, transaction costs that arise or would arise in alternative scenarios (Birner and Wittmer, 2004).

2.3.2. Institutional stability is key

Both the combination of different stakeholders (public, private, NGOs) and complex contractual arrangements necessitate institutional stability. As exemplified in the Sierra Leone case, where *ad hoc* organisational arrangements for the project have been



made but are not yet fully consolidated from an institutional point of view, potential instability could well jeopardize conservation. By contrast, the co-ordination of public and private PAs within South Africa's official biodiversity institutions as well as the funding and management of the public-private system in Côte d'Ivoire are salient counter-examples. However, this is not sufficient to ensure political support and administrative involvement in the long run. Whether or not these mechanisms could be permanently entrenched in law, with no possible provision for regression, is an important issue and needs to be seriously investigated, if these tools are to be scaled up.

2.3.3. Markets can be unpredictable

A number of innovative financial mechanisms, as illustrated in Sierra Leone and Côte d'Ivoire, are based on funds generated through markets at the national or global level. But if stakeholders have recourse to markets, be they financial, voluntary carbon or biodiversity banking markets, rather than having to contend with donors' erratic and finite funding they could end up with market unpredictability.

Without a binding compliance mechanism at the global level, voluntary carbon markets remain the only way to sell carbon units which generate funds for biodiversity conservation in and around PAs. But Simonet et al. (2015) show that current carbon markets are both fragmented and limited and prices of verified carbon units (VCU) are low. Therefore, the number of REDD+ projects has been decreasing since 2010 while their business model increasingly displays low dependence on carbon revenue.

Besides, despite Credit Suisse's recent estimates (2016), conservation finance, especially for-profit funds, will not dramatically improve in the near future. According to Dempsey and Suarez (2016), capital flowing into market-based conservation will thus remain modest, illiquid, and geographically constrained. As per financial markets, the current economic situation limits possibilities to generate significant returns. In this regard, environmental trust funds remain either financially constrained or exposed to greater risks.

All these caveats call for a greater combination of public and private involvement in order to attract different sources of funding, diversify risks and increase the stability and predictability of finance flows to conservation.

Chapter 3

INNOVATING TOGETHER WITH COMMUNITIES: THE GOLA RAINFOREST, SIERRA LEONE

3.1. Preparing for innovation: the case study context

3.1.1. National level

After more than 10 years of civil war (1991–2002) and a recent epidemic of Ebola (2013–15), Sierra Leone, with over 7 million inhabitants, ranks among the poorest countries in the world. In 2011, the national poverty headcount ratio (at USD 1.90 a day, PPP) was 52.3%.

The country covers a total land surface area of 71,740 km², of which 38.5% is forested. It lies within the Upper Guinean Lowland Forest Ecosystem, an internationally recognised biodiversity hotspot.³

Sierra Leone is an agricultural country. About half of the surface is agricultural land and 80% of the population exclusively depend on farming for their livelihood. Major annual crops are rice and cassava and perennial crops include oil palm, cocoa and coffee. As a result, one of the main drivers of deforestation remains slash-and-burn agriculture whereas fuel wood, logging for timber and mineral exploitation are other threats.

National protected land amounts to 4.1% of the total surface area, with 48 forest reserves and conservation areas. There are 15 protected areas (PAs) which are now supervised by the National Protected Area Authority (NPAA).

Apart from the central government and local councils, there are 149 chiefdoms, headed by a paramount chief supported by sub-chiefs. In total, the country operates under a dual system of general and customary law; the latter is the most important.

3.1.2. The Gola Rainforest in Sierra Leone

The Gola Rainforest, situated in south-east Sierra Leone along the Liberian border, roughly occupies 70,000 hectares (ha). It extends into seven chiefdoms where approximately 140,000 people reside in 474 villages. Communities directly adjacent to the forest are considered poor, and 90% depend on subsistence agriculture as their primary source of income (Bulte et al., 2013). In most villages, key amenities are absent and formal education levels are very low (67% of the population has received no education).

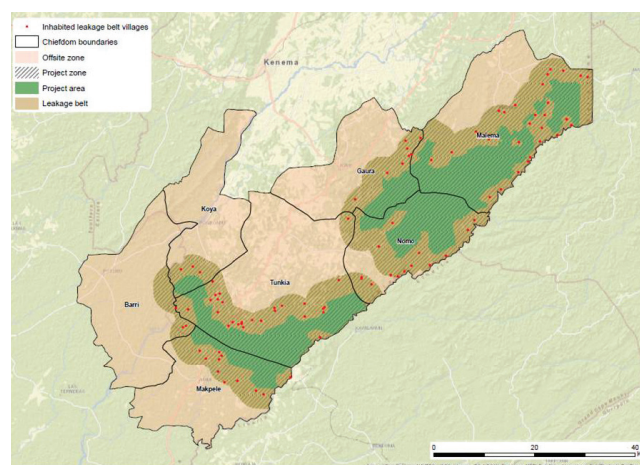


Figure 2. The Gola Rainforest National Park (3 blocks) and adjacent communities

Source: Tubbs et al., 2015.

3 - The Upper Guinean Forest ecosystem is one of Conservation International's 34 global biodiversity hotspots (Myers et al., 2000).

The Gola Rainforest is host to 327 bird species, including flagship species such as the White-necked Picathartes (*Picathartes gymnocephalus*), 34 species of bats as well as 49 species of large mammals, among which is the forest elephant and the endangered pygmy hippopotamus (*Choeropsis liberiensis*).

Main threats to the Gola Rainforest are slash-and-burn agricultural practices. Other threats include bush meat trade, illegal logging and, increasingly, artisanal mining.

The management and conservation status of the Gola Rainforest has evolved dramatically over the last 90 years. Between 1926 and 1963 the Gola Forest Reserve (GFR) was officially established over 3 blocks covering a total of 74,903 ha, under the supervision of the Forestry Division (Belvaux, 2012). As of the 1960s the GFR was leased to several logging companies. Against the payment of royalties and fees, the concessionaires had the right to enter their respective concession and exploit the forest as a source of timber.

At the beginning of the 1990s the status of the concessions progressively changed. Other assets in the Gola Rainforest were investigated through a number of biological surveys. This resulted in 1990 in a first partnership agreement between the Forestry Division and two NGOs: the Conservation Society of Sierra Leone (CSSL) and the Royal Society for the Protection of Birds (RSPB); both are Birdlife International partner organisations. In 1993 the NGOs prepared an Interim Management Plan for the GFR, but these efforts were halted during the civil war (1991-2002).

3.2. Innovation at work: a long-term contractual approach

3.2.1. The Gola Forest Conservation Concession Programme

After the war, in 2002, the Forestry Division entered into a second partnership with RSPB and CSSL and signed the “Gola Forest Conservation Concession Framework”. Here, the two NGO partners agreed to conserve the integrity of the Gola Forest Reserve (the 3 blocks) in perpetuity and, in turn, compensate local actors for the loss of logging rights.

In 2004 the partners launched a new initiative, the Gola Forest Conservation Concession Programme (GFCCP), the first of a succession of innovative financial approaches designed to ensure the protection and sustainable development of the Gola Rainforest PA and its surroundings.

That year the Forestry Division declared a logging moratorium in the GFR. Funding (USD 1 million) was obtained from the RSPB, the Global Conservation Fund of Conservation International and the UK government’s Defra Darwin Initiative for a two-year development phase, which culminated in November 2006 with the first full draft management plan for conserving the Gola forest reserves.

In 2007 the Ministry of Agriculture, Forestry and Food Security (MAFFS), RSPB and CSSL signed a renewable five-year partnership agreement to build on the work already accomplished by the GFCCP. Operationally, the project was delivered by a team of local staff, seconded and capacitated with international technical support from RSPB. In parallel, a renewable five-year agreement (2007-12) was signed with the seven chiefdoms: this was known as the Gola Forests Conservation Concession Community Benefits and Payment Agreement (also called Benefit Sharing Agreement, or BSA). The latter clearly defines the Conservation Concession: it stipulates that the Gola Forest Reserves are to be managed for conservation only. In return, since local communities do not receive royalties in respect of timber exploitation, the agreement makes provision for payments and benefits.

Payment (benefit)	Annual Amount (USD)*
Authorities	
District councils	3,000
Paramount chiefs	7,000
Community members	
<i>Community level</i>	
Community development funds	70,000
Scholarships	7,500
Start-up kits for chiefdoms (one-off over 5 years)	35,000
<i>Individual level</i>	
Landowners	28,000
TOTAL (equivalent annual)	122,500

* Unless specified

Table 1. Sharing benefits with local communities

Under the BSA, there are two types of payments: the first concerns local and traditional authorities and the other concerns local communities and historical landowners (Table 1). In total, over 2007-12, BSA allocated USD 115,500 annually, plus USD 35,000 as a one-off payment over 5 years, to local communities and authorities.

What is innovative in the 2007-2012 BSA is that funds distributed among communities, local and traditional authorities are clearly understood as a conditional compensation for foregone rights and for respecting the management plan. Payments are conditional to communities' compliance with set regulations (e.g. use restrictions) and their chiefs' commitment to do all in their power to stop activities that are prohibited under the GFR management plan. Should a conflictual issue (i.e. an unlawful activity) not be resolved, partners may temporarily withhold payments to the communities concerned.

Between 2007 and 2012 the Gola Forest Conservation Concession Programme and the BSA were entirely donor-funded by the European Union and the FFEM. It cost approximately EUR 6 million, plus nearly EUR 3 million to establish an endowment fund. RSPB nominated a project leader to co-ordinate and carry out the project in close collaboration with its other partners, namely CSSL and the government.

Finally, in 2010, the partners reached a major milestone in their ambitions by gazetting the Gola Rainforest National Park (GRNP). This important step, together with the end of the EU and FFEM funding in 2012, triggered another breakthrough innovation to finance the Gola Rainforest more sustainably, i.e. through a REDD mechanism.

3.2.2. Innovation 2.0: Recent transition towards market mechanisms

Back in 2007, the partners had already identified complementary innovative mechanisms by which Gola would be spared a funding "boom and bust" cycle and be financed sustainably beyond the donor phase. These include an endowment fund and a REDD project (Hipkiss and Tubbs, 2012).

In the absence of a compliance market in Sierra Leone, the Gola REDD project was thus developed to sell credits on the voluntary carbon market following two leading international voluntary carbon standards: the Verified Carbon Standard (VCS) and the Climate, Community and Biodiversity Alliance standard (CCBA). This model is entirely results based and needs to demonstrate both the amount of deforestation prevented (VCS) and the direct benefits to biodiversity and local communities (CCBA). The project followed the international principles of free prior informed consent (FPIC) and was required to undergo a specialised and third-party audit to confirm its compliance with the standards.

In total, the scale of funds potentially levied to fund the GRNP relies on the number of verified carbon units (VCUs) generated and the unit price these are sold at, including a premium. VCUs are determined by quantifiable scientific assessments (i.e. carbon stored in forest plots) and benefits to people and wildlife. The project also aims to avoid leakage in the immediate surroundings of the project area (leakage belt) over which project partners have no legal authority. Therefore, FPIC requirements translated into over two years' worth of consultations with local communities and chiefs which resulted in the full livelihood programme which is being delivered today in the National Park's adjacent zones (Tubbs et al., 2015).

In order to comply with both fore-mentioned standards and thus be able to start selling verified carbon credits on the voluntary market (at a premium price), historical partners innovatively modified the project's institutional structure and associated contractual arrangements (Figure 3).

First, while most of the previous BSA's conditions were reconducted to conditionally compensate all communities in the 7 chiefdoms, renewed attention was paid to communities located closest to the GRNP (the leakage belt, see Figure 2). A conservation and co-operation agreement was consequently signed with each of the 122 Forest Edge Communities (FEC) situated in the leakage belt, represented by their paramount chief, section chief and village chief. Under this 6-year agreement, each FEC agrees to continue to protect the GRNP and abide by its laws and regulations, and commits to support the project by introducing alternative livelihood activities so as to reduce deforestation outside the GRNP. In return, there is provision for each FEC, in addition to the on-going BSA, to be provided with support packages which include agricultural assistance (rice and vegetables), cocoa rehabilitation and annual scholarships for secondary school studies.

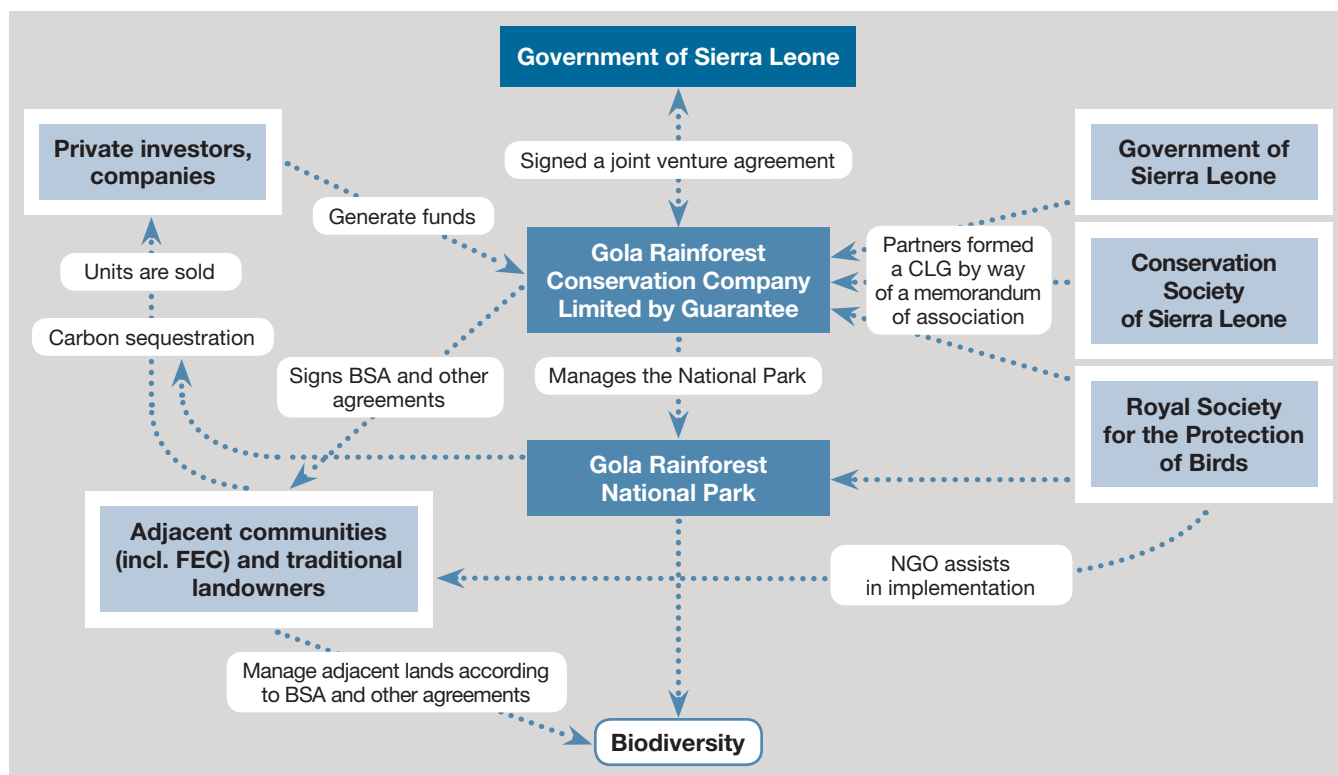


Figure 3. Governance diagramme for the Gola Rainforest National Park, version 2.0

In December 2015 the Gola REDD project was successfully verified by independent auditors. Arguably, it avoided the emission of 1.2 million tonnes of CO₂ equivalent between August 2012 and December 2014 and generated 975,000 verified carbon units. The project was awarded a gold level for exceptional climate change adaptation and biodiversity benefits and has a life span of 30 years.

Second, a non-for-profit company limited by guarantee (CLG), the Gola Rainforest Conservation Company LG (GRC LG), was set up in 2015 under national law so that it could lawfully receive proceeds from the sale of verified carbon credits. It is important to note that the CLG status protects those running the company (they contribute a nominal amount to it) from personal liability for the company's debts, thereby mitigating their risks. In addition, non-for-profit CLGs are barred from distributing profits to their members. The three founding members of the GRC LG include NPAA, RSPB and CSSL, each of which nominates a representative to sit on the members' board. At the management level, a board of four appointed directors consists of one representative each of NPAA, RSPB and CSSL and one from the seven paramount chiefdoms.

From an operational point of view, the GRC LG signed a joint venture agreement with MAFFS – which is responsible for the management of protected areas – which enabled it to become, and be managed, as a REDD project during the life cycle of the project. The agreement includes the transfer of carbon rights from the Government of Sierra Leone (GoSL) to the CLG so that carbon credits can be sold. On the ground, the project is being implemented by a department of the GRC LG known as “GRNP management”, while RSPB was designated as the technical lead agency (and is responsible for marketing and selling VCUs) and a five-year service agreement was signed with the latter. From a financial point of view, the CLG's bank account is located in the UK as it was felt that many investors and carbon credit buyers would feel more secure with this arrangement.

3.3. Innovation at scale: socio-economic and environmental results

The Gola REDD project currently covers an area amounting to 69,714 hectares (ha) inside the GRNP plus a leakage belt of 62,932 ha of forest, where so far livelihood activities have managed to prevent deforestation. In total, therefore, over 132,000 ha of land falls under this efficient protection approach at the landscape level, i.e. approximately 2% of Sierra Leone's total territory.

The REDD project's annual budget is approximately USD 1.6 million. This includes all department activities: park operations and management, finance, administration and human resources, research and monitoring, community development (which is covered by the BSA) as well as outreach. In total, the project permanently employs 170 local staff members; this includes 49 full-time park rangers who ensure the park's integrity.

Park rangers patrol the GRNP in teams of 6 to 8 people. Each team is provided with a patrol plan defined by its supervisor and is assisted by a geographic information systems (GIS) specialist who determines targets to be reached by the team during their patrol. During that time, park rangers record, in an incidence book, animal signs, encroachment and other illegal activities. Although park rangers are not armed, they can arrest intruders undertaking illegal activities and hand them over to the police for prosecution. In 2015-16 park rangers patrolled a total of 6,363 km and arrested several poachers and illegal miners.

Results are also impressive at the community development level (Tubbs et al., 2015). Since 2007 some USD 122,500 have been spent annually on community development in the larger area while around 30 staff members provide critical support to communities around the GRNP. More specifically, the 122 forest edge communities, i.e. approximately 24,000 people, have benefited so far from 244 scholarships as well as village savings and loan schemes for 750 women in 34 FECs.



3.4. Innovation at risk: challenges and the way ahead

As shown above, the Gola project has a complex institutional architecture. In the case of both the Conservation Concession agreement and the REDD project, representatives from the CSSL, RSPB, the GoSL as well as from seven chiefdoms all had to be included in the scheme. A significant number of agreements have been signed so as to define stakeholders' and parties' responsibilities, rights and entitlements. This in turn has entailed much effort and time to write up, refine and finally negotiate and monitor these contracts, thereby incurring significant so-called "transaction costs" for the project as a whole.

The recent establishment and entry into force of the Gola Rainforest Conservation CLG further reinforces reservations about the institutional set-up. Whether or not all liabilities and responsibilities emanating from the project entity have legally transited to the CLG entity is still unclear, and the supervisory role of the CLG's board of directors needs to be set out in more detail. From an institutional point of view, the relationship between the GoSL, which holds exclusive rights over the GRNP, and the area management unit, be it the project entity or more recently the CLG, is ambiguous. Although this was largely remedied in 2015 when a joint venture agreement was signed between GoSL and Gola Rainforest CLG, the management status of the area (*de jure* rights over the forest) remains fuzzy. This therefore gives rise to a complex institutional situation, where the innovative scheme heavily depends on current political will and personal connections to ensure its *de facto* management rights over the Gola forest.

In this context of relative uncertainty the process tends to be driven, for the time being, by international actors. First, at the strategic level, the scheme's complexity and innovative nature does not allow all stakeholders, especially local ones, to fully understand the procedures, rights and responsibilities involved. Second, at the operational level, international technical assistance is still essential in GRNP management operations and decision taking. Of course, such an innovative approach and reliance on international carbon markets does need time for local partners to be brought up to speed, but capacity building is critical to ensure that all stakeholders are sufficiently equipped to understand the scheme and can influence and co-drive the process. *In fine*, it is crucial that the Gola innovative approach be legitimized and accepted locally.



Chapter 4

INNOVATIVELY COMBINING PUBLIC AND PRIVATE INVOLVEMENT: SOUTH AFRICA'S BIODIVERSITY STEWARDSHIP AND FISCAL BENEFITS APPROACH

4.1. Preparing for innovation: the case study context

4.1.1. Demographic pressure and the need for development *versus* maintaining natural capital

The Republic of South Africa (RSA) covers more than 1.2 million km²; it is more than twice the size of France and nearly five times that of UK. With about 54 million inhabitants, its population density is moderate (45 inhabitants per km²), however its demographic growth is just over 2% per year.

A vast proportion – 86% of its land – is devoted to agriculture and most of that is for breeding (Republic of South Africa, 2005). Here, as elsewhere (Nelson et al., 2010), land use and land-use management are therefore paramount for the conservation of natural resources and biodiversity conservation, in a context where both the need for, and the pressure on, natural resources will inevitably increase. The status report *Important Bird and Biodiversity Areas of South Africa* also notes this as a key objective to biodiversity conservation as a result of mismanagement of land, one of the two major threats to birds and biodiversity at a national scale (Marnewick et al., 2015).

4.1.2. Privately owned property is key to reaching conservation objectives

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 objectives with respect to biodiversity and natural resources. As of 2014, 36% of terrestrial protected areas in RSA are “nature reserves” (which can be state owned and managed, or privately owned and contractually managed for conservation purposes) or “protected environments” (which are only privately owned and contractually managed).

Meeting the country's national targets (as per Republic of South Africa, 2010) would mean increasing the surface area of terrestrial protected areas (PAs) by 10.8 million hectares (ha) by 2030 (2010 as a baseline), i.e. 2.7 million ha every five years. Currently, PAs are expanding at about 15% of this objective, with 416,000 ha added from 2010 to 2015. This expansion is now primarily based on private voluntary conservation, which accounts for 72% of this past annual mean increase (60,000 ha every year out of a total of 83,000 ha).

4.2. Innovation at work: a combination of public and private conservation, supported by fiscal benefits

4.2.1. Regulation provides for a combination of public and private conservation

The importance of privately-owned land with respect to conservation objectives led South African conservation NGOs to renew their approach to farmers. In the early 2000s, conservation NGOs were seeking to develop approaches to better incentivise private landowners to set aside their land, in particular grassland (Box 1). The authorities engaged in re-drafting the country's biodiversity legislation and this gave birth to the Biodiversity Act and the Protected Areas Act which were passed in 2004 and introduced the possibility for private land to be officially and perennially registered as protected areas.

Box 1

The Biodiversity Stewardship approach: changing NGOs' mind sets

"Biodiversity stewardship as a concept started to be thought about in South Africa in about 2000. At that stage, a lot of NGOs were dealing with private landowners (...) and most of the mechanisms that NGOs were using were quite 'soft' approaches, they were things like 'it's the right thing to do' (...). The first development of what is now called the Biodiversity Stewardship approach, around 2001, was actually called the Conservation Incentives approach, and it was about 'let us develop incentives for people to put their land aside for conservation'. (...) We were working to give people recognition for what they were doing, to elevate them as examples of people doing the right thing. But that gets to 2 to 3% of people; the other 97% of people want money in the bank". (ITV #1 [NGO])

These two Acts provide for an original combination of state regulation and voluntary conservation within a common but hierarchized biodiversity framework. The role of NGOs in the latter is not specified, although their action is key to how the mechanism actually functions.

From 2003 on, with initial support from the Global Environment Facility (GEF), this policy reorientation gave rise to a "biodiversity stewardship" (BDS) approach. According to this, each citizen is potentially called upon to steward the natural assets within their properties, in view of collectively forming a network and a framework of conservation through varied individual contributions: "Biodiversity stewardship is an approach to securing land in biodiversity priority areas through entering into agreements with private and communal landowners, led by conservation authorities" (Cumming et al., 2015). Different types of BDS agreements are possible, ranging from a simple inventory to binding agreements to maintain and manage land parcels according to a protection management plan. The two most demanding and highest categories, "nature reserves" and "protected environments", are actually PAs within private land, contractually agreed and formally declared as such by the Department of Environmental Affairs or the provincial member of the Executive Council for Environmental Affairs (Cumming et al., 2015).

Sites declared as PAs using the BDS approach differ from traditional state-owned national parks. The latter are protected with fences and focus on promoting wildlife, scenery and tourism, while no land or resources are exploited. However, BDS conservation sites are generally used for all kinds of economic activities as long as they are compatible with conservation and within sustainability limits, such as cattle ranching, dairy farms and citrus or timber production. Conservation targets are therefore very different and, on the whole, complementary.

4.2.2. Signalling the importance of conservation: co-operation between the Treasury and NGOs for a fiscal abatement regime

The approach developed by South African environmental NGOs was based on sustaining motivation and support while incentivising conservation by reducing the burden of taxes (Selinske et al., 2015).

As a result, from 2004 onwards, efforts were devoted to making it legally possible to pay lower taxes in order to induce a fiscal reward for landowners who committed their land to the conservation and management standards required under PA BDS agreements, as provided for by the Biodiversity and the Protected Areas acts. However, at that stage the tax incentives were not worded in a sufficiently practical way to allow landowners to take full advantage of them and provide them with a genuine and tangible benefit. This led government representatives and NGOs to renew their approach, and one of the NGOs, Birdlife South Africa, engaged an environmental tax specialist with legal and tax management expertise and experience in the corporate sector. The latter, in close co-operation with the South African National Biodiversity Institute (SANBI), eventually re-worded the legal provisions governing the tax measure and ensured that the revised wording was straightforward as well as practical. The SA Treasury accepted the proposed amendments and gazetted them in January 2015; they became effective as of 1 March 2015.

4.2.3. A combination of public and private action: a schematic description of the Biodiversity Stewardship approach and tax incentives

The process by which land is integrated in the Protected Areas Network or broader conservation areas through biodiversity stewardship agreements, and is potentially granted a tax incentive, is as follows:

- Based on a national strategy and the definition of biodiversity priority areas determined by advanced systematic conservation planning (SCP), NGOs and provincial conservation agencies

act as “facilitators” or “stewardship extension officers”. They reach out to landowners whose land is considered important for conservation.

- Once a technical site is assessed and an independent review process determines the contribution of the site to environmental priorities, a protection status is proposed for the site by the provincial authorities and a specific management plan is drafted, with the support of NGOs. This management plan defines protection that is to be undertaken by the landowners. Most often, “action” is based on maintaining the current state of the land by refraining from intensifying current forestry or agricultural practice, with a view to preserving the grasslands and natural forests.
- *In fine*, the selected site is formally declared a PA as defined under the Protected Areas Act and is attributed a status through the site assessment process. It entails the official signature, by the official representative of the province, of a preliminary agreement (between the provincial authority and the landowner) which is then submitted to an official public consultation, after which the agreement is gazetted by the federal government and the management plan is officially approved and gazetted by the province.
- A surveyor general must then precisely delineate the land parcels and the surface areas that are covered under the agreement, and the resulting mapping is subsequently sent to the governmental deeds office, after which the agreement is perennially attached to the land parcels.
- On this basis, landowners are allowed to apply for a tax reduction in their annual tax declaration.
- Subsequently, the provincial conservation authorities are responsible for annually monitoring the management plan implementation.

4.2.4. A new distribution of roles

Over time, this new biodiversity stewardship and tax abatement approach has modified relationships between conservation actors, public bodies and private landowners and has generated a number of agreements and instances of collaboration. This innovative governance is illustrated in Figure 4.

4.3. Innovation at scale: a promising potential

4.3.1. Is the BDS approach “at scale”?

The BDS approach can be considered successful in terms of the recent growth of PA surface. Most new PAs in the country have been secured through biodiversity stewardship using long-term agreements between landowners and provincial

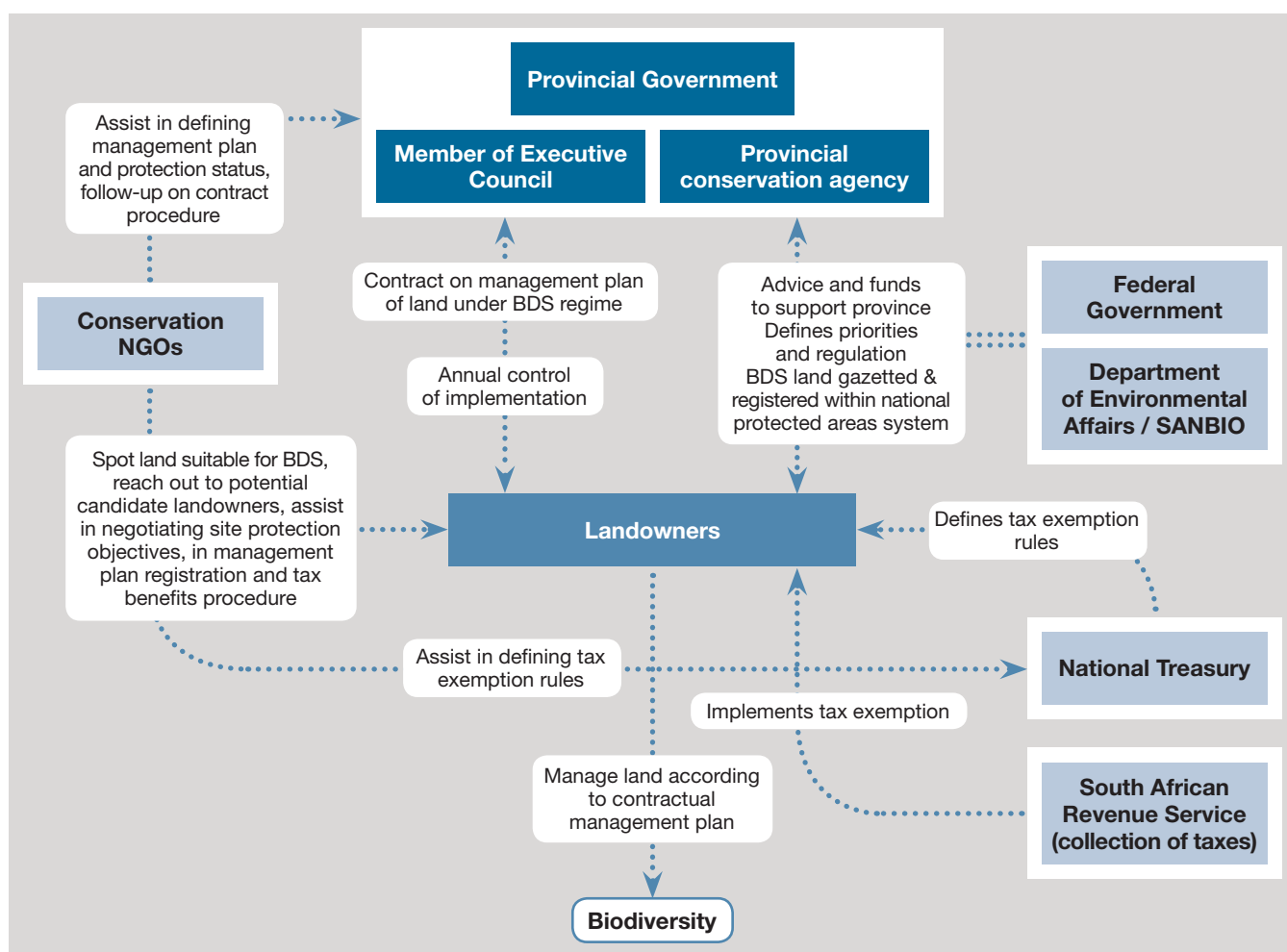


Figure 4. Governance diagramme of the Biodiversity Stewardship approach and tax benefit mechanisms

authorities. In 2014, 70 new PAs were declared and logged into the national PA register. This amounts to over 400,000 ha, i.e. 1% of the total terrestrial protected areas, but 10% of current “nature reserves”. In March 2015, 153 sites, totalling over 560,000 ha, were under negotiation with a view to becoming PAs (Cumming et al., 2015), thus potentially doubling the above proportions. These figures illustrate how important this approach is and how it could potentially represent a vital component of the future progress of RSA's protection policy. Overall, protected areas under BDS contribute to provincial protection objectives (in terms of surface area under a protection regime) in various proportions, ranging from 9 to 32% (Table 2).

Cumming et al. (2015) have also estimated that to establish a PA through BDS is between 70 and 400 times less costly to the state than land acquisition, and support to protected area management has been calculated as 4 to 17 times less costly (per hectare) than managing a state-owned protected area. *In fine*, achieving 2028 national targets based on BDS would cost roughly ZAR 6.15 million per year (about EUR 400,000) for the 9 South African provinces; the amounts to be mobilised are thus not that important in absolute terms.

4.3.2. Is the new fiscal benefit “at scale”?

Through the BDS and fiscal abatement approach, landowners are allowed to calculate the value of the land surface they have set aside for conservation, and subtract annually up to 4% of this total value from their revenue tax basis. This way, the total value of the land is deducted after 25 years and the capital devoted to conservation is therefore “amortised”. Yet, in order to limit the potential effect of this measure on national fiscal resources, the South African Treasury has maintained the benefit at a low rate, compared to normal farming revenues.

At the time of writing, the tax incentives system linked to the latest legislative changes has not yet been applied. First, legislative texts have been revised and simplified and could be applied but they are still fairly recent. Second, the whole administrative and legislative process relating to the associated BDS agreement has to be fully completed, down to the “gazetting” of the agreement between the landowner and the state, before being eligible for tax rebates. To date, no landowner has yet reached the stage of applying for tax rebates under the new fiscal provisions. It is therefore too early to evaluate the contribution of fiscal benefits to the overall success of the initiative, given that the reform of the system is too recent.

Province	Additions still required in 2008 to meet the 20-year (2028) provincial protected area target (ha)	Contract protected areas declared and in negotiation through biodiversity stewardship (ha)	% contribution of contract protected areas declared and in negotiation to 20-year (2028) provincial protected area target	Hectares acquired at the same time by the provincial conservation authority through any mechanism other than biodiversity stewardship
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*

*These hectares were all acquired through donations

Table 2. BDS' contribution to provincial protected area targets

Source: Cumming et al., 2015.

4.4. Innovation at risk: challenges and the way ahead

4.4.1. Uneven public involvement

Uneven public engagement is currently reflected in the very unequal capacities devoted to the BDS approach by the different provinces. In the Western Cape, provincial authorities have a large staff contingent devoted to conservation and up to twenty-four people are dedicated to BDS alone. In many other provinces however, only one or two officers are more or less fully devoted to this task. Since local authorities are needed at key stages of the process, this misbalance gives rise to a heterogeneous development of conservation throughout the country. It is noticeable that this unevenness is due less to the private and “opportunistic” nature of the approach than to the different levels of local government engagement. In other words, the limits of the system are the result of patchy public involvement.

4.4.2. Internal rather than external resistance

One of the greatest difficulties which the conservation sector has had to overcome was “internal” resistance from NGO conservationists and, to a lesser extent, from some members of the government environmental authorities. Some “traditional” conservation actors in both groups had doubts about relying on private stakeholders and mechanisms and having to work without the supposed stability that public ownership and status confer to conservation in public reserves. They were wary of losing control over conservation and sceptical about the ability of private reserves to actually provide efficient management. Therefore, the early stages of the process were devoted to internal negotiations within various conservationist circles while simultaneously reaching agreements “externally” with the Treasury and the Department of Environmental Affairs.

4.4.3. The Achilles’ heel of the mechanism: political acceptance

The main constraint the BDS mechanism and its related fiscal benefits have to contend with is the need for high-level political support. Since the national tax authorities are involved, decisions are necessarily of a political nature. Given RSA’s decentralised organisation, this responsibility falls on the provincial Member of Executive Council (MEC⁴), who is called upon to personally sign a preliminary and then a definitive agreement. Therefore the Achilles’ heel of the mechanism is in the final stage of the administrative process: first, an agreement has to be signed by the provincial government representative; second, the agreement must be logged into the property registry. However, as MECs are at the head of the provincial authorities, their responsibilities cover all types of public matters and biodiversity conservation is not necessarily a top priority for them. Moreover, signing off on an agreement between the authorities and private landowners to allow for extensive land use and fiscal rewards is a rather unusual approach, about which MECs are generally not very well informed. This often produces over one-year delays to get the documents signed.

South Africa’s rather heated political life, with frequent elections at all levels, results in a high turnover of regional, political and therefore administrative representatives. These leaders may have different mind sets with respect to conservation and economic priorities in the face of pressure from the mining and the agribusiness industries. This is obviously a major hurdle for biodiversity stewardship and fiscal benefits. On the one hand, the conservation sector is a relatively compact and specialised milieu and is effective in facilitating the process. On the other hand, this is tempered by the administrative and political part of the process which brings about delays and repeatedly forces facilitators to re-launch the process, meaning that they have to find the energy to advance the files in the midst of this bureaucratic procedure and constantly justify their legal and administrative basis.

Looking forward, NGOs consider that two improvements would make a difference. The first is by addressing a number of organisational hurdles and challenges and finding a way to rely less on government for advancing the processes. Where government support remains unavoidable, the second development would be to find more support from high-level representatives or processes. Research is now under way to determine the barriers and potential solutions for NGOs to rise to these challenges.

4 - Provinces in South Africa are governed by provincial governments. The heads of provincial representations of the Department of Environmental Affairs are Members of Executive Council (MEC), who are legally entitled to sign off on the final declaration of a new protected area. They are advised by their Department administration and the conservation authorities (e.g. Ezemvelo KZN Wildlife), but their actual signature is required. This declaration makes legal the agreement between the landowner and the authorities and therefore is a preliminary condition for fiscal benefits to be processed.

Chapter 5

INNOVATIVE WAYS TO SECURE FINANCE AND ECOLOGICAL RESULTS: AN ENVIRONMENTAL TRUST FUND FOR PROTECTED AREAS IN CÔTE D'IVOIRE

5.1. Preparing for innovation: the case study context

5.1.1. The national level

Côte d'Ivoire covers an impressive 322,462 km² and is host to almost 23 million inhabitants (2015). Although a lower-middle income country, in 2015 46.3% of its population were considered poor. This is partially explained by political instability which has affected the country's governance and institutional capacity.

Côte d'Ivoire has one of the highest levels of biodiversity in West Africa (Republic of Côte d'Ivoire, 2016). However, the country's economy is largely dependent on agriculture: agricultural land represents almost 65% of the total surface area (2013) and occupies 68% of the labour force (2007).

Huge areas of forest have been lost in Côte d'Ivoire. From 16 million hectares (ha) of forest in 1960, less than 4 million ha are estimated to have survived. Rapid agricultural development constitutes a major threat to biodiversity in the country, cocoa production in particular. In 2014, this crop covered 2.5 million ha of agricultural land and the land take is rising significantly (+33% in 10 years since 2002).

Forest conservation in Côte d'Ivoire is essentially based on a network of 233 classified forests; there are also 8 protected areas (PA) and 6 natural reserves (NR) spanning over 2.1 million ha (6.5% of national territory). In this context, the country is planning to create new PAs and to strengthen the capacities and efficiency of the current network (Republic of Côte d'Ivoire, 2016).

5.1.2. Focusing on a key area: the Taï National Park

The Taï National Park (TNP), gazetted in 1972 and situated in the West of Côte d'Ivoire (Figure 5), encompasses 536,017 ha. The park, still relatively intact, is one of the last remaining portions of the vast primary Upper Guinean rainforest. Besides being host to forest elephants, buffalos and chimpanzees, the TNP also has 12 endemic species, e.g. Jentink's and zebra duikers. Out of 746 bird species observed in Côte d'Ivoire, 234 are found in the park, including some very rare ones (Republic of Côte d'Ivoire, 2015a).

The greater Taï area (which covers a 10 km radius around the park and represents a peripheral zone of 408,277 ha) is nevertheless prone to significant human pressures. It is estimated that approximately 1 million people live in the vicinity of the park, grouped in 81 villages. Agriculture activities concern 55% of these households. Among this, cocoa production is particularly important. Over half of the greater Taï area is currently planted with cocoa, which supports 33,800 farmers.

These human pressures have resulted in massive deforestation around the TNP. Between 2003 and 2011 primary forest cover in the peripheral area decreased from 10.5% to 0.6% (Varlet and Kouamé, 2013). In this context, the integrity of the park's boundaries remains highly uncertain and it is increasingly prone to encroachment; both management capacity and funding therefore need to be secured.

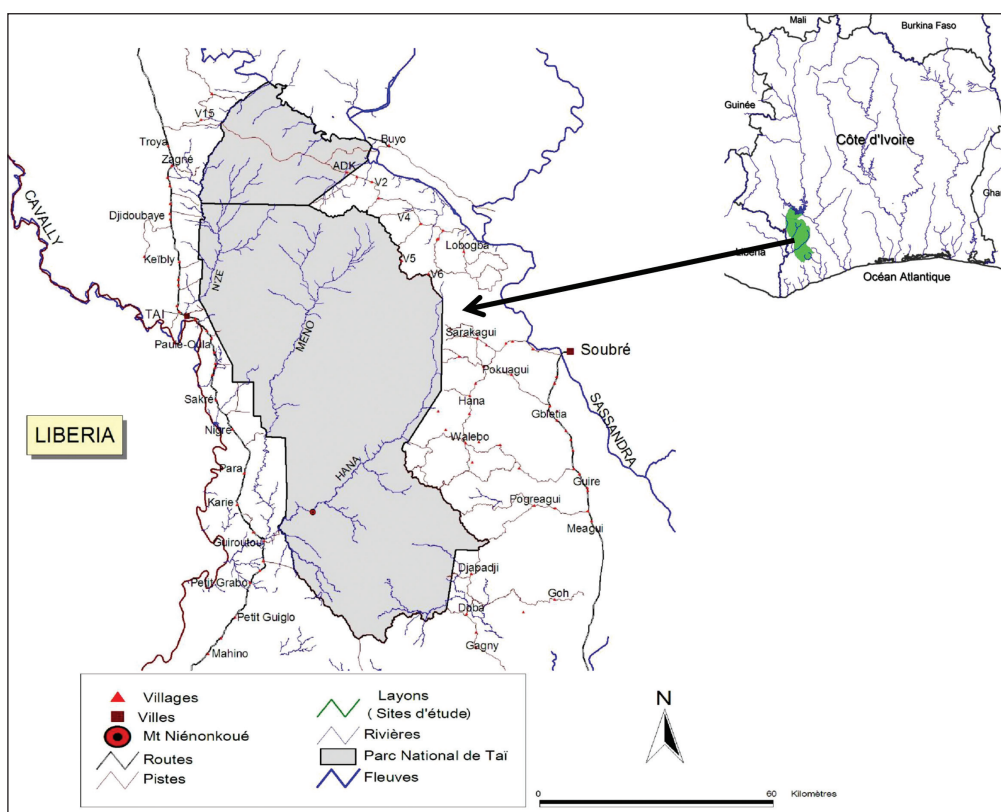


Figure 5. Map of the TNP

Source: Adapted from Junker et al., 2009, p. 51.

5.2. Innovation at work: funding efficient PA management through debt swaps

In this context, three types of innovation are at work: first, a foundation is being created so as to serve as an independent vehicle for funding PAs; second, finance is being mobilised through the foundation's capitalisation from debt swaps; third, PAs are being managed efficiently through contractual agreements with an autonomous parastatal conservation body.

5.2.1. Financing the Ivorian PA network: an innovative change in paradigm

In 1995, during a National Seminar in Abidjan, conservation actors agreed that the PA network, despite significant government investment and donor assistance, had not achieved its desired objectives. It was decided that a mechanism which would ensure a minimum, permanent and stable flow of funding to cover PA operations should be put in place, together with a set of better management structures.

In 2002, the government of Côte d'Ivoire enacted Law No. 2002-102 in order to strengthen conservation policies. First, the law required the *ad hoc* creation of a specific national public entity to manage the country's PAs and reserves, endowed with its own legal personality and financial autonomy. Each PA was to be decentrally managed at the area level and would have a specific development and management plan. Second, the law designated foundations to be official vehicles to sustainably finance PA operations through the generation of financial returns from their capital. Later that year, Decree No. 2002-359 formally established the Côte d'Ivoire Parks and Reserves Office (OIPR) as the entity empowered to manage Ivorian PAs. Consequently, the governance and funding of the Ivorian PA network was innovatively modified (Figure 6).

5.2.2. FPRCI-CI structure

Building on the 2002 law, the Foundation for Parks and Reserves in Côte d'Ivoire (FPRCI) was created in November 2003 as a private non-for-profit institution, the first Ivorian trust fund dedicated to funding the country's PA network (Box 2).

Box 2

Environmental Trust Funds: definitions

An environmental trust fund (ETF) is an independent legal entity and investment vehicle designed to help mobilise, blend, and oversee the collection and allocation of financial resources for environmental purposes. It is a country-driven solution that facilitates strategic focus, rigorous project management, solid monitoring and evaluation and high levels of transparency and accountability.

An endowment fund refers to an ETF where capital is invested in perpetuity, and only the resulting investment income is used to finance grants and activities.

A sinking fund refers to an ETF where the entire principal and investment income is disbursed over a fairly long period (typically ten to twenty years) until it is completely spent and thus sinks to zero.

The FPRCI is now governed by the following structures:

- 1) The General Assembly is composed of ten volunteer founding members and meets once a year. It validates the foundation's strategy, approves the budget and monitors the directors.
- 2) The Board of Directors is composed of nine volunteer members as well as two observer (non-voting) members who represent the donors, and meets three times a year. The Board defines global strategy, validates the work programme and closely monitors how funds are managed and spent.
- 3) The Executive Directorate undertakes financial, technical and administrative management and oversees the asset manager's work.
- 4) Two committees provide the Board of Directors with recommendations. The Investment Committee defines investment guidelines and monitors the asset manager's performance. The Audit Committee controls the foundation's annual accounts and its procedures.

Currently, the Board of Directors is composed of well-regarded, skilful and influential personalities from Côte d'Ivoire's civil society. This includes the private sector, NGOs, lawyers and academics; there are also two government representatives. All these high-profile members ensure the credibility, efficiency and legitimacy of FPRCI at the country level and abroad.

5.2.3. Creating FPRCI-UK to mobilise funds

In 2008 two German co-operation agencies, BMZ and GTZ, pledged USD 2.5 million to capitalise the foundation's endowment fund (for TNP in particular). In order to be eligible for these funds FPRCI needed to show due diligence. In addition, it was decided that a sister foundation should be created in the UK since, due to political instability and the West African Economic and Monetary Union's (UEMOA) stricter financial rules, international financial markets were keen to see their capital deposited in the UK. Hence, FPRCI-UK was created in October 2009 to host the endowment fund. It was officially founded by one member, FPRCI-CI and, like its Ivorian counterpart, it appointed a board of nine directors and two non-voting members representing donor partners. They jointly signed an agreement specifying relations between them: all documents must be validated by both foundations. Funds are managed by a selected asset manager who must comply with the investment strategy (*Politique d'investissement du patrimoine*).

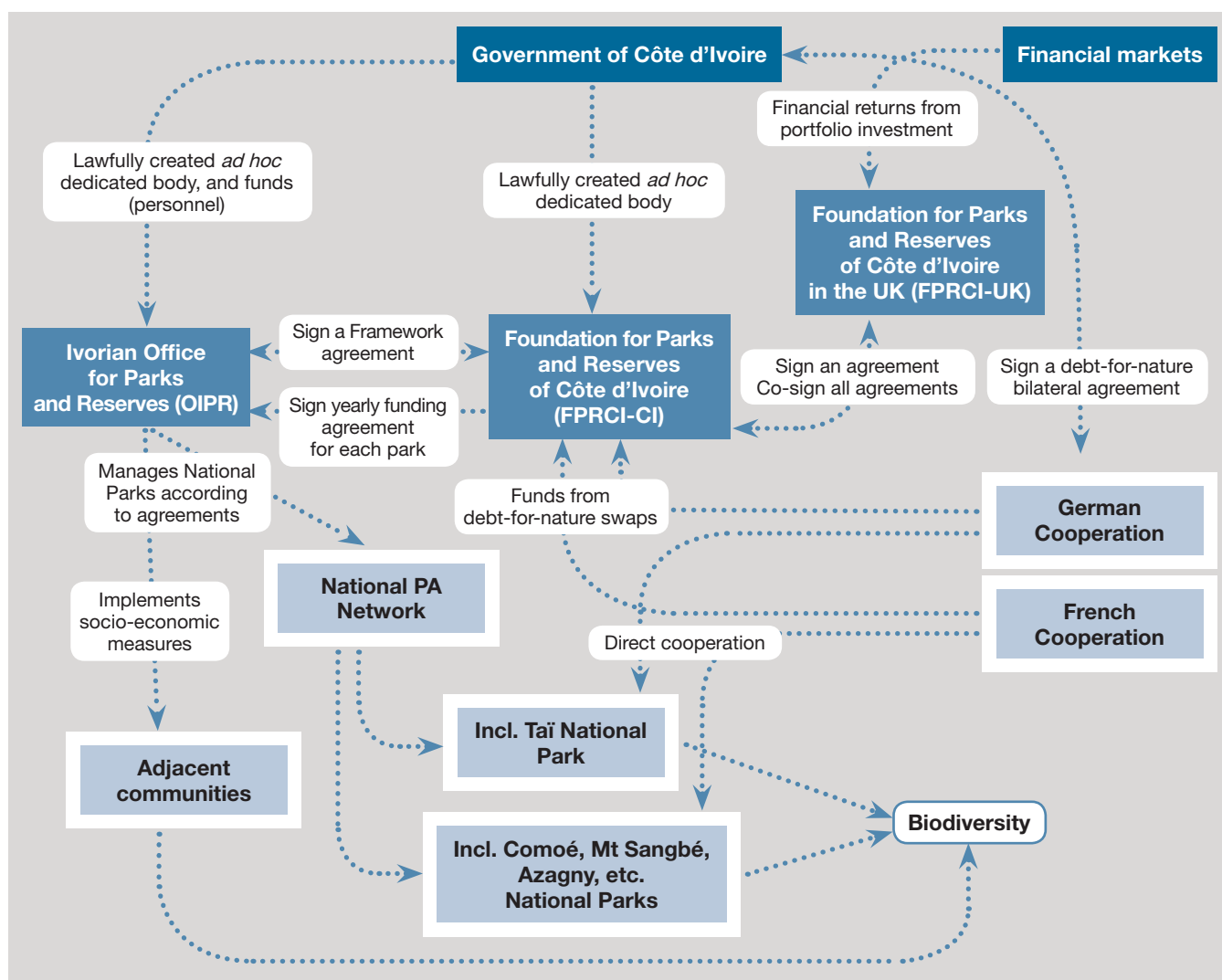


Figure 6. Governance diagramme for PA funding and management in Côte d'Ivoire

5.2.4. Funding the FPRCI-CI: mobilising finance with debt-for-nature swaps

Also innovative was the source of funding to be channelled. In March 2010 the German government decided to write off part of the debt it held from Côte d'Ivoire. In return, the Ivorian government committed to disbursing EUR 9.5 million for TNP and EUR 10 million for the Comoé National Park. In 2012, a debt swap agreement was signed between KfW, the German Government-owned development bank, FPRCI-CI and the government of Côte d'Ivoire; this set out conditions for payments and monitoring procedures.⁵

Funds from instalments are disbursed in two steps. First, part of the money is channelled directly from FPRCI's sinking fund to OIPR and the national park in question. Then the remaining share is deposited in the foundation's endowment fund in order to generate financial interests which will cover PA management in perpetuity.

Funds transferred yearly from FPRCI to OIPR to manage TNP and Comoé NP amount to EUR 610,000 and EUR 457,000 respectively. These funds, as defined by the framework agreement with KfW, are to be allocated by OIPR to specific categories of expenditure. These are recurrent costs, including contract staff, running costs, maintenance costs for vehicles, as well as buying small equipment. Only exceptionally can investment and social infrastructure be financed, when validated by the donor. It is important to note that KfW is a non-voting member (observer) on the FPRCI-CI's board of directors. This means it can usefully monitor the mechanism and the results of its funding.

Another debt swap agreement was signed with France under a Debt Reduction and Development Contract (*Contrat de désendettement et développement* – C2D). Following a first C2D contract in 2012, a second one was signed in 2014 to swap a EUR 1.1 billion debt and allocate it to six priority sectors. Biodiversity conservation projects were allocated EUR 15.5 million, out of which EUR 10 million were earmarked for FPRCI to capitalise the foundation's endowment fund.⁶

Interests generated will help to finance management costs for Azagny NP as well as Sangbé NP. In this case, as per the framework agreement, not only investment costs – which include buying vehicles – but also socio-economic measures for adjacent communities, are eligible. AFD is now also a non-voting member (observer) on the FPRCI-CI's board of directors.


5.2.5. “Privatising” management and decision-making processes for PA management in Côte d'Ivoire

Created in 2002, OIPR is a specific national public entity. Although it is under the administration's supervision, it is nevertheless an autonomous entity governed by a management committee. The latter is composed of 6 government representatives, 3 from adjacent communities, 1 from FPRCI and 1 from environmental NGOs. The management committee validates OIPR's budget and strategy while the Directorate General proposes and implements those orientations and oversees daily operations, both at the central level and at the regional level, through zone directorates. OIPR is responsible for the management of 14 PAs which collectively represent 2.1 million ha. It employs 480 persons, among which 95% are civil servants, including 200 game rangers. Government subsidies cover most of the budget which is mainly spent on salaries for civil servants as well as investment costs for roads and buildings.

A number of strategic and operational documents are drawn up for each PA and these contribute to its efficient management. First, a five-year development and management plan sets out different management measures to be carried out in order to reach defined objectives. Measures include surveillance, monitoring & evaluation and research, contribution to local communities, infrastructure development and ecotourism. Second, a business plan quantifies the costs associated with the proposed management measures. Third, an annual plan of operations details the activities to be carried out, their timing over the year, the results to be achieved and their cost.

5- A retrocession agreement (*acte de rétrocession*) was also signed by the Government of Côte d'Ivoire so as to ensure the funds would be channelled to FPRCI and then to OIPR for the management of TNP and Comoé NP.

6- Similar to the German debt swap agreement, a retrocession agreement (*acte de rétrocession*) was also signed.



Due to FPRCI's new financing role a particular relationship is now being built between the foundation and OIPR, while the latter continues to have indirect relations with its donors. This new contractual approach constitutes a governance innovation which contributes to strengthen PA management and helps OIPR to reach private sector operational and strategic decision-making standards.

FPRCI and OIPR sign a framework agreement for each funding window dedicated to a PA. This framework agreement, which is validated by the donor concerned, defines modalities and procedures for financing the PA and determines eligible expenses. It stipulates that an annual request for funding the PA must be sent by OIPR to FPRCI; it is then reviewed according to the coherence between the request made and the different PA plans. Once the request is validated by the FPRCI's board of directors, a yearly funding agreement is signed by both parties.

The implementation of both the framework and the funding agreements is reviewed by both partners, together with other concerned stakeholders, on a quarterly basis. Thus FPRCI is regularly provided with technical and financial reporting and is able to review the implementation rate by the PA management team. A rate below 75% would trigger a thorough assessment while a rate below 50% could halt funding. In addition, at the end of the financial cycle (March/April) a meeting is organised with all stakeholders to monitor and evaluate the closing annual funding agreement (*atelier bilan*). On this occasion, impacts are evaluated building on pre-agreed indicators and strategies can be reviewed.

5.3. Innovation at scale: securing the parks' integrity

In fine, these funding and institutional innovations facilitate the conservation of biodiversity inside PAs on a large scale at both the national and the local levels. The Taï National Park illustrates this well.

Together with its peripheral zone, TNP represents close to 3% of Côte d'Ivoire's inland territory. In this regard, FPRCI's efforts to promote sustainable funding, to strengthen and monitor OIPR operations inside and outside the park represent a significant contribution to biodiversity conservation over a large biodiversity-rich area.

In 2015, a total budget of close to FCFA 600 million (EUR 915,000) was spent on TNP operations and infrastructure while approximately FCFA 500 million (EUR 762,000) was used to pay civil servants responsible for park management. While these salaries were fully covered by the government, operational costs were partly funded by FPRCI. The latter allocated CFA 398 million (EUR 607,000) to cover contract staff salaries and bonuses, small equipment, vehicle maintenance and field allowances. In 2015 staff included 140 employees dedicated to biodiversity conservation in and around PNT. Overall, this represents a very significant technical capacity to protect the park's integrity and preserve its rich biodiversity. In 2015, 203 GIS-monitored patrols were carried out inside TNP involving 9,933 man-days; this surveillance eventually led to the arrest of 174 offenders that year.

In all, deforestation inside TNP and within its close vicinity is minimal. Although the south-west region is the biggest cocoa producing area, TNP is probably the most intact and best protected park within the Ivorian PA network. Human activities decreased to their lowest level in 2015 (Republic of Côte d'Ivoire, 2015b) and wildlife numbers for elephants, antelopes and other species have stabilised since 2012 (Tiédoué et al., 2015).

5.4. Innovation at risk: challenges and the way ahead

The mechanism as described above, although innovative and highly efficient when it comes to promoting sound PA management, could face several challenges that would need to be tackled in the mid- to longer term. First, transaction costs to design and subsequently implement and monitor contracts remain significant. Numerous agreements have had, and will still have, to be signed. For debt-for-nature swaps, retrocession agreements have to be signed. In the C2D case, funds need to transit via the French treasury before being transferred to UMEOA accounts, then to FPRCI-UK, back to FPRCI-CI and finally to OIPR. Furthermore, framework agreements and annual funding agreements have to be signed with OIPR for each PA. During this process, non-objection notifications have to be made by donors. Overall, these steps imply time and financial costs that are borne by the foundation and its partners.

Second, this funding scheme can actually create the conditions whereby the unpredictability of former project-based donor funding is replaced by financial market volatility and limited transparency. On the one hand, several donors are still wary of capitalising on endowment funds which invest their assets on financial markets that are volatile and unpredictable by nature. This caution is all the more reinforced by a desire to strictly control where money will be invested. On the other hand, some donors also feel that financial markets, when investments are too low-risk, might not generate high enough returns to be able to significantly fund PA operations.

Third, the foundation's tendency to focus on funding recurrent costs (operational costs) obstructs larger investment packages in infrastructure and support to communities adjacent to PAs. Vehicles patrolling inside parks are getting old and need to be replaced. While the park's infrastructure cannot be maintained without daily activities being carried out, the contrary is also true: rangers without vehicles, barracks and fair roads cannot work properly. Similarly, socio-economic measures for communities living in PA peripheral areas are essential to legitimize OIPR's actions. Yet, only operational costs, i.e. fuel to drive to villages, a few posters and T-shirts, are eligible. As a result, the burden falls on the donor's project budget, which is time-bound and unpredictable, or on the government's budget, which again is limited. While the mandate of OIPR is to focus on managing the PA itself, targeting funding for strict conservation without further engaging communities might prove counter-productive. An illegitimate innovation will only lead to local resentment, conflicts and encroachment.

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Abbreviations and acronyms

AFD	<i>Agence française de développement</i>
BDS	biodiversity stewardship
BSA	Benefit Sharing Agreement
CBD	Convention on Biological Diversity
CLG	company limited by guarantee
CSSL	Conservation Society of Sierra Leone
ETF	Environmental Trust Fund
FFEM	French Global Environment Facility (<i>Fonds français pour l'environnement mondial</i>)
FPRCI	Foundation for Parks and Reserves of Côte d'Ivoire (<i>Fondation pour les parcs et réserves de Côte d'Ivoire</i>)
GEF	Global Environment Facility (<i>Fonds pour l'environnement mondial</i>)
GFCCP	Gola Forest Conservation Concession Programme
GFR	Gola Forest Reserve
GoSL	Government of Sierra Leone
GRC LG	Gola Rainforest Conservation Company Limited by Guarantee
GRNP	Gola Rainforest National Park
IDDRI	Institute for Sustainable Development and International Relations (<i>Institut du développement durable et des relations internationales</i>)

IUCN	International Union for the Conservation of Nature
IFM	Innovative financial mechanism
MAEDI	French Ministry of Foreign Affairs and International Development (<i>Ministère des Affaires étrangères et du Développement international</i>)
MAFFS	Ministry of Agriculture, Forestry and Food Security
MEC	Member of Executive Council
NGO	non-government organisation
NPAA	National Protected Area Authority
ODA	official development assistance
OIPR	Côte d'Ivoire Office for Parks and Reserves (<i>Office ivoirien des parcs et réserves</i>)
PA	protected area
REDD	Reducing Emissions from Deforestation and Forest Degradation
RSPB	Royal Society for the Protection of Birds
TNP	Taï National Park
UMEOA	West African Economic and Monetary Union (<i>Union économique et monétaire ouest-africaine</i>)
VCU	verified carbon units



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INNOVATING FOR BIODIVERSITY CONSERVATION IN AFRICAN PROTECTED AREAS: FUNDING AND INCENTIVES

Insights from Côte d'Ivoire, Sierra Leone and South Africa

Study summary

In October 2010, Parties to the Convention on Biological Diversity (CBD) adopted a Strategic Plan for Biodiversity. They agreed that by 2020 at least 17% of terrestrial areas should be conserved within effectively managed protected areas. Currently, coverage stands at 14.7%. Although this is a positive trend, an additional USD 9.2 to USD 85 billion is needed annually to expand and secure protected areas, especially in Africa. In this context, governments and practitioners have repeatedly called for new and innovative financial mechanisms to be explored that would complement official development assistance, be predictable and stable.

This study aims to unpack the potential benefits and risks of innovative financial mechanisms at work in Africa through the analysis of three case studies: an environmental trust fund created to finance the network of protected areas in Côte d'Ivoire; a conservation concession agreement (and thereafter a REDD-related private non-profit company) in the Gola Rainforest in Sierra Leone; and a biodiversity stewardship and tax incentive approach developed in South Africa.

According to the study, essential financial and institutional innovations are at play and, when public and private involvement are effectively combined, not only can innovative financing contribute to more efficient management in and around protected areas, but it can take place on a significant scale. In this regard, three significant findings emerged: first, that private funding is a complement, rather than a substitute, to public financial support; second, that co-ordination of private and public action benefits from a contractual approach that favours conditionality; and third, this contractual approach needs to be secured at the regulatory level.

However, innovative mechanisms remain complex and numerous stakeholders and conditional agreements generate significant transaction costs. Furthermore, due to financial market unpredictability, private funding might not be reliable enough to complement the fragile support coming from donors and national public funding.