Sustainable Financing of Protected Areas: *Conservation Trust Funds and Projects*  
Comparative Advantages

A report commissioned by CFA and based on the work of Aequilibrium Consulting (2012) and LeGroupe-conseil baastel s.p.r.l. (2013)

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Acronyms

AFD    Agence Française de Développement / French Agency for Development
AWF    African Wildlife Foundation
BINP   Bwindi Impenetrable National Park
BMCT   Bwindi Mgahinga Conservation Trust
CAFÉ   Consortium of African Funds for the Environment
CENAGREF Centre National de Gestion des Réserves de Faune (Benin)
CFA    Conservation Finance Alliance
CI     Conservation International
CTF    Conservation Trust Fund
CTIS   Conservation Trust Fund Investment Survey
DGIS   Directorate-General for International Cooperation – Government of the Netherlands
EU     European Union
FANP   Fondo para Áreas Naturales Protegidas / Natural Protected Areas Funds (Mexico)
FFEM   Fonds Français pour l’Environnement Mondial / French Global Environment Facility
FFI    Fauna & Flora International
FIBA   Fondation Internationale du Banc d’Arguin
FM     Fondo Monarca / Monarch Fund
FMCDN  Fondo Mexicano para la Conservación de la Naturaleza / Mexican Fund for the Conservation of Nature
FSAO   West African Savannah Foundation Endowment Conservation Trust Fund
GEF    Global Environment Facility
IDA    International Development Association (World Bank)
KFW    Kreditanstalt für Wiederaufbau
MNP    Masoala National Park
PA     Protected Area
PNP    Pendjari National Park
RBMM   Reserva de la Biosfera Mariposa Monarca / Monarch Butterfly Biosphere Reserve
RedLAC Latin American and Caribbean Network of Environmental Funds
UWA    Uganda Wildlife Authority
WAP    W-Arly-Pendjari Park Complex
WCS    Wildlife Conservation Society
WHS    World Heritage Site
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Introduction

Various financial mechanisms exist to support Protected Areas (PA) and/or PA systems. Among them are Conservation Trust Funds (CTFs). CTFs are institutions that can manage various financing mechanisms including, but not limited to, endowment funds, sinking funds, revolving funds, or debt-for-nature swaps. Other financial mechanisms have been applied to support PA or PA systems such as traditional short-term donor project support, government budget allocations, taxes and park revenues, etc. All these financial mechanisms can strategically complement each other and should act in synergy within the framework of a comprehensive financial strategy.

Recently, CTFs have been receiving increased attention. New initiatives to create more CTFs are underway and the amount of capital held in investment by CTFs globally is on the rise. Since the establishment of CTFs in the early 1990s, their characteristics, advantages and shortfalls have been discussed and analyzed, in particular by the Global Environment Facility’s (GEF) 1999 comprehensive evaluation of CTFs, and the 2008 CFA Rapid Review of CTFs. Despite the success of CTFs, there are those who still question whether the channeling of large amounts of funding through CTFs to PA and/or PA systems actually promotes long-term sustainable financing solutions, especially when the annual revenues from CTFs are more modest than the annual financial support provided by traditional short-term donor projects. Equally, there are those who doubt in the capacity of traditional short-term donor projects to be able to process large amounts of funding into sustaining lasting results.

This ongoing debate, between endowment CTF funding that delivers moderate long-term funding versus traditional donor projects which generally provide substantial short-term funding, often comes down to a question of opportunity costs. However, this
debate might be creating a false dichotomy. In reality, the greatest benefits may actually accrue from diversifying financial mechanisms.

In order to address the concerns on both sides, and to provide donors and partners with the information needed to inform and assess the benefits of channeling funds specifically into one or the other financial mechanism, the Conservation Finance Alliance (CFA), with support from Instituto Semeia, Linden Trust for Conservation, Fondation Internationale du Banc d’Arguin (FIBA), the French Agency for Development (AFD) and the French Global Environment Facility (FFEM), commissioned a two-phase comparative review of the advantages and disadvantages of financing PA and PA systems through CTFs versus traditional short-term donor project support. The comparative review was based on an overall scoping exercise, interviews, a web survey and case studies. It focused on African and Latin American countries and CTFs with endowments. Overall, the review provides good evidence that using a combination of approaches offers the best investment option.
A traditional short-term donor project approach is a financial intervention of up to several millions of USD/EUR that is allocated during a relatively short period (3 to 5 years) and designed to create and/or strengthen PA and/or systems and their management. Typically, this intervention includes a project design, which builds on a result chain/theory of change.

In order to document, provide details and illustrate some of the main conclusions and lessons learned, the comparative review conducted in-depth field studies at four PA. These PA were selected as representative of some of the funding approaches: Short-term donor projects, subsidies from an endowment CTF (in the form of annual payments or grants), government allocations, other mechanisms, or a combination of any of these. The four PA chosen for detailed analyses were:

- **Pendjari National Park (PNP), Benin**
- **Bwindi Impenetrable National Park (BINP), Uganda**
- **Masoala National Park (MNP), Madagascar**
- **Monarch Butterfly Biosphere Reserve (RBMM), Mexico**

While only the highlights and recommendations of the analysis are presented in this publication, the comprehensive reports and detailed case studies are available from the CFA website:

www.conservationfinance.org

We trust that this publication will help inform and advise PA managers and their partners in assessing and choosing the best available financial options that will help sustain their PA and/or PA system and achieve improved conservation results.
1 - Closing the financing gap: conducting a comprehensive PA System Finance Analysis as an essential step

1.1 - A large funding gap
In most countries and in most PA, a financing gap can be observed, i.e. the demand for finance in a national PA system is significantly higher than the supply of finance. In many countries, this gap is expected to increase over time, including in particular in most African and Latin American countries. The review highlights that all four case study PA are facing financing gaps between 20% and 50% of their annual budgets. In addition, income predictability remains a significant challenge for all four PA, although some of them can count on some level of constant annual governmental financial allocations and/or tourism revenues.

In Benin, between 40 and 50% of Pendjari National Park annual demand for finance was covered through public allocations (governmental subsidies and investment programs) and park revenues (visitor/access fees and hunting tourism rights). In Uganda, over the last ten years Uganda Wildlife Authority’s (UWA) internally generated revenue has more than tripled. This amount alone finances 50% of UWA’s total annual operating expenditure. In Madagascar, park owned capital from tourism resources directly managed by the park covers about 10% of its annual financial needs.

1.2 - Determining the funding needs
The determination of demand for PA finance is not a trivial issue, especially if relevant policy goals and requirements are vaguely formulated. From a financing perspective, targets and requirements stipulated in relevant policies help determine the demand for PA finance. On the level of a PA, demand for finance is also mainly derived from the expected costs for implementing adopted PA Management Plans.
1.3 - Taking measures to reduce the gap

Based on the findings of the review, a range of different measures can typically be taken to reduce or eliminate the financing gap as illustrated in Figure 1. A variety of funding mechanisms including long-term CTF funding as well as project finance can make significant contributions to reducing the financing gaps. The following measures are highlighted:

For decreasing demand for PA finance

- Develop new, realistic policies and laws related to PA – donor-financed projects have the ability to procure the best international expertise in policy and law development, and thus bring about good and quality policies; on the other hand, CTFs are well rooted in local scenes and politics, and as local conservation institutions are able to exert greater convening power and influence local decision-making towards the passing of locally appropriate legislation.
- Increase efficiency of service provision and cost efficiency of programs.
- Provide more appropriate or less expensive equipment and infrastructure; decrease O&M costs - CTFs have a comparative advantage, as they typically know better the offer on domestic markets and requirements of end users; donor-funded projects in turn have a comparative advantage in procuring assets on international markets.
- Regulate funding flows toward more sustainable levels – CTF financing can be guaranteed over a long period thereby allowing for improved planning and efficiency of resource use. In many cases, project finance on the other hand creates a feast
or famine approach where demand for funding increases to respond to available money and then drops dramatically once that funding is no longer available.

**For increasing supply of PA finance**

- Increase transfers from public sources/budgets - Donor-funded projects often focus on rationalizing planning at the individual PA and/or PA system level in terms of management. On the other hand, CTFs are in a position to systematically trigger increased budget transfers and co-finance these if necessary over a longer period; CTFs may also be able to leverage more funds from government.

- Increase revenues from user charges, eco-taxes and PES - Donor funded projects are in a good position to support work on designing new user charges, eco-taxes, PES and other economic instruments. However, the ability to manage such earmarked revenues is a comparative advantage of CTFs.

- Increase finance from private/commercial sources - CTFs have an important comparative advantage in leveraging private and commercial finance.

- Increase finance from foreign/international sources - CTFs can attract, bundle and coordinate the allocation of endowment capital and sinking funds of a multitude of donors. Such donor collaboration is otherwise rather uncommon in development cooperation and is typically realized only to a much more limited extent in donor funded PA projects. Moreover, CTFs, as independent, accountable institutions, have the ability to manage payments such as compensation/offset payments or REDD+ payments that can support the finance of protected areas in some cases.

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**In 2007, the World Bank published a technical note on the financial gap of the national PA system in Madagascar. For 2012 the annual management costs of existing Madagascar PA network were estimated at US$7,85 million (based on an annual management cost of US$3.5/ha) and of new PA between US$7.5 and 10 million. The total management costs of all Malagasy PAs were therefore estimated at between US$15 and US$18 million. In a more recent policy note, the World Bank estimated the annual management costs for the entire PA system at US$14 million. The financial analysis conducted in 2003, as part of the development of the second management plan for Masoala National Park, identified a financial need of US$550,000/year to operate the park at appropriate standards, some 50% higher than the 2012 level of expenditure.**

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**A variety of funding mechanisms including long-term CTF funding as well as project finance can make significant contributions to reducing the financing gaps**
Transfer resources generated at PA level across the PA system in a given country - An increased supply of PA finance for an individual PA can also be realized by real-locating PA related revenues from one PA to another in a given PA system (e.g., on national or eco-region levels). An important comparative advantage of CTFs can be to carry out such a redistributive function over the longer term and sometimes over time and geographical horizons.

1.4 - Conducting comprehensive PA System Finance Analysis

The review advocates the increased use of a comprehensive PA system finance analysis and the application of good international practice to further rationalize PA finance, weigh options and identify what are the exact financial needs that have to be filled, recognizing when an endowment CTF or a donor-funded project will have more effect and under which specific local and national conditions.
2 - Other prerequisites for assessing the relevance of financial options for Protected Areas

In making a decision on which financial mechanism would be better positioned to achieve a specific expected goal for a given PA in an efficient and effective fashion, the review highlights that a comprehensive PA System Finance Analysis should be a first prerequisite.

Other prerequisites need to be analyzed and assessed as well, as they will influence the decisions that will be made regarding investment options. There again, CTFs and project finance have a role to play to enhance the level of favorable local conditions for conservation and for implementing financing mechanisms.

2.1 - Adjusting the mechanism to the life cycle of the PA/PA system

The level of development and/or maturity of the national PA system will influence the role that each financial instrument may play. In a nascent national PA system with weak capacities to develop and manage the system and its individual PA, donor-funded projects may best be used to build basic capacities and infrastructure and to buy basic equipment. On the contrary, in a mature national PA system, endowment CTFs may best be used to cover recurrent costs, to support the development of co-management processes and to finance alternative livelihood options for surrounding communities. In such a mature system, short-term project support may be used to replace or strengthen existing infrastructure, to provide specific and specialized support or to conduct detailed studies and research.
Figure 2 proposes a hypothetical illustration of the role of donor assistance and CTF over the life cycle of a PA (over a 20-year period):

2.2 - Status of the legal system
When the passing of specific conservation laws or decrees may be necessary, an initial project support could be adequate to help develop such tools, paving the way for more secure and structured financial support thereafter. On the other hand, it should be noted that the setting up of an endowment CTF in the country would require a specific Trust Fund Act or Foundation Law in place at the national level, for securing the investments. Otherwise, creation of the CTF can take place offshore; for example, various African CTFs are registered under the Charity Law in the United Kingdom, given the relative ease of registration and the lack of alternatives in country.

2.3 - National policy and governance system in place
The state of the national policy and governance system may influence the decision being made regarding financing options. In a country faced with instability in its political and governance systems, an endowment CTF may provide a beneficial alternative due to its independence, accountability, and its resilience to policy and institutional shocks,
A comprehensive PA System Finance Analysis should be conducted, first of all, to weigh options and to identify what are the exact financial needs that have to be filled and what are the potential financial options available to fill these categories of expenditures or needs and in view of the limited other financial options that may be available. In this case of instability, donors may be reluctant to finance projects. In some extreme cases, project support may even be embargoed and financial support from a CTF could be the only remaining source of finance to the PA system.

2.4 - Government commitment
A country displaying a strong government commitment to conservation efforts will probably have enacted specific conservation laws, decrees and policies. In a country with a weaker commitment to conservation efforts, short-term projects may be used to increase basic awareness vis-à-vis conservation and natural resource management aspects. Lobbying vis-à-vis national institutions and government may be conducted through an institution such as a CTF with the aim of increasing financial and institutional commitments to biodiversity conservation.

2.5 - Engagement of the private sector and civil society
CTFs would seem better adapted to work collaboratively with a private sector that wishes to channel funds to conservation efforts, either through voluntary commitments or through regulatory requirements. CTFs are also better suited to engage equitably with civil society in fostering and implementing conservation programs. These stakeholders also have the capacity to actively participate in the CTF governance system, where they can feed into a national debate and discussion on conservation issues. On the contrary, short-term projects may be less amenable to engagement with the private sector and civil society when their commitment to conservation is limited. But project finance would provide an opportunity to build capacity and to increase this commitment and pave the way for more sustainable and secure financial support. Project finance may also be important to leverage private sector capital (e.g. through a matching grant situation) and would represent an effective strategic approach to conservation.
Pendjari National Park (PNP), Benin

The Pendjari National Park (PNP) is located in the North of Benin. About 5,000 households in 23 villages live around the PNP and depend on its natural resources. PNP is part of the W-Arly-Pendjari (WAP) complex, the largest and most important continuum of terrestrial, semi-aquatic and aquatic ecosystems in the West African savannah belt and by far the most significant remaining range area for elephant conservation in West Africa. It is also of critical importance for the last populations of Sahelian and Sudanese mammals. The number of tourists per year went from 1,000 in 1990 to more than 7,000 in 2010 but largely fluctuates with current political context.

PNP Supply of finance (including foreign development assistance)

Ref: Le Groupe-conseil baastel (2013)
The West African Savannah Foundation Endowment Conservation Trust Fund (FSAO) was initiated in the late 1990s by the Benin Government and technical and financial partners but it was effectively created only in October 2012. The Benin Government has committed €1.5 million and the German Government €8 million to the FSOA for its initial endowment capital; the size of the required endowment for the Benin component alone has been estimated at €16 million. FSOA is not yet operational but it is planned that revenues will be used to finance, initially, the Benin PA management agency, the Centre National de Gestion des Réserves de Faune – CENAGREF, as well as the two Benin national parks (Pendjari and W); it also includes a window for funding cross-border activities and one for other activities in the W-Arly-Penjari complex (Benin, Burkina Faso, and Niger).

Though total public allocation and park revenues cover up to 40-50% of PNP demand for finance, project support has been instrumental so far in increasing the efficiency of the PA service provision as well as operation and management costs of PNP: 50% of park staff salaries have been supported by project support, as well as all other park related expenses (equipment, surveillance, etc.). Projects from foreign development assistance, in particular: GEF, EU, German, Dutch and French Cooperations, provided considerable support over various periods, but decreased in recent years.

The complete case study is available at: http://conservationfinance.org/library.php

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Monarch Butterfly Biosphere Reserve (RBMM), Mexico

The Monarch Butterfly Biosphere Reserve (Reserva de la Biosfera Mariposa Monarca – RBMM) is a federal PA located in the states of México and Michoacán. Around 100,000 people live inside the RBMM (core zones and buffer zones) and 500,000 people live in the wider areas overseen by RBMM. Every year, the RBMM welcomes millions of monarch butterflies as they complete their annual migration to their winter home in this Mexican forest.

The Mexican Fund for the Conservation of Nature (Fondo Mexicano para la Conservación de la Naturaleza - FMCN), was legally incorporated in 1994 with initial contributions provided by USAID (over US$20 million) and by the Government of Mexico (US$10 million). With additional contributions (incl. GEF, World Bank, US Philanthropies, Government of Mexico), FMCN’s endowment capital reached US$103 million in 2012 and has distributed close to US$56 million to support 977 conservation projects to date.

At the end of 1996, FMCN was appointed as recipient and manager of a separate endowment of US$16.5 million from the GEF to support the national PA system. This project - called SINAP - led to the creation of a new endowment fund in 1997 called Natural Protected Areas Funds (Fondo para Áreas Naturales Protegidas – FANP) managed by FMCN. After almost 15 years of operations, FANP endowment reached over US$75 million, its endowment income supporting 24 natural PA.

Following an initiative by FMCN and WWF, the Monarch Fund (Fondo Monarca – FM) was established in 2000 to provide support for the payment for environmental services within the RBMM. Initially established to compensate/pay for the non-exploitation of wood within the forests of the RBMM core zones, it moved in 2009 to a mechanism that pays for the strict conservation of these forest areas. Between 2000 and 2012, FM invested a total of almost US$3 million from its endowment income in payments to land owners.

The complete case study is available at: http://conservationfinance.org/library.php
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3 - Niche values of Projects and Endowment CTFs in improving PA efficiency

The comparative results offer insight into the specific niche values that both of these financial mechanisms provide to the PAs. The issue is not whether one instrument is better than the other, but rather how the instruments can best complement each other. Indeed, both financial mechanisms demonstrate their own funding niche with regard to PA finance or in supporting interventions around the PA.

According to the web survey results, aspects related to long-term sustainability of operations, local ownership in PA management, leveraging additional financial sources and lowering transaction costs are perceived closer to what a CTF mechanism can provide, while realizing the establishment of new PA, demonstrating and mainstreaming new innovative solutions and technologies, realizing technology transfer and implementing demonstration projects were perceived closer to the project-finance approach.

*In Madagascar, the multi-donor Integrated Conservation and Development Project together with WCS provided technical support for the establishment of the Masoala National Park until 2008 and was instrumental in bolstering the capacity of that PA’s staff, and building the PA organizational structure and capabilities. Its first and second management plans were developed with the technical and financial support from these partners.*

3.1 - Specific niche of projects:

- Finance costly short-term investments such as park management and administrative infrastructure, tourism facilities, time-bound studies such as censuses, inventories, social and economic studies and impact evaluations.
- Can be instrumental in establishing the PA, paying for boundary demarcation and community outreach, offering early support to identify and establish PA.
- Provide time-bound technical assistance to key PA management activities and services.
- Demonstrate innovative and more efficient processes and technologies.
- Support livelihood and local development initiatives, social and community mobilization/education/sensitization and strengthening local community involvement in PA co-management processes.
3.2 - Specific niche of Endowment CTFs:

- Provide financial support for smaller-scale individual projects. Donor-funded projects are typically focused on realizing a limited number of larger projects within one PA and/or PA system support program and often do not have the flexibility to provide targeted small-scale funding for specific projects.
- Finance less visible PA day-to-day activities, in particular recurrent O&M costs.
- Provide more secure and predictable financial resources to PAs, also making crucial contributions to the financial sustainability of PAs in the longer run. Short-term project support is less predictable and is generally active only over a 3 to 5 year period. Such projects are important as they can provide a large amount of money over a short period of time and are useful for PA to finance costly investments or address a well-defined problem. However, they cannot guarantee predictable income that can be used to cover PA recurrent O&M costs or provide a basis for longer-term planning.

In Benin, the decrease in financial support provided by the German cooperation to PNP since 2009 resulted in a significant annual financial gap for PNP. The same situation has been observed in Masoala NP when WCS technical and financial support decreased in 2008.

In Mexico, FANP makes up for the annual slowdown in government funding to the RBMM from January to March each year.

- Compensate for yearly slowdown in governmental and other funding.
- Leverage public, private and commercial funding to promote conservation.
- Act as institutional and policy lobbyists and a rallying/coordinating point for donor and project support for PA and/or work with communities surrounding PA.
- Pilot dialogue between governmental institutions, national NGOs, associations, and donors.
- Implement sophisticated project cycle management, in particular to systematically develop and improve project preparation capacities of potential project proponents and to enhance project quality, transparency in allocating funds, accountability, cost efficiency and project co-finance. As such, it helps professionalize the organization and provision of PA finance.
4 - CTF: more than just funding!

4.1 - A flexible and resilient instrument
Endowment CTFs have the capacity to adapt support to evolving PA needs. They are more resilient to national institutional crises. They are independent grant-making institutions and are therefore less influenced by political or institutional turmoil. They are also capable of establishing emergency funds or additional funding windows to quickly respond to emergencies and urgent needs, such as natural disasters, if adequately endowed. Finally, their budgeting and financial management can be more flexible than fiscal or project budgets and thus they are better able to respond to changing management needs or emergencies.

In Madagascar, FAPBM established a special intervention fund designed to adapt its support to special needs that arise.

4.2 - A capacity to leverage additional funds
CTFs are successful in mobilizing other sources of funding. Short-term projects are able to leverage complementary financing in the form of co-financing, but generally in insufficient amounts and scale. The three operational endowment CTFs reviewed in the case studies have been successful in mobilizing significant financing over time.

In Mexico, FANP received US$22.5 million from the World Bank/GEF in 2000, with disbursements contingent upon the deposit of a 1:1 match in funds. After almost 15 years of operations, the FANP endowment reached over US$75 million surpassing the required match and showing its abilities to mobilise financing over time.
4.3 - An aid coordination platform
Endowment CTFs are generally better equipped to coordinate international assistance, as they have the flexibility to establish different funding windows and to account for funds separately, providing the accountability desired by donors. CTFs can be effective in strengthening the overall coordination of international assistance at the national level, as long as they are perceived as independent, and honest brokers. As such, it should be noted that the quality and performance of CTF governance structure and operations is key. CTFs, building on their local presence and networks of partners, can then be an attractive entry point for donors wishing to work around a given PA with a minimal entry cost.

4.4 - A tool for policy dialogue
Both endowment CTFs and short-term projects can act as institutional and policy lobbyists. CTFs are well placed to contribute to national policy dialogues in the medium to long-term and to influence national conservation policies. The high-level board of directors or trustees contributes to reinforce this influence at the national and regional levels. On the other hand, short-term projects are well placed to directly support the development and enactment of a specific law, in particular in cases where their objectives and/or expected outcomes focus on such issues.

In Uganda, the BMCT contributed to lobbying national policies through its ability to participate in several networks nationally. BMCT, in addition to being a member of IUCN, is represented in the national REDD+ network, the population, environment and health network, as well as in on-going fora of discussions on poverty and livelihoods in the Albertine Rift.

CTFs are successful in mobilizing other sources of funding and in coordinating international assistance.
Bwindi Impenetrable National Park (BINP), Uganda

BINP is part of the Albertine rift valley in southwestern Uganda. It covers an area of 331 km² and is among the largest natural forests in Uganda. Initially gazetted in 1930/42 as a gorilla sanctuary and forest reserve, it received national park status in 1991. The park is a major water catchment area for the surrounding population of about 240,000 people and the three districts that border Bwindi are the most densely populated in Uganda. The BINP’s rare afromontane vegetation provides one of the richest habitats in east Africa for birds, butterflies, trees, chimpanzees and more than half of the world’s remaining mountain gorilla population.

The Bwindi Mgahinga Conservation Trust (BMCT) was established in 1994 with endowment capital provided by the World Bank/GEF (US$4.3 million) and complementary project finance provided by USAID and DGIS. As of February 2013, the Endowment Fund stands at US$6.78 million but the PA manager has indicated that the fund needs to be increased to at least US$15 million over the long-term. Project funds provided by USAID (over 3 years) and DGIS (over 5 years) covered the operational and subsidies costs of BMCT, allowing the Board to grow its original capital through reinvestment.

The original split in the use of the trust fund income called for: 60% community development projects (in parishes surrounding the parks), 20% research activities, and 20% park management. BMCT has also been receiving complementary project financial resources for its operations and for additional livelihood and grant money. BMCT has acted as a model for the World Bank/GEF in creating other such endowment funds, especially in Africa.

The complete case study is available at: http://conservationfinance.org/library.php
Project funds provided by USAID (over 3 years) and DGIS (over 5 years) covered the operational and subsidies costs of BMCT, allowing the Board to grow its original capital through reinvestment.
Masoala National Park (MNP), Madagascar

The Masoala National Park (Masoala NP) was created in 1997 and is one of the 52 PA managed by Madagascar National Parks, private association of public utility. More than 115,000 people live in the peripheral zone of the Masoala NP in 150 villages. Madagascar’s biodiversity is unique and irreplaceable, representing 5% of the world’s biodiversity in just 0.4% of the global landmass. The national PA system includes 145 PA, including Masoala NP, designated as a WHS in 2007 for its exceptional and rich biodiversity.
The Madagascar Biodiversity Fund (FAPBM) was established in 2005 as a private Malagasy Foundation, following a dedicated and lengthy effort to enact a new Law on Foundations in the country, and initially to fill an annual financial gap of US$7,5 million in the Madagascar National Park system. Contributions to the endowment CTF were provided by grants from CI, WWF, AFD and FFEM, IDA/Government of Madagascar, KfW, GEF and from Debt Reduction with the French Government, reaching a total capital of US$50 million to date (initial objective of the endowment). In addition, sinking fund contributions were received from KfW from 2006 onward totalling EUR 10,2 million. By the end of 2013, FAPBM had invested US$5,3 million to support 17 management units/PA including US$2 million from interest earned on the endowment. FAPBM has provided grants to MNP since 2010 for an average of US$ 90,000 per year based on annual workplans and needs, helping to sustain the park’s financing needs for management and operations.

Project support has covered up to 50-60% of annual MNP demand for finance, provided from, amongst others: USAID, WCS, WWF, Zurich Zoo, KfW Investment Fund, French Region Nord Pas de Calais, CI, IDA, and GEF.

The complete case study is available at: [http://conservationfinance.org/library.php](http://conservationfinance.org/library.php)
5 - Transaction costs: Main findings

Overall, although a straight comparison of transaction costs for short-term projects and CTFs is probably deceptive if at all possible, the analysis and case studies tend to show that adequately endowed CTF effectively operating over at least 10 years will likely have a lower ratio of transaction costs than projects. This could be mostly attributed to the high costs of project designs (for a majority of donors) and the high costs for the phases of build up and exit of projects, when projects are not successive ones.

In economics, a transaction cost is a cost incurred in making an economic exchange. For example, when buying a good, the cost paid integrates not only the price of the product itself, but also the energy and efforts required to find out which variety is preferred, where to get it and at what price, its cost of travelling, the cost of making a legal contract and so on. All of these costs, except for the price of the product itself, represent transaction costs. For the purpose of this publication and relating closely to ecological economics, transaction costs is here meant as the costs involved in delivering conservation benefits (besides the grant itself). Typically that would include project design costs and CTF set up costs, administrative transactions, steering and guiding costs, or monitoring.

The following elements could be considered when assessing the transaction cost of both mechanisms.

5.1 - Level of capitalization of CTF

The level of capitalization of all three CTFs is quite different, from US$4.5 million in capital for one of the smaller CTF to a capital 20 times larger, exceeding US$100 million for one of the largest CTFs. For smaller endowed CTF, costs, mainly in the form of investment management fees but also ratio of CTF operations versus grant program, could be high. Solutions in the form of ‘pooling’ of investments or rationalizing operations may be sought.

5.2 - Abilities to leverage co-financing

Mobilizing co-financing is a condition for project support from traditional donors; however, short-term projects are generally only able to leverage complementary financing
“In the West African sub-region, the density of wildlife in the Biosphere Reserve Pendjari and its management make it a model for the modern management of a protected area”

Méryas D. KOUTON (Director of PNP)

in the form of existing short-term projects for which effective mobilization is difficult to track. On the other hand, CTFs have proved able to mobilize large amounts of funding; and two of the three CTFs reviewed were able to leverage additional financing from public, private and commercial sources.

5.3 - Management and operating costs

A straight comparison of management costs for short-term projects and CTFs is probably misleading: their functions, objectives, structure and operations are different. Also, a strict comparison between CTFs themselves is also probably misleading: the context, mission, objectives are different; and there are no uniform accounting mechanisms. That said, the three CTFs show comparable levels of O&M costs to those of international foundations’ and international organizations’ project fees/overheads. Endowment CTFs not adequately endowed will likely show a higher ratio of overhead costs than other funds that have larger endowments that can take better advantage of economies of scale in CTF management and operations. It should be noted that governance and structural costs of a CTF can be high, when the board of directors/trustees is not familiar with running such an institution and secretariat staff not equipped with the required grant
administration skills and private foundation experience, but that cost would diminish as the CTF grows in maturity and the level of capital held in trust increases.

5.4 - Project design/exit and CTF set up

CTFs are complex institutions to set up. Experience shows that the creation of CTFs can take up to 10 years, as the set up of a multi-actor governance system, development of the procedures and capitalization (endowment or sinking funds) consume enormous efforts (and therefore funds!). No study could be found to report on the overall level of financial support necessary to see a CTF established. One could suppose that this cost would be lower in countries where private foundations or trusts are in existence in this or other sectors. On the other hand, networks of CTFs such as RedLAC (Red de fondos ambientales de Latinoamérica y el Caribe) or CAFÉ (Consortium of African Funds for the Environment) and also guidelines and tools such as the ones published by the CFA have the objective to help lower transaction costs for CTFs, through learning and exchanging practices and information. On the other hand, from a project concept to implementation, staff time involved in the development of the project can be high. For some donor organizations and complex projects, this phase can last up to 4 or 5 years, with high costs for project design, consultation process, and opportunity costs involved in delays in mobilizing the required project support at the beginning. Bringing the project to closure and pulling out from providing services can represent high transaction costs for the beneficiary PA, sometimes having to lay off key staff, reduce operations and withdraw support to the communities. To mitigate the costs, a PA often engages with donors early on before project completion to seek a second phase or other project support.
6 - Contribution to conservation and social impacts of both financial mechanisms over time

6.1 - Environmental impacts
All four PAs analyzed show improvements in their ecological and environmental status overtime. Although the reason for improvements is not attributable necessarily to a specific funding mechanism, one can say that permanent available funding to ensure minimum levels of PA management and services leads to positive conservation impacts over time, whether through CTF grants or short-term projects that are successive, continuous and do not leave the PA without finance a given year.

In Mexico, forest cover in RBMM core zones increased in recent years, and 2011-2012 was the first time since the official creation of the RBMM in 2000 that no illegal logging was observed within core zones. In Uganda, the number and distribution of gorillas in BINP increased as a result of improved park management and engagement with local communities around tourism. In Madagascar, biodiversity conditions within Masoala NP are estimated as good. The level of threats decreased for the majority of them, except for illegal exploitation of rosewood. In Benin, the number of key species such as elephants or lions has also been stable overtime or even increased.

6.2 - Social and economic impacts
Results and evaluations at PA sites show improvements overtime in livelihoods and economic conditions within their surrounding areas; however, attribution of impact to projects or CTF action remains an issue. Both play a key role as well in strengthening local communities’ awareness and in increasing their commitment to biodiversity conservation and the establishment and further development of PA.

The results also suggest that livelihood and local development initiatives could be further expanded if project funds were channeled through an endowment CTF. In these cases, endowment CTFs act as a catalyst and/or rallying/coordination point for additional support, and provide the ‘glue’ between specific projects. They can also build on the
long-term relationships and mechanisms for community engagement they have built with local authorities and communities.

In Benin, the PNP co-management arrangements promoted by the National Parks Conservation and Management Program between 2000 and 2005 generated tangible results and led to the establishment of over 100 village associations for the management of wildlife reserves. These associations played a catalytic role in the disappearance of previously antagonistic relations between local populations and management of the PA.

In Uganda, BMCT’s first grant projects concentrated on the provision of basic social infrastructure, such as schools and health centres. Its activities have since been re-focused on landscape conservation and livelihood improvements. Over the years, BMCT support contributed to, inter alia, the introduction of settled agriculture to the nomadic forest dwelling Batwa tribe; provision of scholastic materials for Batwa children among others; building health clinics and schools; and introducing new revenue-generating enterprises such as fish farming and mushroom growing. BMCT support provided over the years to surrounding communities contributed to improvement of socio-economic conditions. It also greatly contributed to transforming the relationship between the park and local communities from confrontational to positive.

6.3 - Financial impacts
In terms of financial sustainability, adequately endowed CTFs represent a good alternative for providing additional predictable financial resources to PA. Short-term project support is less predictable and generally active only over a 3 to 5 year period – it can provide a huge amount of money over a short period of time, but is less able to guarantee predictable income. As a result, the sustainability of such funding is questionable, unless combined with a source of longer-term finance. PAs that do not benefit from endowment CTF financial revenues, and in the absence of other revenue or income options that could be steady and reliable over a long period of time, are less likely to evolve
to a mature development phase, as the minimum financial resources required to operate at required standards may not be guaranteed.

Income predictability by endowment CTFs is another issue; investments and their annual income depend on world financial market returns and are subject to fluctuations. However, fluctuations can be managed to some extent, for example, with a prudent investment policy and a strategy to set aside a part of the revenues in reserve. On the other hand, the yearly Conservation Trust Fund Investment Survey (CTIS) demonstrates that financial performance of CTFs has been on average over the years very positive and in line with performance of other trusts and investments in the United States and Europe.

In Mexico over the last 16 years, FMCN averaged 7.8% yield for its endowment.

Endowment funds participating in the CTIS conducted in 2012 by CFA show average US Dollar-adjusted returns of 9.35% below S&P 500 at 16% (but at 2.07% for fiscal year 2011 exceeding the average returns of the S&P 500 of 2.05%). Furthermore, this survey shows that the 3- and 5-year returns for endowment funds are positive, averaging 6.18% and 4.87% respectively, as calculated in equal weighted averages across all size of categories.
7 - Operational recommendations for decision makers

The following recommendations are made with respect to the use of the two different financing approaches. They should be considered along with the conditions outlined in the document regarding the most effective financing strategy for PAs.

1 - Conduct a detailed analysis of the specific priorities and needs that the investment will contribute to, along with an assessment of the specific context and circumstances at play at the national level.

2 - Conduct a comprehensive PA System Finance Analysis to identify what are the exact financial needs that have to be filled and what are the potential financial options available to fill these needs.

3 - Based on the comparative advantages of both financing instruments and the niches of both instruments according to PA development stages and specific actions, combine both short-term investment with a long-term financing package targeting specific actions. As both CTFs and projects will generate certain benefits, design strategic coordination between both these financial instruments.

4 - In a given country faced with instability in its policy and governance system (political turmoil, high level of corruption), favor endowment CTFs due to their independence and resilience to policy and institutional shocks, and also due to the limited other financial options that may be available.

5 - Strengthen the collaboration and coordination between donors to incorporate both funding sources so that short and long-term operations are supported.
6 - Refer to **Practice Standards for CTFs** which suggest conditions which could be considered as key building blocks for success in establishing and running a CTF, including independence, strong accountability mechanisms, quality governance, operational procedures, and solid asset management and resource mobilization strategies. This would help reduce the transaction costs for that mechanism.

7 - For targeted PA, finalize the development of (management and) **business plans**. These plans should enable the identification of the PA priorities and needs in the short and medium terms.

8 - For CTFs, explore **innovative partnerships and fund mobilization**. CTFs should invest significant efforts in fundraising strategies and communication actions to identify new financial sources and mechanisms, and develop their fundraising and networking capacities accordingly, through appropriate staffing.
## Annex - Specific niches of both short-term project support and endowment CTF mechanisms

### Identification & Establishment phase

<table>
<thead>
<tr>
<th>Specific activities</th>
<th>Short term project support</th>
<th>Endowment CTF support</th>
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</table>
| Establishment of institutional and operational frameworks and processes | • Provision of international technical expertise  
• Development and enactment of creation decrees  
• Development of specific conservation laws and strategies | • Support to O&M costs: (i) maintenance of acquired equipment and transportation means; (ii) mission costs; (iii) PA management overheads  
• Contribution to long-term policy dialogue |
| Development of first management plan & business plans     | • Provision of specific technical expertise in management plan development  
• Implementation of baseline institutional, ecosystemic, financial and economic studies  
• Job coaching and training support in developing management and business plans |                                                                                       |
| Initial purchase of transport means and equipment         | • Provision of financial support for initial investments                                   |                                                                                       |
| Building/rental of administrative office                  | • Provision of financial support for initial investments                                   |                                                                                       |
| Building of basic in-house management and technical capacities of PA staff | • Organization of trainings and provision of on the job coaching                         |                                                                                       |
| Delimitation and mapping of PAs                          | • Participative identification and delimitation  
• Development of basic maps of the PA                                                     |                                                                                       |
| Conduct of initial biological studies and inventories     | • Implementation of baseline census and inventories                                       |                                                                                       |
| Initial sensitization/awareness raising act. with communities | • Consultations with surrounding communities  
• Awareness raising campaigns                                                               | • Initiation of a constant engagement with surrounding communities                     |
### Early operational phase

<table>
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<tr>
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<tbody>
<tr>
<td>Day-to-day park management activities</td>
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</table>
| Establishment or strengthening of PA institutional and operational frameworks | • Provision of international technical expertise  
• Development of specific conservation laws and strategies  
• Update of business plan (financial needs assessment and development of financing strategy) | • Support to implementation of PA management processes  
• Contribution to long-term policy dialogue  
• Rallying/coordinating point for donor and project support for PA  
• Leveraging of additional funds |
| Replacement of transportation means and equipment       | • Replacement of used transportation means and costly equipment | • Replacement of small equipment | |
| Capacity building for management team                   | • Organization of trainings and provision of on-the-job coaching                           |                                                                                        |
| Building of PAs infrastructures                        | • Financial support to short term costly investment, eg. park tourism infrastructures and new administrative infrastructures |                                                                                        |
| Support to surrounding community development            | • Financial and technical support to sustainable livelihood alternatives  
• Sustainable management and use of resources | • Coordination of specific livelihood and development projects  
• Support to long-term partnership with local communities | |
| Development of co-management processes                 | • Technical support to development and implementation of co-management processes  
• Support to creation/ strengthening of local co-management structures  
• Consultations with local communities  
• Education/sensitization campaigns   | • Contribution to linking key stakeholders together within technical committees  
• Financial support to networking initiatives | |
| Support to networking of local civil society and NGOs   | • Direct technical and financial support in structuring and networking local and national networks |                                                                                        |
| Promotion of tourism                                   | • Development of communication tools (movies, flyers, posters, pamphlets, etc.)  
• Financial support to tourism promotion campaigns | • Day to day monitoring of park management activities  
• Ecologic and eco-systemic monitoring | |
| Monitoring and evaluation                              | • Impact evaluations  
• Censuses, inventories, socio-economic studies |                                                                                        |
<p>| Research program                                        |                                             |                                                                                        |</p>
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<tr>
<td>Strengthening of park management effectiveness and efficiency</td>
<td>• Demonstrate innovative and more efficient processes and technologies • Provide technical expertise</td>
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<tr>
<td>Update of management and business plans</td>
<td>• Provision of specific technical expertise in management plan development • Update of institutional, eco-systemic, financial and economic studies – identification of threats, pressures and barriers to overcome, identification of priority activities • Financial needs assessment and development of financing strategy</td>
<td>• General support to management processes through O&amp;M support</td>
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<tr>
<td>Retraining of staff on specific aspects</td>
<td></td>
<td>• Financial support to additional trainings on key specific aspects according to identified needs</td>
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<tr>
<td>Replacement of transportation means and equipment</td>
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<tr>
<td>Building and/or refurbishing of PA tourism and administrative infrastructures</td>
<td>• Finance short term costly investment such as park tourism infrastructures and new administrative infrastructures</td>
<td>(more as an institution than a fin. mechanism) • Coordination of specific livelihood and development projects • Support to long-term partnership with local communities</td>
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<td>Strengthening and consolidation of co-management processes</td>
<td>• Technical support to development and implementation of co-management processes • Support to creation/ strengthening of local co-management structures • Consultations with local communities • Education/sensitization campaigns</td>
<td>• Identification and leveraging of alternative sources of financing</td>
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### Consolidation phase - continuation

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