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Comparative advantages of Conservation Trust Funds and Project Approach to support Protected Areas systems

Final Report

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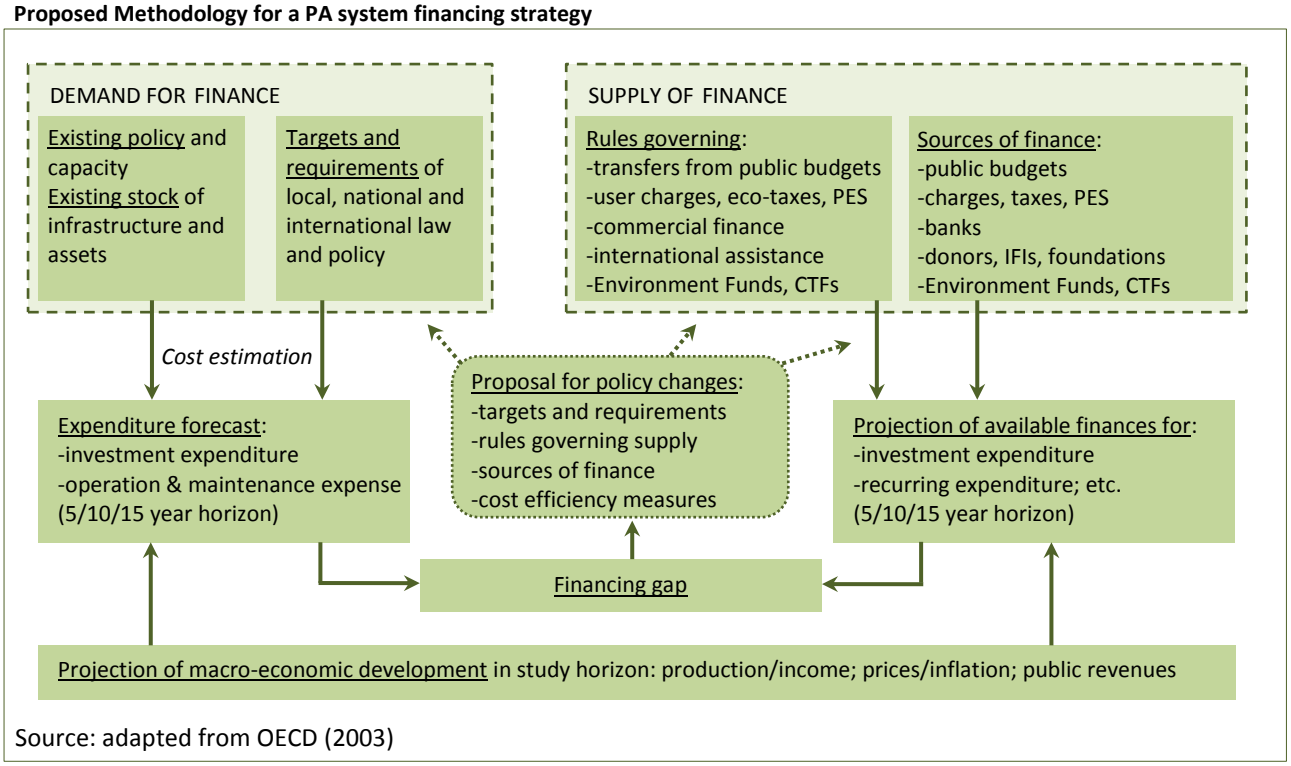
Executive Summary

The present report aims at answering the following question: "Why should significant amounts of scarce and expensive resources be committed in the capitalization of a CTF, with small returns in the long term, while more immediate and visible results could be achieved with direct investments in biodiversity conservation in the form of short-term projects." The objective of the present study as defined in the TOR is to compare the advantages and disadvantages of financing through a long-term, CTF mechanism versus a project-finance approach to support Protected Areas Systems, as well as to put in evidence the conditions that determine the decision of both investment options. The focus of the study is on African and Latin American countries.

The underlying problem is that in most countries 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 present report advocates the increased use of PA system financing strategies (see proposed methodology below) and the application of good international practice (e.g., OECD Council Recommendation C(2006)84 for CTFs) to further rationalize PA finance.

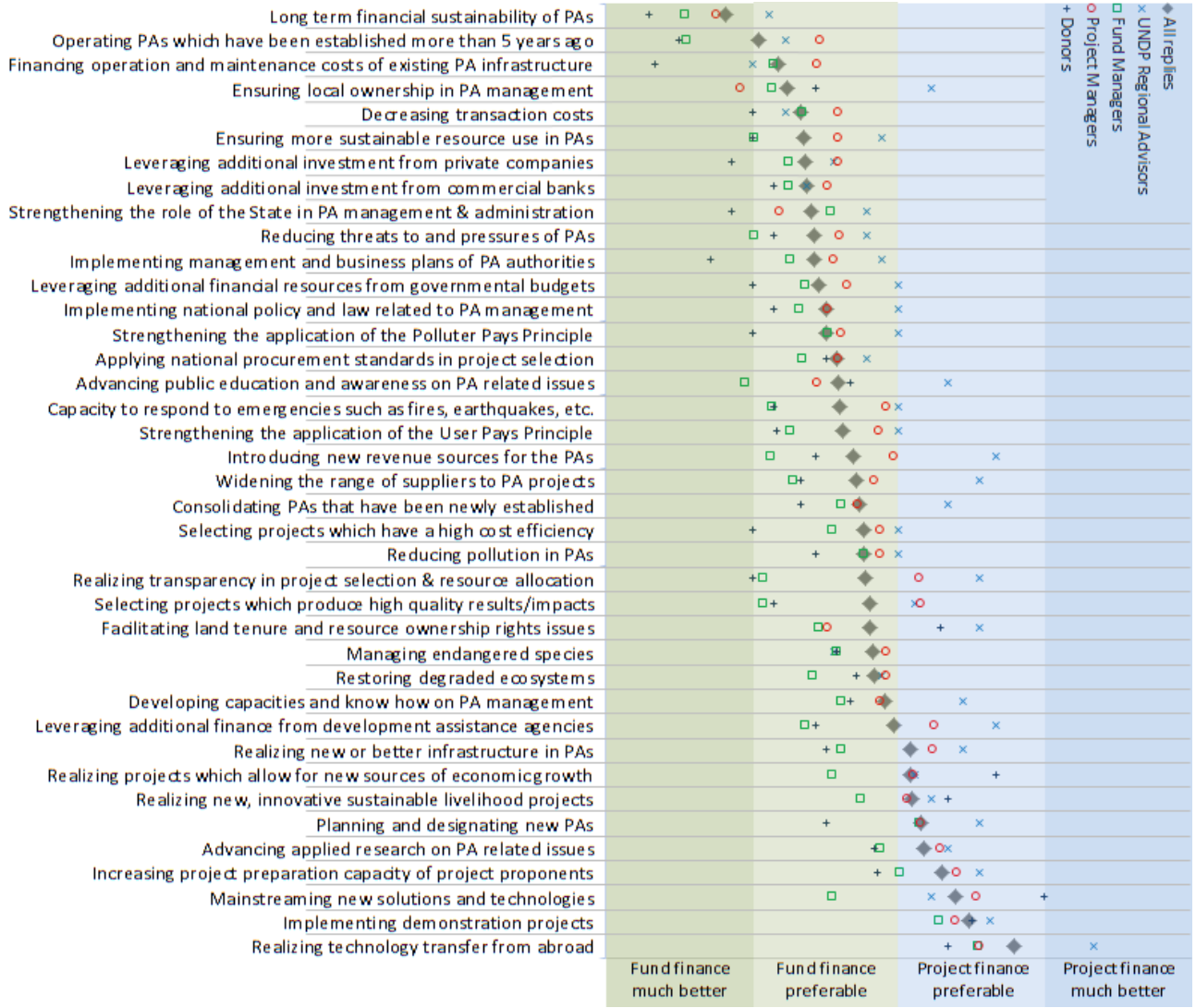
Proposed Methodology for a PA system financing strategy



Source: adapted from OECD (2003)

Key results of a dedicated web survey that was carried out as part of the present study in order to capture opinions of PA finance practitioners is presented in the figure below: for two thirds of the aspects covered there was a preference for a CTF approach. 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 the CTF mechanism, while realizing new PAs, demonstrating and mainstreaming new innovative solutions and technologies, realizing technology transfer and implementing demonstration projects were perceived closer to the project-finance approach.

Replies to the question "Based on your personal experience and opinion, which type of finance is better for the financial sustainability of Protected Areas (PAs)?"



Note: 69 replies are computed in this figure, coming primarily from PA finance practitioners in African and Latin American countries, including CTF managers, managers of donor funded projects, representatives of donor institutions and PA managers.

Chapter 4 includes ten concrete case studies in which demand and supply of PA finance and the role of projects and CTFs therein are discussed at the level of a selected PA. The case studies include Pendjari National Park in Benin; Wangchuck Centennial Park in Bhutan; Parque Nacional Alerce Costero in Chile; Galapagos National Park in Ecuador; Masoala National Park in Madagascar; Parc National du Banc d'Arguin in Mauritania; El Vizcaíno Biosphere Reserve in Mexico; Cordillera Azul National Park in Peru; Amani Nature Reserve in Tanzania; and, Mgahinga Gorilla National Park and Bwindi Impenetrable National Park in Uganda.

Based on the findings of the report, including web survey and case studies results, a range of different measures can typically be taken to reduce or eliminate the financing gap:

- Decrease demand for PA finance
    - Development of new, realistic policy and law related to PAs, e.g. if PA policy and law in a country is too demanding (i.e., too expensive to implement) or incomplete (lack of consistent framework to justify PA finance). One key comparative advantage of donor funded projects is the ability to procure best international expertise in policy and law development.
    - Increased efficiency of service provision and cost efficiency programs: Demand for finance can be reduced if PA management service provision is being reformed such that the services are provided more efficiently and cheaper. Donor funded projects often focus on such reform. One key comparative advantage of donor funded projects again is the ability to procure best international expertise in modern PA management practices. CTFs can procure such expertise too but their comparative advantage is to develop and implement such reform programs on the ground and in the long term, coupled with respective financial incentives.
    - Less/cheaper equipment and infrastructure; decreased O&M costs: CTFs have a comparative advantage as they typically better know the offer on domestic markets and requirements of end users, thus will be able to procure the assets and services more cost efficiently. Donor funded projects in turn have a comparative advantage in procuring assets on international markets, as well as international expertise in realizing new infrastructure, if required.
- Increase supply of PA finance
    - Increase transfers from public sources/budgets: Donor funded projects often focus on rationalizing planning on PA and PA system level in terms of management and related finance. As a result, responsible agencies are in a better position to claim increased transfers from public budgets to PAs. CTFs comparative advantage is that they typically exist over a longer time period whereas donor funded projects are operational for a limited number of years only. CTFs are thus in a position to systematically trigger increased budget transfers and co-finance these if necessary over a longer time period.
    - Increase revenues from user charges, eco-taxes and PES: Donor funded projects are in a good position to support - via the provision of good international practice - work on designing new user charges, eco-taxes, PES and other economic instruments. However, donor projects will typically not be in a position to manage earmarked revenues from such sources. The ability to manage such

earmarked revenues is a comparative advantage of Conservation and Environment Funds.

- Increase finance from private/commercial sources: Leveraging private and commercial sources of PA finance should always be considered an important measure to increase supply of PA finance and is also desirable in terms of decreasing subsidies over time. CTFs have an important comparative advantage in leveraging private and commercial finance in several ways: They can require private and/or commercial project co-financing as a standard requirement for getting Fund support; they can react swiftly to changing market conditions by decreasing or increasing co-finance requirements; they can help develop commercial co-finance in the longer run and support a gradual transition to more marked based PA finance. In addition, CTFs are normally well positioned to systematically provide financial support to projects that generate new revenue streams based on new/sustainable economic and livelihood alternatives.
- 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 cooperation is otherwise rather rare in development cooperation and is typically realized only to a much more limited extent in donor funded PA projects. Experienced, mature CTFs will also be able to deliver and implement PA project pipelines for financing from donor sources, act as PIUs or facilitate the flow of funds related to REDD and CDM.
- Transfer of 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 reallocating PA related revenues from one PA to another in a given PA system (e.g., on national or eco-region levels). This can be an interesting option in countries/regions which have well established "flagship" PAs generating larger amounts of revenues, while there are also PAs which have little revenues only. An important comparative advantage of CTFs can be to carry out such a redistributive function over the longer term.

The following additional comparative advantages of CTFs can be mentioned:

- CTFs are able to procure and support a great many of individual projects, including in particular small scale projects. Donor funded projects are typically focusing on realizing a limited number of larger projects within one PA (system) support program.
- CTFs can be capable of implementing sophisticated project cycle management, consisting of procedures such as: project identification, project procurement, project appraisal, project selection, project contracting, project monitoring, project cash flow management, project completion and project evaluation. If these procedures are in line with good international practice (see table 1) they can be powerful tools to improve project quality, project results, transparence in allocating funds, accountability, cost efficiency in allocating funds and project co-finance.
- CTFs can be excellent tools to develop and widen the supplier base for PA related projects and services in a given country. This can be achieved gradually if CTFs systematically apply public tendering procedures for identifying new projects to be supported by the CTF. The existence of a well-functioning CTF may also be conditional for the emergence of

specialized service companies, due to continued and guaranteed supply of finance over a longer period of time.

- CTFs can be excellent tools to systematically develop and improve project preparation capacities of potential project proponents. A well prepared project typically realizes better project results. The success of a CTF in this area is determined by the quality of the project cycle management procedures applied by the Fund.
- CTFs can be more flexible than fiscal or project budgets and can be able to respond flexibly to changing management needs or emergencies. They can facilitate a customized service to PAs while state structures tend to standardize and homogenize processes.
- CTFs professionalize PA finance organization and provision, complementing traditional skills and backgrounds found in the conservation sector. Such professionalization allows for an expansion of negotiation capacity with relevant public and private stakeholders and improved leveraging capacity/effectiveness for additional finance. Through minimum requirements included in CTFs' project cycle management procedures, CTFs may also spearhead better management practices in areas such as site-based financial planning & administration, eventually strengthening planning and management capacities of PA administrations in a sustainable manner.
- A key comparative advantage of CTFs is that they can make crucial contributions to the financial sustainability of PAs in the longer run. CTFs can be operational for a period of time which is limited by the specific purpose of the Fund only. Depending on the actual purpose of the Fund, such a time period can cover decades. Donor-funded projects, in turn, are typically limited in time and conclude after a few years, which can have detrimental effects on the financial sustainability of PAs supported.

Abbreviations and Acronyms

AFD Agence Française de Développement
AP aire protégée
BACoMaB Banc d'Arguin and Coastal and Marine Biodiversity Trust Fund Limited
BINP Bwindi Impenetrable National Park
BMCT Bwindi Mgahinga Conservation Trust
BoD Board of Directors
BTFEC Bhutan Trust Fund for Environmental Conservation
CBO Community based organization
CENAGREF Centre National de Gestion des Ressources de Faune (Benin)
CFA Conservation Finance Alliance
CIMA Centro de Conservación, Investigación, y Manejo de Áreas Naturales – Cordillera Azul
CONAF National Forest Corporation, Chile
CONANP National Commission for Natural Protected Areas (Mexico)
CTF Conservation Trust Fund
DAR Environment and Natural Resources Law Peru
EAMCEF Eastern Arc Mountains Conservation Endowment Fund
EBF Extra Budgetary Fund
EC European Commission
EU European Union
EUR Euro (currency)
FANP Protected Areas Fund (Mexico)
FBD Forestry and Beekeeping Division
FFEM Fonds Français pour l'Environnement Mondial
FIBA Fondation Internationale du Banc d'Arguin
FMCN Fondo Mexicano para la Conservación de la Naturaleza A.C.
FSOA Fondation des Savannes Ouest-Africaines
GDP Gross Domestic Product
GEF Global Environment Facility
GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit
GNI Gross National Income
GTZ Deutsche Gesellschaft für Technische Zusammenarbeit GmbH
ICD Integrated Conservation Development
IDA International Development Association, the World Bank's Fund for the Poorest
IFI International financing institution
IIAP Peruvian Amazon Research Institute
IMF International Monetary Fund
INRENA National Natural Resources Institute Peru
IUCN International Union for Conservation of Nature
KfW Kreditanstalt für Wiederaufbau
MAB Man and Biosphere Reserve network
MEUR million Euro
MGNP Mgahinga Gorilla National Park
MNRT Ministry of Natural Resources and Tourism
MoF Ministry of Finance
MPA marine protected area
MTEF medium term expenditure framework
MUSD million US dollars
n.a. not applicable
NGO non-governmental organizations
O&M operation and maintenance
ODA Official development assistance
OECD Organization for Economic Cooperation and Development
PA protected area
PCM project cycle management
PEEP Public environmental expenditure program
PES payment for ecosystem services
PIE Innovative Strategic Projects
PIU project implementation unit
PNBA Parc National du Banc d'Arguin
PNCAZ Cordillera Azul National Park
POA Annual operative plan (Mexico case study)
PPP Polluter Pays Principle
REDD Reducing Emissions from Deforestation and Forest Degradation
SERNANP National Protected Areas Service Peru
SNASPE National System of State Protected Areas
SPDA Peruvian Society of Environmental Law
TFCMP Tanzania Forest Conservation and Management Project
TNC The Nature Conservancy
TZS Tanzanian Shilling (currency)
UK United Kingdom
UNDP United Nations Development Program
UNESCO United Nations Educational, Scientific and Cultural Organization
UNMSM San Marcos University Peru
UPP User Pays Principle
USAID United States Agency for International Development
USD United States Dollar (currency)
UWA Uganda Wildlife Authority
WAP W-Arly-Pendjari complex
WCP Wnagchuck Centennial Park
WDI World Development Indicators
WB World Bank
WWF World Wildlife Fund

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The authors are entirely responsible for any errors or omissions.

1. Background to the Report

The purpose of the study is to compare the advantages and disadvantages of financing through a CTF mechanism versus a project-finance approach in the area of Protected Areas (PA) financing.

The focus of the study is on Africa and Latin America.

Five methods have been used to collect relevant information for preparing the present study:

- Analysis of applicable good international practice (see reference section).
- Analysis of relevant literature and websites.
- Elaboration of 10 case studies (5 focusing on PAs in Africa, 4 on PAs in Latin America and one focusing on a PA in Asia).
- Implementation of a web survey with five different questionnaires: one for PA Managers, one for Conservation Fund Managers, one for Managers of donor funded PA projects, one for government experts in charge of biodiversity/nature protection policy and one for representatives of donor institutions.
- Telephone interviews with case study representatives, selected web survey respondents and other experts.

The draft report was discussed at a 1-day expert's workshop that took place 14 June 2012 in Gland, Switzerland. Comments and recommendations from this workshop were included in the present final version of the report.

The case studies are presented in section 4 and results of the web survey are summarized in section 3 of this report. Concepts and definitions used in this report are discussed in section 2 along with Good International Practice relevant to the study subject. Conclusions and recommendations are presented in section 5.

2. Concepts and Good International Practice

Section 2 includes a brief discussion of key concepts used throughout this report and summarizes Good International Practice in areas relevant to the study.

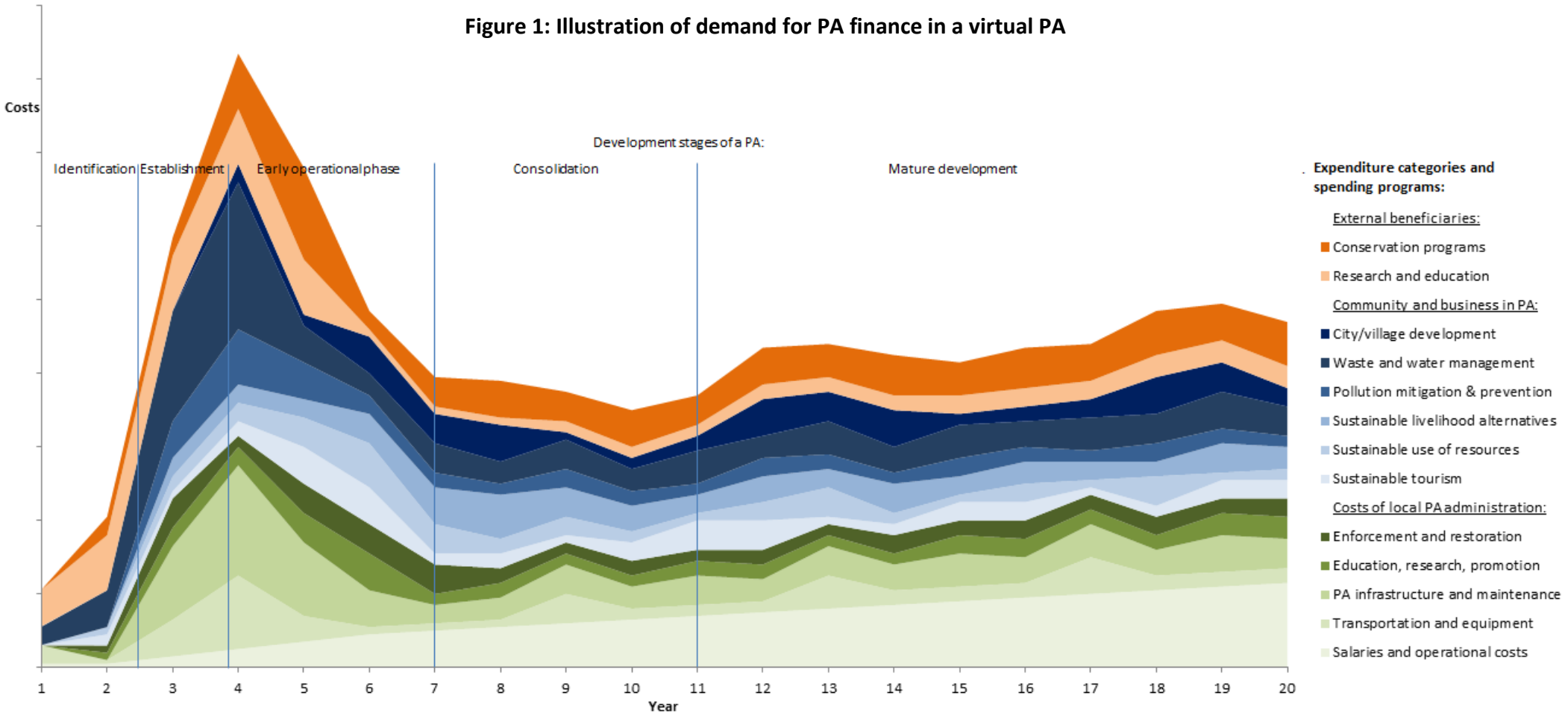
Many different policies influence PA management. First of all, each country typically has enacted, dedicated legislation and policy on nature and biodiversity protection. A wide range of additional policies applies too (water management, waste management, climate change, etc.). In addition, policy regulating the activities of economic users of resources contained in protected areas needs to be considered. This may include, for example, tourism policy, agriculture policy, fisheries policy, forestry policy, resource extraction, mining policy, etc. Last but not least, most countries also need to consider a wide range of international agreements, commitments and policy affecting PAs. The policy context in which PAs are managed is thus highly diverse and complex.

From a financing perspective, targets and requirements stipulated in relevant policies determine the demand for PA finance. Demand for PA finance can be derived by estimating the costs of implementing relevant policy goals. On the level of a PA, demand for finance could also be derived from the expected costs for implementing adopted PA Management and Business Plans. Of course the assumption herein is that such Management and Business Plans are fully compatible with relevant local, national and international policy. Figure 1 illustrates demand for finance in a virtual PA over time, introducing also a number of concepts used throughout this report, including typical PA development stages, PA expenditure categories and PA finance recipients/consumers. The determination of demand for PA finance is not a trivial issue. This is especially the case if relevant policy goals and requirements are vaguely formulated.

On the supply side, the following types of sources can be mentioned (list no conclusive) which typically contribute to covering PA expenditures:

- Allocations from public budgets (national level, regional level, local level)
- Revenues from user charges (e.g. on the use of PA resources)
- PA access/visitor fees
- Revenues from payments for ecosystem services (PES)
- Contributions from economic users of PA resources
- Revenues from the sale of official PA merchandise
- Revenues from biodiversity offsets
- Earmarked revenues from environmental taxes
- Capital contributed by operators under Public Private Partnerships
- Donations
- Revenues received from public sector development assistance (allocations made by donor-funded projects; revenues from debt for environment/nature swaps; donor contributions to Environment/Conservations Funds; etc.)
- Revenues received from private sector development assistance. (allocations made by foreign/private funded projects; private contributions to Environment/Conservations Funds; etc.)

Figure 1: Illustration of demand for PA finance in a virtual PA



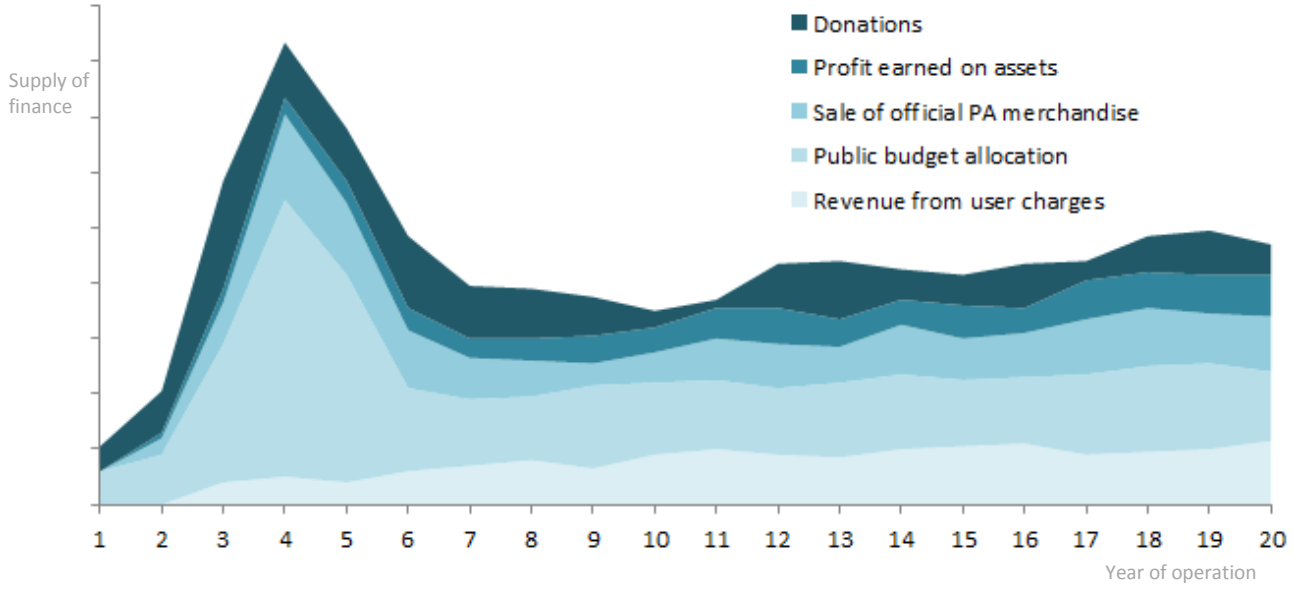
Note: For this virtual PA we assumed for the PA administration (green colors): Salary and operational costs will grow continuously until the PA is in a consolidated development stage. Thereafter, expenses will grow less as less new personnel will be hired but still grow because of salary adjustments. As regards transportation and equipment we assumed that new equipment will be bought in the early years of PA existence. Such equipment would then be operated and maintained every year and replaced every couple of years. As for PA infrastructure we assumed large investment costs in the early phase, followed by regular O&M costs and sporadically occurring new additions or repair to/of the stock of assets. As regards education, research and promotional expenses we assumed an initial larger promotional effort followed by steady expenses during the entire life cycle of the PA. As regards enforcement and restoration we assumed slightly higher costs in the early years of PA existence until polluters and users adapt to the newly imposed rules.
In blue colors we indicated the costs of a possible spending program that could be devised for communities and business active in the PA and its buffer zones.
In orange colors we indicated the assumed costs of a conservation, research and education program which would be implemented by specialized external organizations.

- Revenues received from Conservation and Environment Funds
- Profit/interest earned on assets owned by the PA administration

Note that the expenditure category patterns included in figure 1 represent just one way of categorizing, namely that of categorizing expenditure according to beneficiary. This can be seen as a practical approach as Conservation and Environmental Funds will typically have tailored contracts for different types of potential beneficiaries, i.e., PA administration, community organizations and businesses in or near PAs, as well as external (regional, national, international) organizations involved with conservation and protection. Of course there are also other ways of categorizing expenditure. For example, Balmford and Whitten (2003) identify two classes of costs: the "immediate" or "active costs" of conservation activities, including the costs of acquiring or leasing land, managing or restoring habitats and populations and enforcing restrictions on land use, as well as the "indirect" or "passive costs" of conservation, which include the opportunity costs that arise when harvesting wild populations or converting wild habitats is restricted, as well as the costs of damage by animals originating in conserved habitats.

Figure 2 illustrates different patterns supply of finance for our virtual PA and projects these supply patterns to the demand curve included in figure 1.

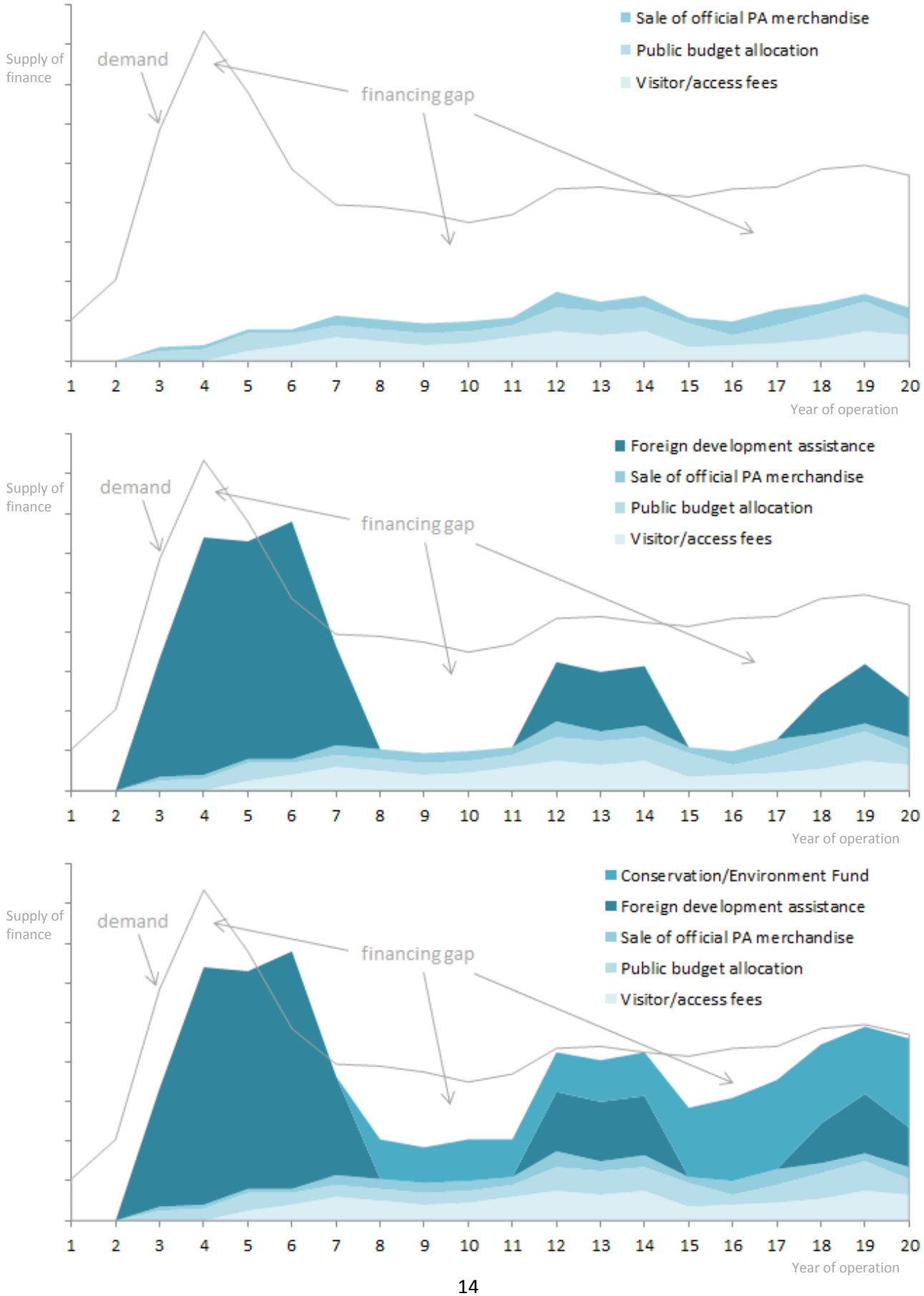
Figure 2: An example of supply of PA finance



In Figure 2, supply meets demand, salaries and operational costs are covered by public budget allocations, and, costs of local PA administration and key investment/research programs are covered by users of the resources of the PA.

The reality in many countries, however, is quite different and may resemble more the illustration contained in figure 3: Public budget allocations are minimal, not even allowing to cover salary and operational costs. Visitor and access fees raise considerable revenues as tourists are willing to pay such fees in order to see the extraordinary beauty of the PA and animals the PA may host. Following the same logic, the PA succeeds in selling a certain amount of merchandise to tourists. Overall these revenues fall seriously short of demand and may not even guarantee sufficient

Figure 3: Supply of finance – the role of donor assistance and Conservation/Environment Funds



finance for salaries and operations, including for example basic patrolling and enforcement services. Only a small percentage of targets and requirements contained in relevant policies can actually be implemented in practice. This scenario is illustrated in the first graph of figure 3.

The second and third graph of figure 3 show the impact donor projects and Conservation or Environment Funds may have. For example, donor projects may enable meeting many of the extraordinary costs associated with PA establishment and initial years of operation. However, as donor projects are typically limited in time and occur sporadically, large financing gaps remain. In years without or with little donor assistance, available finance may not even be sufficient for covering salaries and basic operations of the PA administration. The third graph in figure 3 shows how the financing gap may be significantly reduced or even eliminated if a PA can benefit from additional finance provided by a Conservation/Environment Fund.

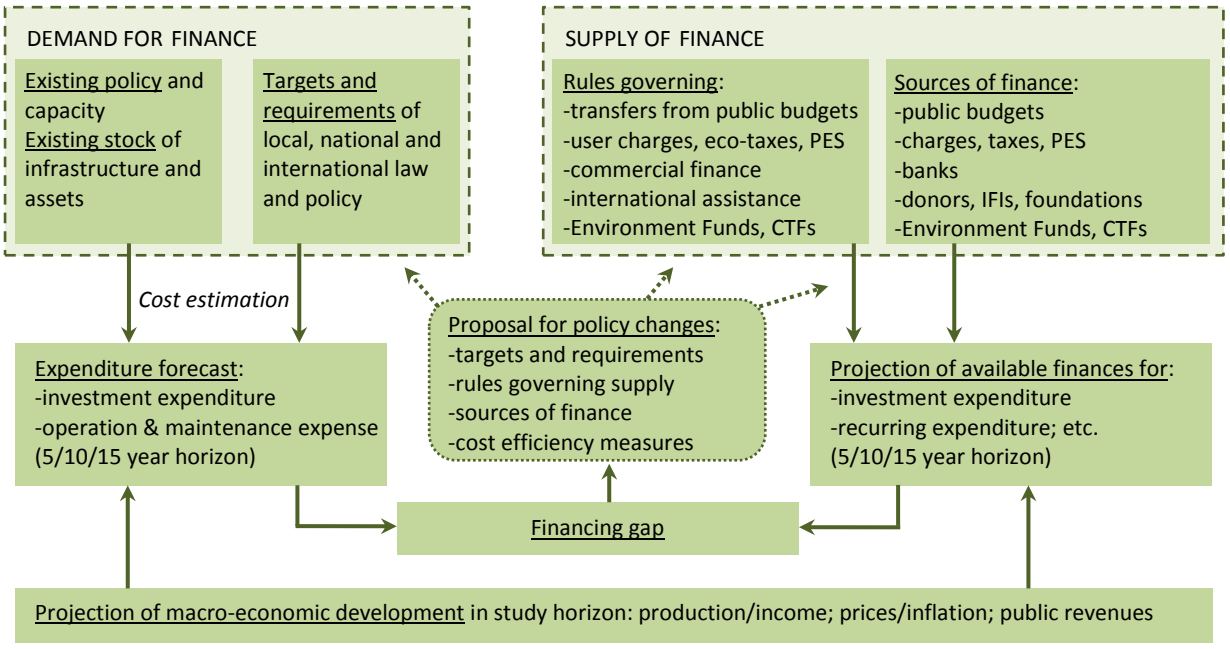
In reality the situation as regards demand and supply is different in each PA. As will be shown in section 3 and 4 and has been reported also in UNDP (2010) and many other documents, a large number of PAs, especially in African, Asian and Latin American countries suffer from a chronic lack of funds and are unable to fully meet all targets and requirements formulated in adopted policies.

So far we have looked at demand and supply of PA finance at the level of an individual PA only. In practice it is vital, however, to address the PA financing challenge at systemic level, whereas systemic could be defined here at national level (i.e., including all PAs established in the territory of a given country) or at ecosystem level (i.e., including all PAs established in an ecosystem/biomes, possibly covering territory of several countries – e.g., a river basin, mountain range, etc.). If we stick to a PA system of one country, it is quite likely that the situation of different PAs in the given country varies greatly as regards demand and supply of finance: some PAs may enjoy sizeable revenues; several PAs may be able to generate small revenues only or no revenues at all. In such a situation, it is obvious that a strategic, nation-wide approach to PA finance could be more efficient and bring about better results as compared to an approach that addresses the financing challenge at the level of each individual PA in an isolated manner. Of course, such a strategic approach will likely also be useful in the context of a systemic approach that focuses on an ecosystem/biomes rather than a single country.

In practice, it appears that exercises that attempt to systematically analyze demand and supply of finance in a PA system have been rarely completed so far, especially in African countries. An approach, which should be useful in this context is the “Environmental Financing Strategy” approach developed by the OECD since the 1990ies (see OECD, 2003 for an introduction). In figure 4, a methodology for such a PA System Financing Strategy is outlined.

The methodology of such a PA System Financing Strategy can be summarized as follows: In a first step, demand for finance will be estimated over a medium and long term horizon (e.g., covering 5 and/or 10 and/or 15 years) by carrying out a cost estimation study based on standardized cost categories, resulting in an expenditure forecast. Likely, several costing scenarios will be elaborated, such as a baseline scenario (e.g., costs of guaranteeing most basic and indispensable PA management activities), a scenario “full implementation of national biodiversity policy”, scenarios reflecting targets and requirements of other relevant national and specific international policy, scenarios allowing for different levels of conservation related research and education, etc. As part of the costing study, the existing stock of PA related assets and infrastructure will be taken into account and related O&M costs determined.

Figure 4: Methodology for a PAs financing strategy



Note: method adapted by the author based on OECD (2003)

The second step will be the elaboration of a projection of available finance, again covering a medium and long term time horizon (e.g., 5 and/or 10 and/or 15 years). Here, current supply of finance from different sources will be assessed (public budgets, taxes, charges, PES, commercial finance, donor and IFI finance, Environment and Conservation Funds, etc.), as well as the specific rules governing the supply of each of these sources. Based on current supply a forecast for future supply will be made, if necessary by applying different scenarios (e.g., strong growth in budget allocations, creation of a Conservation/Environment Fund, etc.). It should be noted that for both, expenditure forecast scenarios and projections of available finances, key macro-economic development indicators should be factored in such as production/income, prices/inflation, public revenues. Here again, several scenarios might be implemented (e.g., low/medium/strong growth).

In a third step, the expenditure forecast scenarios will be compared with the projections of available finances. As a result, very often a financing gap will be identified, whereas different scenarios will show a different evolution of the financing gap over time. Once these data are available it will be possible to simulate and determine in which magnitudes PA finance will have to increase in the medium and long term, or in which areas existing regulation and policy has to be revised to allow for realistic financing. Other options include, of course, the targeted revision of specific rules governing the supply of each of source of PA finance or the determination of cost efficiency measures to lower PA management costs. A PA System Financing Strategy would inform these policy choices, allow for developing better policies and eventually achieve more sustainable PA financing.

A key question in PA finance is: who should pay for conservation. Balmford and Whitten (2003) have addressed this question in detail. They argue that “each constituency should meet the necessary increases in funding in approximate proportion to the value of the benefits it receives from conservation.” This corresponds to the User Pays Principle (UPP), a fundamental policy

principle enshrined nowadays in most new/modern environmental legislations, including in less developed countries.

Balmford and Whitten (2003) do not mention and discuss in their paper the Polluters Pays Principle (PPP), another fundamental policy principle in environmental finance: In line with the PPP and UPP, environmental or resource use taxes may be enacted and implemented in order to internalize external costs. Revenues from such taxes may under certain circumstances (see OECD, 2011) be earmarked and used to catalyze the financing of the implementation of related policy. Such revenues can constitute very significant resources for PA finance and boost government/budget allocations to PA finance.

Balmford and Whitten (2003) conclude that in many countries, there are "enormous inequities in the current distribution of conservation costs" and state a "need to spend a great deal more on tropical conservation if it is to succeed. (…) The increase in funding needed is so great that many new funding sources need to be identified across all scales…" whereas "the greatest contribution to meeting the currently unmet costs of tropical conservation should come from the global community, followed by national and then local stakeholders".

As this report focuses on the role of donor funded projects and Environment/Conservation Funds in PA finance, it is necessary to define these instruments.

According to the project terms of reference (see annex 1), a "traditional project approach" is considered in the present report "as a financial intervention of several millions of USD/EUR programmed for a relatively short period (3 to 5 years) and designed to invest in Protected Area Systems (soft and hard financing) while generally avoiding payment or financing for operational and recurrent costs." In practice, donor funded project may take many different types of forms and will be governed by a donors' specific rules and regulations, as is illustrated for example in box 1 and table 2.

According to CFA (2008), "CTFs are private, legally independent grant-making institutions that provide sustainable financing for biodiversity conservation and often finance part of the long-term management costs of a country's PA system. They can serve as an effective means for mobilizing large amounts of additional funding for biodiversity conservation from international donors, national governments and the private sector. CTFs raise and invest funds to make grants to non-governmental organizations, community based-organizations and governmental agencies (such as national parks agencies). CTFs are financing mechanisms rather than implementing agencies. They also can serve as mechanisms for strengthening civil society and for making government PA manage government agencies more transparent, accountable and effective."

Based on the requirements of the terms of reference, above mentioned CTF definition will be used throughout the present report. It should be noted, that other approaches exist. For example, in environmental finance, OECD (2006) introduced in a recommendation passed at the level of OECD countries' Prime or Foreign Ministers, that that an Environmental Fund is an institution dedicated to implement a specific "public environmental expenditure programme" which is "well-targeted, limited in size and duration, and does not introduce significant distortions in international trade and investment". The notion underlines that such a Fund provides subsidized finance i.e. finance which is cheaper and/or offered on preferential conditions as compared to commercial finance. IMF (2010), in turn, uses the concept of Extra Budgetary Funds (EBFs) which refer to general government transactions, often with separate banking and institutional arrangements that are not

included in the annual state (federal) budget law and the budgets of subnational levels of government.

Table 1 summarizes key aspects of the OECD Council Recommendation C(2006)84 on public environmental expenditure management. Non-OECD countries do not have any obligations, of course, to implement OECD Council Recommendations C(2006)84. However, as soon as OECD member states financial support is provided to support environmental or conservation efforts in non-OECD countries (e.g., through donor funded PA related projects or through financial support to conservation/environmental Funds established in in African, Latin American or Asian countries), the OECD Council Recommendations do apply.

Table 1: Good international practice in managing Environmental and Conservation Funds

Performance in Terms of Environmental Effectiveness	Performance in Terms of Management Efficiency
Consistency with policy principles ● The need for any proposed PEEP should be justified with reference to the Polluter- or User-Pays Principles. Public funds should not be spent on achieving environmental objectives that could have been achieved with administrative or economic instruments or by eliminating environmentally harmful subsidies. ● Public funds should not be used for projects that can be implemented anyway e.g. using private/bank finance. ● PEEPs should reinforce other policy instruments and be consistent with their stated objectives. ● PEEPs should be used to finance investments in fixed assets or precisely defined non-investment projects, and not the operational costs of environmental administration. ● External auditors should periodically review the value-added of PEEPs; there should be provisions to phase out public funds after they have fulfilled their purpose. Well-defined programming framework ● Public funds should be spent in the framework of a PEEP approved by appropriate authorities. ● The PEEP should specify measurable, agreed, realistic, time-bound objectives. It should identify eligible beneficiaries, financing needs, eligible project types and rules to guide decision-making so that objectives could be met at least cost. ● Expenditure programmes should be established as part of a wider environmental programme or policy. ● Economic, social, poverty reduction or other non-environmental objectives may be integrated into the public environmental expenditure programme. ● The economic effects of PEEPs (e.g. in terms of public deficit, growth, employment) should be assessed prior to PEEP establishment and evaluated regularly thereafter. Clear identification of environmental outcomes ● Standard application forms should be used to solicit quantitative and qualitative information on projects' environmental outcomes. Once obtained, the accuracy and reliability of this information should be verified. ● Indicators of environmental outcomes should be as unambiguous as possible and used as essential criteria in project appraisal and selection. Environmental outcomes should be valued in monetary terms for the purpose of explicit benefit-cost assessment of projects. ● Environmental outcomes should be monitored throughout the project cycle and after implementation; project level environmental data should be stored in a publicly available database that allows ex-post verification and analysis. ● If a project fails to achieve its intended outcomes, as stated in the application form or financing contract, project beneficiaries should be liable to sanctions specified in the contract and enforced in proportion to the violation.	Sound governance ● PEEPs should be governed by clear, explicit rules. ● The terms and conditions of financing, decision-making and administrative procedures, internal policies and principles of project appraisal and selection should be available to the public. They should be consistent, not change frequently or without explanation, and be periodically reviewed. ● A clear distinction should be made between policy-making (including programming, priority-setting, establishing rules, performance evaluation, supervision and control) and executive management functions. ● An appropriate arrangement should be made for the policy-making function, such as the establishment of a supervisory board. Political oversight should be confined to programming and supervision. ● The supervisory board of a PEEP should include representation from the key stakeholders with appropriate checks and balances between different interest groups. Professional executive management ● Responsibilities for the day-to-day management and implementation of PEEPs should be clearly separated from policy-making, clearly defined in statutory and operational documents, and shielded from ad hoc political pressures in support of specific projects. ● An implementing agency should have a clear, legal mandate. It should be a professional, executive management body with an appropriate degree of operational autonomy, subject to strict accountability for performance. Its responsibilities should focus on project cycle management, and in particular, on impartial project appraisal and selection. ● Executive managers should be held accountable for their performance. Explicit performance criteria and indicators should be applied. ● Implementing agencies of large PEEPs should have staff assigned exclusively to their management and selected by executive managers. ● The skills of the staff should adequately match the technical requirements of a given expenditure programme. The recruitment and remuneration of managers and of staff should be based strictly on merit. Remuneration should be adequate to attract and maintain suitably-qualified people. Sound project cycle management ● The project cycle should be subject to intelligible, transparent and written procedures which are consistent and publicly available, e.g. in the form of a manual, in particular to all potential beneficiaries. ● Project identification should be proactive (for example by public tender), follow from the objectives of the PEEP, and be based on a realistic analysis of market trends and demand for financing.

● Information on the environmental results achieved by the programme should be periodically reported to those responsible for programme oversight and to the public, reviewed by external auditors and used to assess the programme's performance.

Maximise environmental effect from available funds

● Quantitative information on full, life-time project costs (investment, operational and maintenance) should be requested from applicants in a standard application form and be verified; project level cost data should be tracked and stored in a database format in a way that allows ex-post verification and analysis.

● Project selection criteria should aim to achieve the greatest environmental outcome with the programme's resources. A clear cost-effectiveness indicator (unit lifetime cost of achieving environmental effects) and the rate of financial leverage should form the core of the quantitative basis for appraisal, scoring, ranking and selecting projects. Where justified by project size or other relevant considerations, project selection should be supported by transparent benefit-cost analysis.

● Quantitative information on cost-effectiveness should be periodically reported to those responsible for programme oversight and to the public, be subject to periodic external, independent reviews and be used to assess the programme's performance.

Leverage additional finance

● To maximise their environmental impact, public funds should aim to cover less than 100% of project costs; options for co-financing by the retained earnings of the beneficiary or other sources should be assessed.

● The rate of financial leverage should be used to assess the programme's performance.

● Public environmental expenditure programmes should not distort competition in financial markets, nor obstruct the development of private financial institutions.

Financial products used in environmental expenditure programmes should not compete with those offered by private financial institutions.

● Full financial plans of environmental projects should be required; commitments for financing from other sources should be verified. No disbursement should be made until full financing for the project is adequately secured.

● Applications for financing should be accepted only in standard forms tailored to different project types and supported by clear, user-friendly instructions.

● Project appraisal and selection criteria and procedures should be objective, transparent and clear. Discretionary elements of project appraisal and selection should be subject to explicit, written procedures, and the results of such decisions kept in publicly-available files.

● Appraisal systems and procedures should be tailored to the size and complexity of different project types. For large investment projects, a two-stage appraisal process should be used (1st stage - screening against eligibility criteria; 2nd stage - appraisal/ranking of eligible projects).

● The appraisal system should be relatively simple, based on impersonal rules, and allow for meaningful comparison of comparable projects against one another, or against a benchmark. The appraisal system should also allow for an ex-post verification of the selection process. Appraisal reports should be clear and publicly available.

Fair and unbiased relations with external stakeholders

● Relations with external stakeholders (beneficiaries, intermediaries, consultants) should be handled in a transparent and unbiased manner. Communication policy should ensure that all applicants have equal access to information.

● Any outsourcing of tasks should be undertaken through a fair, transparent, competitive process.

Management of financial products and related risks

● The complexity of operations, and the choice of financial products, should be proportional to the institutional capacity to manage the associated risks.

● Grants are the most administratively simple and transparent financial product. Grants should be designed and disbursed so as: to maximize incentives for timely and cost-effective implementation of individual projects and of the implementing agency's entire portfolio; to maximise the leverage of other resources; and to minimise chances of misuse by applicants.

● Other financial products (interest subsidies, loans through intermediaries, direct loans, leasing, equity investments and loan guarantees) could be considered in proportion to institutional capacity and in order of increasing risk.

Source: Abbreviated from OECD Council Recommendation C(2006)84. Note that the recommendations on compliance with public finance principles as contained in C(2006)84 should also be taken into account.

3. The Voice of PA Finance Practitioners: Web Survey Results

A dedicated web survey was carried in order to capture opinions of PA finance practitioners. Four detailed questionnaires were elaborated: one for Conservation/Environment Fund managers, one for managers of PAs, one for government experts involved with biodiversity policy and one for project managers of donor funded projects focusing on PAs. Each questionnaire was offered in English, French and Spanish languages. In addition, an abbreviated questionnaire in English language was developed for representatives of donor institutions. This abbreviated questionnaire focused on one set of questions only, the results of which are presented in section 3.3.

3.1. Surveyed Funds, Projects and PAs

During the period March 25 – May 31, 2012, a total of 76 questionnaire replies were received (excluding incomplete and obscure replies) from the following type of PA finance practitioners:

- 21 Managers of Environmental / Conservation Funds (13 in Africa, 2 in Asia, 6 in Latin America)
- 24 Managers of donor funded PA projects (18 in Africa, 3 in Latin America, 2 in Asia, and one multi-country project, see list below)
- 10 PA Managers (9 from Africa, 1 from South America)
- 9 UNDP Regional Technical Biodiversity Advisors
- 3 Government experts responsible for PA policy (from Ecuador, South Africa and Solomon Islands)
- 2 other (Centre Forestier de N'Zerekore, Guinea and 1 anonymous)
- 7 representatives of donor institutions (FFEM, GEF, Moore Foundation, USAID, World Bank)

Box 1: Donor funded projects participating in the web survey

- Algeria: Préservation de la biodiversité d'intérèt mondial dans les parcs culturels du Tassili et de l'Ahaggar. Project funded by GEF and UNDP.
- Cameroon: Cameroon Biodiversity Program; www.wcs.org; focusing on Parc National du Mbam and Djerem, Parc National de Deng Deng, Parc National deTakamanda and Sanctuaire a gorille de Kagwene. Project funded by KfW and USAID.
- Cape Verde: Consolidation of Cape Verde's Protected Areas System; www.areasprotegidas.cv; focusing on 15 protected areas in 5 Islands; project funded by GEF and UNDP.
- Djibouti: gestion efficace et efficiente de aires marines protégées à Djibouti ; focusing on îles des sept frères; îles Mousha et Maskhali; île de Haramous. Project funded by GEF and UNDP.
- Ecuador: WWFs Programa de Manejo Sostenible Galapagos
- Egypt: Establishment of a sustainable protected area financing system in Egypt; www.epasp.org; project funded by GEF.
- Guinea-Bissau: Support to the Consolidation of a Protected Area System in Guinea-Bissau's Forest Belt; www.ibap-gbissau.org; focusing on 5 new protected areas to be created and managed including Dulombi National Park; Bo National Park; Tchetche Wildlife Corridor; Cuntabane-Quebo Wildlife Corridor and Salifo Wildlife Corridor. Project funded by GEF and UNDP.

- Kazakhstan: Integrated Conservation of Globally Significant Migratory Bird Wetland Habitat; www.fsbk.kz; www.wetlands.kz; focusing on the Alakol State Nature Reserve; the Korgalzhyn State Nature Reserve; the State Nature Reservat "Akzhaiyk"; project supported by GEF, World Bank, Air Astana JSC and Kazakhmys JSC
- Madagascar: Project focusing on Ankivonjy MPA, Ankarea MPA, Salary Bay MPA and Antongil bay LMMA. Project funded by FFEM and World Bank.
- Mauritania: Appui institutionnel et technique au Parc National du Banc d'Arguin et au BACoMaB Trust Fund. Project funded by GIZ.
- Mongolia: Strengthening protected areas network in Mongolia; www.undp.mn; focusing on Orkhon valley National park and Okh Nart nature reserve; project funded by GEF and UNDP.
- Morocco: Restoring the environmental functions, ecological integrity and socioeconomic services of forest landscapes in the Middle Atlas; project funded by GEF and UNDP.
- Mozambique: Parque Nacional do Limpopo; www.limpopopn.gov.mz; funded by GIZ, KfW and AFD.
- Mozambique: second phase of "Development of the Quirimbas National Park"; www.quirimbas.gov.mz. Project funded by FFEM, AFD, Government of Mozambique and WWF.
- Niger: Projet Antilopes Sahélo-Sahariennes; www.ass-niger.org; focusing on the Réserve Naturelle Nationale de Termit et de Tin Toumma. Project funded by FFEM.
- Peru: Conservando las Cabeceras del Corredor de Conservación Purus Manu, see www.pnaltopurus.pe and www.rcpurus.pe
- Peru: Tropical Forest Conservation Act Peru (TFCA Peru), www.tfcaperu.org
- Rwanda: Strengthening Biodiversity Conservation Capacity in the Forest Protected Area System of Rwanda; www.rema.gov.rw; focusing on Parc National des Volcans and Parc national de Nyungwe; funded by GEF.
- Sierra Leone: The Gola Forest Programme; www.golarainforest.org; focusing on the The Gola Rainforest National Park; project supported by: FFEM, EU, UK DEFRA Darwin Initiative and The Global Conservation Fund.
- Uganda: Conservation of biodiversity in the Albertine Rift forests of Uganda; focusing on the Budongo, Bugoma, Matiri, Itwara, Rwengeye, Kyamurangi, Kasato, Kijuna, Rukara and Kagombe Central Forest Reserves; project funded by GEF.
- UNDP/GEF Early Action Grant Project to implement the CBD Programme of Work on Protected Areas, see www.protectedareas.org
- Zambia: Development of Kafue National Park as a Model of Sustainable Economic Use and Biodiversity Conservation in a Management Extensive Environment; focusing on Kafue National Park, and 9 Game Management Areas, i.e., Mumbwa, Namwala, Nkala, Sichifulo, Mulobezi, Mufunta, Kasonso-Busanga, Lunga-Luswishi. Project funded by GEF and World Bank.
- Zambia: North Luangwa Conservation Program; www.fzs.org; focusing on North Luangwa National Park and 4 surrounding, adjacent Game Management Areas - Mukungule, part of East Musalangu, Chifunda, Munyamadzi. Project funded by Frankfurt Zoological Society, US Fish and Wildlife Service and others.
- Zambia: Reclassification and Effective Management of the National Protected Areas System; www.remnpas.org.zm; focusing on 1) Bangweulu Game Management Area; 2) Kafinda Game Management Area; 3) Chiawa Game Management Area; 4) Chibwika Ntambu Game Management Area; 5) Lukwakwa Game Management Area; 6) West Lunga National Park; 7) Musele Matebo Game Management Area including Luji National Forest; project funded by GEF and UNDP.

Almost all of these projects have multi-million USD budgets and project duration of typically 4-6 years, including complex works and activities as can be seen in table 2.

Box 2 presents PA managers having participated in the web survey.

Box 2: PA Managers participating in the web survey

- Parc National de la Pendjari, Benin, www.pendjari.net
- Parc national W du fleuve Niger, Burkina Faso
- Forêt Classée et Réserve Partielle de Faune de la Comoé- Léraba, Burkina Faso, www.agerefcl.org
- Parc Marin de Mohéli, Union des Comores, www.moheli-marinepark.org
- Parc National de la Garamba, République Démocratique du Congo, www.iccn.cd
- Kafue National Park, Zambia
- Parque Nacional Alerce Costero, región de Los Ríos Chile
- Sept Frères PA, Djibouti
- Forêt Classée et Réserve Partielle de Faune de la Comoé-Léraba, Burkina Faso
- Amani Nature Reserve, Tanzania

Table 2: Main project activities of donor funded projects participating in the web survey

	Algeria	Cameroon	Cape Verde	Djibouti	Ecuador	Egypt	Guinea-Bissau	Kazakhstan	Madagascar	Mauritania	Mongolia	Morocco	Mozambique: Limpopo	Mozambique Quirimbas	Niger	Peru	Rwanda	Sierra Leone	Uganda	Zambia: Kafue	Zambia: North Luangwa	Zambia: Remnpas
Improving the management of official PA authorities	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
Support to buy means of transportation for official PA authorities		■		■				■	■				■	■		■				■	■	
Support to buy other equipment for official PA authorities		■		■		■	■	■	■				■	■		■				■	■	
Support to improve patrolling and enforcement activities of official PA authorities		■	■	■		■		■	■	■	■		■	■	■	■	■	■	■	■	■	■
Activities focused on environmental education related to PAs	■	■		■		■	■	■	■		■		■	■	■	■	■	■	■	■	■	■
Activities focused on promotion and outreach related to PAs	■	■	■	■		■	■	■	■		■		■	■	■	■	■	■	■	■		■
Activities focused on research and monitoring related to PAs	■	■		■		■		■	■				■	■	■		■	■	■	■		■
Activities focused on infrastructure in PAs		■				■		■					■	■		■		■		■	■	■
Activities focused on sustainable use of resources in PAs	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■		■	■		■
Activities focused on sustainable livelihood alternatives in PAs	■	■	■		■	■	■	■	■	■		■	■	■		■	■	■	■	■		■
Activities related to mitigation and restoration		■		■		■	■	■						■		■	■	■	■			■
Establishment of new PA/PAs				■		■	■	■	■						■			■				■
Consolidating existing PA/PAs	■	■	■	■		■	■	■		■				■		■	■				■	■
Elaborating new national PA policies				■	■	■		■		■	■						■	■				■
Elaborating new national PA legislation				■		■		■			■						■	■				■
Elaborating new PA Management and Business Plans		■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■		■		■
Other:	x		1					2		3	4		5	6			7					

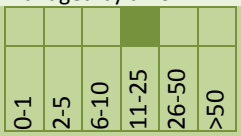
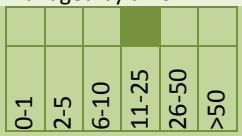
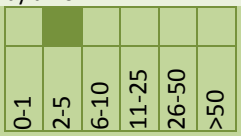
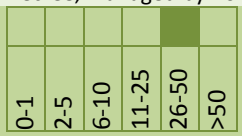
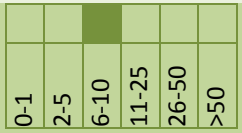
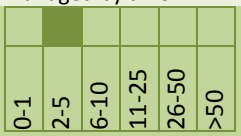
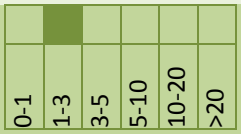
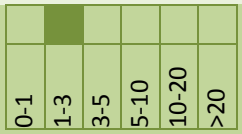
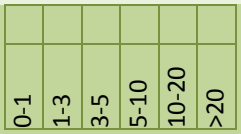
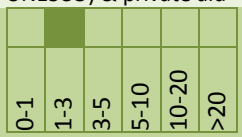
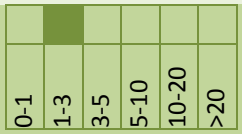
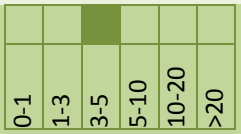
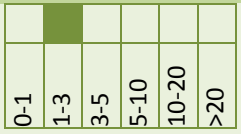
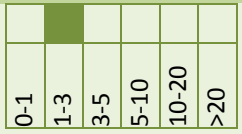
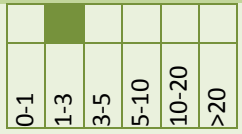
See box 1 for details on the projects listed in this table

Notes: 1) monitoring plan, eco-tourism plan; 2) establishment of the Biodiversity Conservation Fund of Kazakhstan as well as a Micro Credit Programme through the "Fund for Financial Support of Agriculture" JSC; 3) Elaboration of Park management and governance instruments; establishment of the BACoMaB Trust Fund; establishment of a public private partnership « pêche à la ligne ». 4) Design and implementation of innovative and appropriate financing mechanisms. 5) Resettlement; irrigation scheme technical assistance; community development. 6) Research on adaptation to climate change. 7) Training, ranger based monitoring, community awareness raising, study on PES, elaboration of a carbon credit project.

Tables 3 and 4 summarize key information received from Environmental/Conservation Funds participating in the web survey. The following observations may be considered important in the context of the present study:

- Many Funds are legally established as foundations, some of which governed by foreign law. One Fund is established legally as a private company and none as a public company.
- Most Funds listed in table 3 appear to be considerably independent from a ministry or government agency, which generally is desirable, but may not easily be achieved, especially if the revenues of a Fund are large. A certain degree of independence from political interference is of course desirable, especially in order to reduce discretionary decision making on allocating funds, which typically decreases transparency and cost efficiency. On the other hand, government, e.g., through representation on a Fund Board, should guide strategies to allocate funds and oversee/control the operations of a Fund, especially if a Fund receives public revenues.
- Only Belize's Fund receives revenues from an earmarked tax. It may be desirable for many Funds to increase the use of earmarked taxes and charges. This is because implementing earmarked environmental taxes and charges would be in line with the Polluter and User Pays Principles, thus create additional benefits from an environmental/conservation policy point of view (internalization of external costs of pollution and resource use). In addition, such taxes and charges, if part or all of their revenues are earmarked, have a potential to raise high, stable and predictable amounts of revenue. Thirdly, such practice is well tested and documented: most of the environmental Funds existing in Eastern Europe have received the lion's share of their revenues from earmarked taxes and charges. The Croatian Environmental and Energy Efficiency Fund, for example, has received USD 245 million in revenues in 2009 alone, coming mainly from earmarked revenues of a tax on packaging materials, a carbon dioxide tax, a tax on motor vehicles and a tax on batteries and accumulators (according to World Bank WDI data, Croatia has a population of 4.4 million and a GNI per capita of 13,890 USD). Part of the mentioned revenue was used for biodiversity and nature protection investments. In Poland (38 mln inhabitants, GNI/capita 12,440), the National and Regional Funds for Environmental Protection and Water Management receive each year several hundreds of millions of USD (close to 1 billion USD) in revenues from earmarked environmental taxes. These Funds allocate a significant amount of money each year for biodiversity and nature protection, including Polish PAs.
- Several Funds receive all or most of their revenues from endowments. Some of these CTFs have all a part of the endowments managed domestically.
- Most Funds depend largely/exclusively on donor funds and on few revenue sources. Diversification of revenue sources and the development of local revenue sources would be desirable. The recently introduced Biodiversity Conservation Mechanism in the State of Rio de Janeiro, Brazil may serve as an interesting example (see box 3).

Table 3: Overview of Environment/Conservation Funds participating in the web survey

Country	Belize	Bhutan	Cameroon, Central African Republic, Republic of Congo	Ecuador	Guatemala	Ivory Coast
Fund name	Protected Areas Conservation Trust (PACT)	Bhutan Trust Fund for Environmental Conservation (BTFEC)	Sangha Tri-national Trust Fund	Fondo Ambiental del Ecuador (FAN)	Fideicomiso Guatemala (TFCA)	Foundation for the Parks and Reserves of Côte d'Ivoire (FPRCI)
Website	pactbelize.org	bhutantrustfund.bt	No website	fan.org.ec	fondofcaguatemala.org	No website
Legal status and governance	Established 1996 as a foundation governed by domestic law and managed by a BoD	Established 1992 as a foundation governed by domestic law and managed by a BoD	Established 2007 as a foundation governed by foreign law and managed by a BoD	Established 1996 as a nonprofit organization based on Presidential Decree, managed by BoD	Established 2008 as part of the NGO Fundacion para la Conservacion en Guatemala	Established 2004/9 as a foundation governed by domestic/UK law and managed by a BoD
Number of permanent employees						
2011 revenue sources	Conservation tax paid at airport by departing tourists	Dividend, interest & capital gain from endowments managed abroad and domestically	Proceeds from endow-ments managed abroad; funds from official (AFD, KfW, EC) & private aid	National budget; revenue from endowments, debt swap; funds from official (GEF, UNDP, KfW, WB, UNESCO) & private aid	Revenues from debt for nature swap	National budget; funds from official (KfW) & private aid/assistance
2011 revenues * (million USD)						
2011 expenditures * (million USD)						
2011 spending areas	Nature/biodiversity protection	Nature/biodiversity protection; water and waste management	Nature/biodiversity protection; other	Nature/biodiversity protection; climate change mitigation	Nature/biodiversity protection	Nature/biodiversity protection
Organizations eligible for Fund support	Ntl. public institutions, municipalities, NGOs	Ntl. public institutions, municipalities, compa-nies, NGOs, individuals	Ntl. public institutions, NGOs	Ntl. public institutions, municipalities, NGOs	NGOs	Ntl. public institutions, NGOs
Type of financial products offered	Grants	Grants	Grants	Grants	Grants	Grants

Notes: * revenues /expenditures defined as funds received/allocated to support environmental/conservation projects (i.e., not funds to capitalize endowments)

Fund	PACT	BTFEC	Sangha Tri-national	FAN	TFCA	FPRCI
Number of PAs designated in country	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50
Number of PAs financially sustainable	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50
Number of PAs receiving Fund support in 2011	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50	0-1 2-5 6-10 11-25 26-50 >50
Number of PA related projects financed by the Fund in 2011	0-1 2-5 6-10 11-20 21-50 >50	0-1 2-5 6-10 11-20 21-50 >50	0-1 2-5 6-10 11-20 21-50 >50	0-1 2-5 6-10 11-20 21-50 >50	0-1 2-5 6-10 11-20 21-50 >50	0-1 2-5 6-10 11-20 21-50 >50
Fund expenditure on PA projects in 2011 (in thousands/k or million/M USD)	< 10k 10-100k 100-500k 500k-1M > 1M No data	< 10k 10-100k 100-500k 500k-1M > 1M No data	< 10k 10-100k 100-500k 500k-1M > 1M No data	< 10k 10-100k 100-500k 500k-1M > 1M No data	< 10k 10-100k 100-500k 500k-1M > 1M No data	< 10k 10-100k 100-500k 500k-1M > 1M No data
Fund financed which percentage of PA authorities' 2011 budget? (only PAs that received Fund support)	0-20% 20-40% 40-60% 60-80% 80-100% No data	0-20% 20-40% 40-60% 60-80% 80-100% No data	0-20% 20-40% 40-60% 60-80% 80-100% No data	0-20% 20-40% 40-60% 60-80% 80-100% No data	0-20% 20-40% 40-60% 60-80% 80-100% No data	0-20% 20-40% 40-60% 60-80% 80-100% No data

Table 3 ctd.: Overview of Environment/Conservation Funds participating in the web survey

Country	Kazakhstan	Madagascar	Madagascar	Malawi & Mozambique	Mauritania	Mozambique
Fund name	Biodiversity Conservation Fund (BCF)	Fondation pour les Aires Protégées et la Biodiversité (FAPB)	Fondation Environnementale Tany Meva	The Mulanje Mountain Conservation Trust (MMCT)	Banc d'Arguin, and Coastal and Marine Biodiversity Trust Fund (BACoMaB)	Foundation for the Conservation of Biodiversity (BIOFUND)
Website	fsbk.kz	madagascarbiodiversityfund.org	tanymeva.org.mg	mountmulanje.org.mw	bacomab.org	No website
Legal status and governance	Established 2007 as a Public Fund and managed by a BoD	Established 2005 as a foundation governed by domestic law and managed by a BoD	Established 1996 as a foundation governed by domestic law and managed by a BoD	Established 2005 as a foundation governed by domestic law and managed by a BoD	Established 2009 as a foundation governed by foreign law (UK) and managed by a BoD	Established 2011 as a foundation governed by domestic law and managed by a BoD
Number of permanent employees	2-5	11-25	26-50	11-25	2-5	0-1
2011 revenue sources	Funds from official (GEF, World Bank) & private aid/assistance	Revenue from endowments, official (AFD, WB, FFEM) & private aid	Funds from official (EC, UNESCO, FAO) & private aid; debt swap revenue	Revenue from endowments and official aid: EU Norway, USAID)	National budget, funds from official (KfW) & private aid/assistance	Expected: revenues from endowments, debt swap: AFD, KfW, GEF, USAID
2011 revenues * (million USD)	1-3	1-3	1-3	1-3	5-10	0-1
2011 expenditures * (million USD)	1-3	0-1	0-1	1-3	0-1	0-1
2011 spending areas	Nature/biodiversity protection	Nature/biodiversity protection	Nature/biodiversity protection, climate change mitigation, renewable energy	Nature/ biodiversity protection, climate change, energy efficiency, renewable energy [a]	Nature/biodiversity protection	None yet
Organizations eligible for Fund support	NGOs, individual citizens	Ntl. public institutions, NGOs	Ntl. public institutions, private companies, NGOs, individual citizens	Ntl. public instit., municipalities, private firms, NGOs, individual citizens	Ntl. public institutions, municipalities, NGOs, individual citizens	Ntl. public institutions, NGOs
Type of financial products offered	Grants	Grants	Grants, soft loans	Grants	Grants, equity capital for start ups	Grants

Notes: * revenues /expenditures defined as funds received/allocated to support environmental/conservation projects (i.e., not funds to capitalize endowments).
a) In the case of MMCT, most of the income from endowments is currently used to further build/capitalize the Fund.

Fund	BCF	FAPB	Tany Meva	MMCT	BACoMaB	BIOFUND
Number of PAs designated in country	6-10	>50	>50	>50	2-5	26-50
Number of PAs financially sustainable	2-5	26-50	2-5	0-1	2-5	0-1
Number of PAs receiving Fund support in 2011	2-5	11-25	6-10	0-1	0-1	0-1
Number of PA related projects financed by the Fund in 2011	2-5	11-20	11-20	>50	0-1	
Fund expenditure on PA projects in 2011 (in thousands/k or million/M USD)	10-100k	100-500k	500k-1M	100-500k	< 10k	< 10k
Fund financed which percentage of PA authorities' 2011 budget? (only PAs that received Fund support)	0-20%	20-40%	No data	60-80%	n.a.	0-20%

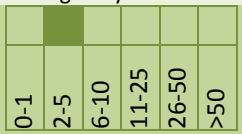
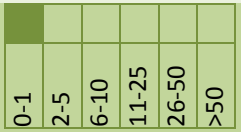
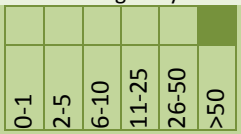
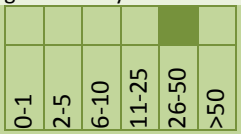
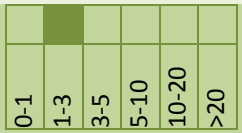
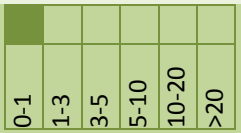
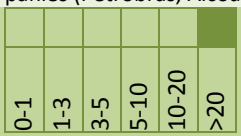
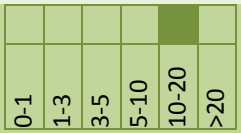
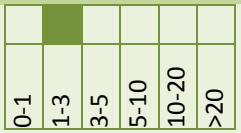
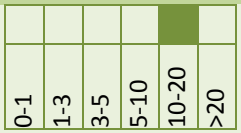
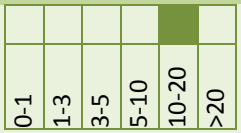
Table 3 ctd.: Overview of Environment/Conservation Funds participating in the web survey

Country	Peru	Sierra Leone, Indonesia	Tanzania	Uganda	Zambia	All African countries
Fund name	PROFONANPE	International Eco Fund	Eastern Arc Mountains Conservation Endowent Fund (EAMCEF)	Bwindi Mgahinga Conservation Trust (BMCT)	Civil Society Environment Fund (CSEF)	African World Heritage Fund (AWHF)
Website	profonanpe.org.pe	No website	easternarc.or.tz	bwinditrust.ug	www.csefzambia.org	awhf.net
Legal status and governance	Established 1992 as a private non-profit organization governed by domestic law and managed by a BoD	Established 2006 as a UK Trust Fund and managed by a Board of Trustees	Established 2001 as a foundation governed by domestic law and managed by a BoD	Established 1994 as a Trust Fund and managed by a BoD	Established 2011 as a private company managed by an Independent Grant Approval Committee	Established 2006 as a Trust governed by South African law and managed by a BoD
Number of permanent employees	0-1, 2-5, 6-10, 11-25, **26-50**, >50	**0-1**, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, **6-10**, 11-25, 26-50, >50	0-1, 2-5, 6-10, **11-25**, 26-50, >50	0-1, **2-5**, 6-10, 11-25, 26-50, >50	0-1, 2-5, **6-10**, 11-25, 26-50, >50
2011 revenue sources	Revenues from endowments, official (GEF, KfW) & private aid, debt swap	None	Ntl. budget, revenues from endowments managed abroad, Norway aid	Revenues from endowments managed abroad, private aid, local funds	Funds received from Danish aid [a]	Government budget contributions, revenues from endowments
2011 revenues * (million USD)	0-1, 1-3, 3-5, 5-10, **10-20**, >20	**0-1**, 1-3, 3-5, 5-10, 10-20, >20	**0-1**, 1-3, 3-5, 5-10, 10-20, >20	0-1, **1-3**, 3-5, 5-10, 10-20, >20	0-1, **1-3**, 3-5, 5-10, 10-20, >20	0-1, **1-3**, 3-5, 5-10, 10-20, >20
2011 expenditures * (million USD)	0-1, 1-3, 3-5, **5-10**, 10-20, >20	**0-1**, 1-3, 3-5, 5-10, 10-20, >20	**0-1**, 1-3, 3-5, 5-10, 10-20, >20	0-1, **1-3**, 3-5, 5-10, 10-20, >20	0-1, **1-3**, 3-5, 5-10, 10-20, >20	0-1, **1-3**, 3-5, 5-10, 10-20, >20
2011 spending areas	Nature/biodiversity protection; climate change mitigation/adaptation	None	Nature/biodiversity protection; climate change mitigation/adaptation	Water supply and sanitation	Nature/biodiversity protection; climate change mitigation/adaptation	Capacity building
Organizations eligible for Fund support	Ntl./regional public institutions, municipallities, NGOs, individual citizens	Ntl. public institutions, NGOs, foreign institutions	Ntl./regional public institutions, municipallities, NGOs, individual citizens, private companies	individual citizens, CBOs, local NGOs and research agencies/students	NGOs	Ntl. public institutions, World Heritage Sites
Type of financial products offered	Grants	Grants	Grants	Grants, village savings and loans associations	Grants	Grants

Notes: * revenues /expenditures defined as funds received/allocated to support environmental/conservation projects. a) There is currently no plan to continue the CSEF beyond the 3 years envisaged by the donors (Denmark and Finland). Next to CSEF an "Interim Environmental Fund" has been established in Zambia in 2009.

Fund	PROFONANPE	International Eco Fund	EAMCEF	BMCT	CSEF	AWHF
Number of PAs designated in country	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50
Number of PAs financially sustainable	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50
Number of PAs receiving Fund support in 2011	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50	0-1, 2-5, 6-10, 11-25, 26-50, >50
Number of PA related projects financed by the Fund in 2011	0-1, 2-5, 6-10, 11-20, 21-50, >50	0-1, 2-5, 6-10, 11-20, 21-50, >50	0-1, 2-5, 6-10, 11-20, 21-50, >50	0-1, 2-5, 6-10, 11-20, 21-50, >50	0-1, 2-5, 6-10, 11-20, 21-50, >50	0-1, 2-5, 6-10, 11-20, 21-50, >50
Fund expenditure on PA projects in 2011 (in thousands/k or million/M USD)	< 10k, 10-100k, 100-500k, 500k-1M, > 1M, No data	< 10k, 10-100k, 100-500k, 500k-1M, > 1M, No data	< 10k, 10-100k, 100-500k, 500k-1M, > 1M, No data	< 10k, 10-100k, 100-500k, 500k-1M, > 1M, No data	< 10k, 10-100k, 100-500k, 500k-1M, > 1M, No data	< 10k, 10-100k, 100-500k, 500k-1M, > 1M, No data
Fund financed which percentage of PA authorities' 2011 budget? (only PAs that received Fund support)	0-20%, 20-40%, 40-60%, 60-80%, 80-100%, No data	0-20%, 20-40%, 40-60%, 60-80%, 80-100%, No data	0-20%, 20-40%, 40-60%, 60-80%, 80-100%, No data	0-20%, 20-40%, 40-60%, 60-80%, 80-100%, No data	0-20%, 20-40%, 40-60%, 60-80%, 80-100%, No data	0-20%, 20-40%, 40-60%, 60-80%, 80-100%, No data

Table 3 ctd.: Overview of Environment/Conservation Funds participating in the web survey

Country	Paraguay	South Africa	Brazil	Mexico
Fund name	Fondo de Conservación de Bosques Tropicales	Table Mountain Fund	Fundo Brasileiro para a Biodiversidade	Fondo Mexicano para la Conservación de la Naturaleza
Website	www.fondodeconservaciondebosques.org.py	www.tmf.org.za	www.funbio.org.br	www.fmcn.org
Legal status and governance	Established 2006 as a not for profit civil entity managed by a BoD	Established 1998 as a Trust and managed by a BoD	Established in 1995 as a not-for-profit civil association managed by a BoD.	Established in 1994 as a not for profit civil association governed by a BoD
Number of permanent employees				
2011 revenue sources	Revenues from a debt swap	Revenues from endowments managed both abroad and on domestic financial markets	Revenues from endowments, official (BNDES, KfW, GEF) & private aid, debt swap (TFCA), companies (Petrobras, Alcoa)	Revenue from US$112 million endowment and additional sinking funds raised for specific large-scale projects
2011 revenues * (million USD)				
2011 expenditures * (million USD)				
2011 spending areas	Nature and biodiversity protection	PA expansion: nature/ biodiversity protection; climate change adaptation, capacity building, institutional strengthening	PA creation & consolidation, species management, sustainable production, forest carbon projects, capacity building	Protected areas, watershed conservation, coastal / marine conservation, REDD+, institutional strengthening, strategic innovation for conservation
Organizations eligible for Fund support	Municipalities and NGOs	Ntl./regional public institutions, municipalities, NGOs, individual citizens	NGOs, CBOs, academy, individuals	NGOs, organized rural communities, conservation professionals
Type of financial products offered	Grants	Grants	Grants	Grants

Notes: * revenues /expenditures defined as funds received/allocated to support environmental/conservation projects.

Fund	FCBT Paraguay	Table Mountain Fund	Funbio	FMCN
Number of PAs designated in country	>50	>50	>50	>50
Number of PAs financially sustainable	2-5	>50	0-1	11-25
Number of PAs receiving Fund support in 2011	6-10	0-1	>50	11-25
Number of PA related projects financed by the Fund in 2011	11-20	6-10	>50	>50
Fund expenditure on PA projects in 2011 (in thousands/k or million/M USD)	100-500k	100-500k	> 1M	> 1M
Fund financed which percentage of PA authorities' 2011 budget? (only PAs that received Fund support)	No data	0-20%	No data	0-20%

- Except for FMCN, Funbio and PROFONANPE, the surveyed Funds are rather small, both in terms of revenues and expenditures for environmental/conservation projects. This is certainly true if compared for example to Environmental Funds operational in Eastern Europe (see Croatian/Polish examples mentioned above). In some cases, the small revenue/expenditure flows can be explained by the fact that some Funds have been established just recently, and/or they are focusing on biodiversity/nature protection only and/or they are focusing on a few/selected PAs only.
- All funds spend on nature/biodiversity protection projects, but not all of them exclusively. Widening the spending areas, if desirable at all, should ideally go hand-in-hand with widening the revenue base. For example, if a Fund is to focus on climate change adaptation and/or mitigation, earmarked revenues from CO2 taxes could be effected which could significantly enhance the revenue and spending basis of the Fund. If a Fund is to focus on waste management, earmarked revenues from packaging taxes could be realized which again could yield a large, stable and predictable revenue stream to a Fund which could be used at least partially for PA related projects and investments. Such kind of taxes can in principle be introduced in all countries, except for failed states (absence of government structures to properly implement taxes).
- Recipient of Fund support tend to be mostly public organizations and NGOs. As regards financing instruments, almost all Funds rely exclusively on grants. It appears that the surveyed funds do not systematically attempt to realize projects that generate not only environmental but also economic benefits: such win-win type of projects would in many cases justify or require different financing instruments, such as soft loans, interest subsidies, leasing and/or equity instruments (startup capital). Such kind of financing instruments would allow for recovering all or part of the outlays and/or leveraging substantial amounts of additional (e.g. commercial) finance.

Box 3: Biodiversity Conservation Mechanism in the State of Rio de Janeiro, Brazil

Environmental compensations in Brazil are meant to financially compensate environmental damages caused by implementing development projects that could not be prevented or mitigated, although the approval process requires using the best methodologies available. Compensations have been established by the Article 36 of Law 9.985/2000, the Protected Areas National System Law, which states the priority uses of compensation resources for the effective management of Protected Areas.

In the State of Rio de Janeiro, a financial mechanism was designed to operate the environmental compensations resources, the Biodiversity Conservation Mechanism in the State of Rio de Janeiro (FMA/RJ). During the environmental licensing process which forms part of the environmental impact assessment (EIA/RIMA) of a project, the State Environmental Institute (Instituto Estadual do Ambiente - INEA/RJ) presents developers with available options for executing the environmental compensation: direct execution, execution by contracting third parties, or working through the Biodiversity Conservation Mechanism in the State of Rio de Janeiro (FMA/RJ). If a developer chooses FMA/RJ, the developer is obliged to make monetary deposits to a bank account indicated by the Brazilian Biodiversity Fund (Funbio), in line with the specific conditions established between developer and INEA/RJ.

Under the authority, coordination and control of the State Environmental Secretariat (Secretaria de Estado do Ambiente - SEA/RJ), the Chamber of Compensation (Câmara de Compensação Ambiental - CCA/RJ) is responsible for approving projects to be funded and for the use of resources from environmental compensations and INEA/RJ, as the governing body of the state PAs, is one of the beneficiaries of the resources from environmental compensations deposited in the FMA/RJ. Other beneficiaries are ICMBio, which manages federal PAs, and the

municipal environmental agencies that manage municipal PAs. The FMA/RJ manager, currently Funbio, is in charge of the technical and financial monitoring of projects approved by the CCA/RJ, providing procurement services, financial resource management services, coordination services, reporting services, follow-up and accountability.

Besides being responsible for the FMA/RJ operation, Funbio designed the mechanism, including the legal framework, governance, financial flows and reporting rules. This was only possible due to the expertise Funbio acquired managing previous long term programs that support Protected Areas, especially the Amazon Region Protected Areas program (ARPA), which supports more than 100 PAs in the Brazilian Amazon. FMA/RJ is the first state compensation fund in the country and in two years of operation it has made available enough resources to maintain the Rio de Janeiro PAs in the long term. Before the fund was established these resources were barely executed, mainly because the lack of conditions for the state or companies to execute them. Other Brazilian states are currently studying the FMA/RJ experience to adapt it to their PAs subsystems.

In Rio de Janeiro, the mechanism currently has a portfolio of approximately R$ 217 million (about US$ 107 million). The mechanism currently benefits 15 PAs, including state, federal and municipal areas. A portion of the resources were used to set up an Endowment Fund, to cover the recurring costs of state PAs on the long term, and developing an investment strategy for the next 10 years to consolidate the areas focusing on their economic potential for tourism.

Source: Funbio

Table 4 summarizes the survey responses received on project identification methods, appraisal and selection criteria applied by environment/conservation Funds. Most Funds appear to regularly apply public call for tendering and restricted call for tendering methods for identifying new projects to be supported. This is a satisfactory finding, although a more detailed assessment would be required to determine the solidity of tendering and project cycle management methods actually applied by these Funds (this could be done, for example, by taking the OECD Council Recommendations C(2006)84 and EDF and PRAG practice as a benchmark; similarly, most IFIs have elaborate procurement standards and policies which could be taken as a benchmark).

Only four Funds allow unsolicited applications from potential project proponents. Allowing these types of applications may however be useful for Funds in order to be able to capture innovative ideas and alternative solutions, which might go unnoticed otherwise.

Only few Funds rely on recommendations of governmental/international organizations to identify projects. This is satisfactory, as these kinds of methods may result in discretionary decisions and (cost) inefficiencies. This also indicates that most of the surveyed Funds appear to be largely shielded from extensive political influence.

As regards appraisal and selection criteria applied by the Funds, ideally all of the criteria included in table 4 would always be applied by a Fund. The results show that there might be significant scope for improvement in project cycle management (PCM) in most of the surveyed Funds.

Table 4: Project identification methods, appraisal and selection criteria applied by Environment/Conservation Funds

	PACT Belize	BTFEC Bhutan	FUNBIO Brazil	Sangha Tri-National	Fondo Ambiental Ecuador	TFCA Guatemala	FPRCI Ivory Coast	BCF Kazakhstan	FAPB Madagascar	Tany Meva Madagascar	MMCT Malawi & Mozamb.ique	BACoMaB Mauritania	FMCN Mexico	BIOFUND Mozambique	FCBT Paraguay	PROFONANPE Peru	Intl. EcoFund Sierra Leone	Table Mountain Fund South Africa	EAMCEF Tanzania	BMCT Uganda	CSEF Zambia	AWHF All Africa
Project identification methods applied by the Fund:																						
- Public call for tenders	■	■	■		■	■		■		■			■		■	■		■	■		■	■
- Restricted call for tenders			■	■		■			■			■	■	■				■				■
- Direct (uninvited) applications from project proponents	■			■						■								■				
- Recommendations from the Ministry of Environment			■		■											■						
- Recommendations from international organizations			■													■	■					
- Other				■	a		■			■	c		■							b		
Appraisal and selection criteria applied by the Fund:																						
- Technical / environmental parameters*	5	5	5	5	5	5		4	5	5	4		5		5	5			5	5	5	5
- Cost effectiveness*	3	3	4	5	4	3		4		3	5		5		4	5			5	4	5	4
- Financial risk*	3		4	2	3	4		3		4	3				2	1			5		4	4
- Additionality*	3	2	3	2	4			4		2	4		5			5			5	4	4	4
- Degree of co-finance from other sources*	4	3	5	3	4	5		4	5	2	4		4		2	3					3	5
- Creditworthiness of project proponent*	4	1	5	1	4	1		4	5	5	2		5		1	5			5		1	3
- Own funds invested in the project by the project proponent*	5	1	5	1	3	5		4		5	3		3		2	4					4	5

Notes: a) Direct planning with Biodiversity Department of Environment Ministry; b) Call to community members; c) Responding to local priorities

* "5" = criteria is always applied; "4" = criteria is often applied; "3" = criteria is sometimes applied; "2" = criteria is rarely applied; "1" = criteria is not applied; empty cell = no answer

3.2. PA Revenues

Table 5 summarizes revenue sources of PAs (and systems of PAs) participating in the web survey. In addition, the table includes an assessment to which extent PAs can finance priority activities/investments.

As regards revenue sources, one would expect that PAs should normally receive national budget support. Table 5 shows, however, that a significant number of surveyed PAs do not receive such support. As regards regional or local budget support, the situation is even worse: only one surveyed PA receives such revenue.

Access and visitor fees are implemented in a number of surveyed PAs. However, one would expect that such kind of fees could be realized in more/most surveyed PAs. The same can be said about the sale of official PA merchandise, which appears to be realized in 5 PAs only. Only four surveyed PAs receive regular contributions from economic users of PA resources. The receipt of such revenues would be highly desirable in the context of the User Pays Principle.

Out of the 31 cases reported in table 5, only four PAs receive support from Conservation or Environmental Funds.

A totally different picture can be found as regards projects funded by foreign organizations. Here most PAs enjoy support. This may, of course, be explained by the fact that a web survey questionnaire dedicated to managers of donor funded projects was offered. Nevertheless, dependence on foreign support may be widespread.

The overall conclusion from table 5 may be that a diversification of revenue sources would be highly desirable, that local, national and international sources should be systematically developed and increased over time, and that no revenues from earmarked taxes/charges appear to be implemented in any of the surveyed PAs or PA systems. It would be desirable to have such taxes/charges developed in the context of the Polluter and User Pays Principles. If designed and implemented properly, such taxes/charges could yield large, stable and predictable amounts of revenues to PAs.

Table 5: Revenue sources of PAs participating in the web survey, capacity of PAs to finance priority activities/investments

	Cameroon	Cape Verde	Chile, Alerce Costero	Djibouti, marine PAs	Djibouti, Sept Frères	Ecuador: Galapagos	Egypt	Guinea-Bissau	Kazakhstan	Madagascar	Mauritania	Mongolia	Morocco	Mozambique: Limpopo	Mozambique Quirimbas	Niger	Peru: Purus	Peru TFCA	Rwanda	Sierra Leone	Tanzania, Amani	Uganda	Zambia: Kafue	Zambia: North Luangwa	Zambia: Remnpas	Benin, Pendjari	Burkina Faso, W Niger	Burkina Faso, Léraba	Comoros, Mohéli	DR Congo, Garamba	Zambia, Kafue
Revenues sources of the PA administration(s) in 2011																														
- National budget	■	■					■		■		■	■	■	■	■	■	■	■	■		■	■					■		■	■	
- Regional budget																														■	
- Local/municipal budgets																															
- Access/visitor fees	■		■				■	■	■		■	■		■	■			■			■	■	■			■	■	■			■
- Sale of official PA merchandise									■					■												■		■	■		
- Regular contributions from economic users of PA resources															■			■								■		■			
- Conservation Trust Fund												■									■										
- Environmental Fund					■		■																								
- Projects funded by foreign organizations	■	■				■		■		■	■	■			■		■	■	■	■	■		■	■	■		■	■	■	■	■
- Other/comment				■								■			a							b			c					
To which extent can PA(s) finance priority activities/investments?																														
- Degree of implementing PA's Management and Business Plans in the past three years *	3		3	1	1	4	2		3	4	4	1		4	1		2		4	1	3	1	1	1	1	2	1	1	1	1	5
- Degree of implementing enacted national policy and law relevant for my PA(s) in the past three years *			2	1	1		1		4	4	1	2		1	1		2		4	1	4	1	5	4	1	3	1	1	2	2	5
- Infrastructure investment needed in PAs in the past three years *	3		4	1	1	2	2		2	2	3	1		4	1		2	3	4	1	2	1	3	2	1	1	1	1	1	1	3
- Comment																			d	e		f					g			h	

See box 1 and 2 for details on the projects/PAs listed in this table.

* "1"=About 0-20% of required activities can be financed; "2"=About 20-40% of required activities can be financed; "3"=About 40-60% of required activities can be financed; "4"=About 60-80% of required activities can be financed; "5"=About 80-100% of required activities can be financed

Notes: a) "National budget only in kind from Ministry of Defense." b) "PAs chronically underfunded by Government and able to generate very little own funds (unlike National Parks)". c) "The PAs currently require effective management to be able to generate cost covering revenue. Public-Private-Partnerships required in which the private sector sources funds to finance the PAs." d) "A travers le budget national et les revenus du tourisme" e) "Government annual budget to support 48 PAs is USD 400,000." f) "Part of proceeds from sale of illegal timber." g) "Les recettes issues de la gestion de l'AP sont toutes reversées au trésor public. Un budget annuel est voté pour l'appui au parc.". h) "Si nous considérons les ressources propres qui sont générées par l'aire protégées. Mais s'il faut capitaliser les différentes ressources des bailleurs et autres contribuables, l'Aire Protégée est capable de financer jusqu'à 40%."

3.3. Is a Fund or a Project Approach Better for PAs?

Figures 5 and 6 show the results of the question "Based on your personal experience and opinion, which type of finance is better for the financial sustainability of Protected Areas (PAs)?" A total of 69 replies were received and are represented in figures 5 and 6. From these, 23 replies came from managers of donor-funded projects, 18 replies came from managers of Environment or Conservation Funds (note: not managers of the endowment of a CTF), 7 from donors (3 from GEF, 1 each from FFEM, USAID, World Bank, Moore Foundation), 9 from managers of PAs, 3 from policy makers working in national government positions and 9 replies from UNDP Regional Technical Biodiversity Advisors. Below a few conclusions:

- Respondents think that the Fund approach is more appropriate for about two thirds of all items. However the score of several individual items is rather close to the middle line. This may be an indication, for example, that respondents feel that the difference between the two approaches is small, one approach does not exclude the other approach (there is space and need for the coexistence of both approaches), and/or, that the case is different for each PA/country.
- Out of the four groups included in figures 5 and 6, Fund managers and donors clearly have the highest preference for a Fund approach. This applies to many items.
- UNDP Regional Technical Biodiversity Advisors are clearly more in favor of the project approach. Again, this applies to almost all items.
- Long-term financial sustainability is clearly seen as one of the key advantages of the Fund approach, along with local ownership considerations and the financing of overhead and maintenance costs of a PA.
- Participants also thought that the Fund approach is preferable for leveraging additional PA finance, especially coming from private companies, commercial banks and government budgets, less so, however, from development assistance agencies.
- On the other end of the scale, preference for the project approach was given by many participants for realizing technology transfer from abroad, implementing demonstration projects, advancing applied research, mainstreaming new solutions/technologies and planning/designating new PAs.
- Interestingly, also for the item "increasing project preparation capacity" the majority of participants gave preference to the project approach. This comes maybe as a surprise, as it should be expected that a successful Fund will finance numerous projects, thus systematically increasing project preparation capacity of proponents. The actual score received in the web survey might be an indication that surveyed Funds have a significant potential to improve their existing PCM procedures.

Figure 5: Replies to the question "which type of finance is better for the financial sustainability of PAs" (sorted by average score)

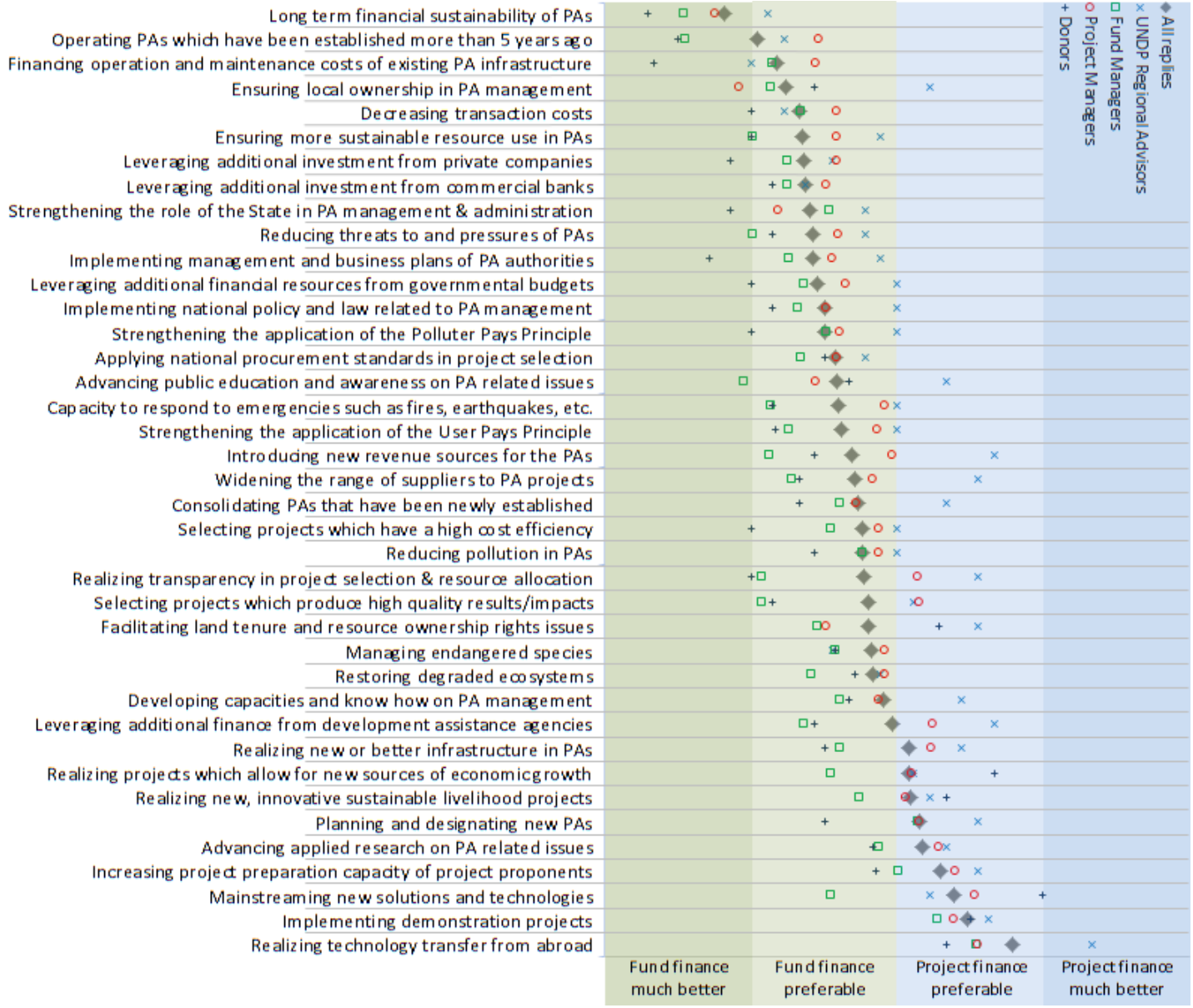
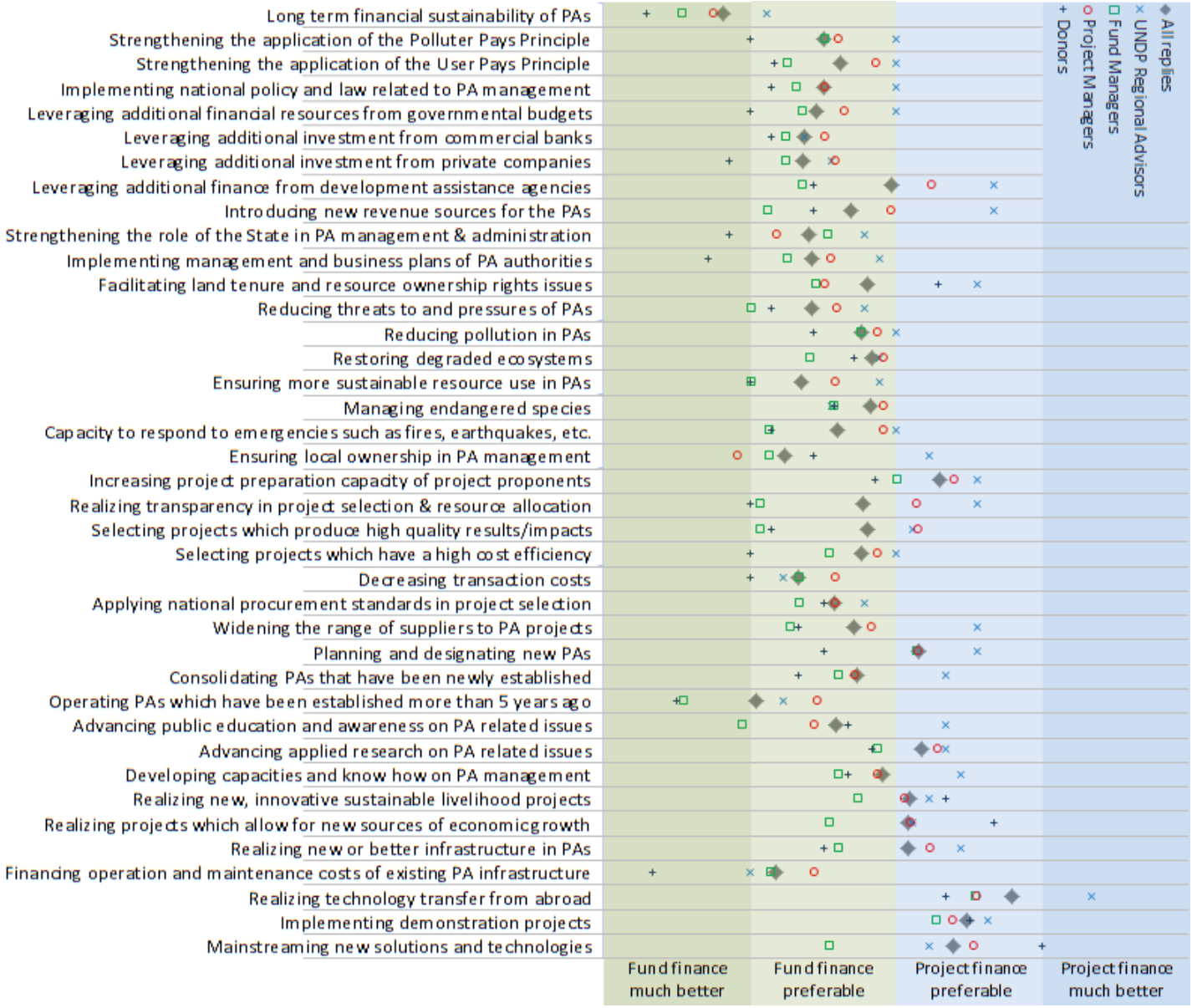


Figure 6: Replies to the question "which type of finance is better for the financial sustainability of PAs" (same results, sorted by topic)



In a following question, web survey participants mentioned a number of additional areas where a Fund approach might be considered better as compared to a project approach. These include:

- « Support for long-term biodiversity and ecosystem services monitoring activities »
- « Development of policies, legislation and regulations on PAs and related issues »
- « Integrating PAs into government structures »
- « Bien sûr dans le domaine social »
- « Funds [are better] in the management of different funding sources at the same time »
- « La sensibilisation et structuration de la communauté de base est plus appropriée pour un Fonds qui connait la réalité locale »
- « A Fund approach is better is in the area of adaptation to climate change »
- « L'approche fond est plus appropriée dans l'octroi des subventions à accorder aux ONG intervenant dans la conservation de l'AP (renforcement des capacités mais également les actions de promotion des AP) »
- « Fund approach is helpful for international recognition and political appropriation »

Participants made numerous additional comments. Some of the statements made include:

- « In both cases, the key is a long term financial investment from public funds with very strong involvement and ownership from Government. Whereas donor funds tend to have fixed periods, CTFs can have a longer period if properly reinvested- and the latter is key. »
- « The impact of the Fund approach on the biodiversity status is poorly documented/ evaluated. »
- « I cannot tell you whether Endowment Funds or short-term projects are better suited for "restoring degraded ecosystems" or "managing endangered species" (as it is asked in the survey), because - I think - both instruments are needed to get to a cost-effective conservation outcome. It is not "either-or", it is rather "how much of this?" and "how much of that?". We need to make the point that short-term projects ARE NOT ENOUGH, not that they are worse than endowment funds. »
- « Setting up endowments is very expensive and very risky, particularly in the current investment climate. If countries can do without them - in my opinion - they should do so. But in most cases that I know there is simply no viable alternative other than giving up the ecosystems you set out to protect. In my view, endowments make sense because there usually is no viable alternative to the financial niche that they cover: bearing the long-term running costs of conserving unique, unrestorable values (like endemic biodiversity). For me, this is the core argument. »
- « In pondering the questions as presented, the key issue in most each instance was the element of time. It is the element of time that gives the CTFs a relative long-term advantage over traditional projects approaches. The monies can often achieve the same things, but the long-term sustainability factor is the key difference. In addition, a CTF serves like the equivalent of a wetland in an ecosystem with a function of moderating extremes in water flows. The CTF allows for moderation and better control of cashflows to meet the changing needs/demands. Donor projects often must spend large amounts

quickly which isn't always possible to do well. Alternatively, the absorptive capacity of the beneficiaries may not be properly prepared on the timescale of donors agendas. The CTFs can accommodate these ebbs and flows and generate significant interest earned and leveraged co-financing in the interim. »

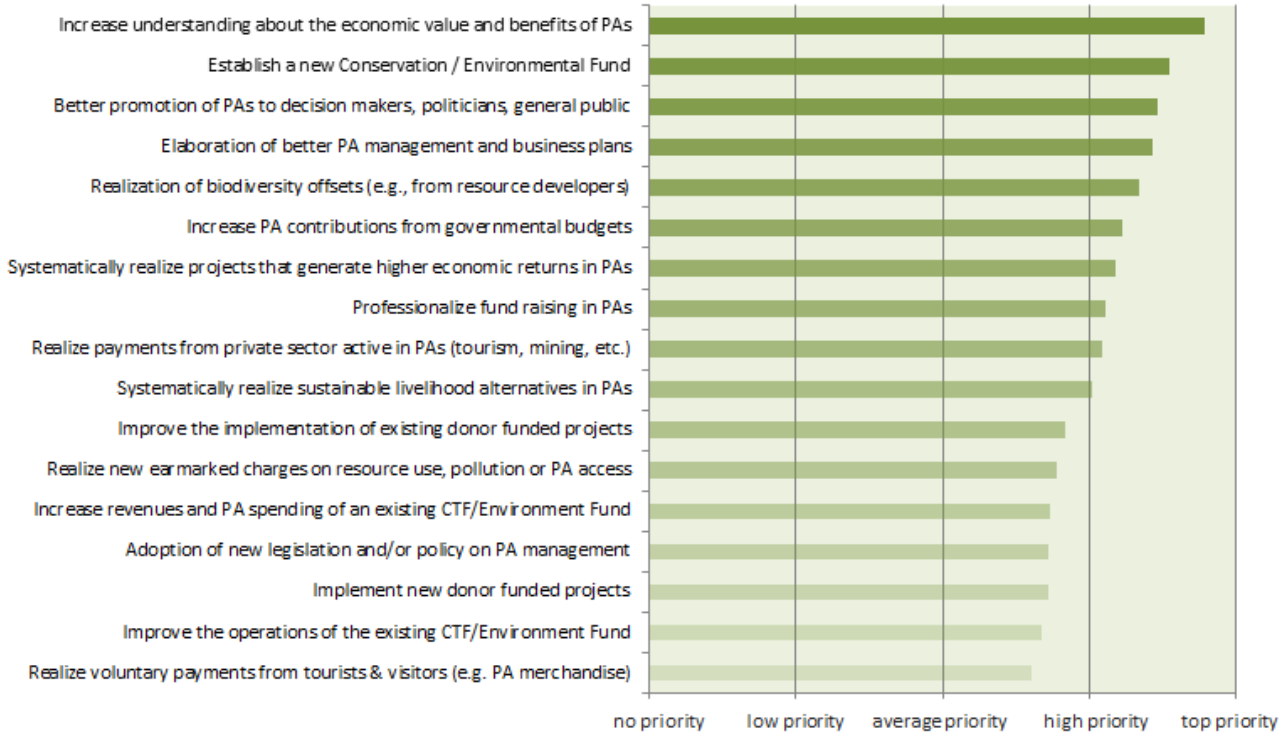
- « The two are very different things […]; Environmental Funds are ways of collecting and distributing financing; donor projects are particular streams of financing for a particular set of deliverables. […] They both operate under very different contexts. Environmental Funds are better for making conservation business-as-usual, a public sector responsibility (a way of earmarking all types of funds, basically). Donor projects are completely different. »

3.4. Priorities for the Future

Figure 7 shows the average score received on the question "In the future, which measures should be taken to achieve a higher financial sustainability of protected areas in your country/countries of operation?" A total of 49 replies from 32 countries (of which 22 African) are represented.

Looking at the results one should bear in mind, of course, that priorities will be very much country specific. Nevertheless, the figure shows that the establishment of an Environmental or Conservation Fund is high on the agenda in countries where no such Fund exists. Awareness-raising on the benefits of PAs, better promotion of PAs and better PA Management Plans also feature high on the priority list.

Figure 7: Replies to the question "which measures should be taken to achieve a higher financial sustainability of PAs in your country?"



Note: For the item "establish a new Conservation/Environment Fund" only replies from countries where no such Fund has been established yet were used. For the items "increase revenues and PA spending of an existing Fund" and "improve the operations of an existing Fund" only replies from countries where such a Fund has already been established were used.

4. Case Studies

Please note that all case studies presented in section 4 have been elaborated as desk studies, fully based on information available in the internet as well as information made available by selected experts. The case studies follow a unified outline and format as follows:

Brief Characterization of the PA

- Location, size, number of persons living in protected area
- Main features of ecosystem(s) found in the PA/SPA
- Economic activities carried out in the PA(s), resources used in the PA(s), economic valuation of the PA(s)
- Development stage of the PA/SPA: planning/creation/consolidation/long-term operation
- Issues, other relevant information

Governance and Management System

- Legal framework: which legislation regulates the PA/SPA;
- Management structure of the PA/SPA: institutions in charge, division of responsibilities
- Management programs & staff: administration/planning; patrolling/enforcement; environmental education; research/monitoring; sustainable livelihoods; mitigation/restoration; sustainable use of resources
- Issues, other relevant information

Demand for Finance

- Data on the budget and budget implementation of the PA/SPA for the last 2 years, short discussion of data
- Data on cost estimations for the PA/SPA management for the coming years (e.g. cost estimation of medium term PA/SPA management plans) , short discussion of these data

Supply of Finance

- Main details on the CTF: rationale for establishing the CTF, in operation since, legislation/legal basis, governance, revenues, spending policies, financing instruments/conditions, project cycle management, expenditure and impacts realized, outreach policies. Indirect effects of CTF, e.g. efficiency gains generated by the creation of human and social capital?
- Discussion of PA/SPA revenues/spending financed by donor funded projects.
- Discussion of additional revenue sources to the PA/SPA, such as taxes/charges/PES.
- Maybe include history of PA financing – that is historical sources of financing for the protected area
- Discussion of specific issues mentioned in the TOR: Is current supply of finance flexible enough in terms of changing external and internal factors (climate change, species extinction, fire, hurricanes, droughts, migration, human/economic pressures, tourism patterns, etc.)? Are current structures able to properly manage project and financial risks? Is there a managing capacity to absorb larger finance? To which extent are local communities and civil society participating in decision making?

Financing Gap, Lessons Learned, Conclusions

- Is there a demand supply gap; how does it develop in the future? Has this changed over time? How?
- Pros and cons and lessons learned of using CTF, project and other type of finance. Has there been a specific strategy in terms of how different fund types are used or bundled to meet objectives? What would be your ideal strategy in terms of financing?
- Main conclusions on the value added (or shortcomings) of the CTF and the project approach

4.1. Benin: Pendjari National Park

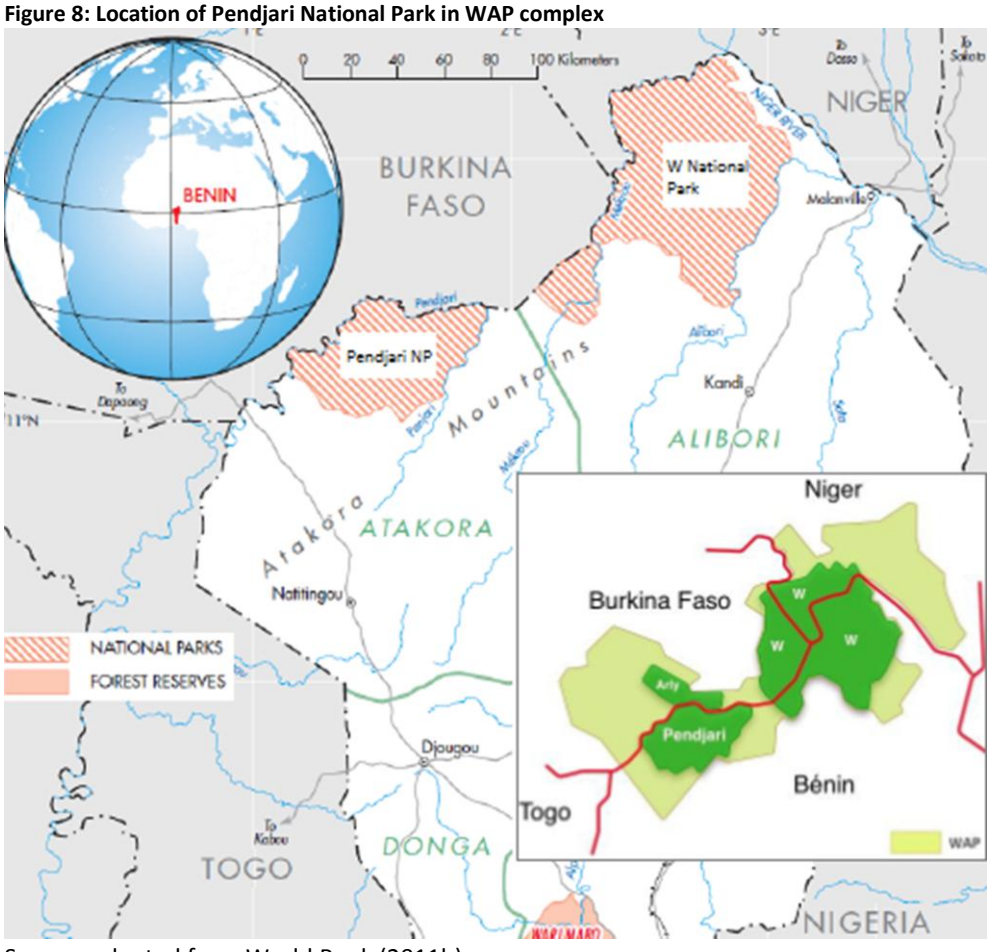
4.1.1. Brief Characterization of the PA

The West African savannah covers part or all of ten countries: Benin, Burkina Faso, Ivory Coast, Ghana, Guinea, Mali, Niger, Nigeria, Senegal and Togo. Much of the globally significant biodiversity remaining in West Africa's savannah belt is found within three major areas: the National Park of Comoé in Ivory Coast (11,492 km2), the Nioloko-Badiar complex in Senegal and Guinea (15,000 km2) and the W-Arly-Pendjari complex in Benin, Burkina Faso and Niger (almost 31,000 km2).

The W-Arly-Pendjari (WAP) complex (see figure 8), is the largest and most important continuum of terrestrial, semi-aquatic and aquatic ecosystems in the West African savannah belt. Its 31,000 km2 area, or 50,000 km2 if riparian areas are included, is divided as follows: 43% in Benin, 36% in Burkina Faso and 21% in Niger. WAP's global biodiversity significance is based on several factors: In the 20th Century a 90% reduction in elephant range area within West Africa occurred, due mainly to hunting for ivory and to expanding human activities. Most remaining range areas are highly fragmented natural forests and protected areas. With about 25% of the sub-region's total estimated savannah range area and more than 50% of its savannah elephant population, the WAP complex is by far the most significant remaining range area for elephant conservation in West Africa. According to a recent census, WAP currently supports more than 3,800 elephants.

WAP is also the only natural refuge available to most of the vulnerable and/or threatened animal species in Benin, Burkina Faso and Niger. It supports 378 species of sedentary and paleo-arctic birds, 94 species of entomofauna, over 80 species of fish, and numerous species of reptile and amphibians, some of which can today only be found in protected areas. It is also of critical importance for the last populations of Sahelian and Sudanese mammals. More than 60 such species have been listed, among which are elephants, buffalos, roan antelopes, kobs, waterbucks, reed cob, sassaby, bubals, giraffes, hippopotamuses, Roan antelopes, lions, cheetahs, leopard, and a variety of monkeys (cynocephalus, patas, green monkeys). Rare species like the manatee have also been listed.

Figure 8: Location of Pendjari National Park in WAP complex



Source: adapted from World Bank (2011b)

The protected area system of Benin is composed of two National Parks (National Park W and Pendjari National Park), their buffer zones and transition areas, all located in the north of the country and almost entirely within areas of woody savannah. Thus, Benin's national protected area system, representing 10.3% of national territory, is 100% contained within the WAP complex

The Pendjari National Park, located entirely within Benin, was designated as a Biosphere Reserve in 1986 and covers 275,000 ha. The buffer zones surrounding Pendjari (348 000 ha) include the hunting zones of Pendjari: Porga (76,000 ha), Batia (75,500 ha) and Konkombri (25,900 ha). UNESCO included the Pendjari National Park and the adjacent hunting zones of Pendjari and Atacora on the list of Biosphere Reserves in 1986.

About 350 towns and villages totaling close to one million inhabitants are found within 40 km of the PAs in the WAP Complex. The largest riparian population is found in Benin with close to 700,000 persons. The economic structure of the WAP Complex reflects that of the three countries. It is mainly based on agriculture, livestock rearing, fisheries and forest resources exploitation (wood and non-timber products). GDP per capita are among the lowest in the world, i.e. USD 170, USD 220, and USD 380 respectively for Niger, Burkina Faso and Benin. The incidence of poverty follows similar trends, i.e. 37% in Benin, 45% in Burkina Faso and 63% in Niger. Illiteracy rates are among the highest in the world, e.g., 80% in Niger. About half of the million people surrounding the WAP complex live on less than 1 USD per day.

4.1.2. Governance and Management System

The general responsibility for environmental management and policy implementation in Benin resides with the Ministère de l'Environnement, de l'Habitat et de l'Urbanisme (MEHU). A number of laws to manage natural resources and protect the environment have been developed, starting with the Environmental Framework Law of 1993, the National Environmental Action Plan (adopted in 1993 and updated in 2001), the creation of the National Environmental Agency (ABE) in 1995 and the adoption of a general framework law in 1999. Several regulatory decrees were further adopted between February and August 2001.

The institutions responsible for natural resources management in Benin, reporting to the MEHU, are the following: (i) the National Agency for Wood (Office National du Bois), created in 1983, responsible for Sacred Forests management; (ii) the Center for Wildlife Management (Centre National de Gestion des Ressources de Faune, CENAGREF), created in 1996, responsible for the management of national parks and their adjacent/hunting zones; (iii) the National Department of Forests and Natural Ressources (Direction Nationale des Forêts et des Ressources Naturelles), created in 2001, responsible for the management of State forest reserves; and (iv) the National Environment Agency (ABE), created in 1995, responsible for review and approval of environmental and social documents, and also for management of costal and marine protected areas.

CENAGREF has coordinated the implementation of a Program for the Conservation and Management of National Parks (PCGPN), which has helped reinforce co-management with riparian populations and participation from the private sector.

Despite support from various donors over the past decade to Northern Benin Savannah Ecosystems management, the following weaknesses remain to be addressed according to World Bank (2011b): (i) weak capacity of the CENAGREF; (ii) deterioration of basic infrastructure within

the parks; and, (iii) insufficient alternative community livelihood schemes to prevent local populations from illegal poaching, fishing and use of natural vegetation for agriculture.

The Pendjari National Park performs the following type of site based management activities: administration & planning, patrolling & enforcement, environmental education, research & monitoring, sustainable livelihood alternatives, mitigation & restoration, sustainable use of resources. These activities are carried out based on a Management Plan that has been elaborated under German-Benin cooperation and covers the years 2004-2013. In 2011, the total revenues of the Pendjari National Park were approximately 150,000 USD, coming from the following sources: access/visitor fees, sale of official Park merchandise, as well as projects funded by foreign organizations. In the past three years, Pendjari National Park received support from the following donors: FFEM, GEF, GIZ and KfW.

The total expenditure of the Pendjari National Park in 2011 was approximately USD 400,000. The difference to total revenues can be explained by expenses covered by donor projects. In the past three years, Pendjari National Park was able to finance about 20-40 of required activities contained in the Management Plan, about 40-60% of required activities stipulated in relevant national policy and law and about 0-20% of infrastructure investment needed in the Park.

4.1.3. Demand for Finance

Based on recent CENAGREF business plans, the annual financial needs of the Northern Savannah park system in Benin are as follows:

Table 6: Annual financial needs of the Northern Savannah park system in Benin

	Expenses, USD	Revenues, USD	Gap, USD
Direction of the National Park W	612,500	93,750	518,750
Direction of the Pendjari National Park	500,000	175,000	325,000
General Direction of CENAGREF	337,500	106,250	231,250
Total	1,450,000	375,000	1,075,000

Source: World Bank 2011b

Cost estimations to quantify longer term demand for finance to support activities and investments related to the Pendjari National Park (and National Park W) have not been prepared so far.

4.1.4. Supply of Finance, Closing the Financing Gap

For decades now, the lion's share of financing for National Parks in Benin has come from the international community, primarily through several donor funded projects (EC, FFEM, GIZ, GEF, KfW, World Bank). On the national level, only small/insufficient amount of funds have been allocated from national public sources and Pendjari National Park has not been able to cover its expenses with revenues from Park access fees and the sale of Park merchandise to tourists. The same situation can be found in other PAs forming part of the W-Arly-Pendjari (WAP) complex.

This is why the Benin Government and foreign partners have engaged in the process of creating a regional conservation trust fund, referred to as the Fondation des Savannes Ouest-Africaines (FSOA - West African Savannah Foundation). A Steering Committee set up by Ministerial Decree in 2003 has been guiding the creation process with close collaboration and technical assistance from

IUCN, legal assistance from PriceWaterHouse Coopers (PwC) and financing from KfW. For the time being it was agreed that the Fund would initially focus on financing activities in the Pendjari and W National Parks of Benin. In the longer run, the Fund would be extended to the entire WAP to support the integrated cross-border management of the area which is crucial to ensuring that its biodiversity is ultimately conserved. The rationale for FSOA includes (adopted from IUCN, 2011):

- Generate a predictable and sustainable revenue flow to cover the core recurrent costs of the Pendjari and W National Parks, complementing other more unpredictable funding sources from the Government's budget, sports hunting, and tourism.
- Allow for long term planning of Park investments.
- Establish eligibility and monitoring criteria that are stable, transparent, and based on the quality of results achieved.
- Increase local ownership and decision-making and strengthen civil society's role.
- Shield PA finance from institutional and policy failures that might otherwise impact the allocating of funds.
- Leverage finance from additional public and private sources.
- Strengthen funding transparency, cost effectiveness, and synergy among national partners.

The Steering Committee approved in 2010 that the FSOA should be established as a foundation governed by UK Law, with the legal structure of a Limited by Guarantee Company with Charitable (non-profit) Status, and have its own Memorandum and Articles of Association. Members of this Company would include any organization or individual that contributes 500,000 EUR or more to the FSOA, conditional on approval by current Members. Members would be responsible for supervising the FSOA's Board of Directors, appointing and removing Directors, and reviewing annual accounts and audit reports.

The Board of Directors would be responsible for managing the FSOA, achieving its objectives, and ensuring compliance with regulations in force and incorporation documents. The Board of Directors would be autonomous, mixed public-private and have no less than 5 members and no more than 9 members. The majority of its representatives would at all times be non-governmental to ensure that a variety of stakeholders are represented and have expertise in relevant fields. In addition, Directors would require proven experience in biodiversity conservation, law, business, non-profit management, and/or fund-raising.

The FSOAs Executive Director, supported by his/her team, would be responsible for the Fund's day-to-day management and for implementing decisions made by the Board of Directors. Other support includes an Investment Manager of the Funds endowment capital – to be selected based on an international call for tenders, and a Company Secretary/Legal adviser in the UK, whose function would be, among others, to meet reporting obligations in the UK and provide specific legal and administrative advice.

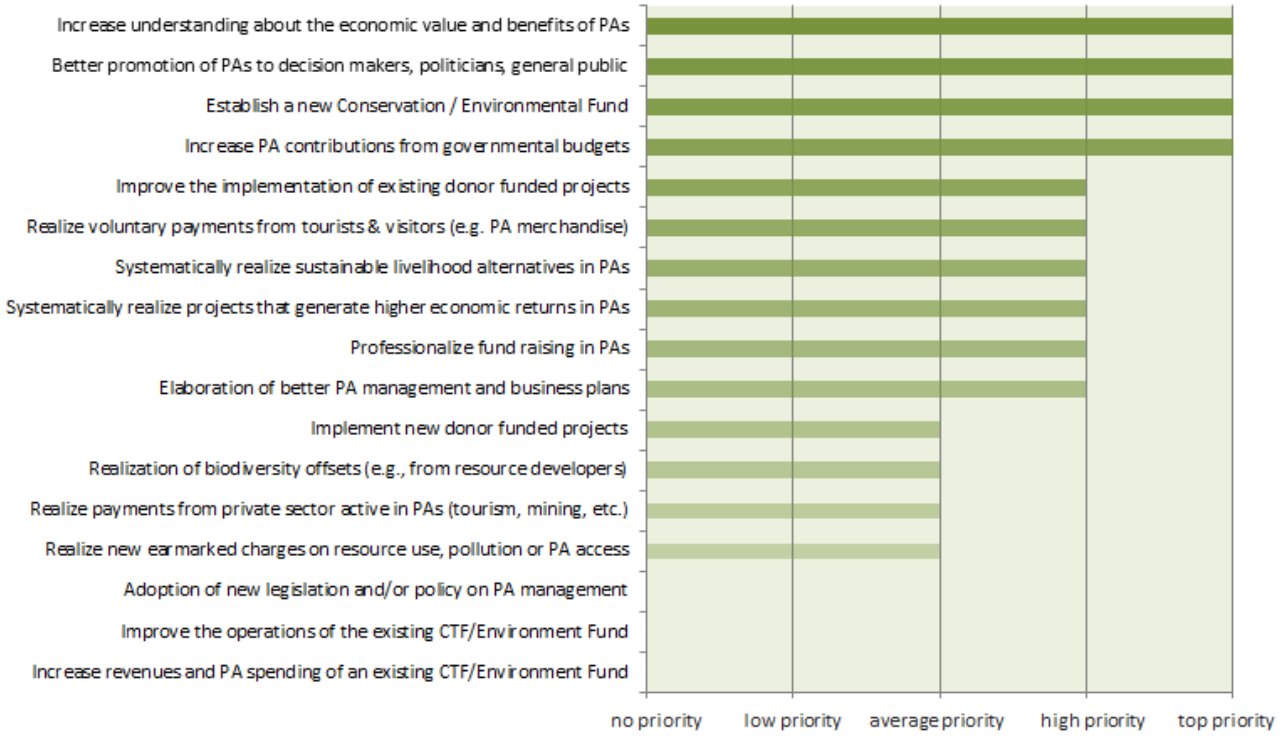
The FSOA's Operations Manual would be developed based on a participative process involving various actors at all levels. It would comprise two parts, a Procedures Manual, and a Grant Awards Manual. The Procedures Manual would include provisions pertaining to: (i) opening bank accounts and transferring funds; (ii) procedures for procurement and administrative expense payments; (iii) recruitment procedures and terms of reference for employees; (iv) an independent annual audit of activities, grants, and investments; and (v) criteria and procedures for selecting the Investment

Manager and various advisers, consultants, etc. The Grant Awards Manual would include: the prioritization of activities and beneficiary entities; general eligibility requirements; other financing principles; templates for application procedures, fund transfers, reporting, evaluation, etc.

The proposed financing windows/priorities include: (a) a "Benin window" for funding CENAGREF and the two Parks (Pendjari and W); (b) a window for funding cross-border activities; and (c) a window for other WAP components. The Benin window would constitute the initial focus of the Fund.

Based on the estimated annual financial needs of the Northern Savannah park system in Benin (see table 8 above), the initial capital requirements of the FSOA would be calculated as follows in order to close the annual financing gap: Annual gap + FSOA annual overhead – annual contribution from the Government of Benin, i.e., USD 1,075,000 + USD 193,750 (3 staff) – USD 450,000 = USD 818,750. Based on an estimated yearly net investment return of 4% on the endowment capital, the size of the required endowment for the Benin window would thus need to be USD 20.5 million. World Bank (2011b) reports that the Benin Government has committed 1.5 million EUR (USD 2.1 million equivalent) and the German Government 8 million EUR (USD 11 million equivalent) to the FSOA representing the initial endowment capital of the FSOA. A bilateral contribution from AFD and complementary funds from FFEM and the EU are also under consideration, as is a possible contribution from GEF. The establishment of the FSOA is expected to be effected through a currently implemented GEF-IDA blended contribution (Support to Protected Areas Management).

As part of the web survey carried out for the present study (see section 3) the following answer was provided for Benin on the question "In the future, which measures should be taken to achieve a higher financial sustainability of protected areas (PAs) in your country?"



4.2. Bhutan: Wangchuck Centennial Park, BTFEC

4.2.1. Brief Characterization of the PA

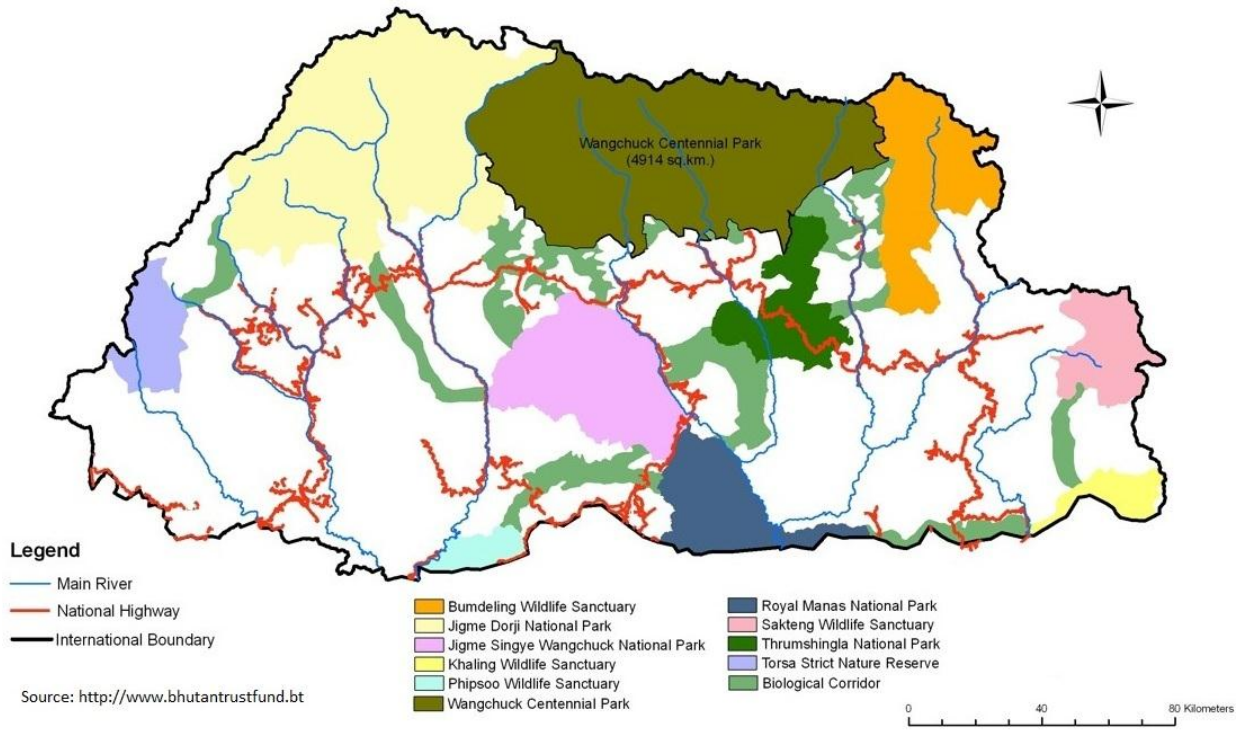
With its varied altitudinal and climatic conditions, Bhutan possesses extremely rich biological diversity. Bhutan also offers the last refuge of many species of flora and fauna that have vanished elsewhere in the Himalayan region due to habitat destruction associated with rapid expanding human populations.

The protected areas system of Bhutan was initiated in the 1960's, and at that time covered almost the entire southern and northern regions of the country. In 1993, the park system was revised for better ecological representation and more scientific management. Determined to prevent the environmental degradation that had occurred elsewhere in the Himalayas, the Royal Government of Bhutan mandated that 60% of its land remain under forest cover, and set aside around 30% as protected areas. Bhutan today has 10 formally protected areas covering 16,396 square kilometers, which represents more than 40 percent of the territory of Bhutan.

Bhutan's key conservation and biodiversity issues today include localized deforestation, timber extraction for construction and fire wood, overgrazing, human-wildlife conflicts, forest fires, and conversion of natural habitat to accommodate urbanization and infrastructure development. In addition, new environmental issues are emerging, such as pollution, waste and climate change.

Wangchuck Centennial Park (WCP – see figure 9) was formally declared a National Park under Bhutan's protected area system in 2008 as a tribute to the visionary, selfless leadership of the Wangchuck dynasty. WCP is the largest National Park in the Kingdom of Bhutan with an area of 4914 km². To the east, WCP is adjacent to Bomdeling Wildlife Sanctuary, and to the west it is adjacent to the Jigme Dorji National Park. In the south it is bordered by biological corridors. WCP thus represents an integral part of the protected area system of Bhutan.

Figure 9: National Protected Areas and Biological Corridors of Bhutan



WCP is source to headwaters of four major river systems: Punatsang chu, Mangde chu, Chamkhar chu and Kuri chu. It represents the middle Himalayan ecological biomes, ranging from blue pine forests to alpine meadows, over an altitude of 2,500 to 5,100 meters. The park is home to 244 species of vascular plants, 39 species of mammals, 134 bird species and, between the WCP and its buffer zone, 42 species of butterflies. WCP is also home to medicinal plants – so far, 33 species have been documented, some of which having ethno-botanical value. These include the highly priced Yartsa Goenbup and the Himalayan Yew Taxus baccata wallichaina. Bhutan's national tree Cupressus corneyana can also be found (timber use, incense making). Charismatic wildlife species such as the Royal Bengal Tiger (Panthera tigris), Snow leopard (Uncia uncia), common leopard (Panthera pardus), Wolf (Canis lupus), Takin (Budorcas taxicolor), Himalayan Serow (Capricornis sumatraensis thar), Himalayan Musk bear (Moschus chrysogaster) and Himalayan Black bear (Selenarctos thibetanus) are residents.

4.2.2. Governance and Management System

The park's main mission is to conserve natural biodiversity in harmony with people's values and aspirations. It is pillared by following main goals:

- Conserve, protect and maintain species and ecosystems in a way that allows for natural processes of succession and evolution with minimal human interference.
- Protect cultural, historical and religious sites.
- Contribute to the socio-economic development of the Park residents through sustainable use of the park resources and wise management.

The WCP management objectives include:

- Establish infrastructure and place adequate human resources in the Park.
- Identify, prioritize and mitigate immediate threats to wildlife and their habitats.
- Facilitate the control of or reversal of negative land uses in the park.
- Build a scientific database on society and biodiversity to support informed decision making.
- Protect religious, cultural and historical sites of natural, regional or local importance.
- Enhance socio-economic development of the park residents through participatory programs such as community based eco-tourism and other community development.

WCP is co-managed by a Chief Forestry Officer and WWF. In addition to an administration & finance department, the park will have six independent units including a Conservation Development and Environmental Education Section, a Species Management and Research Section, an Information & Management System Section, a Protection of Wildlife and Resource Management Section, an Engineering Section and Plantation Section. In addition, three Range offices (Western Park range, Central Park range, Eastern Park range) with 7 subordinated outposts have been established to cover the entire large area. The plan is that WCP Park Authority will have 34 staff by mid-2012.

4.2.3. Demand for Finance

WCP is a completely new establishment and following basic issues had to be addressed initially (below list represents the baseline prior to the BTFEC supported project which started in 2009):

- No infrastructure was in place for the Park authority (offices, guard posts, visitor center).
- Biodiversity/community baseline information was lacking. Such information is crucial for developing a conservation management plan.
- Ecosystem impact of yak herders was not known / studied.
- There is a high consumption of firewood for cooking and heating believed to exert high pressure on the sub-alpine and alpine forests. Consequently, baseline information needs to be collected and alternatives developed.
- A number of additional adverse ecosystem impacts due to human activities need to be studies and addressed. These include for example, forest fires, overgrazing, poaching, clearing of forest for pasture development, and waste management.
- Negative impacts of wildlife on human communities need to be studied and addressed too. These include for example: livestock depredation by tigers, Tibetan wolves, wild dogs, leopards, Himalayan black bears and snow leopards; as well as crop damage by wild pigs, sambar, deer and macaques. These issues should also be seen in the context of low employment opportunities and alternative sources of income.
- Ecotourism needs to be developed from scratch.
- Park staff needs to be recruited and trained.

In the longer run, additional investments and operational costs will have to be covered in line with the requirements of relevant policy and legislation which includes among others:

- The Forest and Nature Conservation Act of Bhutan, 1995
- The Biodiversity Act of Bhutan, 2003
- The Forest and Nature Conservation Rules of Bhutan, 2006, which contain a chapter VI on Protected Area Management (sections on Declaration of PAs, Administration of Activities in PAs, Permits, Prohibited Activities in PAs, Offences), a chapter VII on Wildlife Conservation (sections on Protection of Wildlife, Prohibited Activities, Justified Taking Due to Threat or Harm to People or to Property, Traditional Uses of Certain Species, Fishing, Offences) and a chapter VIII on Soil and Water Conservation (sections on Clearing and Cultivation of Private Land, Grazing, Pollution Prevention, Forest Fires and Fire Protection, Offences)
- Renewable Natural Resources Sector Tenth Plan (2008-2013) of the Ministry of Agriculture

Cost estimates that would quantify the longer term need for financing to support investments and recurrent costs related to the WCP management have not been prepared so far.

4.2.4. Supply of Finance

The Bhutan Trust Fund for Environmental Conservation (BTFEC) has been financing three projects focusing on WCP so far. The first two projects (December 2008 and March-June 2009) totaled USD

29,843 and financed partial biological surveys, a feeder road, outreach to the community and other items. A current project aims at operationalizing WCP. The project duration is July 2009 – June 2012. Main activities that have been and will be carried out according to the project document include:

- Completion of biodiversity surveys on mammals, birds, vegetation, as well as a socio-economic survey including ecotourism potential.
- Construction of the Park Authority's headquarters and staff quarters, including infrastructure.
- Implementation of a pilot biogas facility.
- Training of park staff, tour guides and local communities in relevant aspects of WCP management; implement study tours for Park Authority staff; preparation of promotional material, visitor information and implementation of awareness raising programs.

The project contribution by the BTFEC is 300,000 USD. The Government of Bhutan is co-financing this amount and related activities with an amount of 198,584 USD. The Government's contribution is used to cover Park Authority salaries and travel costs, as well as operating expenses.

Apart from external support (including support received from WWF, MacArthur Foundation and bilateral donors), the two main sources of finance for PAs include the Government of Bhutan and the BTFEC. The BTFEC was set up by the Royal Government of Bhutan in collaboration with WWF and UNDP as a sustainable conservation financing mechanism in Bhutan. The initial capital was provided by a World Bank-GEF project carried out in 1992-1997 and capitalized through a GEF grant of USD 10 million, a WWF grant of USD 1 million, about USD 10.1 million from bilateral donors and USD 0.2 million from the Royal Government of Bhutan. The total assets of the BTFEC have grown from the original capitalization of USD 21.3 million to USD 44 million today, largely through accumulation of interest, dividends, and capital gains. Administration costs of the BTFEC only recently rose above USD 200,000.

BTFEC is governed by the 1996 Royal Charter of the Trust Fund for Environmental Conservation. The BTFECs Management Board consists of 7 members, including the Minister of Agriculture & Forests of the Royal Government of Bhutan (chairman of the Board), the Secretary of the National Environment Commission, the Director of National Budget, the Head of Policy & Planning in the Ministry of Works & Human Settlement, the Executive Director of the Royal Society for Protection of Nature, the Director of the Cabinet Secretariat and the Director of BTFEC (Secretary). See table 3 for additional information on the BTFEC.

4.2.5. Financing Gap, Lessons Learned, Conclusions

Since 1992, BTFEC has spent over USD 6.5 million to build institutional and human capacity in Bhutan's National Parks, as well as related central government agencies. This includes the recruitment of 189 field staff, training via 24 post-graduate specialist degrees and at least 389 short scientific courses. In addition, BTFEC has financed research and conservation investments within and outside of the PAs and has also financed recurrent costs to ensure financial sustainability of PAs (BTFEC funded such recurrent costs for 5 years with more than 1.4 million USD). In 1993, when the BTFEC started out, only 2 PAs existed. Today there is a network of 10 PAs and several corridors. The Government of Bhutan undoubtedly has been a strong supporter of this

impressive extension of PAs and BTFEC has been instrumental in co-financing the implementation of the PA system. The BTFEC has supported all ten PAs.

Much of BTFEC's support has gone for institutional strengthening and capacity building, which were two of Bhutan's biggest constraints to implementing conservation programs. BTFECs support has also resulted in better project preparation capacity of eligible government agencies and NGOs: today these institutions can prepare better project proposals thus absorb more finance than when BTFEC started.

Apart from WWF support, there have been few donor interventions and projects related to PAs and none with large budgets (as can be found, for example, in Africa – see Benin, Madagascar and Tanzania case studies of this present report).

It is possible that today's achievements in PA development and management might have materialized faster if external donor funded projects were carried out; as such projects could have supported the capital investment in surveys, infrastructure and human development. However, Bhutan's strategy has ensured a high level of local ownership, local achievement and local management, all factors that contribute to sustainability. The BTFEC could have provided even more grant funding had there not been issues of absorptive capacity to resolve first.

A new World Bank/GEF project is now being prepared that would build on Bhutan's important achievements in PA development. According to the relevant World Bank Project Information Document of December 2011, the project would address the following issues:

- Component A: Enhanced Operational Effectiveness and Sustainability of the GTFEC (USD 0.8 million from GEF). This component would provide technical support and capacity building to strengthen the effectiveness of BTFEC. In particular, this component will help implement a revised Strategy and Action Plan for the BTFEC and operational guidelines.
- Component B: Improved conservation management of high altitude northern areas landscape in Bhutan with community participation to conserve temperate broadleaf forests and other ecosystems (USD 2.84 million from GEF; USD 0.3 million from local communities and USD 1.2 million from government agencies).
- Component C: Mainstreamed conservation and sustainable forest and natural resource management approaches in national policies, strategies and plans, and the replication of such approaches elsewhere in Bhutan (USD 0.44 million from GEF; USD 0.3 million from government agencies).

A PA system financing strategy on national level (e.g., similar to the method described in section 2 of this report) has never been carried out in Bhutan and development scenarios that would allow for defining the mid to long term financing gap for Bhutan's PA system do not exist. It may be useful to elaborate such a financing strategy and base future PA policy and related finance on the results and conclusions of the strategy. An alternative idea would be to cover the entire environment sector by such a financing strategy and define BTFECs role and niche in financing environmental policy priorities.

According to the World Bank Project Information Document of December 2011, some of the areas in which the BTFEC could be strengthened include (note that these items might be changed and reformulated as a result of an ongoing evaluation of the BTFEC):

- Diversifying the BTFECs revenue sources would be desirable, especially via new revenue sources that are predictable and support the implementation of the PPP and UPP.

- Conservation threats and opportunities should be better prioritized, ideally by using a participatory stakeholder approach. The results of such a prioritization should then be integrated into the BTFECs new Strategic Plan.
- Improved grant-making procedures should be developed.
- Technical capacity for monitoring and evaluating the conservation impact of BTFECs grants should be developed.
- Arrangements for analysis and utilization of lessons and experiences from implemented projects should be established.
- Capability to review the investment management strategy and performance should be developed.
- Legal instruments should be developed which allow for the generation of non-budgetary resources for self-sustaining management of protected areas, such as revenue from payments for environmental services, tourism fees and concession fees.

Relevant operational policies of the BTFEC would subsequently have to be adapted or newly created and adopted.

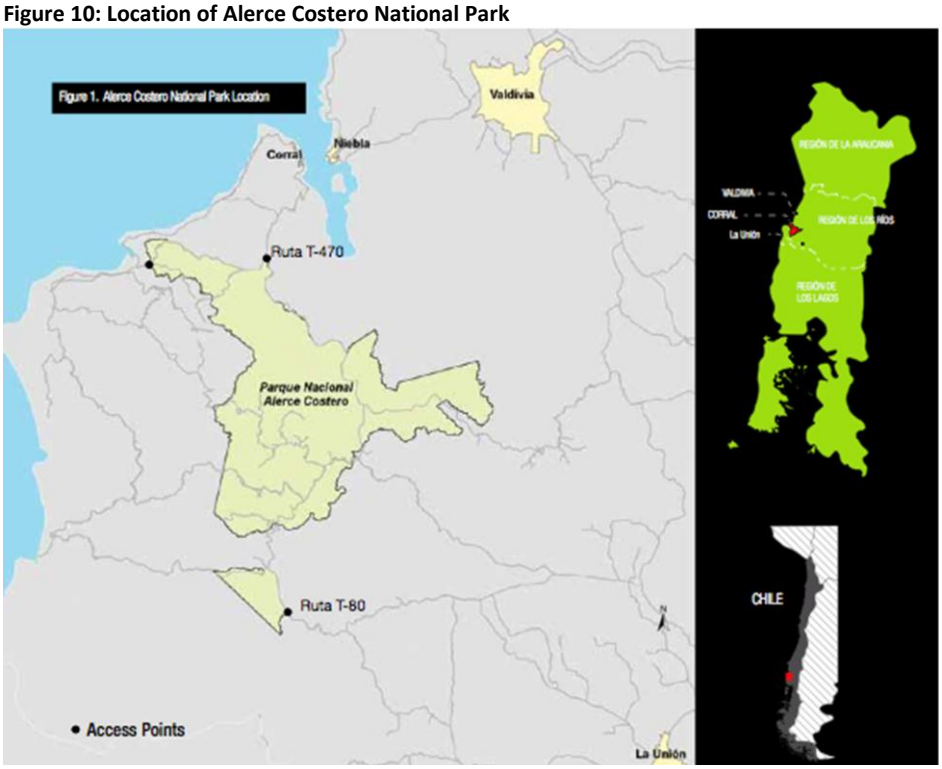
4.3. Chile: Parque Nacional Alerce Costero

4.3.1. Brief Characterization of the PA

The Alerce Costero National Park is located in the Cordillera de la Costa, in the Valdivia and Ranco provinces, between the coordinates 39° 58’ and 40° 12’ South Latitude. The park was created in year 2012 with an extension of 24.694,21 ha. The closest city to the Park is Corral, at a distance of 12 km. The closest important urban center is the regional capital Valdivia, at a distance of 25 km.

In general, road access is still not easy, but four-wheel-drive vehicles can get to all parts of the park. Visitors can reach the largest area of the park from Corral, and from La Union there is access to ancient alerces of incomparable beauty. The area presents rich biological and cultural diversity and hosts one of the largest concentrations of endemic species in the country.

Figure 10: Location of Alerce Costero National Park



The creation of this national park was possible thanks to the combination of 9.500 hectares donated by TNC (Valdivian Coastal Reserve) with two areas from the SNASPE the Alerce Costero Natural Monument and the Valdivia National Reserve. Additionally the park benefitted from the reassignment to SNASPE of two former forest concessions that were under fiscal property.

The establishment of a large state protected area in the Valdivian Cordillera de la Costa is one of the most relevant objectives in Chilean biodiversity conservation. The conservation agreement for coastal forests, signed in 2002 by CONAF, WWF, and the Regional Government, allowed different public and private institutions to join forces. This association of lands constitutes a significant achievement for the conservation of the natural and cultural heritage of the recently created Region de los Rios by forming the region’s first national park. Moreover TNC´s neighboring Valdivian Coastal Reserve contributes with additional 50.000 hectares to form an important conservation block that combines private and public management.

The Valdivian-type temperate rainforests stand out for their uniqueness and importance to biodiversity conservation on a global level. Various international organizations have recognized this region as one of the planet’s most valuable and threatened ecosystems and as part of the second largest block of temperate rainforests on Earth. The section of the Cordillera de la Costa between the Biobío and Los Lagos regions has been identified as a high priority landscape for Valdivian temperate rainforest conservation. The stable climate conditions and environmental diversity have maintained an extraordinary level of biodiversity unique to this part of the cordillera

and particularly to the Cordillera Pelada. The Cordillera Pelada uniquely displays a complete representation of coastal forests, for which it is recognized in the National Biodiversity Strategy, CONAMA 2004.

The most southern coastal alerce forest grows in the mountain sectors above 700 meters. The alerce is a woody endemic species that stands out for having individuals over 3000 years old, for which it is catalogued as a Natural Monument. Intensely exploited for many years, these forests can be seen in the El Guíndo sector and around the Catrileufu area, where there are small relics of the ancient forest.

The Park adequately represents the Valdivian rainforest's different vegetation levels, protecting the Río Chaihuín's watershed and part of the habitat of unique Chilean species such as the Helecho de Corral, Planta del León, Tupa Rosada, and others.

For its location close to Valdivia, La Union, and Corral, and for the significant natural and cultural heritage that it protects, this emblematic Park of the Los Rios region will ideally be an exceptional tourism destination. The Park is not inhabited by humans, surrounding local community members are interested in the influence that a National Park can have in their lives, as much from the point of view of conservation as from local development opportunities through tourism and visitor services. The Park offers the possibility to explore the Valdivian forest from the sea to the cordillera, through a scenic route dotted with public service points that will connect the communities of Corral and La Union socially and economically.

Alerce Costero is in an early operational stage; its first management plan was developed in 2009 and the area was officially declared as national park by the Chilean president in 2012. It is important to note that all the different pieces of land that currently form the national park, already undertook some kind of management and conservation activities prior to its unification. Out of them three protected areas (1 private and 2 public) and two forest concessions, suggesting that when the area was officially declared at least some basic steps were already taken in terms of land use planning, community involvement and research.

4.3.2. Governance and management system

The current SNASPE consists of terrestrial areas under public domain. This System is implemented and managed by the National Forest Service (CONAF) through its 400 park rangers and administrators located in directorates in each of 13 administrative regions of the country. The surface currently covered by SNASPE is approximately 14,000,000 ha, which corresponds to about 19% of national territory, excluding the Chilean Antarctic. It consists of 100 areas, of which 35 are National Parks, 48 National Reserves and 17 Natural Monuments. Additionally, it also includes 7 biosphere reserves recognized by UNESCO and associated with entities of SNASPE, and 9 wetlands qualified within the RAMSAR Convention. As a National Park, Alerce Costero receives maximum protection under Chilean law.

In terms of management structure Alerce Costero National Park is managed by CONAF trough the Regional Office of Los Ríos. The staff available for the park consists of one PA Director and four park guards; they receive technical and administrative support from the provincial office located in Valdivia and report to the Regional Protected Areas Director. The park is in the process of building infrastructure and capacities for site based management, management and direction of the PA is still based in CONAF´s provincial office in Valdivia.

The park management objectives respond to the reality of the two coastal communities, Corral and La Union, in which the park is found, and to the general context of planning a new region. The management objectives were determined based on the unique characteristics of the park, and through the participation of the local community citizens. The four management programs aligned with the systemic objectives of SNASPE:

a) Administrative Assistance, Finances, and Infrastructure Program

b) Public Use Program

c) Natural and Cultural Resources Conservation Program

d) Participation and Development Program

4.3.3. Demand for finance

The total available funding for the park averages USD 88.000 per year. Approximately 75% of these resources cover staff salaries, and no investment in infrastructure and equipment has been registered during this period. The budget decrease in year 2011 could be partially explained by the appreciation of the Chilean peso in comparison with the dollar. This budget represents almost 32% of the total available funding for protected areas Los Ríos region and less than 0,2% of the total budget of CONAF for protected areas management nationwide.

The regional government committed approximately USD 1 million for the next two years in order to build basic infrastructure and accessibility, as well as to set up a grant fund for sustainable economic initiatives in the buffer zone. This investment demonstrates commitment from the regional government and opens a window of opportunities for the future.

Table 7: total available funding year 2010 – 2011

	USD 2010	USD 2011
Staff	70.135	62.700
Goods and services	18.937	13.264
Per diems	1.117	1.631
Temporary staff	5.813	2.691
TOTAL	96.001	79. 859

According to a financial needs assessment prepared recently in the context of the protected area financial plan for Alerce Costero National Park, the financial gap to achieve a basic management scenario is 74% has while the gap in terms of an ideal scenario goes up to 84%. The SNASPE´s average financial gap has been estimated at 66%, indicating the early operational stage of Alerce Costero within a national context where sustainable funding is a critical success factor.

The major gap corresponds to the staff both technical profiles and park guards followed by specialized planning and management tools needed to strengthen the early operational stage.

According to these estimates the area demands an investment of approximately USD 700.000 to consolidate basic management infrastructure, vehicles and equipment. The ideal management scenario considers investments of approximately USD 2 million in order to build enabling infrastructure to allow particularly tourism.

Table 8: Financial needs projection		
	Basic scenario	Ideal scenario
Staff	104.400	202.800
Professional services	142.000	146.000
Operative costs	85.340	197.014
Infrastructure and equipment	701.090	1.968.960

4.3.4. Supply of finance

The only source of funding currently available for the park is governmental trough the national budget distributed by CONAF to the regional offices. There is no indication about the criteria or system in place to allocate CONAF´s budget across the SNASPE. However the modest budget allocated to Alerce Costero could be partially explained bearing in mind that Los Ríos is a new region that did not have a strong tradition of protected areas conservation.

CONAF´s annual national budget is approximately USD 10.3 million, 50% from the government and 50% from tourism revenues. The protected areas that generate revenues are not allowed to retain them, all revenues are centralized and there are no real incentives for protected areas to increase their revenue generation capacity. CONAF operates under a form of ceiling or fixed budget, if they increase their revenues the government allocations are decreased accordingly.

The area is currently not generating revenues of any kind, but has an interesting potential to develop tourism and eventually environmental services such as carbon sequestration under REDD schemes. With regard to this, TNC`s neighboring private protected area is close to market its carbon credits after following a long formulation, research and accreditation process.

The institutional and legal framework governing the SNASPE is complex and under an in-depth restructuring process. Current scenario presents certain financial and operational barriers which include restrictions on income generation, shortcomings in the structures and operational procedures, weakness in institutional and individual capacities for planning and financial management, and limited contributions from development institutions and productive sectors to protected areas financial sustainability.

Two GEF-UNDP projects are currently in place to provide technical support to the Chilean authorities to overcome these barriers and strengthen SNASPE´s capacities. This would include the regulatory framework for the System funding, which may require adjustments in existing laws and mechanisms that can strengthen the development of eco-tourism. It would also include the incorporation of local communities in the management of these initiatives.

4.3.5. Demand supply gap, lessons learned, conclusions

This is a case where the protected area is just recently created within a region that is also relatively new in Chile, more over Alerce Costero happens to be the first National Park in Los Rios region. Although the institutional context is relatively young, it offers important opportunities to diversify the sources of funding specially targeting the regional budget. The fact that it is a new region and that it is its first national park mobilizes local political support within a region that is famous for its green standards and environmental awareness.

Chile does not have a protected areas fund in operation, and has achieved a level of economic development that does not favor the country to be a recipient of international cooperation.

Budgetary constraints together with legal and institutional uncertainty at the national level, does not present an optimistic perspective in the short term for increasing the budgetary allocation received from CONAF.

The financial gap is considerable and would probably present better opportunities to improve particularly in terms of infrastructure and equipment due to support from the regional government. Recurrent costs might probably be more difficult to increase in the short term due to existing institutional and legal barriers. The financial sustainability of Alerce Costero in the short and mid-term relies on its capacity to further commit regional authorities whose contribution and commitment towards its first national park has been clear.

This case also suggests the need to strengthening the capacity to generate better projects, to be able to absorb the additional funding and direct it into bridging the financial gap. With this regard the next natural step would be to move from a project approach towards a comprehensive program approach that facilitates a long-term engagement and ensures a sustainable flow of resources from the regional budget. To realize this, the park should consider strengthen his partnerships with the local universities and key NGO´s such as the neighboring TNC and WWF whose capacities offer mutual benefit opportunities and complementarities to improve the project approach to leverage funding for the PA.

The complex institutional framework governing conservation in situ is not restricted only to those institutions with responsibilities regarding PAs, but also includes those that set the enabling regulatory framework for biodiversity conservation in general and the ones responsible for enforcement. To a large extent, the long-term sustainability of PAs rests on the comprehensiveness of this environment and on the success of enforcement as a means of reducing threats to PAs and, thus, reducing running costs. This broader institutional framework is highly complex in Chile and to a large extent is governed according to the type of biodiversity being protected with a large range of institutions in play.

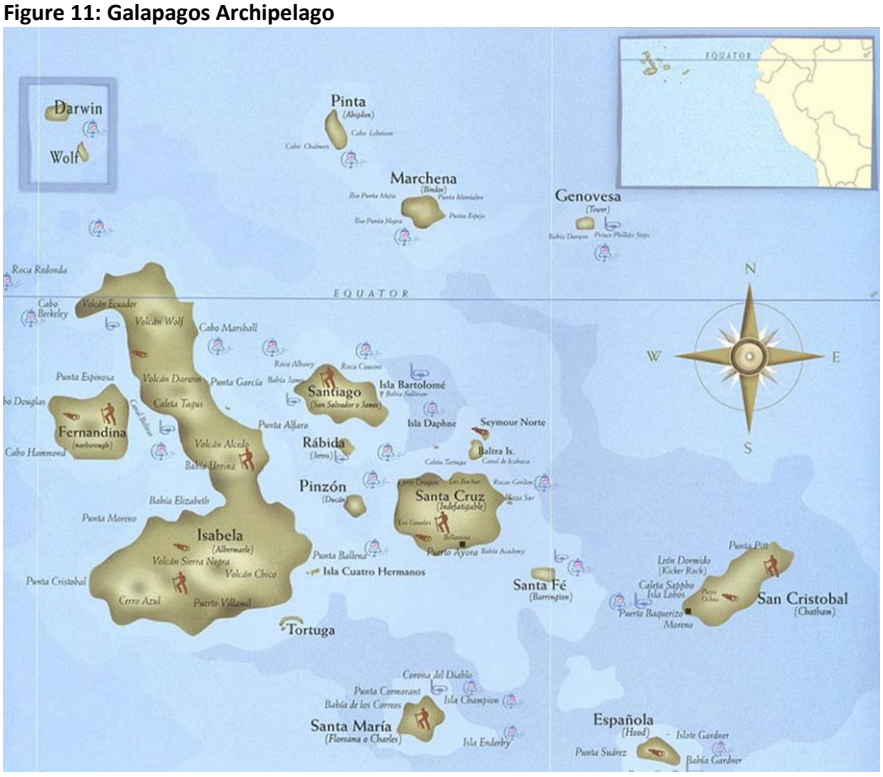
4.4. Ecuador: Galapagos National Park, Introduced Species Trust Fund

4.4.1. Brief characterization of the PA

Ecuador has designated 19% of its territory for conservation of natural ecosystems. The Galapagos Archipelago is located on both sides of the equatorial line 965 km (600 miles) west from Ecuadorian coasts. 19 islands form the entire province, which cover a total area of 7,850 km², 13 greater islands, 6 smaller islands, 42 islets and several rocks. Currently 97% of the total area of the isles belongs to the Galapagos National Park, the rest belongs to inhabited and developed areas such as the island of Santa Cruz, San Cristobal, Isabela and Floreana, in addition to Baltra an island occupied by the Ecuadorian Armed forces.

The Galapagos Archipelago is also a province of Ecuador, whose capital is Puerto Baquerizo Moreno, on the island of San Cristobal. Puerto Ayora, on the island of Santa Cruz, is the city with the highest tourist activity. The islands total population jumped from 15.300 in 1998 to 25.124 according to the latest national census in 2010 inhabitants nowadays, attracted by a dynamic economy fuelled by tourism.

Figure 11: Galapagos Archipelago



The Galapagos Islands are known around the world for breathtaking and inspiring terrestrial biological diversity, and the surrounding Pacific is one of world's largest marine reserves. In 1959, the Ecuadorian government set aside 1,714,000 hectares, 90% of the Galapagos Islands to create the first National Park in the country. In 1967 a park service was set up in the islands and 5 years later the first park superintendent arrived. In 1974, the Galápagos National Park Service had its first management plan, in 1979 UNESCO declared the Galápagos Islands Natural Heritage for Humanity. South of Isabella Island, a wetland of international importance is located.

The isles land ecosystems cannot survive without a parallel protection from the adjacent marine environment, and due to this on March 18, 1999 the Galapagos Marine Reserve was created with 14,110,000 hectares. Its limits are 40 miles, taken from the base line of the external isles of the Archipelago, making this the second largest marine reserve in the world. The waters surrounding the Galapagos are home to 3000 species of marine plants and animals.

The Marine Reserve represents extraordinary biological characteristics, due mainly to ocean currents coming from tropical and subtropical regions which converge in the isles, bringing animals from all over the Pacific and part of the Indo - Pacific, creating great bio-diversity and at the same time producing a curtain of genetic isolation. These current temperatures also

contribute with the variety of marine ecosystems. Due to this, there exists a 23% of endemic species and it is also a refuge of endangered species of reptiles and marine mammals, like turtles and whales, which find in the Archipelago its main reproductive space.

The Galapagos Islands form the most diverse and complex Archipelago in the world, in which the conditions remain relatively untouched. Due to its distance from the continent and because it was never attached to it, the existent flora and fauna evolved extraordinarily up to what they are today and have remained unchanged until man arrived to them for the first time. The species of plants and animals inherent to the islands didn't have any predators for thousands of years of evolution, for which animals show no fear in the presence of humans and other animals. This is what makes Galapagos such a very special and fascinating place for science, tourism and photography.

Meanwhile, this same particularity is the cause of its delicate and fragile balance, thus the importance of the control of the introduction and spreading of foreign species, as well as a strict tourism control and other extractive human activities such as fishing. The management and protection institution on the isles is The Galapagos National Park. The wild life is made up mainly of birds, mammals and reptiles. There are no amphibians in the Galapagos. Its rich marine life makes this place an incomparable place and is one of the most important scuba diving destinies in the world. At present, the animals introduced[1] many years ago by settlers, as goats, pigs, donkeys, dogs, cats and rats which, having no competitors they have expanded, becoming one of the main problems for the conservation of the islands fauna. The same occurs with plants, thus, the institutions involved in conservation are also taking care of control and extermination of plants and animals.

4.4.2. Governance and management system

Galapagos is one of 24 provinces in Ecuador. It is managed according to the Organic Law for the Special Regimen for the Conservation and Sustainable Development of Galapagos (LOREG), commonly referred to as the Special Law for Galapagos. The Special Law was approved and became part of Ecuador's Constitution in 1998. It lays out legal framework over which many aspects of island life are to be regulated, including regional planning, inspection and quarantine measures, fisheries management, residency and migration, tourism, agriculture, and waste management. While the law places restrictions on rights Ecuadorians would have on the mainland (restrictions on migration, import of goods, where people live, the kind of pets they have, etc.) it offers certain rights not available to non-residents (various subsidies, access to tourism and fishing rights, etc.). The Special Law has been under revision since Ecuador adopted a new Constitution in 2008.

Many institutions have decision-making powers in Galapagos that affect management and conservation efforts, more than 50 central government organizations and 9 local organizations with decision-making responsibilities in Galapagos. More than 40 of these entities had a physical presence in Galapagos.

The Directorate of the Galapagos National Park is responsible for the conservation of the ecological integrity and biodiversity of island and marine ecosystems of the protected areas of the

[1] The term "invasive alien species" means species or organisms not native to an area, set in a new environment, then proliferate destructive to the interests of humans. McNeely JA, H A Mooney, L E Neville, P Schei and J K Waage, Eds. (2001). A Global Strategy on Invasive Alien Species. Gland, Switzerland and Cambridge UK. IUCN / GISP; citados por PCEIG, 2007.

archipelago, as well as the rational use of goods and services they generate for the community, according with the Strategic Plan of the National System of Protected Areas of Ecuador (2007-2016). The Directorate is a branch of the Ministry of Environment with full financial and administrative autonomy presenting the most robust case of decentralization in Ecuador`s environmental management. The Park has two operational units attending the marine and terrestrial ecosystems under differentiated management.

Almost 245 people are currently employed by the Galapagos National Park under a management structure that is organized by key processes that fall under the following levels: Directive; Advisory (legal, planning, internal audit, etc.); Operative (restoration, public use, tourism, etc.); Support (human resources, finance, technology, etc.). The current management plan developed in 2005 is under revision to be updated, it recognizes the following 15 management programs:

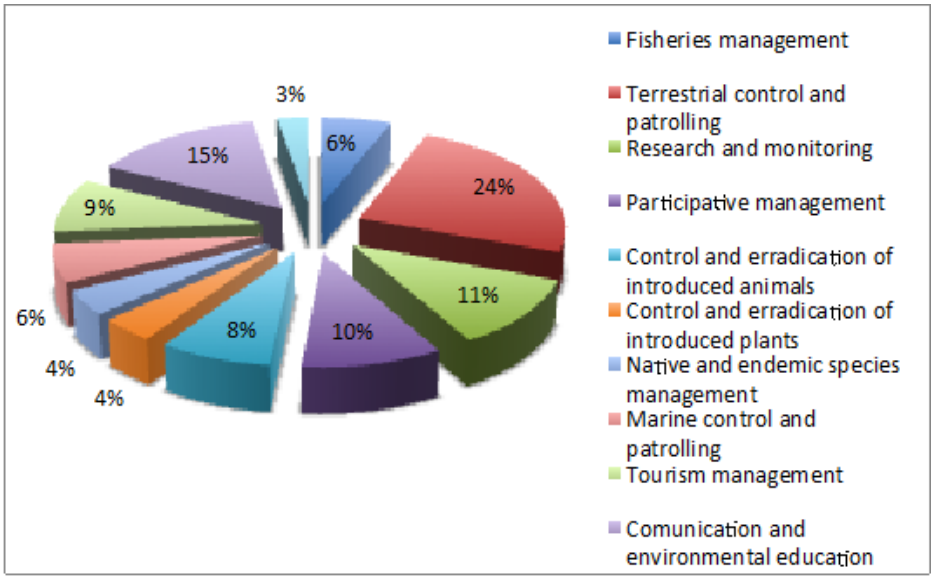
Program 1.1: Conservation and restoration of eco-diversity, bio-diversity and geo-diversity of Galapagos
Program 1.2: Eco-regional monitoring of ecosystems and bio-diversity
Program 2.1: Wise use of goods and services of the Galapagos island ecosystems
Program 2.2: Maintenance of environmental quality
Program 2.3: Encourage sustainable public use and tourism
Program 2.4: Conservation and sustainable development in the agricultural zone
Program 2.5: Strengthen the inter-institutional coordination and cooperation capacity
Program 3.1: Strengthening the policy and regulatory framework
Program 3.2: Organizational development of the Galapagos National Park
Program 3.3: Environmental Information Management
Program 4.1: Environmental Education and Interpretation
Program 4.2: Participation, social integration and island identity
Program 4.3: Communication and public relations
Program 5.1: Interdisciplinary research and technological innovation
Program 6.1: Relations and cooperation

4.4.3. Demand for finance

The total available budget for the Galapagos National Park in year 2009 was USD 19,8 million, out of them almost USD 9,2 Million were available for park operations. The remaining USD 10,6 Million were transferred to the following local governments and institutions that according to the law are entitled to keep 60% of the total self-generated revenues of the National Park: Municipalities (25%); Provincial Council (10%); Galapagos National Institute (10%); Marine Reserve (5%); Inspection and quarantine system (5%); Army (5%).

The following graphic presents a breakdown of expenditures according to management programs. This information allows a reasonable estimate of the priority assigned to the major conservation programs and activities, in this case the budget allocated to invasive species management sum 12%. Considering the funds transferred to the Inspection and Quarantine System, we can estimate that almost USD 2 million were allocated to address the treat of invasive species.

Figure 12: Breakdown of expenditures per management program



Source: Mentefactura 2008

The financial needs assessment prepared for the Galapagos National Park and Marine Reserve in year 2008, estimates that Galapagos is close to reach its basic management needs, and that it should triple its current budget to achieve an ideal management scenario. The park presents a funding gap of 30% to reach a basic management level, 56% gap to achieve an improved management scenario and 70% gap to reach an ideal management scenario. This estimates and the level of sophistication of current management programs and conservation activities suggest the case of a mature protected are who is looking at further strengthen its long term operation.

The largest portion of future demand for funding comes from invasive species management, demanding almost seven times the current budget to achieve an ideal scenario. These estimates present a financial framework to analyze the need for specific financial mechanisms to address this major treat to Galapagos conservation, as well as to justify the creation of a conservation trust fund specifically designed towards this end.

Table 9: Costing scenarios of different management programs

	Scenario (USD)			
Program	Baseline	Basic	Improved	Optimal
Fisheries management	605,007	876,096	999,199	1,093,699
Maine control and patrolling	2,441,582	2,512,385	3,811,905	6,311,905
Research and monitoring	1,007,214	1,524,947	3,279,698	5,343,804
Participative management	789,113	290,402	423,269	606,765
Total Galapagos Marine Reserve	4,842,943	5,203,829	8,514,070	13,356,173
Control and eradication of introduced animals	849,375	1,850,697	4,023,106	5,781,326
Control and eradication of introduced plants	436,178	1,210,050	1,485,401	1,639,904
Native and endemic species management	417,022	431,966	517,050	599,417
Terrestrial control and patrolling	583,967	638,967	715,300	762, 800
Tourism management	1,003,873	1,847,126	2,730,534	3,804,678
Communication and environmental education	1,204,777	1,093,539	1,822,215	2,386,749
Conservation and development	301,471	1,831,585	2,421,695	3,656,402
Total Galapagos National Park	4,796,663	8,903,929	13,715,301	18,631,276
Total Galapagos National Park and Marine Reserve	9,639,606	14,107,758	22,229,371	31,987,449

Source: Mentefactura, 2008

4.4.4. Supply of finance

In 2007, the UNESCO added the Galapagos National Park to its List of World Heritage Sites in Danger, reflecting the dangers posed by a fast pace of human development in all its areas: immigration, tourism and trade, all increasing the likelihood of introduction of invasive species to the islands. Invasive species represents the gravest danger to the fragile ecosystems that have evolved over millions of years in natural isolation.

That same year as part of the effort to overcome UNESCO's alert, an UNDP-GEF project successfully implemented a conservation trust specifically designed to protect the archipelago's exceptional biodiversity from the introduction of alien species. This involves improving quarantine systems, researching new methods of controlling and eradication, organizing species (animal and plant) eradication pilot programs, establishing a US$15 million trust fund, and building awareness among the islands' population.

The project aimed at building capacity among Ecuadorian institutions concerned with conserving the Islands and supports a 'total control' framework for invasive species in accordance with national conservation policies. Project activities include building technical skills and establishing the relative cost-efficiency of various conservation management models. Interventions prioritized seek to: improve quarantine systems; demonstrate cost-effective control, eradication and mitigation pilot projects; build capacity for targeted research and planned mitigation strategies; mainstream invasive species management into sectorial development; establish a financial mechanism to meet control measures recurrent costs; build management agency capacities to replicate eradication efforts; and build awareness, both in local communities and on the mainland, of the archipelago's problems and significance.

The creation and operation of the Fund for Invasive Species Control of Galapagos (FEIG) was the result of a tripartite agreement between the Government of Ecuador, UNDP and the National Environmental Fund (FAN) with an initial target of USD 15 million. This amount was capitalized between 2007 and 2011.

GEF seed capital was matched by a 1 to 1 ratio with Ecuadorian state funding. The Fund management falls under the responsibility of the National Environmental Fund (FAN), the specialized entity in charge of conservation trust funds across Ecuador. The Fund establishes an ad hoc technical committee formed by nine public and private institutions to provide advice and guidance to the Fund investments. The Fund´s Board includes five members as follows: Minister of Environment or delegate, two donor representatives, one scientist with biodiversity conservation background and a civil society representative.

Table 10: FEIG Donors

FEIG Donor	Initial donation, USD	Profit on capital, USD	Total capital, USD	Foreign investments Deutsche Bank	Domestic investments Trust Fund
UNDP / United Nation Foundation	990.000,00	24.862,41	1.014.862,41	1.014.862,41	
Conservation International	730.000,00	18.321,57	748.321,57	748.321,57	
Galapagos Conservancy	476.713,39	11.961,42	488.674,81	488.674,81	
FEIG-UNDP-GEF	5.000.000,00	125.540,72	5.125.540,72	5.125.540,72	
Galapagos National Park	1.000.000,00	61.925,02	1.061.925,02		1.061.925,02
Ecuadorian Government	4.000.000,00	303.772,15	4.303.772,15		4.303.772,15
German Government	3.517.724,00	121,96	3.517.845,96		3.517.845,96
Other private donors	13.303,85	1.901,06	15.204,91		15.204,91
TOTAL	15.727.741,24	548.406,31	16.276.147,55	7.377.399,51	8.898.748,04

Source: FAN / Finance Direction – FEIG, 2012

The Fund started operations officially in July 2010, it will only use the dividends to cover operational expenses and launch a competitive grant program. Three people form the current team in charge of the Fund management and operation. Within this short period of time the team was able to deliver different manuals to operate the Fund, insert it into the regional policies, set up the Fund´s office, and launch the first two calls for project proposals.

4.4.5. Demand supply gap, lessons learned, conclusions

This case presents an interesting combination of the two mechanisms that inspire this report. The conservation trust fund comes at a result of a successful implementation of a traditional UND – GEF project that delivered technical capacities to improve invasive species management and set the foundation for its financial sustainability. In the short term the CTF has full potential to bridge the first financial gap, and opens a window for competitive grants promoting innovation and multi-stakeholder participation.

The current contribution of the Invasive Species Fund to the total available funding to address this particular conservation challenge is still low, giving the relative novelty of the mechanism and the need to further invest on local capacities to improve the number and quality of project proposals. The amount disbursed in year 2010 was USD 74.220 almost 46% of the approved budget, while in 2011 the execution was USD 129.617 representing 13% of the approved budget.

In terms of reducing the specific funding gap for invasive species management, and considering the budget available for 2011, the Fund theoretically could bridge the gap for achieving a basic scenario. In the short term, the Fund has contributed with additional USD 1 million to the annual budget dedicated to invasive species. As capacity expands and the Fund passes its learning cycle, the financial mechanism together with the network that was created would play a major role in bridging the financial gap for invasive species management in the coming years.

This is a case of a mature and consolidates PA that benefits from a public-private partnership to secure stable sources of funding to address its most important treat to conservation. It shows that there is a market out there that is not only looking at PA conservation as a whole, but also that it is ready to support and demonstrate long-term engagement in particular aspects of the PA management. It suggests that there might be a number of niches for conservations trust funds willing to specialize and brand particular conservation products/programs.

Probably because of the power of the Galapagos brand, the fund was able to achieve its capitalization target within an impressive short period of time. Moreover considering that the Fund does exclusively attend one of the many challenges and management programs of the Galapagos National Park. Conservation trust funds attending entire protected areas systems in other places on earth were not able to achieve the same amount of endowment after a decade of operation. This suggests that branding and international recognition might play an enormous role in mobilizing this kind of financial support. But this would probably not be the same for other protected areas worldwide that are less famous and charismatic.

The financial model for introduced species management combines fiscal sources of funding that are by definition limited in terms of flexibility, with long term and stable sources from the endowment that are more flexible and complement state expenditures.

4.5. Madagascar: Masoala National Park, FAPBM

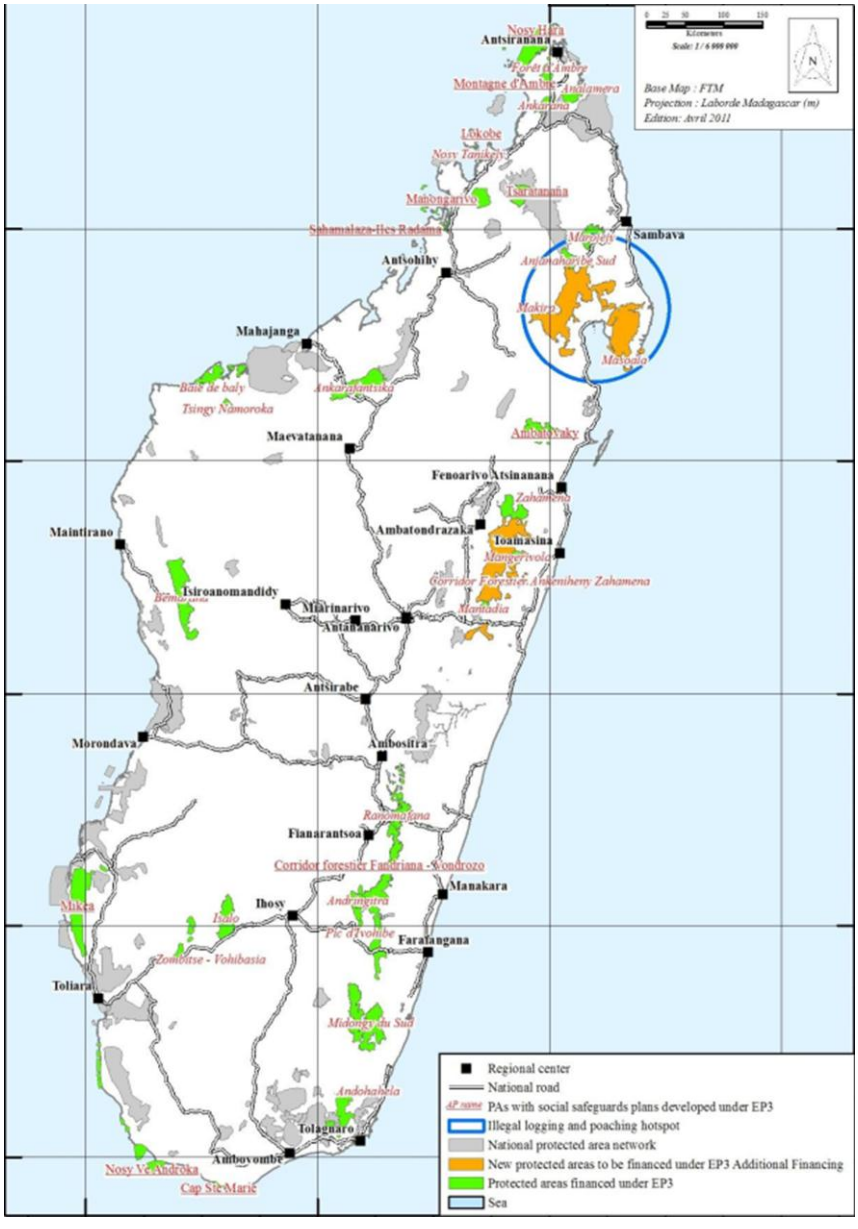
4.5.1. Brief Characterization of the PA

Madagascar is recognized as a mega-diverse country; proportionate to land area there is no other country with higher concentrations of biological endemism across different taxonomic levels. According to World Bank (2011), Madagascar's biodiversity is a unique, irreplaceable global public good representing 5% of the world's biodiversity on just 0.4% of the global landmass. An impressive array of statistics provides testament to the extraordinary riches of Madagascar's biodiversity: 99% of amphibians, 92% of reptiles, 95% mammals, 83% of plant species and 93% of freshwater fish species, are found nowhere else but Madagascar. There are over 1,000 known terrestrial vertebrate species, 6,000 coral reef species, over 12,000 identified terrestrial plant species and an unknown number of un-described species. The country has been labeled the "eighth continent" in recognition of its unparalleled biological values. Fifty new species of lemurs, Madagascar flagship primate, have been discovered during the last 20 years, bringing the number of known lemur species to 100. The protection of Madagascar's biodiversity is thus an international responsibility.

However, these ecological riches stand in stark contrast to the country's high levels of poverty. Madagascar ranks 171st out of 181 countries in terms of GDP/capita, and has a national poverty rate of more than 77%. Conservation and protection of the country's natural patrimony imposes an insurmountable fiscal burden for a poor country such as Madagascar. In addition, a political crisis began in Madagascar in 2008.

The protected area network in Madagascar (see figure 11 and table 11), which is known as the Système des Aires Protégées de Madagascar, covers approximately 6.9 million hectares including 2.4 million hectares of national parks managed by Madagascar National Parks (MNP) and 4.5 million hectares of new protected areas

Figure 13: Madagascar's PAs (orange, green, grey shadings); Masoala NP encircled



that are being developed predominantly by NGOs (including Conservation International, Wildlife Conservation Society and WWF) on behalf of the Ministry of Environment and Forests. Landscapes or corridors covering 2.6 million hectares have also obtained formal temporary protection status from the Government. Triggered by the 2003 Presidential Declaration, known as the —Durban Vision which undertook to triple the surface of Madagascar's protected areas, the expansion of the network has been rapid and substantial. There are currently 144 protected areas covering 12 percent of the national territory, an increase in coverage from 2.9 percent in 2003. Political and financial support for the realization of this vision has been provided by a number of international donors. It is noteworthy that despite the recent political turmoil, the current de-facto Government has not renounced the Durban Vision.

Table 11: Overview of PAs receiving support from FAPBM

Name of PA	Size (ha)	# of persons living in/around PA	Issues	PA authority	# of staff
MASOALA	230 000	116 976	illegal logging, Illegal exploitation of forest products (precious wood), land clearing, Tavy, poaching	MNP	64
COMPLEXE MAHAVAVY-KIKONY	268 000	60 452	underfunding ,bush fires, land clearing, exploitation of natural resources, overfishing, illegal harvesting of wood in mangroves	ASITY Madagascar and communities	17
MANGOKY IHOTRY	315 000	225 500	Overfishing, bushfires	ASITY Madagascar and communities	17
MAKIRA	372 470	150 000	Illegal exploitation of forest produce, poaching and clearing	WCS and communities	37
TSIMEMBO MANAMBOLOMATY	62 745	13 439	overfishing, selective cutting, clearing, cutting wood	The Peregrine Fund and communities	12
MANANARA NORD	23 000	30 336	Illegal exploitation of forest products (precious wood)	MNP	45
Réserve Spéciale d'ANKARANA	18 225	15 754	mining, land clearing	MNP	33
Réserve Nationale Intégrale TSARATANANA	73 672	12 947	Cannabis plants, Illegal exploitation of forest	MNP	29
NAP ANALALAVA	358	20 089	selective timber exploitation, fires	MBG and communities	10
NAP ORONJIA	1 659	3 075	coal mining and cutting, extension of crop fields and grazing, collection of tubers, collecting sand	MBG and communities	9
MAROJEJY / ANJANAHARIBE-SUD	60 050 / 32 090	187 004	illegal logging of precious woods, hunting lemurs, commercial harvest of crayfish and eels	MNP	34
ANDRINGITRA / PIC D'IVOHIBE	31 160 / 3 453	10 313	underfunding	MNP	35
ANKARAFANTSIKA	60 520	50 000	illegal cutting of wood, brush fire	MNP	54
KIRINDY-MITEE / ANDRANOMENA	72 200 / 6 420	22 825	underfunding, Illegal logging, fire	MNP	27
TSIMANAMPETSOTSA	43 200	60 605	underfunding, fires, land clearing, illegal logging, wandering zebu, collecting turtle, transhumant	MNP	22

Masoala National Park was created in 1997 with a view to protect the natural habitat of the Masoala peninsula, which is in the form of rain forests, flood forests, marshland, coastal forest and mangrove. Three marine parks belong to Masoala National Park too, protecting the different varieties of endangered marine species along with safeguarding the coral reefs. In June 2007, Masoala was designated as a World Heritage Site as part of a cluster of parks that represents the biodiversity of the eastern rainforests of the country. Main issues affecting Masoala National Park today include: illegal logging, Illegal exploitation of forest products (precious wood), land clearing, Tavy (small-scale, slash and burn agriculture) and poaching.

4.5.2. Governance and Management System

According to World Bank (2012), the environment sector policy framework in Madagascar is weakened by a lack of public participation and consultation, by a fragmented and incoherent legal framework and by implementation/enforcement undermined by corruption, weak capacity and limited access to justice. In addition, the Ministry of Environment and regional environmental authorities are under-resources and have limited capacities e.g., on evolving issues. Environment sector public expenditure remains chronically low with 0.1- 0.2% of GDP in recent years. Environment sector revenue is also low and sector financing comes mainly from external sources, resulting in highly variable sector spending largely dependent on donor spending. Two Trust Funds have been established in the environment/conservation sector, including Fondation pour les Aires protégées et la Biodiversité de Madagascar (FAPBM) and Tany Meva (see table 3, section 4.5.4).

National Parks in Madagascar are established under the authority of Madagascar National Parks (MNP) which is organized as an independent association. According to the latest World Bank Country Environmental Assessment on Madagascar (2012), MNP continues to be heavily reliant on external assistance and should increase its financial sustainability. In addition, organizational efficiency of MNP should be improved. World Bank/GEF contributes the largest share to the MNP budget, followed by KfW and together these donors account for more than 90% of Madagascar National Park‘s budget.

The Masoala National Park Authority performs the following type of site based management activities: administration and planning; patrolling and enforcement; environmental education; research and monitoring; sustainable livelihoods; mitigation and restoration; and sustainable use of resources.

4.5.3. Demand for Finance

According to World Bank (2012), the total yearly cost of Madagascar’s PA network was 18.9 MUSD in 2011 and will increase to 23.1 MUSD in 2012 and 29.2 MUSD in 2013.

Table 12: FAPBM Expenditure 2010-2012

Name of PA	Expenses 2010, USD	Allocation 2011, USD	Allocation 2012, USD
MASOALA	168,500	Sustainable dev., ecotourism: 30,000 Conservation: 40,000	Sustainable development: 17,950 Conservation: 33,700 Administration and finance: 13,350
COMPLEXE MAHAVAVY-KIKONY	64,500	Sustainable development: 26,460 Capacity building: 19,260 Conservation: 19,280	Sustainable development: 25,200 Capacity building: 6,000 Conservation: 37,000 Administration and finance: 16,800
MANGOKY IHOTRY	-	Sustainable development: 7,000 Capacity building: 10,500	Sustainable development: 17,800 Conservation: 22,200 Management cost: 20,000
MAKIRA	-	Sustainable development: 32,000 Conservation: 28,000	Income generating activities: 3,000 Conservation: 23,000 Management cost: 43,000
TSIMEMBO MANAMBOLOMATY	-	Sustainable development: 27,000 Capacity building: 7,600 Conservation: 15,400	Sustainable development: 41,000 Conservation: 23'000 Management cost: 16'000
MANANARA NORD	-	Conservation 31,300 Capacity building, awareness: 13,500 Management cost: 35,200	Development, env. education : 9,400 Conservation: 18,000 Administration, finance: 18,600
Réserve Spéciale d'ANKARANA	-		Development, ecotourism: 19,730 Conservation: 8,971 Capacity building: 1,299 Administration, finance: 24,000
Réserve Nationale Intégrale TSARATANANA	-		Conservation: USD 42,492 Environmental education: 1,508
NAP ANALALAVA	-		Development, ecotourism: 8,000 Conservation: 2,000 Administration, finance: 8,000
NAP ORONJIA	-		Development, ecotourism: 12,000 Management structure: 6,000 Administration, finance: 10,000
MAROJEJY / ANJANAHARIBE-SUD	115,019	Management and salaries: 101,728	Management and salaries: 143,035
ANDRINGITRA / PIC D'IVOHIBE	113,383	Management and salaries: 101,728	Management and salaries: 133,114
ANKARAFANTSIKA	170,435	Management and salaries: 101,728	Management and salaries: 88,601
KIRINDY-MITEE / ANDRANOMENA	116,110	Management and salaries: 101,728	Management and salaries: 50,861
TSIMANAMPETSOTSA	85,353	Management and salaries: 101,728	Management and salaries: 50,861
Total	833,300	851,140	1,026,614

4.5.4. Supply of Finance

According to World Bank (2012), sources of finance for covering the costs of the PA network are dominated currently by external finance, which currently makes up 92% of available finance, coming from the World Bank EP3 project as well as other donor and NGO projects. Only 8% of available finance comes from "internal sources", including tourism revenues (mainly PA entry fees to be paid by visitors) amounting to approximately 0.5 MUSD per year and allocations made by FAPBM amounting to about 1MUSD in 2012 (see table 12). The World Bank concludes that financial sustainability in Madagascar's PA network should be increased by 1) realization of increased revenues from PA related tourism and sale of forestry related carbon credits; 2)

improved management efficiency of MNP; 3) cost-effective community development related expenses which represent a large part of the PA system costs.

The FAPBM has been supporting several projects related to Madagascar's PA system as listed in table 12.

The FAPBM was established in 2005at the initiative of the Malagasy Government, Conservation International (CI) and WWF, its mission is to provide sustainable financing for the management of existing protected areas as well as new protected areas. FAPBM is governed by the FAPBM Statues based on the 2004-014 Law on Foundations. The FAPBMs Board of Directors consists of 9 members. In March 2011, FAPBM had a capital of 26.5 MUSD (see table 13), managing also a KfW sinking fund of 10.2 MEUR.

Table 13: Past Capital Contributions to the FAPBM

Donor	Value (USD)	Date of contribution
Government of Madagascar / KfW	1,054,285	February / December 2006
Conservation International	1,000,000	March 2007
WWF	1,041,334	April / November 2006
AfD	2,642,900	December 2006
FFEM	1,321,450	December 2006
World Bank – IDA	7,500,000	February 2007 / November 2009
Govt of Madagascar / French Govt (C2D)	14,610,437	2008 - 2011
German Government - KfW	5,837,176	December 2011
Global Environment Fund - GEF	10,000,000	June 2012
Private donors	5,605	2006 - 2010
Total	**45,013,188**	

Past Performance of FAPBM	Dec. 2008	Dec. 2009	Dec. 2010	Dec. 2011
Initial Capital (US$)	13,723,761	21,116,138	24,501,284	33,954,298
Portfolio Value at end of Year	12,909,093	21,484,089	25,374,862	32,721,489
Gain / Loss on the Capital	-814,668	367,951	873,578	-1,232,809
Cumulative Performance = Ratio (Gain / Loss) / Capital	-5.94%	1.74%	3.57%	-3.63%

Source: World Bank, 2011 and WWF

FAPBM has been working since December 2006 with investment managers of J.P. Morgan Chase, which was selected through an open bidding process; JP Morgan Private Banking currently manages 21 MUSD from the Foundation. The contract with these investment managers requires low-risk investments, and as such had stipulated that at most 40% of the capital could be invested in equity. Until recently, the managers had kept the balance at 30% equity and 70% debt. During the recent financial turmoil, the balance was downgraded to 85% debt and 15% equity in order to minimize the systemic risk, but since the end of 2009, the equity component has increased to 30% again.

Several donors are and have been active with projects focusing on PAs in Madagascar. This includes AFD, FFEM, GEF, KfW and World Bank who contributed to the endowment capital of FAPBM as detailed above. German cooperation has also supported the establishment of new PAs and better management of existing PAs. Other donors include the Swiss Government, EC, UNDP and various international NGOs, private companies and foundations. A large new project is expected to start in 2012: The Additional IDA Credit and GEF Grant to the Third Environmental Program Support Project (EP3) funded by a 42 MUSD IDA credit (repayable after 40 years, 10 years grace period), a 10 MUSD GEF grant, 2.8 MUSD co-finance from international NGOs (WWF, WCS,

Conservation International), as well as 2.7 MUSD co-finance from MNP and 1.7 MUSD co-finance from FAPBM. The additional EP 3 has three components as follows:

- Component A (23.2 MUSD): Protected area and landscape management across 2.7 million ha, including surveillance, conservation infrastructure investment and piloting of integrated management approaches in one landscape and support to the institutional reform of MNP.
- Component B (14.0 MUSD): Local community support and development (approx. 90,000 households and > 1,000 grassroots community organizations) - including implementation of compensation for communities surrounding two new forest corridors, mitigation of remaining conflicts around established protected areas, and support to community based organizations to increase involvement in protected areas management notably through the community based forestry management contracts.
- Component C: Sustainable financing mechanisms for protected areas - including a 10 MUSD endowment to the FAPBM from GEF, ecotourism infrastructure development / Public-private Partnership investments to optimize the generation and use of tourism revenue to support the protected area network, and development of market mechanisms (carbon finance and other payments for environmental services).

Among others, revised EP3 will provide finance to addressing illegal logging in Masoala National Park. The most significant threat to the exceptional biodiversity in the Park arises from illegal exploitation of rosewood and ebony trees which led in 2010 to the Park being placed on the "World Heritage in Danger" list. The Government and a number of financial and technical partners are engaged in efforts to protect the National Park. The Government has established and is implementing an Action Plan for enforcement and control activities, and UNESCO is financing development of a supplementary Action Plan, under the guidance of a national Steering Committee, to outline activities linked to the restoration and maintenance of the World Heritage values of the National Park. Financing for the implementation of this Action Plan will likely include 1 MUSD from the Norwegian Government. The activities proposed in Masoala National Park as part of the EP3 aim to ensure the sustainability of the short term enforcement and restoration activities carried out by the Government and technical partners. Approximately 2.3 MUSD has been allocated for activities in the Masoala National Park. EP3 is expected to improve monitoring of the park though MNP ranger patrols and mixed patrols with forestry officers, annual aerial surveillance, and awareness raising activities with local communities. Landscape level activities will also be carried out including natural resource baseline development, support to stakeholder platforms and creation of a landscape wide regional civil society —watchdog monitoring group. EP3 will also work with grassroots community organizations involving more than 900 households around the National Park to establish and support community based natural resource management contracts, involve community groups in Park surveillance activities across 7,000 ha and restoration activities, and develop approximately 50 natural resource based income generation projects for 750 households.

To enhance the important tourism potential of the National Park, ecotourism infrastructure including development of ecotourism circuits, signage and camping areas will be developed to facilitate controlled tourist access into the core zone of the National Park; an experience that is currently denied to visitors to the Park but one that is in high demand. One ecotourism site in the National Park will be selected and infrastructure developed to facilitate development of a public-

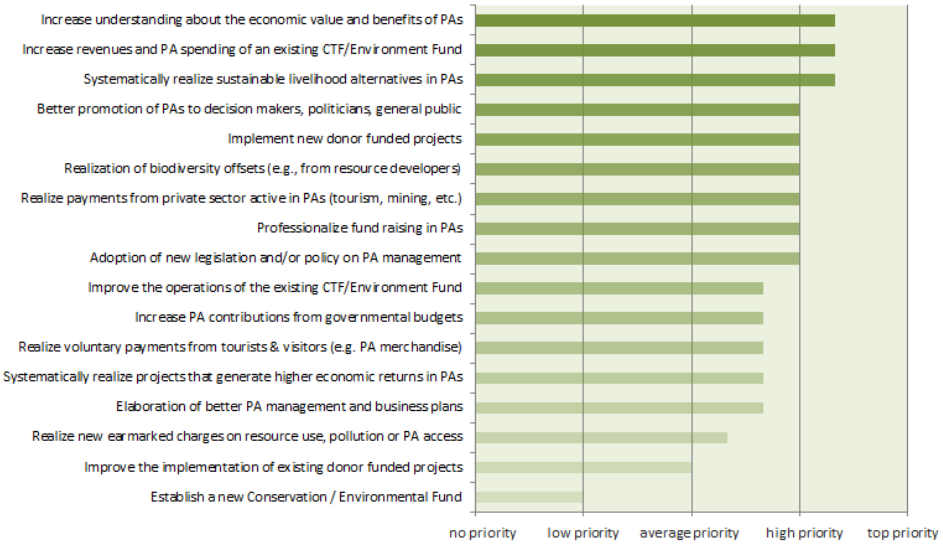
private infrastructure project and up to two community based tourism projects, involving a total of 50 to 100 households, will be developed in the vicinity of the National Park.

In addition, the project will contribute 10 MUSD from GEF to the endowment capital of FAPBM after having already added 7.5 MUSD from IDA to the endowment capital during EP3. IDA and GEF have committed to the initial goal of the Foundation, which is to co-finance the recurrent management costs of PAs in Madagascar in a perennial way. As FAPBM is growing rapidly, the additional financing to EP3 will also finance a range of capacity building activities, including:

- Support activities for secured, high performance and transparent capital placement.
- Support activities to strengthen implementation and monitoring of conservation activities funded by FAPBM.
- Development of specific operational guidelines and procedures, such as earmarking, eligible recurrent costs, the eligibility and priority criteria to choose protected areas that are suitable for financing, as well as requirements for contracting protected area management, fiduciary management, safeguard aspects and monitoring.
- Support activities to strengthen the Foundation‘s management capacities: the Foundation still has a very limited staff and the increasing responsibilities call for a general strengthening of the Foundation‘s management capacities.
- Support the development of options to secure additional funds possibly through a further endowment request from GEF5 under the biodiversity focal area.

Overall, it can be concluded, that the concerted efforts of numerous public and private donors/organizations and the Malagasy Government over the past 20 years has resulted in a situation where the financial challenge of conserving and protecting Madagascar’s PAs can increasingly be met. The main issues to be addressed in the short term appear to be well identified. In the longer term, however, as soon as the political situation and economic development allows, there will likely be a new challenge to steer the PA management and financing system more and more away from current large dependencies of foreign finance.

As part of the web survey carried out for the present study (see section 3) the following rating was provided by participants from Madagascar on the question “In the future, which measures should be taken to achieve a higher financial sustainability of protected areas in your country?”

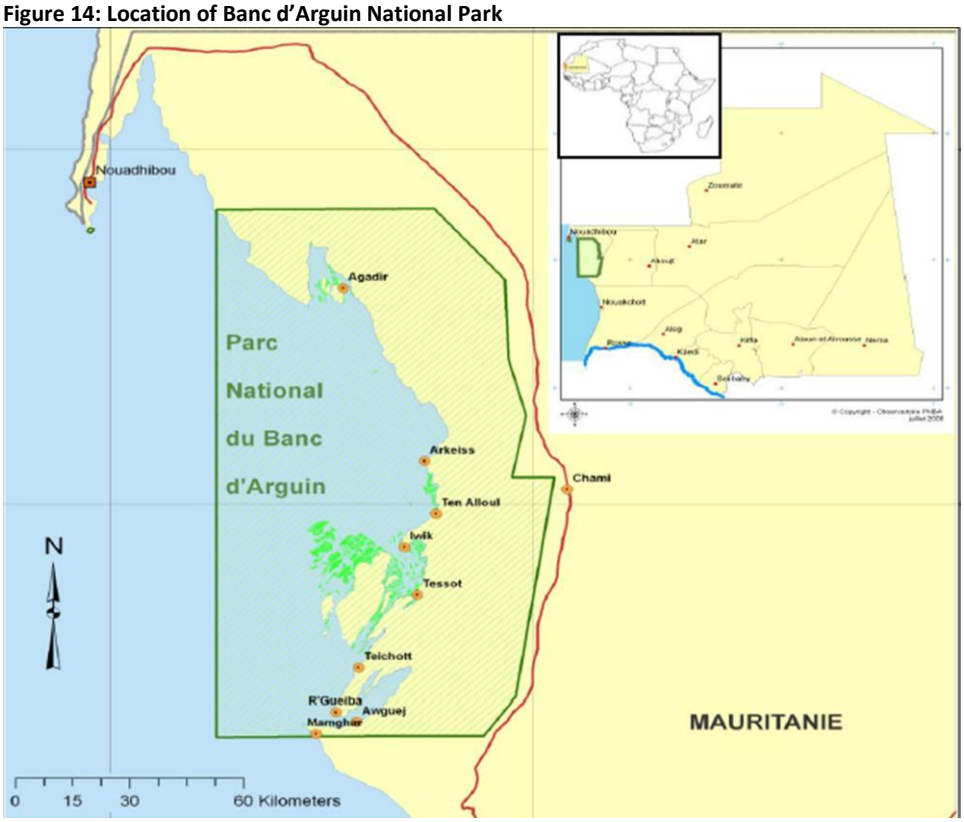


4.6. Mauritania: Parc National du Banc d'Arguin, BACoMaB

4.6.1. Brief Characterization of the PA

Banc d'Arguin National Park (PNBA) was established in 1976 and covers an area of 1,200,000 ha (see figure 14), located on the Atlantic coast of Mauritania. In 1982 the Park received the status of a Ramsar site and in 1989 Banc d'Arguin was declared UNESCO World Heritage site. The Park boundary extends about 60 km into the shallow sea and about 35 km into the Sahara desert. The park provides for a unique example of a transition zone between the Sahara desert and the Atlantic. It is a vast area of islands and coastline, largely composed of windblown sand of Saharan origin, together with a large expanse of mudflats, with particularly well developed tidal flats.

Figure 14: Location of Banc d'Arguin National Park



There are 15 named islands, the largest of which is 8 by 35 km. Most coastal waters are very shallow, and may reach a depth of only 5m at low tide even up to 60 km offshore. The arid inland component mainly comprises areas of sand hills and cliffs rising to 15m. There is also a mangrove swamp in the park which is a relict of a previous humid geological period when Banc d'Arguin was a vast estuary mouth for rivers.

The vegetation of the sandy coastline, mudflats and islands is represented by halophytic species. The terrestrial component of the Park is represented by Saharan vegetation with a limited Mediterranean influence. Shallow water vegetation comprises extensive sea grass beds and various seaweeds, a favorable habitat for the reproduction and development of fish.

Of the estimated 7 million wading birds that use the Atlantic flyway, approximately 30% spends the winter at Banc d'Arguin, which hosts the largest concentration of wintering waders in the world and one of the most diversified communities of nesting piscivorous birds in the world. At least 108 bird species have been recorded. Wintering shorebirds number over 3 million and include hundreds of thousands of black tern and flamingo, ringed plover, grey plover, knot, redshank and bar-tailed godwit. The area is also one of the most important wintering grounds for European spoonbill. Breeding birds include white pelican, reed cormorant, gull-billed tern, Caspian tern, royal tern and common tern, together with several species or subspecies with an African distribution, such as endemic heron and spoonbill and western reef heron.

Mammals include Dorcas gazelle, jackal, fennec fox, sand fox, sand cat, ratel and striped hyena. Marine mammals regularly recorded include killer whale, Atlantic humpbacked dolphin, common dolphin, rough-toothed dolphin, bottlenose dolphin and Risso's dolphin. Fin whale or common rorqual and common porpoise have also been sighted. A small population of about 150 monk seal is found at Cap Blanc. Four species of turtle frequent the area: green, loggerhead, hawksbill and leatherback.

Neolithic archaeological sites and vestiges of the Almoravide civilization are found on a number of the islands. The local people, the Imraguen or Amrig, relate many of their customs to the natural environment. Even their name literally means 'the ones who gather life'. Imraguen tribesmen still maintain their age-old lifestyles, based almost exclusively on harvesting the migratory fish populations using traditional sailing boats. Fishing techniques, unchanged since first recorded by 15th-century Portuguese explorers; include the unique symbiotic collaboration with wild dolphins to catch schools of grey mullet. The Imraguen people live in seven villages within the park. Use of the area by nomads is decreasing due to the area becoming more desertified. The Baie du Levrier and the harbour of Nouadhibou have become important bases for international fishing fleets.

According to UNESCO, the main threat to the Banc d'Arguin National Park are projects likely to alter the traditional activities of local fishing. The unregulated introduction of new technologies and an increased catch could affect and seriously disturb the fish life of the region. Consequently, protection of the marine resources against over-exploitation is essential. The risk of pollution by hydrocarbons on the international maritime route of western Africa and from the petroleum industries is also considerable. Another important issue in the management of the Park is the prevention of poaching and logging causing the degradation of the terrestrial part of the property. The possible impacts of climate change should also be further studied.

4.6.2. Governance and Management System

The management of the Park needs to be carried out in conformity with a number of Mauritanian laws, including the environmental protection law, forestry law, the hunting law, the 2000 fisheries law, the 1996 tourism law and the 2000 law on livestock/herding. Park management needs to be in conformity with law No 2000-024 on the National Park of Banc d'Arguin. Banc d'Arguin is one of the rare cases in Africa where a National Park is regulated by a dedicated law.

In addition, Park management needs to take into account a number of international policies as well as domestic policies and strategies. Relevant domestic policies include: the National Strategy on Fisheries and Aquaculture 2008-2012; the National Biodiversity Action Plan; the National Poverty Reduction Strategy of 2005; the National Action Plan against Desertification, and the National Strategy on Sustainable Development of 2006.

PNBA is administered by a Management Council, assisted by a Scientific Council. The Management Council is chaired by a high functionary appointed by the Council of Ministers. Other members of the Management Council include: one representative each of several Ministries (Environment, Finance, Economic Affairs, Fishery, Tourism, Energy, Scientific Research), a representative of the Mauritanian Institute for Oceanographic and Fisheries Research, a representative of the Mauritanian Institute of Scientific Research, a representative of the personnel of the Park, a representative of the municipality of Mamghar, a representative of the communities living inside the Park and a representative of FIBA. The executive organ of the Park includes the Director and Vice Director of the Park, both appointed by the Council of Ministers.

The current management plan of the Park covers the period 2010 to 2014 and has been elaborated in 2009 with the support of GTZ and FIBA. According to this management plan, the strategic objectives of the Park include:

- Contribute to global biodiversity conservation.
- Contribute to increased resilience of marine ecosystems to the effects of climate change.
- Contribute to the regeneration of fish stocks.
- Ensure the sustainability of natural resources of the Park, both marine and terrestrial and sustain its various ecosystems and landscapes.
- Support sustainable socioeconomic development of resident populations.
- Preserve the natural, cultural and technical knowledge and know-how of Banc d'Arguin.

Specific development goals mentioned in the Management Plan include:

- Effective, efficient, participatory and sustainable monitoring and implementation of conservation measures (as regards fishery, biodiversity, natural resources & landscapes, maritime culture and quality of life of resident populations).
- Sustainable territorial development through effective cooperation between civil society, economic operators, technical services of the State and the Park authority so as to meet the social and economic needs of the resident population (infrastructure and economic development, access to basic services, preservation of cultural heritage, sustainable livelihoods, etc.)
- Promotion and development of ecotourism in the marine protected area which benefits local residents
- Environmental education and communication: promotion of the Park, dissemination of knowledge, involvement of the Mauritanian population, local ownership, assuring commitment of national decision makers top the Park.
- Coordination of scientific research to provide for relevant and reliable information required for management, communication and decision making
- Transparent, participatory, efficient and sustainable governance and sustainable management of the Park

4.6.3. Demand for Finance

Cost estimations to quantify longer term demand for finance to support activities and investments related to the PNBA have been prepared for a horizon of 5 years and included in the PNBAs current Management Plan 2010-2014. These estimations have been prepared without considering available resources, i.e. they constitute an ideal case that PNBA aspires to achieve.

The Management Plan clearly states that the core recurrent costs of the Park institution would have to be covered by allocations of the budget of the Mauritanian Government, amounting to an estimated 560,000 EUR per year (salary costs alone are estimated to stabilize around 380,000 EUR/year in the longer term). Table 14 shows the cost estimations made for the period 2010-2014 in line with the Park's priority development goals.

Table 14: 2010-2014 Provisional Budget of PNBA, in Euro

	Total 2010-2014	Annual average	Activity/project related expenses			Institutional expenses	
			Operation	Investments	Revolving	Operation	Investment
Monitoring & conservation	1,231,700	246,340	486,700	745,000			
Sust. territorial development	2,190,100	438,020	581,600	920,500	688,000		
Ecotourism	395,000	79,000	300,000	95,000			
Envtl. education & communication	400,000	80,000	378,000	22,000			
Coordination of research	1,030,000	206,000	936,000	94,000			
Sust. governance & management	4,400,000	880,000	1,145,000			2,796,000	459,000
TOTAL 2010-2014	9,646,800		3,827,300	1,876,500	688,000	2,796,000	459,000
Annual average		1,929,360	765,460	375,300	137,600	559,200	91,800

Source: PNBA Management Plan 2010-2014

It follows from above data that the annual average of activity/project related expenses would be approximately 1,278,000 Euro, while the annual average of institutional expenses would be approximately 651,000 Euro.

4.6.4. Supply of Finance

Keeping in mind the cost estimations presented in table 14 and an expected yearly national budget allocation to the Park of around 560,000 EUR, it is clear that the lion's share of the estimated costs, i.e, approximately 1.4 MEUR p.a. in average, would have to be covered from external sources.

Because of the existence of such a significant funding gap and due to an expected decrease of external support in the mid to long term, the establishment of a CTF, i.e. the Banc d'Arguin and Coastal and Marine Biodiversity Trust Fund Limited (BACoMaB), was realized.

A great deal of the past 25 years' support to PNBA was realized through FIBA (Fondation Internationale du Banc d'Arguin) at the initiative of Dr Luc Hoffmann. FIBA continues to assist the PNBA administration as well as main stakeholders of the Park, through capacity development, networking, coaching, facilitation, provision of tools and resources necessary for decision-making and conservation. Since 2002, and jointly with the support of GTZ, FIBA has advanced the establishment of BACoMaB in parallel with the modernization and restructuring of the PNBA authority, which was perceived as a necessary precondition for the creation of a CTF.

The purpose of the BACoMaB has been defined as to promote, in the public interest, conservation, protection and improvement of the physical and natural environment of the PNBA, as a priority, as well as other coastal and marine protected areas in Mauritania (referred to as beneficiary sites). In addition, the Fund aims at promoting, in the public interest, sustainable development through: (a) the conservation, protection and improvement of the environment and sustainable use of natural resources; (b) reducing poverty and improving living conditions for populations residing in sites; and, (c) encouraging sustainable means for growth and economic regeneration: A third goal of the

Fund is defined as to promote education of the public on biodiversity, conservation, sustainability and the management of beneficiary sites.

The Fund has been designed as a CTF with registration in the UK, receiving revenues exclusively from profits gained from assets invested in an endowment Fund. As of November 2011, the following contributions to the Fund's endowment had been received and committed (table 15):

Table 15: Contributions to the BACoMaB's endowment as of November 2011

	Received	Committed	Total envisaged
National budget Mauritania (proceeds from fisheries agreement with the EU)	1,05 MEUR	0,5 MEUR	3 MEUR
MAVA Foundation		6 MEUR	6 MEUR
French cooperation, AFD + FFEM			2,5 MEUR + 1,5 MEUR
German cooperation, KfW		5 MEUR	5 MEUR
Tasiast Gold Mine / Foundation Lundin for Africa	0,016 MEUR		2 MEUR
Total	**1,066 MEUR**	**11,5 MEUR**	**20 MEUR**

Source: BACoMaB (2011)

The first financial operations of the Fund (support to conservation projects) are expected for 2013.

In terms of governance, a Constitutional Act of the Fund came into effect after having been signed by Mr. André Hoffmann, President of FIBA and MAVA Foundations. The BACoMaB's Statutes foresee a Fund General Assembly and a Fund Board of Directors. The Board is responsible, among others, for endowment Fund management; establishment of Fund priorities; approval of financial reports, programs and budgets; recruitment of executive management of the Fund. Board members as of November 2011 include: 2 representatives of the Mauritanian State, 1 representative of an international NGO focused on conservation, 2 representatives of donor institutions contributing financially to the Fund. These five members have the right to elect – by majority voting – two additional Board members as follows: 1 person renowned as competent in the area of conservation; 1 expert in finance, law, business management and fundraising.

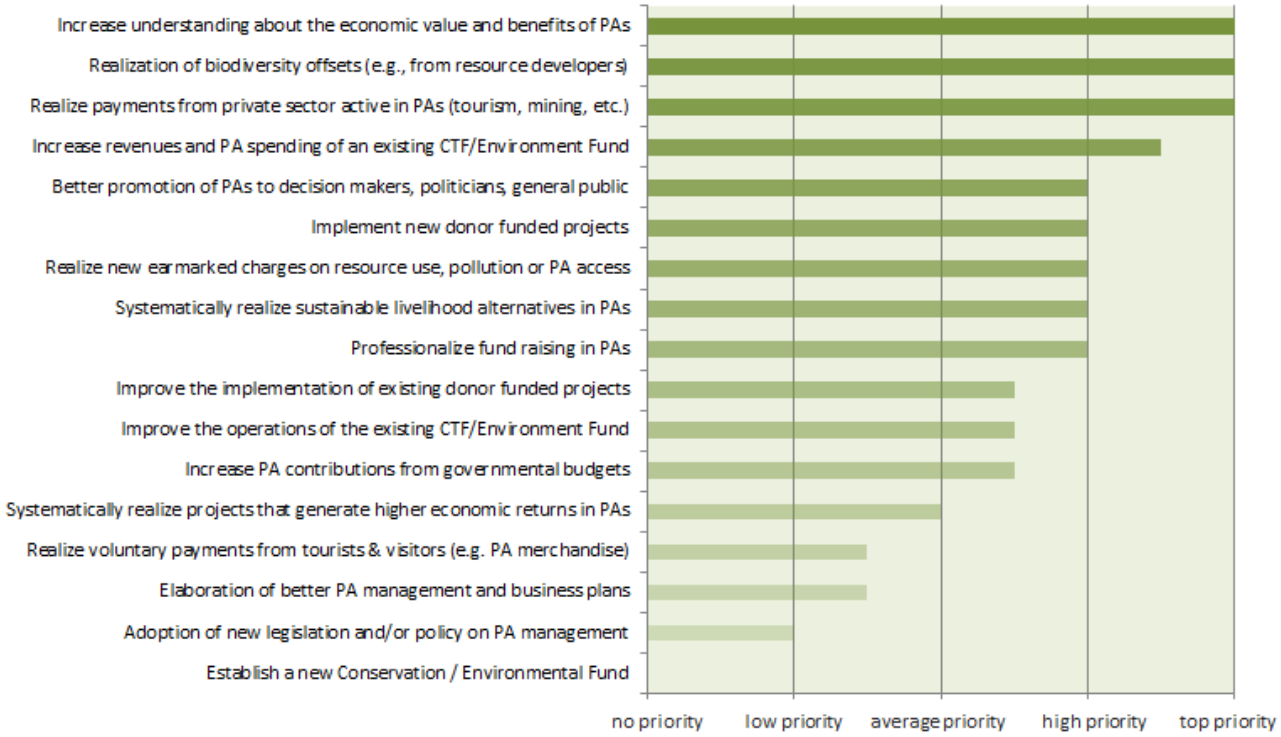
Day to day management of the Fund is carried out by the Fund Executive Director, a position filled recently in November 2011 with an expert with Mauritanian citizenship. Financial and administrative procedures of the Fund still have to be developed and will be established as the Fund's Management Manual.

According to BACoMaB (2011), a number of additional possible revenue sources to the Fund are being studied at the moment, including:

- Revenues from potential PES in the fisheries sector.
- Revenues from fines imposed on illegal fishing.
- A percentage of revenues collected from the provision of fishing licenses.
- A portion of tourism tax revenue.
- Part of revenues from royalties received in connection with oil and gas exploitation concessions.
- Pollution taxes that could be introduced on industry causing marine effluent pollution.
- Proceeds from possible debt for nature swaps.

Above mentioned potential additional revenue sources to the Fund would certainly be desirable and in line with the PPP and UPP. It may also be useful to base BACoMaBs longer term revenue and spending planning on a PA system financing (or environment) strategy as outlined in section 2.

As part of the web survey carried out for the present study (see section 3) the following answer was provided for Mauritania on the question "In the future, which measures should be taken to achieve a higher financial sustainability of protected areas (PAs) in your country?"



4.7. Mexico: El Vizcaíno Biosphere Reserve, FMCN

4.7.1. Brief characterization of the PA

El Vizcaíno Biosphere Reserve is Mexico's largest protected area. This reserve is located between 26º 29' 20" and 28º N and 112º 15' 45" and 115º 15' W in the Peninsula of Baja California. The protected area is in the municipality of Mulege, which is part of the state of Baja California Sur (Southern Baja). Its boundaries include a 5 km-wide strip running along the beach into the Pacific Ocean and the Gulf of California (also known as the Sea of Cortés). Vizcaíno's total area is 2,546,790 hectares. Altitudes range from 0 at the coast to 1985 meters above sea level at the highest peaks in the mountains.

Figure 15: Location of El Vizcaíno Biosphere Reserve

Ecosystems found within the reserve include arid zones, dunes and a 5 km-wide littoral zone along its 450 km of coast. The reserve also includes three gray whale sanctuaries that were created in 1972: Ojo de Liebre, Guerrero Negro and San Ignacio Bays. In 1993, UNESCO listed "Pinturas Rupestres de la Sierra de San Francisco" and Vizcaíno's Whale Refuge Bays as part of the Man and the Biosphere Program (MAB-UNESCO) because of their exceptional natural and cultural value. In 2004, San Ignacio and Ojo de Liebre Bays were also listed in RAMSAR as Wetlands of International Importance.

Physical characteristics of the marine environments on both coasts are distinct and determine the specific biological diversity and richness present in each. The eastern coast, Gulf Coast, is a transitional area of temperate and tropical species. This partially closed bay contributed to speciation, influenced the formation of endemic species and helped create very diverse biota.

Vizcaíno's region is biologically rich; its marine resources are especially important. There are 308 terrestrial and marine vertebrates inhabiting the reserve, not including fish. There are 469 flora species, most of which are shrubs and small trees. There are 39 regionally endemic floral species. In addition to its biological diversity, the reserve includes more than 200 caves with cave paintings and petroglyphs.

There are many archeological remains in the region, including cave paintings, petroglyphs and shellfish fossils. The most important cave art in North America is found in the eastern San Francisco Range. There are more than 200 caves with paintings of huge men, pronghorns (Antilocapra americana peninsularis), sheep, pumas, birds, whales, turtles, snakes and what appears to be stars, in addition to other images. The ancient Californians' paintings are approximately 10,000 years old. Many of the caves within and around the reserve contain cave paintings showing men and wildlife.

Flora of the Vizcaíno Desert Region reports 469 species, out them 39 are endemic. Nine different vegetation types are found in the area. Marine vegetation is of tropical origin and reports 85

species of macro-algae. Not including fish, there are 308 species of terrestrial and marine vertebrates present in the reserve. There are 4 amphibian, 43 reptile, 192 bird, and 69 mammal species.

The habitat diversity found in the reserve's bays and along its coast is an important resource for thousands of migratory birds that arrive every year. The reserve's wetlands are considered extremely important wintering grounds for coastal birds. There are estimates that more than 500,000 individuals winter along the Peninsula's western Pacific coast.

Vizcaíno Biosphere Reserve is an important mosaic of ecosystems, many of which are still in pristine conditions. It is both nationally and internationally relevant; it is especially important for gray whale migration and reproduction. Thousands of migratory birds visit its wetlands every winter. It is famous for its wealth of ancient culture in its cave paintings. Together these important characteristics have helped earn Vizcaíno recognition as a UNESCO World Heritage Site.

El Vizcaíno Biosphere Reserve is threatened and there is a great risk that in the near future it will fail to protect and maintain its biodiversity. According to the management plan, the main threats include agriculture, overuse of groundwater reserves, extensive grazing, illegal fishing, and legal and illegal hunting. Future, potential threats include tourism infrastructure, coastal development and mining activities.

The public use management program is in charge of tourism planning, control and overall management. To date more than 70 tour operators are registered and allowed to work in the area, with a combined capacity of 80 boats.

Priority actions for the reserve include reinforcing the law and increasing the number of park guards. With this first step, there will be enough human resources to influence the other threats, such as agrochemical contamination, introduced species such as goats, vegetation clearing for expanded grazing activities, and other related threats. More attention is needed for illegal hunting and fishing, and more monitoring is needed for mining, tourism, and infrastructure development. Special attention should be put into mining in the future since Mexican Law provides far too many privileges to foreign investors with very lax environmental and social standards.

4.7.2. Governance and management system

Vizcaíno Biosphere Reserve was created through a decree published November 30, 1988 in the Federation's Official Registry (D.O.F 1988). In 2000, the National Ecology Institute presented and published the reserve's management program. The program is extensive and considers the main factors influencing the protected area. The National Commission of Natural Protected Areas (CONANP) is responsible for administering and managing the reserve.

This reserve has been zoned. There are 16 core zones covering 362,438 hectares in which permitted activities are restricted to environmental education, scientific research, recreation, and tourism. The rest of the reserve is part of the buffer zone. The buffer zone's objective is to maintain and improve ecosystem conditions and ensure continuality of ecological processes. This zone is further subdivided into other areas and covers a total of 2,184,351 hectares:

- Sustainable Natural Resource Use Zone: Sustainable use activities are permitted, including activities that modify the ecosystems when that is the best option from a technological and legal point of view.

- Restricted Use Zone: Sustainable natural resource development activities are permitted as long as they maintain the ecosystems' conservation, improving the state of conservation in certain situations.
- Human Settlement Zones: Settlement is allowed in these population centers, including legal, rural farms and territory reserves.

The management plan was developed in year 2.000; it recognizes the following management programs:

World heritage
Conservation and management
Public use & recreation
Research and monitoring
Environmental protection
Operations
Coordination and participation
Legal framework

Vizcaíno Biosphere Reserve has 24 employees, five of whom are core staff (a director, a vice-director, an administrator, and two project coordinators). The other 17 are field support staff and patrol officers. There are four field stations, also used as offices and control posts. One station is the reserve's central office and it is located in Guerrero Negro. The second station is Berrendo, located in the Desierto del Vizcaíno, the third station is Borrego, located near the Tres Vírgenes Volcano and the fourth is located in San Ignacio. El Vizcaíno Biosphere Reserve's offices are located in the city of Guerrero Negro; they are better known as the house of wildlife.

4.7.3. Demand for finance

The average total available funding for Vizcaino Biosphere Reserve is approximately 1 million. This amount is five times larger than the budget available 10 years ago, however it is still limited considering the size of the area and the need to protect marine and terrestrial ecosystems. The cost per hectare is approximately USD 0,38, almost 10% of the Mexican average expenditure in protected areas.

Table 16: Total available funding year 2009 - 2011

Year	Total available budget (USD)
2009	940,795
2010	1,229,755
2011	704,610
Total 3 years	**2,875,160**

Source: Fondo Mexicano para la Conservación de la Naturaleza

The financial needs projection for the coming three years suggests that the area is operating below its basic needs, and that it should triple its 2011 baseline in order to achieve an ideal management scenario.

Table 17: Financial needs projection 2012-2014 USD			
	2012	2013	2014
Projected needs, USD	1,529,462	1,979,724	2,564,678
Gap %	54%	64%	73%

Source: Fondo Mexicano para la Conservación de la Naturaleza

4.7.4. Supply of finance

According to the table presented below the Government of Mexico has been contributing with 37% of the total available budget over the past three years. The Fondo Mexicano para la Conservación de la Naturaleza (FMCN) through its Protected Areas Fund accounts for 20% of the total budget. These allocations are divided trough two different windows, the first Yearly Operative Programs (POA) covers recurrent costs on a yearly basis while the second Strategic Innovative Projects (PIE) executed by non-governmental organizations which operates on a competitive call for projects basis, the objective of these PIEs is to attend some of the threats of the PA. The remaining 43% is labeled as "others"; it includes projects and cooperation sources. Self-generated revenues such as visitor fees and concessions are also collected in Vizcaino, but given the centralized financial management system of México, with all income concentrated and then reassigned by the Ministry of Hacienda, there is no retention or direct reinvestment in the area.

Table 18: Sources of funding for the Vizcaino Biosphere Reserve 2009-2011, USD					
Year	FANP-POA	FANP-PIE	State resources	Others	Total available budget
2009	21,313	177,964	300,324	357,225	856,825
2010	23,728	194,105	351,192	660,728	1,229,755
2011	20,565	126,168	317,526	240,351	704,610
Total	65,606	498,237	969,042	1,258,304	2,791,190

Source: Fondo Mexicano para la Conservación de la Naturaleza

In January 1994, the FMCN was legally incorporated, and in March, the first Board of Directors was appointed. In the same month, the Mexican government made its first disbursement, US$1 million, to the endowment. Efforts to finalize the fund's capital endowment took another two years. The first U.S. contribution in 1996 was US$19.5 million matching a Mexican contribution of US$10 million. With additional contributions from the Mexican government, the GEF and a group of U.S. private philanthropic donors, FMCN's endowment reached US$ 110 million in 2010.

With the investment earnings from its initial endowment of close to US$30 million (approximately US$2.4 million per year under those market conditions), FMCN was able to issue its first annual call for proposals in April 1996, soliciting projects related to ecosystem and species conservation, sustainable use of natural resources and institutional strengthening. To date, through five programs and more than eleven calls for proposals, FMCN has distributed close to US$65 million in support of over 900 conservation projects. Since 1996, FMCN has also organized more than 240 capacity building and institutional strengthening workshops that have benefited more than 310 Mexican NGOs

At the end of 1996, Mexico's National Commission for Natural Protected Areas (CONANP) appointed FMCN as the recipient and manager of a separate endowment of US$16.5 million from the Global Environment Facility (GEF). The income from this endowment would support ten

strategic natural protected areas in Mexico. The process of creating this sub-account (Fondo para Areas Naturales Protegidas - FANP) within FMCN was completed in mid-1997. After three years of successful operation and positive outside evaluations, FMCN was approved for a second phase of FANP. It received an additional US$22.5 million in endowment resources from the World Bank/GEF for the inclusion of 12 additional protected areas in the program, with disbursements contingent upon the deposit of a 1:1 match in funds. After 10 years, FANP endowment has grown from US$16.48 to US$73.42 million, surpassing the required match. Today, FANP interests support 29 protected areas, which are grouped into 23 geographic regions. In the past ten years, approximately US$23 million in the form of yearly interests of the fund have been channeled to these protected areas, which surpass the amount of the first donation, while conserving the capital.

During the last 16 years, FMCN has averaged 7.4% yield of its endowment. An income stream of close to US$23.5 million dollars of earmarked, sinking funds has complemented the endowment interest income generated during the period from 1996 to 2011.

FMCN today is governed by a cross-section of Mexican society as well as by representatives from the international conservation community. The Fund's General Assembly is the highest authority of the organization and is composed of 32 honorary members. This entity is responsible for, among other duties, approving the composition of the Board of Directors and the annual audited Financial Statements and adjusting the by-laws to the evolving operational needs of the institution.

The next level of authority is the Board of Directors, which includes 19 representatives from various sectors of society, including business, government and civil society organizations. The Board is responsible for supervising the Executive Director's operation of the organization, including project selection and budget allocation. Most of FMCN's board members are individuals serving in a personal capacity (usually, the only government representative is the Minister of Environment), selected to reflect the needs of the fund and the diversity of its constituencies, not the sectors or institutions from which the board members came. This fact has also been important to the success of FMCN, as the fund has been perceived to be an independent body, not beholden to any one special interest.

The relatively large number of Assembly and Board members, combined with their varied backgrounds, pro-vides FMCN with the skills and resources needed to oversee the complex assortment of institutional activities and governance responsibilities. Because of this diversity of membership, FMCN can establish effective specialized technical committees that are linked directly to the day-to-day operations of the fund (GEF, 1998). These committees include outside experts that provide their skills pro bono. All technical committees are chaired by an active Board member.

4.7.5. Demand supply gap, lessons learned, conclusions

This is where a large protected area has managed to realize a diversified funding portfolio. Almost 20% of the total available funding comes from the national protected areas fund, which provides coverage of recurrent costs and generates incentives for innovative projects from civil society. As opposed to the traditional fiscal budget the CTF offers greater flexibility and aligns with the adaptive management approach. It provides a customized service to PA needs that generates a big

difference in a centralized PA system. In terms of timing the case of Vizcaino shows that the CTF complements expenditure in months of state funding shortage allowing fluid operations.

The funding gap is considerable and probably not likely to be filled in the short term, however the recent history of Mexico´s PA finances shows that dramatic changes are possible within limited periods of time. Mexico's federal protected area budget increased from US$1.7 million in 1995 to US$15 million in year 2000. Eight years later the PA budget reached its highest value of US$ 96.4 million. This situation is supported by the fact that protected areas provide the equivalent of at least US$52 for each dollar invested from the Federal budget to the Mexican economy. The incentive to generate additional resources from traditional financial mechanisms is relatively low giving the impossibility to retain or reinvest these additional resources.

Some of the key components of the financial gap are related to updating basic management and planning tools, invasive species management, strengthening of control and patrolling as well as overall monitoring of economic activities within Vizcaino Reserve. The current management plan is 12 years old and does not include specific financial information or cost estimates to implement the different management programs.

With regard to the CTF success should not be measured solely by the amount of money allocated. FMCN has proven its ability to accomplish other objectives as well, such as the efficient management of resources, the creation of transparent project selection and monitoring systems, the joint identification of conservation priorities and adherence to sound investment policies, all of which have been key to establishing FMCN's credibility. FMCN is playing a key role leveraging local capacities in proposal writing and project design and execution, multiplying the scope of conservation actors and the quality and impact of its investments.

4.8. Peru: Cordillera Azul National Park

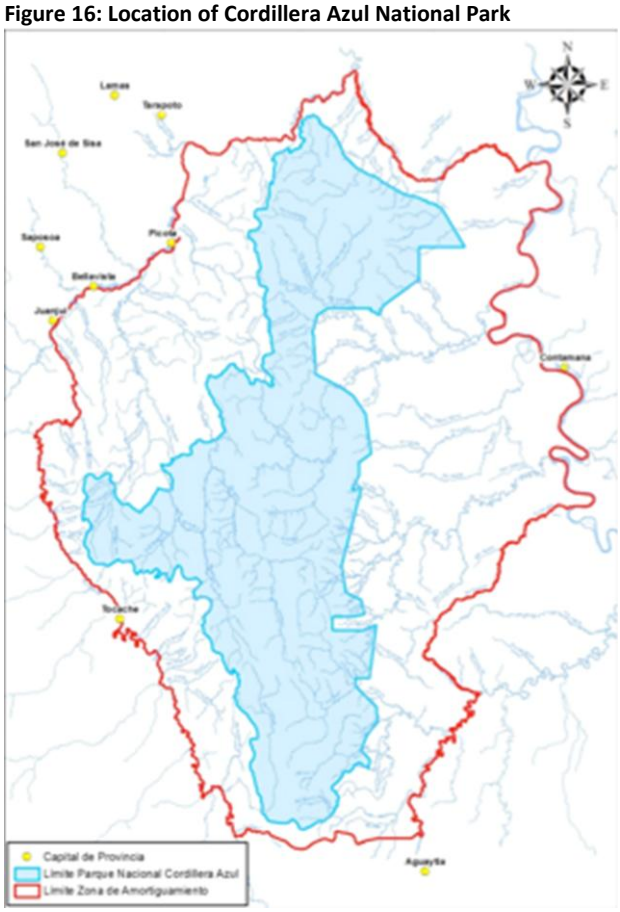
4.8.1. Brief characterization of the PA

The Cordillera Azul National Park (see figure below) is the third largest national park in Peru. The government officially recognized the park and its buffer zone in a Supreme Decree in May 2001, with a core zone totaling 1.35 million hectares, and a perimeter of nearly 974 km. In 2007, the buffer zone was expanded by legislation to 2,301,117 hectares; in total the project area and buffer zone cover 3.7 million hectares.

The park is located in the transition area between the high Andes and the Amazon, between the Huallaga and Ucayali rivers. Cordillera Azul is the easternmost outlier of the Andes at this latitude and the park protects forests from the lowlands to mountain crests at 2,400 meters.

The Cordillera Azul National Park is the largest continual extension of intact high montane forests in Peru, the country's third largest national park, and the only natural protected area shared by four departments (San Martin, Loreto, Ucayali and Huanuco). However, it is even more unique. The chain of forest-covered hills within its territory make the park a vital link in the conservation of the tropical Andes, a region considered worldwide to be one of the most biodiverse and at the same time threatened. Although studies are still insufficient, it already features as one of the protected areas with the greatest diversity in scenery and the most complex geologically in Peru.

Figure 16: Location of Cordillera Azul National Park



In its northern part, extends a series of unique geological formations, known as the Vivian formations, the Cordillera Azul preserves the largest area of mountainous forests intact in Peru; here the Strategic Plan of the National System of Natural Protected Areas identified in 1995 two of the 38 priority areas for conservation, including the National Forest Biabo Cordillera Azul established in 1961.

The park was created to protect this unique diversity of plants, animals and unusual geological formations, not only because of their intrinsic value, but also because they safeguard important watersheds that provide water and other environmental services to hundreds of communities outside the park, reason why it is also important to involve local people in the care and management of the adjacent areas.

A 3-week rapid biological inventory undertaken prior to the Park's creation registered 31 new species for science and documented more than 2,300 species of flora and fauna. Research has enabled estimate about 6,000 plant species and 800 of birds. The Park contains some of the last remaining unbroken elevational gradients in the Andes, and contains 16 evaluated habitat types,

from lush lowland tropical forests to stunted, specialized vegetation on the rugged crests of the mountain tops.

Prior to declaring the national park, illegal loggers operated inside the park. CIMA and official park guards, with support from local residents, removed all illegal loggers from the park by 2005. This was accomplished amiably. Some local people who worked as porters, cooks, hunters, and chainsaw operators in the logging operations returned to their communities to continue working on their farms. Other people have been recruited as park guards. No other land disputes have arisen since then.

There is evidence of non-contacted indigenous people from the Cacataibo ethnic group in the southeast region of the park. Out of respect for their desire to remain uncontacted, the entire region has been declared an “intangible zone” (Zona de Proteción Estricta) doesn’t permit any kind of intervention which jeopardizes its integrity especially on aspects of health and safety. Until people come out of their own volition and request contact, the region will remain closed to all human entry or use.

In terms of development stage, the park is under consolidation and is moving towards achieving long-term operation. Within a decade it moved from being an extensive region without any form of management, to become a model for public - private partnership that has consolidated the protected area management. Today its borders have been marked and physically flanked with 18 control posts, and limit park signs; it has the largest number of park guards per hectare of the whole natural protected areas' system (45 official park guards, and 60 communal park guards), and the threats have progressively retreated to allow for the area’s recovery.

The population is learning and beginning to replicate the practices of orderly use of resources in the neighboring areas, where it also keeps permanently updated on new options for sustainable development such as wildlife management. In the neighboring towns, people appreciate the periodic experiences in environmental education, and the area is gaining position as a laboratory for high montane forest studies.

4.8.2. Governance and management system

The government officially recognized the park and its buffer zone in a Supreme Decree in May 2001; this legal category gives the natural area maximum protection under Peruvian law. Upon its formation in 2002, the Centro de Conservación, Investigación, y Manejo de Áreas Naturales – Cordillera Azul (CIMA – Cordillera Azul) voluntarily signed an agreement with INRENA, the Peruvian government agency in charge of national protected areas at that time, to support the management of the park.

The agreement was renewed for one-to-two year terms until August 8, 2008 when CIMA and INRENA signed a 20- year, full management contract. The 2008 management contract includes legal authorization for CIMA to use revenues from the sale of carbon credits from avoided deforestation for park activities for the 20-year term. After the Peruvian Ministry of the Environment was created, the new agency in charge of natural protected areas, SERNANP, ratified the agreement with CIMA.

The extent of this agreement includes coordination and overseen of all park management activities including interactions with national, regional, and local governments; communications and relationships with buffer zone communities; patrolling park boundaries and preventing illegal

activities inside the park; input, review, and oversight of project documentation, data collection, and project monitoring and mapping. CIMA is also developing the REDD+ project for PNCAZ and promoting the process for selling carbon credits.

The link between the CIMA Cordillera Azul and the park has existed since they both began. Part of the team who founded CIMA in 2002 had been actively involved in the studies, rapid biological inventory and other activities that led to the establishment of the protected area in 2001. The NGO also conducted the preparation of the first management plan and its latest one. Since then, CIMA has been one of the leading players in consolidating the successful model for its participatory management.

The first management plan was elaborated in 2003 for a five years period, it was reviewed and updated in 2009 and is currently used by the Management Committee. Although there are no communities living inside the park the participative management approach incorporates 17 native communities bordering the park, demanding additional resources and a certain level of institutional capacity. The management plan contemplates the following four strategic objectives:

- Protection of biodiversity and sustainable use of resources;
- Development of economic activities compatible with the conservation of the national park;
- Awareness and political alliances to promote appropriation and positioning;
- Participative management and cooperation with stakeholders.

The protected areas manager is designated by SERNANP; the total staff consists of 99 people spread across five offices (Aguaytia, Contamana, Tocache, Tarapoto and Lima) and 18 control posts. Out the total, 54 technical and administrative staff and 45 park guards. Almost 70% of the staff works at site level.

4.8.3. Demand for finance

The average budget between 2007 and 2011 was USD 1,6 million, this amount represented almost 11% of the total available funding for the whole PA system in Peru. CIMA is the second largest executor of conservation funding in Peru after PROFONANPE the national trust fund for protected areas. Financial shortfalls mostly affect the extent and volume of projects and activities at site level. The expenditure per hectare is USD 0,92 relatively low in comparison with the Latin-American average (USD 1,55), mostly because of the considerable size of the protected area. However taking into account the dynamics of protected areas in the Amazon basin, Cordillera Azul might be among the few parks achieving a basic level of consolidation. The park employs approximately 16% of the total staff available for protected areas conservation in Peru.

Table 19: Total available funding, period 2006- 2009					
Expenditure period	Staff	Operative costs in offices	Projects and activities	Administration and patrolling	USD TOTAL
Aug06-Jul07	951.653	135.019	350.952	128.197	1.565.820
Aug07-Jul08	815.939	126.061	291.573	128.728	1.362.302
Aug08-Jul09	912.670	174.330	496.431	127.364	1.710.794
TOTAL 3 years	2.680.262	435.410	1.138.956	384.288	4.638.916

In 2010 Cordillera Azul developed its Financial Sustainability Plan. According to this plan, the park has already achieved a basic level of development, and shows clear signs of moving towards its full consolidation. The minimum amount of resources needed to maintain the area under a basic scenario would be USD 1,25 million, while the funding target to reach the ideal scenario duplicates the current amount of funding. The fact that Cordillera Azul was able to achieve this level of funding within a decade provides evidence of financial capacity and allows a reasonable estimation of bridging this gap within the coming five years.

Table 20: Financial projection						
	Baseline	Basic scenario Year 1	Year 2	Year 3	Year 4	Ideal scenario year 5
Staff	893.421	803.091	951.663	1.127.720	1.336.349	1.591.959
Operative costs in offices	145.137	117.863	144.534	177.940	219.993	272.730
Projects and activities	379.652	230.747	316.123	433.089	593.332	800.305
Administration and patrolling	128.096	104.024	127.563	157.047	194.163	240.707
TOTAL	1.546.306	1.255.724	1.539.883	1.895.796	2.343.836	2.905.701

The area has infrastructure and equipment worth USD 225.150, out of which 51% are transportation means, 21% computer equipment and 18% communication equipment.

4.8.4. Supply of finance

This pioneering private – public partnership has demonstrated important results within a limited period of time, generating interest from national authorities and attracting support from donors; Cordillera Azul might probably be among the largest protected areas in the world that are managed by a single private NGO.

Cordillera Azul is almost entirely funded by donors and international cooperation trough conservation projects for park protection, research and land-use management activities. Major funding sources are concentrated between a limited number of donors, most of them based in United States, but also in Europe. The major contributors whose donations exceed USD 800.000 are: The Gordon and Betty Moore Foundation, The John D. and Catherine T. MacArthur Foundation and United States Agency for International Development (USAID). The Field Museum has been a strategic partner canalizing technical and financial support. Since 2008 Moore and Mac Arthur canalize their resources directly, while USAID still supports the park trough the Field Museum.

Another important source is the Spanish Cooperation Agency through Watu Foundation canalizing USD 250.000 to support indigenous communities. Other key cooperation partners are WWF, DAR,

SPDA, IIAP, Universidad Nacional Mayor de San Marcos, and the Universidad Nacional Agraria La Molina. Additionally, almost 10% of the total available budget is supported by a number of local and regional authorities such as the Regional Governments of San Martin and Loreto, providing logistical and in kind support to undertake projects with local communities and conservation activities.

These results prove technical and administrative capacity to attract and retain financial support from donors. The fact that major donors are still investing in the area after the original projects were finished shows technical capacity to implement projects and achieve expected results. The accumulated experience after years of financial and administrative relationship with different donors, suggest a managing capacity to absorb larger finance.

The Management Contract provides an important tool to leveraging funding from traditional conservation sources; however it does not mobilize financial support from the government. No alternative financing was available in a sustainable way; accessibility constrains increase operation costs and inhibits traditional self-generated revenues such as tourism entrance fees.

The 2008 Management Contract between CIMA and SERNANP includes legal authorization for CIMA to prepare and implement projects that aim to avoid deforestation in the park. After the Peruvian Ministry of the Environment was created, the new agency in charge of natural protected areas, SERNANP, ratified the agreement with CIMA. Since then CIMA has been actively pursuing a REDD+ project for PNCAZ with support from its technical advisor, The Field Museum.

The REDD+ project's primary goal is to prevent deforestation in PNCAZ by strengthening park protection, engaging local communities and other stakeholders in land-use management activities, and improving the quality of life in the buffer zone communities.

The use of the expected revenues will be prioritized as follows: first funds will be used to support the management of the park and stabilization of land use in the buffer zone. Next, funds will be used to meet transaction costs and registry fees and then to create an endowment to ensure funds are available to protect PNCAZ in the future. Remaining revenue will be shared with the Peruvian government to support the National Park System (SINANPE).

4.8.5. Demand supply gap, lessons learned, conclusions

The park faces a financial situation in that costs for park activities currently average $1.6 million per year and are projected to reach $2.9 million per year when all planned project activities are implemented. This is a case where the traditional project approach presents robust results in terms of consolidating the protected area and generating a national capacity to manage it. The next development stage demands sustainability, calling for a conservation trust fund as a means to canalize REDD revenues and strengthen capacity for financial sustainability.

Such results would not have been possible without the sustained and long-term support from a number of donors that found the right partner to engage in lasting cooperation. This kind of long-term relationship proved to be a critical success factor that is much more difficult to find nowadays.

CIMA is determined and capable to move Cordillera Azul to the next level; it took them a decade to declare the protected area and achieve a solid consolidation stage. The area is now half the way to achieving an ideal management scenario; the major issue now is sustainability. Success of the

park in the long-term somehow depends on the sale of carbon credits because of the limited sources of sustainable funding available.

The endowment fund is a hedge against future lower carbon offset prices, changes in the REDD market, or changes to REDD project requirements arising from future international agreements that would require changes to the project's Project Design Document (PDD), validation and verification to such an extent that CIMA could not complete the changes prior to its next scheduled verification. The fund offers a key tool to leveraging co-finance from donors.

The consolidation of this private management model as a national and international reference is considered essential to its sustainability and is a form of practical advantage of pioneering. This however requires a lot of resources and energy, committing CIMA towards a role of leadership and continuous innovation in the competitive field of conservation of Amazon protected areas.

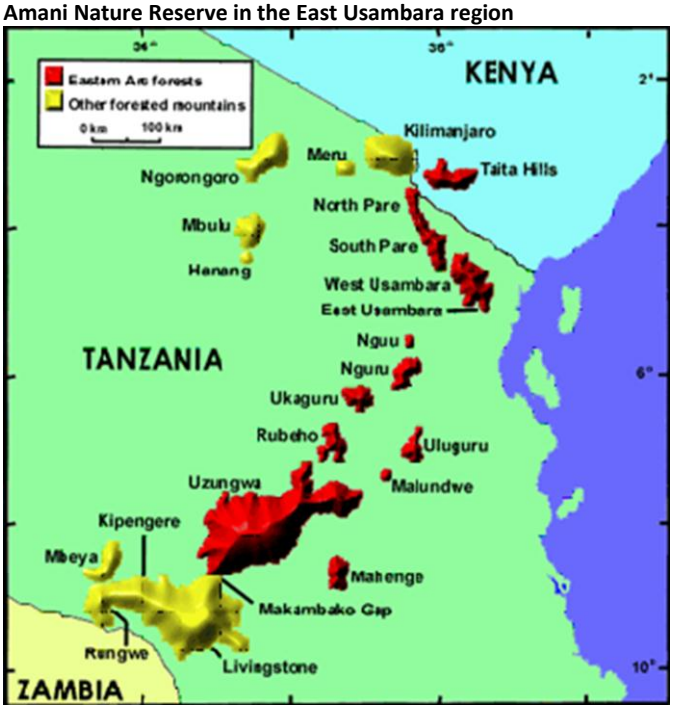
CIMA needs to improve its fundraising approach from a current situation that can be characterized as reactive, non-systematic and without a specialized person or team. The organization has decided not apply to funds less than USD 100,000 for the high transaction costs and the need to conform to the priorities of donors. That puts it in a more sophisticated niche where access to information on new approaches and donor priorities as well as the quality of the proposals are determinants of success.

There is potential for funding through local governments, that show generally low expenditure capacity and demand technical guidelines for investment, even more so in those municipalities that benefit from the mining and oil industries' tax.

4.9. Tanzania: Amani Nature Reserve, EAMCEF

4.9.1. Brief Characterization of the PA

Figure 17 Location of the Eastern Arc Mountains and Amani Nature Reserve in the East Usambara region



The Eastern Arc Mountains (see figure 17) when combined with the Southern Rift, the Albertine Rift and the Ethiopian Highlands from the Eastern Afromontane region, which is recognized globally as one of the 34 biodiversity hotspots characterized by high concentrations of endemic species now under serious threat. The mountain blocks of the Eastern Arc cover about 5,350 km2 and spread over fifteen districts in five regions of Tanzania namely, Tanga (East and West Usambara and Nguu Mountains), Kilimanjaro (North and South Pare Mountains), Morogoro (Nguru, Uluguru, Ukaguru, Malundwe, Udzungwa, Mahenge and Rubeho Mountains), Dodoma (Rubeho Mountains) and Iringa (Udzungwa Mountains). The East Usambara Mountains forests, in which Amani Nature Reserve is located, are recognized as being part of a Biodiversity Hotspot, an Endemic Bird Area (ICBP, 1992), a Centre of Plant Diversity (WWF and IUCN) and a Globally Important Ecoregion (WWF). They are also part of the Man and the Biosphere Reserve network (MAB).

The Amani Nature Reserve was gazetted in 1997 and has an area of 8380 ha. Due to their age, status as “forest islands” and role as condensers of moisture from the Indian Ocean, the Eastern Arc forests are rich in endemic species. Patches of forest such as the Amani Nature Reserve have been likened to the African equivalent of the Galápagos Islands in terms of their endemism and biodiversity. Of the approximately 3450 species of vascular plants recorded in the Usambara Mountains, an estimated 23% are endemic. Such species include 15 wild relatives of coffee and 20 African violet species. In addition to the variety of plants, the mountains host a number of endemic or rare fauna species, including the Usambara eagle owl and a viviparous frog species. A summary of biodiversity in Amani Nature Reserve is presented in table 21.

Historically, a systematic exploitation of the Usambara Mountain Forests started shortly before 1900 during German colonization, when plantations were established, a research station was opened (Robert Koch developed his groundbreaking work on the use of quinine against malaria there) and a Biological-Agricultural Institute was opened which served the aim to optimize the plantation undertakings. A plan was also realized to establish in Amani the biggest Botanical Garden on earth and an estimated 1000 animal and plant species were eventually brought into this Botanical Garden. Clearing of forest areas took place for establishing new tea and coffee plantations, as well as a railroad connection that was needed to transport timber out of the area including for export to Germany. After Britain took over from the Germany, the activities of the research institute were moved to Kenya, however, a new road was built and tea plantations

enlarged. Until the 1980ies a flourishing timber company existed in Amani, which was partially financed by Finland. In the 1990ies the Finish Government eventually engaged in conservation work which eventually led to the establishment of the Amani Nature Reserve.

Table 21: Summary of biodiversity in Amani Nature Reserve

Taxon	Total No. of species	% forest dependent	No. of non-forest species	No. of endemic species	No. of near endemic species	No. of forest dependent endemics and near-endemics
Trees, shrubs	264* / 367**	43.0	22	19	49	53
Mammals	59	15.3	6	0	3	2
Birds	65	33.8	15	2	3	3
Reptiles	49	46.7	6	3	15	17
Amphibians	27	66.6	0	2	14	16
Butterflies	112	20.5	4	1	10	9
Total	943	n/a	53	27	94	100

Source: Frontier Tanzania, 2001. Notes: * Species recorded in vegetation plots. ** Species recorded opportunistically. Note that invertebrates are not well studied. However, Amani's insect fauna is diverse and has spectacular species.

In terms of today's human impacts, depletion of forests through logging activities and increasing clearance of forest areas for small-scale farm plots have become a serious problem throughout the Usambaras. One of the most obvious and damaging effects of such deforestation is soil erosion. The East Usambaras are also an important water catchment area for lowland populations, so siltation through soil erosion causes a major problem for management in the area. Alien and invasive species are thought to put the Amani system at risk, especially due to human influences and the Amani Botanical Garden. In addition, tea estates now employ roughly 4000 people in the high season, and generally the growing human population is leading to increased pressure on the remaining natural forest in the area.

4.9.2. Governance and Management System

The Forestry and Beekeeping Division (FBD) of the Ministry of Natural Resources and Tourism (MNRT) provides for overall policy guidance for the forestry sector, and some technical oversight and supervision. Much of the management and protection of forest reserves is in the responsibility of the District Forest Officers (DFOs). Resources to finance forest management continue to be tightly constrained, and the sector depended heavily on donors in recent years. A more effective collection and use of revenues could make a difference and was attempted by a recently concluded World Bank/GEF/UNDP project, but was not very successful (see discussion in section 4.9.4).

The Amani Nature Reserve Authority has 15 permanent and 14 temporary employees and performs the following type of site based management activities: administration & planning, patrolling & enforcement, environmental education, research & monitoring, sustainable livelihood alternatives, mitigation & restoration. These activities are carried out based on a Management Plan that has been elaborated to cover the years 2009/10-2013/14. In 2011, the total revenues of the Amani Nature Reserve Authority were USD 243,600, coming from the following sources: national budget, access/visitor fees, EAMCEF, Tanzania's Forest Trust Fund as well as projects

funded by foreign organizations (in the past 3 years, Amani Nature Reserve received financial support from the following foreign organizations: UNDP, Unilever, ICRAF).

The total expenditure of the Amani Nature Reserve Authority in 2011 was USD 205,128. In the past three years, Amani Nature Reserve Authority was able to finance about 40-60% of required activities contained in the Management Plan, about 60-80% of required activities stipulated in relevant national policy and law and about 20-40% of infrastructure investment needed in the Reserve. According to the Conservator of Amani Nature Reserve Authority, key priorities for future work and investment in Amani Nature Reserve include: improved eco-tourism activities, attractions and services; improved Reserve management; diversification of revenue sources, including especially PES; increased revenues and spending of the EAMCEF and Tanzania Forest Fund and increased government/budget spending on PAs.

4.9.3. Demand for Finance

The demand for finance related to the Amani Nature Reserve, including related mid-long term cost estimations, has not been assessed so far.

4.9.4. Supply of Finance

The Eastern Arc Mountains Conservation Endowment Fund (EAMCEF) has been supporting several projects related to Amani Nature Reserve. These projects are listed in table 22 below. All listed projects have been financed fully from the EAMCEF, i.e. without co-financing from other sources.

Considering Amani Reserve Authority's 2011 total expenditures (USD 205,128 as reported above), EAMCEFs financial support can be considered as modest.

The Eastern Arc Mountains Conservation Endowment Fund (EAMCEF) is a Trust Fund that was established as a mechanism to provide long-term and reliable funding support for community development, biodiversity conservation and applied research projects, which promote the biological diversity, ecological functions and sustainable use of natural resources in the Eastern Arc Mountains of Tanzania. EAMCEF was officially registered in Tanzania on 6th June 2001, under the Trustees' Incorporation Ordinance No. 375 of 1956. It was set up as a joint initiative of the Government of the United Republic of Tanzania, the World Bank and the GEF.

Governed by a Board of Trustees (BOT), the Fund operates as a not-for-profit Non-Governmental Organization (NGO) with its day-to-day operations being run by the Endowment Fund Secretariat (EFS) based in Morogoro Municipality and headed by an Executive Director. The EAMCEFs Board of Trustees currently consists of 9 members, including a representative of the FBD of the MNRT (Chairman), a representative of academic and research institutions established in Tanzania, a representative of international conservation NGOs, a representative of the National Environmental Management Council, a representative of the Eastern Usambara local communities, a representative of the Udzungwa local communities, a representative of national conservation NGOs, a representatives of the business/private community, a representative of the legal community and the Executive Director of EAMCEF (secretary).

Initially EAMCEF operated as a component of the World Bank financed project under the MNRT – the Tanzania Forest Conservation and Management Project (TFCMP). Under the TFCMP, EAMCEF used a USD 2.4 million credit facility to finance activities and operations of its 7 years first phase

(2002 – 2009), the establishment phase. The establishment phase concentrated mainly in getting the EFS in place and functional - staff recruitment, office accommodation, procurement of essential equipment, basic supplies/materials, establishment of operational procedures and mobilization of additional resources. Full funding for community development, forest conservation and biodiversity research activities was as well undertaken during the first phase.

Table 22: EAMCEF Grant Disbursement Report for Amani Nature Reserve, 2006-2012

Project No.	Project Name	Implemented by	Disbursed (USD)
Projects funded directly to Amani Nature Reserve (Protected Area projects)			
03/2005	Protection of the Core Area of the Biodiversity of East Usambara Mountains - Amani Nature Reserve(ANR)	Amani Nature Reserve (FBD)	14'392.52
99/2006/PA/EU	Consolidating Biodiversity Conservation of the Core Area - Amani Nature Reserve(ANR)	Amani Nature Reserve (FBD)	6'542.06
39/2007/PA/EU	Reinforcement Conservation of Genetic Resources of Amani Nature Reserve	Amani Nature Reserve (FBD)	28'037.38
60/2010/PA/EU	Improvement of Eco-tourism Facilities in Amani Nature Reserve for Biodiversity Conservation and Poverty Alleviation of the Adjacent Communities	Amani Nature Reserve	12'000.00
63/2010/PA/EU	Forest Protection in Amani Nature Reserve for Improvement of Biodiversity Conservation and Livelihood Status of the Adjacent Communities	Amani Nature Reserve	12'000.00
		Subtotal Protected Area projects	72’971.96
Projects funded to Amani Nature Reserve through other partners (community development projects)			
12/2006/CD/EU	Forest Conservation and Awareness to Local Communities	Kwagunda Artist Group	2'336.45
31/2006/CD/EU	Forest Conservation and livelihood improvement for Sustainable Management	Korogwe District Council	12'445.79
56/2006/CD/EU	Establishment of Tree Nursery for sustainable income generation of the School and Conservation Education	Amani Primary School	739.25
100/2006/CD/EU	Empowering the Amani Nature Reserve Tour Guides for Birding and Research Assistantship	Wildlife Conservation Society of Tanzania (WCST)	2'336.45
02/2010/CD/EU	Improvement of Community Livelihood for Sustainable Biodiversity Conservation in ANR-Korogwe District	Korogwe District Council	13'000.00
06/2010/CD/EU	Ex-situ Conservation for the Improvement of Biodiversity Conservation and Community Livelihood in Amani Nature Reserve –Muheza District	Tanga Regional Catchment Forestry Office	10'000.00
36/2010/CD/EU	Integrated Modern Energy Technologies for Sustainable Use of Forest Resources in Amani Nature Reserve-Muheza District	Muheza District Council	10'000.00
40/2010/CD/EU	Tree Planting and Fish Farming for Conservation Education in Amani Primary School	Amani Primary School	2'000.00
75/2010/CD/EU	Community Based Ecological Restoration and Livelihood Improvement for Biodiversity Conservation in Amani Nature Reserve	Muheza District Council	10'000.00
77/2010/CD/EU	Beekeeping Development for the Improvement of Livelihood Status of the Community and Biodiversity Conservation in ANR-Korogwe District	Wasamkwa Group-Mkwakwani Village	2'500.00
		Subtotal community development	65’357.94
		Grand total	138’329.90

Source: EAMCEF

Funding of the second phase (the permanent phase) was planned to come mainly from incomes generated from the investment of the endowment capital secured from the GEF commitment of USD 7.0 million. The permanent phase (January, 2010 onwards) was planned to be dominated by full scale funding of field activities in three priority thematic areas:

- Community Based Conservation and Development activities for improvement of rural livelihoods of forest adjacent communities.
- Applied Biodiversity Research relevant to the conservation of biodiversity in the priority Eastern Arc Mountains.
- Protected Areas and Climate Change Management to improve the ecological functions of the ecosystem and to strengthen the management capabilities of responsible institutions.

EAMCEF provides three types of grants, as follows:

- Micro – Grants (amounts not exceeding TZS 2.5 million, i.e., approx. 1600 USD) to support small-scale efforts with a project duration of 6-12 months within each of the three Thematic Areas. Micro-grants can also be provided to conduct feasibility studies and analyses.
- Single Year or Discrete Project Grants (TZS 2.5 - 35 million per project, i.e. approx. 1,600-22,000 USD) to support discrete, one-time projects with a project duration of up to 18 months within the three Thematic Areas.
- Multi-Year Programme Grants (TZS 2.5 - 35 million per project per year) to provide multi-year funding for projects, or programmes, that will require several years to yield results or which require multiple year funding to ensure sustainability and achievement of objectives.

The total value of the endowment assets of the EAMCEF has grown from the original capitalization of USD 7.0 million in December 2006 to USD 8.0 million in June 2011 after having decreased to USD 5.8 million in March 2009 due to the global financial crisis, largely through accumulation of interests, dividends and capital gains. Included in the above amounts is a grant received by the Fund from Unilever in the amount of USD 370’000 in 2009.

Since January 2010, the EAMCEF withdraws USD 80,000 each quarter (i.e., USD 320,000 p.a.) from the endowment to finance the Fund’s operational costs and conservation projects. In addition to this amount, the EAMCEF has received funds from the MNRT. However amounts actually received from MNRT have been less (approx. 70’000 USD in FY 2010/11) than pledged amounts (approx. 210’000 USD in FY 2010/11). In 2011, the Norwegian Government has committed USD 5,947,700 to EAMCEF, from which a total of USD 1,173,440 was disbursed by the Royal Norwegian Embassy to support the first semi-annual budget for the FY 2011/2012.

Historically, additional sources of PA finance included funds received from several donor financed projects focusing on Amani, Usambara and the Eastern Arc Mountains of Tanzania:

In 2002, cooperation between the governments of Tanzania and Finland ended that had lasted for more than 20 years. This cooperation started off as development aid in the area of forest management, harvesting and saw milling industries. In the mid-1980s the focus was changed towards catchment forestry and nature conservation. In in the 1990s Finnish support was pooled with EU support which had been focusing on agricultural development in the Usambaras. The joint East Usambara Conservation and Agricultural Development Project (EUCADP) resulted, among

others, in the establishment of the Amani Nature Reserve and achieved additional important outcomes. However, in the completion report of the EUCADP prepared in 2002, it was also mentioned that the project "was overambitious and many activities could not be implemented fully due to time and financial constraints". The completion report suggested the establishment of a Fund to sustain the conservation work of the project.

Such a Fund (the EAMCEF, as introduced above) was then established as part of the World Bank/GEF/UNDP projects "Tanzania Forest Conservation and Management Project" (TFCMP) and "Eastern Arc Forest Conservation and Management Project" (EAFCMP) which lasted 2002-2010 and included a 24.6 MUSD Word Bank credit and a 7 MUSD GEF grant. The key project goals were:

- A functioning Tanzania Forest Service (TFS) established with clearly defined service delivery functions and responsibilities with regard to natural forests and industrial plantations.
- Significant areas of natural forest and woodlands under effective management as an outcome of partnerships and initiatives with communities and local governments.
- A range of mechanisms for improving revenue collection involving partners such as the Tanzania Revenue Authority and/or the private sector are tested and implemented; time-bound forest revenue collection targets established and achieved; and effective mechanisms for sharing revenues with villages put in place.
- An institutional framework consistent with overall civil service reforms in place which enables Government to undertake forest biodiversity conservation initiatives, in particular in the Eastern Arc Mountains; institutional capacity strengthened.
- The modalities for the establishment of a sustainable financial mechanism for conservation of Eastern Arc mountain forests developed and implemented.
- A framework for the private sector participation in the management of industrial plantation established, including guidelines, incentives, monitoring, control mechanisms.

In the 2010 Implementation Completion and Results Report of the World Bank, the project evaluators concluded that the project works related to the establishment and initial operation of the EAMCEF were "satisfactory", except for the failure to develop and implement an effective fundraising strategy for the Fund (this component was rated "moderately satisfactory"). Other project components as listed above were rated "moderately unsatisfactory" due to a multitude of reasons including for example: the actual institutional reform was incomplete and insufficient; the sharing of revenues and benefits from participatory forest management between local communities/government, MNRT and the Treasury was pending; the sustainability of private sector involvement remained in doubt; lack of political decision-making regarding TFS establishment and forest revenue sharing; initial three years of unsatisfactory project supervision by the World Bank; etc.

4.9.5. Financing Gap, Lessons Learned, Conclusions

Apart from supporting important projects and crucially supporting the work of the Amani Nature Reserve Authority, as described above, the EAMCEF also faces a number of challenges. EAMCEFs current challenges have been summarized in EAMCEFs latest Annual Report 2010-2011 as follows:

- Fundraising activities
    - Lack of necessary skills and expertise in fundraising and resource mobilization
    - Uncertainty about the right contacts/entry points
    - Limited time (due to limited staff) to further advance fundraising efforts
    - Significant part of the support pledged by the Government/MNRT has not been received in reality
- Volatility in the world economy and international financial markets
    - The USD 7 million endowment capital invested with the Asset Managers was adversely affected by the economic recession experienced over the past 3 years.
- Phasing out of the WB/TFCMP support to EAMCEF
    - The World Bank/TFCMP support to EAMCEF officially ended December, 2009 leaving EAMCEF without alternative donor support until recently when a new funding support was secured from the Royal Government of Norway. This has been a serious challenge to EAMCEF following the global economic crisis that started in 2008.
- Low disbursement of project grants
    - As a result of above mentioned adverse factors, only 35 eligible projects could be funded in FY 2010/11 with only USD 129,479, or 56% against the planned budget.

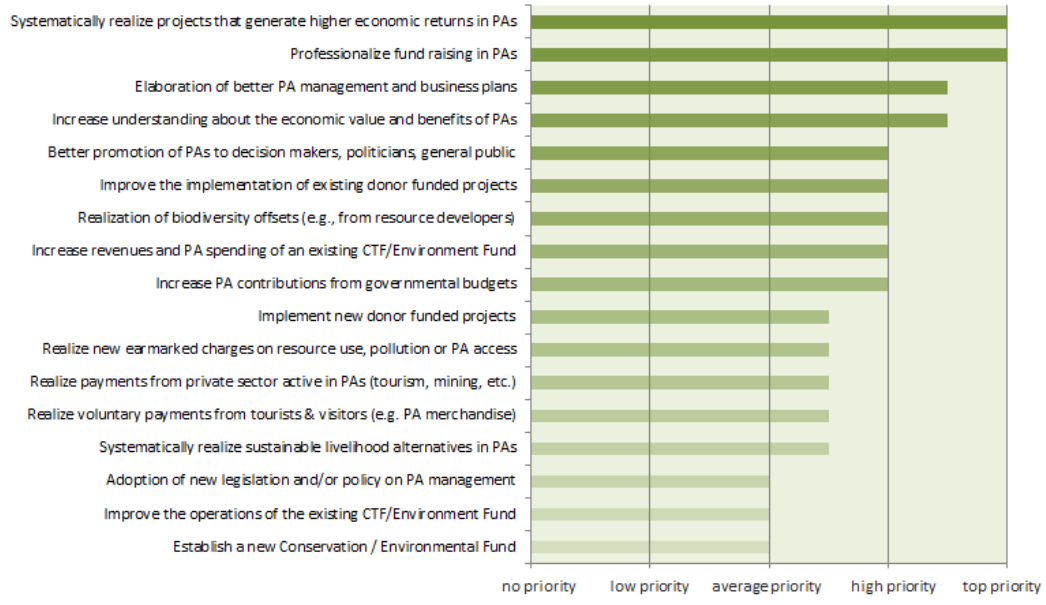
It appears that the EAMCEF needs to dedicate much time and large efforts to fundraising and asset management. Probably the Fund would benefit if it could focus more on its actual key task, i.e. expenditure management and achievement of results in terms of effects of projects supported.

Table 23 shows that in FY 2010/11 actual conservation project expenditure amounted to 29% of total Fund expenditures (7.6% of total sources) only. 71% of total expenditures were related to operating the Fund. The percentages for FY 2009/2010 are a bit higher: actual conservation project expenditure amounted to 18.1% of total Fund expenditures (17.1% of total sources) only in 2009/10. These percentages appear to be very low, even if considering that EAMCEF is in its initial years of operation. Eventually the lion's share of revenues should be spent on conservation/ environmental projects.

Based on a brief assessment of the EAMCEFs standard call for projects and other operational policies available on EAMCEFs website, project cycle management procedures, including project procurement, appraisal and selection procedures could probably be strengthened (see benchmark in table 1). In addition, it may be useful to adapt and update EAMCEFs spending strategy which apparently expired in 2010. Further, the Fund's website does not appear to be fully up to date, although it contains a wealth of useful and important information. Another idea to strengthen the Fund would be to carry out more and better-targeted promotion of its activities and achievements.

Table 23: Summary of EAMCEFs Statement of Receipts and Expenditures of FY 2010/11			
	FY 2010/11	FY 2010/11	FY 2009/10
SOURCES	USD	% of total sources	
Opening Balance 01/07/2010	45,134.04	2.7	46,303.85
Receipts from TFCMP/World Bank	-	-	516,227.86
Receipts from UBS (drawn from endowment capital)	400,000.00	23.6	160,000.00
Receipts from Royal Embassy of Norway	1,173,440.00	69.2	-
Receipts from MNRT	76,014.34	4.5	-
Receipts from other sources	-	-	50,250.00
Total Funds Available	1,694,588.38	100.0	772,781.71
EXPENDITURES	USD	% of total expenditures	
Investment			
Office Construction, Renovation & Maintenance	2,240.00	0.5	2,348.07
Procurement of Office Equipment	1,878.10	0.4	82,185.84
Procurement of Transport Equipment	-	-	82,321.40
Capacity Building and Institutional Strengthening	84,639.14	18.9	178,776.91
Endowment Fund Secretariat (EFS) Remunerations	96,924.53	21.7	90,806.53
Issuing of Project Grants	129,479.25	29.0	131,925.31
Field Operations for Funded Projects	32,906.91	7.4	38,252.03
Field Staff Time & Transportation	39,307.67	8.8	-
Total Investment	387,375.60	86.8	606,616.09
Recurrent			
EFS Office Accommodation Upkeep	11,910.03	2.7	2,943.18
Office Operations and Supplies	20,451.48	4.6	23,880.57
Financial Charges	3,789.66	0.8	8,252.05
Vehicle Operations, Maintenance and Insurance	10,583.34	2.4	20,517.63
Board of Trustees Management and Operations	9,682.92	2.2	11,019.41
Stakeholders Collaboration, Networking and Partnerships	1,929.43	0.4	52,500.96
Other Miscellaneous Activities	1,507.61	0.3	1,917.79
Total Recurrent	59,854.47	13.4	121,031.59
Total Expenditures	447,230.07	100.0	727,647.68
Closing Balance	1,247,358.31		45,134.03

As part of the web survey (see section 3) the following answers were provided by the Amani Conservator and the EAMCEF Director on the question "In the future, which measures should be taken to achieve a higher financial sustainability of protected areas (PAs) in your country?"



4.10. Uganda: Mgahinga Gorilla NP, Bwindi Impenetrable NP, BMCT

4.10.1. Brief characterization of the PA

The Bwindi Mgahinga Conservation Trust (BMCT) attends two different protected areas within a highly bio diverse region. The Mgahinga Gorilla National Park (MGNP) located in South Western Uganda Bordering Rwanda and Democratic Republic of Congo (DRC), and the Bwindi Impenetrable National Park (BINP) at the Border with DRC. Bwindi Impenetrable National Park (BINP) is located in southwestern Uganda between latitude 0o53'S to 1o 8'S and longitude 29o 35' to 29o 50'E and covers an area of 330.8 km2. It is situated on the edge of the Western Rift Valley, occupying the highest blocks of the Kigezi Highlands. Both areas are protected by the maximum conservation status, so no people live in the PAs.

Its mist-covered hillsides are blanketed by one of Uganda's oldest and most biologically diverse rainforests, which dates back over 25,000 years and contains almost 400 species of plants. More famously, this "impenetrable forest" also protects an estimated 320 mountain gorillas – roughly half of the world's population, including several habituated groups, which can be tracked for tourism. Bwindi was gazetted as a National Park in 1991 and declared a UNESCO Natural World Heritage Site in 1994 with a Size: 321km² and at an altitude: 1,160m² - 2,607m² above sea level.

Figure 18 Map showing location of Bwindi and Mgahinga Gorilla National Parks

MGNP sits high in the clouds, at an altitude of between 2,227m² and 4,127m² with a size of 33.7km2. It is a gazette National by law and was created to protect the rare mountain gorillas that inhabit its dense forests, and it is also an important habitat for the endangered golden monkey. The park also has a huge cultural significance, in particular for the indigenous Batwa pygmies. This tribe of hunter-gatherers was the forest's "first people", and their ancient knowledge of its secrets remains unrivalled. MGNP's most striking features are its three conical, extinct volcanoes, part of the spectacular Virunga Range that lies along the border region of Uganda, Congo and Rwanda. Mgahinga forms part of the much larger Virunga Conservation Area, which includes adjacent parks in the DRC and Rwanda. The volcanoes' slopes contain various ecosystems and are biologically diverse, and their peaks provide a striking backdrop to this gorgeous scenery.

BINP has a variety of species with a population of around 340 gorillas of which an estimated 116 are habituated for tourism. All of Bwindi's habituated gorillas are known individually by the rangers and have been given names in order to identify them. The males can weigh more than 500lb and some silverbacks exceed 6ft. On the other hand there are least 120 mammal species living in the forest, making Bwindi second only in mammal numbers to the vast Queen Elizabeth National Park. The eleven primate species found here include black-and-white colobus and

L'Hoest's monkeys, baboons and chimps. There are also forest elephants and several species of antelopes. Of Bwindi's 200 butterfly species, 42 are endemic to the Albertine Rift. There are an estimated 350 bird species with 23 endemic to the Albertine Rift and 14 recorded nowhere else in Uganda

MGNP is also endowed with the flagship species of Mountain Gorillas with one group habituated that traverses the three countries, and has 10 individuals. The PA is home to a variety of birds with 179-184 species recorded. MGNP is also endowed with the endangered golden monkey, which is endemic to the Albertine Rift with an estimated 3000-4000 individuals in the Virunga massif area which of which 42-60 are habituated in Mgahinga. It is also home to 76 species of mammals which include giant forest hogs, bush pigs, forest buffaloes, elephants, bushbucks, golden cats, side striped jackals, black fronted duikers and South African porcupines.

Historically, local communities used Bwindi forest as a source of timber, minerals, non-timber forest resources, game meat and agricultural land. These activities led to significant losses of forest over a period up to the late 1980s. Since 1991, the forest's tourism potential (mainly gorilla tourism) has been demonstrated as an important source of fresh revenues. Today tourism is the major economic activity undertaken in the PA in the form of tracking mountain gorillas, forest walks, golden monkey tracking, and mountain climbing. The neighboring communities are mainly subsistent farmers with a few in Kanungu District engaged in commercial tea farming.

This area has rich volcanic soils, which have been very fertile, but due to population pressure, there has been a lot of degradation and the land use of the communities neighboring the park is poor and productivity has reduced.

The park edge communities have no buffer between the agricultural land and the PAs making communities vulnerable to crop raiding by the animals and people going in the park for illegal activities and livelihood support. Northern part of BINP allows communities to access some forest products in demarcated areas as Multiple use zones where they can practice bee keeping, harvest some herbs and get dead wood for firewood.

In terms of development stage the two parks are well established in accordance with the Ugandan law, they have up to date management plans and are supported by professional staff from the Uganda Wildlife Authority.

4.10.2. Governance and management system

Bwindi has been managed as a protected area since 1932. The colonial government gazetted it as a forest reserve in 1932 and then as a game sanctuary in 1961. From that time up to 1992, it was managed as both a forest reserve and a game sanctuary, under the joint management of the forest and game departments. Throughout this period, timber was exploited and it is estimated that about 30% of the forest was cleared between 1954-9. In 1992, it was gazetted as Bwindi Impenetrable National Park in statutory instrument 3 of 1992. The gazetting of the park was based on the fact that the forest represented a vital refuge for some of Uganda's most rare and unique flora and fauna. The park was declared a World Heritage Site in 1994.

In 1989, growing international pressure from conservation interests led to the establishment of the Gorilla Game Reserve Conservation Project by an international NGO and the enforcement of strict protectionist policies by the government in what is now MGNP. The gazettement as a national park in 1991 led to the eviction of people who had been living permanently within this

area and some who were cultivating land but lived elsewhere. This eviction and the closure of the area to any form of consumptive use fuelled huge resentment and alienation among the local population, much of which is still felt almost 20 years later.

BINP and MGNP are managed by UWA, a semi-autonomous institution formed in 1996 through the merging of Uganda National Parks and the Game Department, as the Bwindi and Mgahinga Conservation Area. UWA fulfills four primary roles:

- Law enforcement and the control of illegal activities;
- Community conservation activities designed to reduce conflict between the Park and local communities and build local support for conservation;
- Research and monitoring;
- Supporting tourism development.

Both protected areas have professional staff in charge of monitoring, law enforcement, community conservation activities and tourism. Staff training is ongoing and is done both at site level and outside the park. The UWA has a management structure that includes a board of trustees, top management, and middle management in charge of administrative work.

Despite limitations imposed by lack of resources and low staffing capacity, UWA has made deliberate moves in recent years to engage more meaningfully with local stakeholders, and working with local communities now forms a central part of its overall strategy. Three generations of management plans for Bwindi and Mgahinga covering the periods 1995–1999, 1996–2000, 2002–2012 respectively played an important role in this process. These plans were developed with the participation of local people and include provisions for park outreach, community development, regulated resource access, revenue sharing, problem animal control, conservation education and tourism development.

The UWA through the PA staff have instituted policies for benefit sharing where neighboring community now get a share of tourism revenue and invest it in projects to boost their livelihood. There is also ongoing research supported by partners and UWA that enhances the ecological monitoring and ongoing research on the habituated gorillas.

4.10.3. Demand for finance

The total budget available for these two protected areas in year 2011 was approximately USD 1,8 million. This amount includes approximately USD 400.000 from UWA, mostly used to cover recurrent costs such as staff salaries, utilities, repairs and maintenance, uniforms and supplies, etc. Unfortunately a financial needs projection was not available.

The Bwindi Mgahinga Conservation Trust manages the most important portion of the available funding. The following Table presents both the major sources of funding and the total expenditure for the past two years. This public-private partnership between UWA and BMCT presents interest signs of complementarity, allowing simultaneous coverage of PA recurrent costs as well as projects directed to community development.

Table 24: BMCT income and expenditure in 2010 and 2011

FINANCE REPORT – STATEMENT OF INCOME & EXPENDITURE

	June 2011	June 2010	June 2011	2011	2011	2010
Income	**Ug.Shs.**	**Ug.Shs.**	**US $**	**US $**	**%**	**%**
BMCT Fund Contribution	774,800,000	436,022,700	298,000	212,694	2'	25
D.Swarovski KG	2,759,251,846	914,022,103	1,061,231	445,864	75	56
CARE International	0	200,000,000	0	97,561	0	12
GV- ES	34,350,000	49,086,048	13,212	23,944	'	3
Other Income	108,775,102	47,506,324	41,837	23,174	3	3
Total Income	**3,677,126,948**	**1,646,637,175**	**1,414,280**	**803,238**		

Expenditure	**Ug.Shs.**	**Ug.Shs.**	**US $**	**US $**	**%**	**%**
Employee Costs	200,861,258	179,979,140	77,293	87,795	5	11
Administration	152,268,141	102,641,125	58,565	50,069	4	6
Board & Committees	41,373,125	21,610,000	15,9' 3	10,541	'	1
Batwa Support	103,337,698	180,638,745	39,745	88,1' 8	3	11
Community Projects	2,123,226,029	170,338,3'7	816,625	229,133	58	29
Works in Progress	1,055,960,697	681,429,818	406,136	337,283	29	42
Total Expenditure	**3,677,126,948**	**1,646,637,175**	**1,414,280**	**803,238**		
Exchange rate to US $	*2,600*	*2,050*				

Source: BMCT Annual Report

4.10.4. Supply of finance

The Bwindi and Mgahinga Conservation Trust (BMCT) was established to protect Mgahinga Gorilla and Bwindi Impenetrable National Parks, two critical forest habitats which provide a home to half of the world's remaining population of mountain gorillas in Southwestern Uganda. Through its successes the BMCT is setting new approaches and standards through promoting community development for conservation.

The BMCT was the first conservation trust in Africa established by the Global Environment Facility after the 1992 Rio Earth Summit. When the BMCT was founded in 1995, less than 300 mountain gorillas lived in the two protected areas. Thanks to significant conservation efforts the population has gradually increased and today stands at approximately 340 in Uganda.

The vision of the BMCT is to conserve the biodiversity and ecosystem health of Mgahinga and Bwindi protected areas in harmony with the development needs of the surrounding communities. The BMCT uses a unique approach of conservation through community development to achieve its mission. It works to improve the quality of life in surrounding communities by providing education, health services, vocational training and sustainable resource use skills.

Funds under Management:

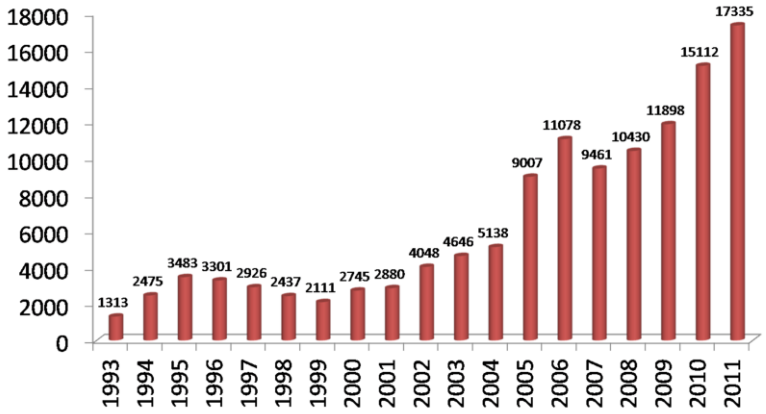
- Endowment: Approximately US$ 6.7 million (GEF) invested offshore
- Royal Netherlands Embassy Approximately US$2.7 million (sinking Fund)
- USAID: Approximately 900,000USD
- FAO: Approximately 240,000 USD
- Other: 2.1 million Euros (Swarovski); US$30,000 from the Greater Virunga Trans-boundary Core Secretariat; US$350,000 from CARE for indigenous peoples

Board members:

- 3 Representatives from Ministry of Justice, Ministry of Tourism Trade and Industry (Trustee), and Ministry of Finance. 3 community representatives from each of the Districts where interventions were focused. All also double as Trustees
- 1 Private sector representative as a Trustee and Board member 1 Protected area representative, as a Board member and Trustee 1 Local NGO Board member/Trustee
- 1 International NGO Board member/Trustee
- 1 Research Institute Board member/Trustee

Tourism revenues offer great potential to become the leading source of sustainable funding for both protected areas. The amount of tourist revenues generated by tourist fees alone is approximately USD 2,4 million. UWA reinvests almost 20% of this revenue in both protected areas. Figure 19 presents a case of rapid tourism growth, both protected areas account for almost 50% of total Gorilla tourism market on earth.

Figure 19: Visitor turn up in BINP



Source: Uganda Wildlife Authority, UWA

4.10.5. Demand supply gap, lessons learned, conclusions

Almost one quarter of the BMCT´s expenditures are covered by long-term sources such as the endowment Fund (26%). The rest the available funding is based on direct donations such as D. Swarovski KG (56%), and project grants such as CARE International (12%), and Greater Virunga Transboundary Conservation Programme (03%). This suggests the case of a mature CTF that is able to manage a diversify portfolio that combines mid and long term sources of funding.

This is a case where the CTF canalizes funding to undertake community development projects; this means that actual expenditure generally takes place outside of the park´s boundaries. This is particularly important given that these kinds of investments are usually difficult to cover by national conservation authorities. As communities surrounding the parks have thus become more economically secure, healthy and educated, there is an increasing understanding of the benefits of the parks, and a decrease in the pressure on park resources. As a result, gorilla numbers have risen.

The considerable growth in the number of visitors suggests a potential for other kind of tourism related revenues besides traditional entrance fees, such as tour operators permits or patents, merchandizing, individual donations, seasonal and differentiated fees, etc. The greatest challenge would be to ensure that these additional resources are retained and reinvested in local conservation.

5. Conclusions

The present report aims at answering the following question: “Why should significant amounts of scarce and expensive resources be committed in the capitalization of a CTF, with small returns in the long term, while more immediate and visible results could be achieved with direct investments in biodiversity conservation in the form of short-term projects.” The objective of the present study as defined in the TOR is to compare the advantages and disadvantages of financing through a long-term, CTF mechanism versus a project-finance approach to support Protected Areas Systems, as well as to put in evidence the conditions that determine the decision of both investment options. The focus of the study is on African and Latin American countries.

The analysis finds high levels of complementarity between CTF and the project-finance approach. This suggests that it should not be question whether it is one instrument or the other, but rather how the instruments can best complement each other. 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 CTF mechanism, while realizing new PAs, demonstrating and mainstreaming new innovative solutions and technologies, realizing technology transfer and implementing demonstration projects were perceived closer to the project-finance approach.

The underlying problem is that in most countries 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. In addition, the capacity to adequately manage the PA system and individual PAs is often insufficient. These issues should also be seen in the international context: biodiversity conservation is of international concern, i.e. not exclusively an issue that concerns the country in which the PA is located, and biodiversity and protected areas are global public goods whose benefits and services are not equally shared.

In order to address the basic question underlying the present study, section 2 introduces key concepts and good international practice used throughout the report. Three basic expenditure categories are defined including costs of official PA administration (salaries and O&M costs; infrastructure, equipment and transportation costs; education, research and promotional costs; enforcement and restoration costs); costs of community and business living/working in PAs or areas near PAs (e.g., costs related to sustainable tourism, resource use, livelihood alternatives, pollution mitigation & prevention, waste & water management, city/village development, etc.); and costs of external institutions such as specialized national or international research/conservation institutions. A successful PA management strategy thus typically requires the financing of a large number of different stakeholders: the official PA administration; businesses, communities and individuals operating in/around PAs, as well as numerous specialized organizations established domestically and abroad.

The policy framework for the question “Who should pay” is based on the Polluter and User Pays Principles (PPP/UPP), which are nowadays firmly and prominently featured in any new/modern national environmental legislation. OECD Council Recommendation C(2006)84 on “Good Practices for Public Environmental Expenditure Management”, adopted at Prime/Foreign Minster level of OECD Member States provides for good international practice in providing subsidies to PAs and PA systems. One method of providing such subsidies is through CTFs.

Figure 4 proposes a methodology for a PA system financing strategy. In this model, demand for finance is established through cost estimation of targets and requirements contained in existing

PA law & policy, as well as costs related to existing stock of infrastructure and assets. Supply of finance, in turn, is projected as a result of existing sources (public budgets, charges/taxes/PES, commercial sources, international assistance, etc.) as well as rules governing these resources. Demand and supply is then projected for the mid and long term, taking into account relevant macroeconomic variables such as varying growth rates, inflation, public revenue scenarios, etc. The result of this exercise is the quantified financing gap of the PA system under different scenarios. A PA system financing gap exists in many countries and often is increasing over time. A range of different measures can typically be taken to reduce or eliminate the financing gap. These options are presented below, along with the main findings and conclusions of the present study as regards the comparative advantages of CTFs vs. donor financed projects:

- Decrease demand for PA finance
    - Development of new, realistic policy and law related to PAs: If PA policy and law in a country is too demanding (i.e., too expensive to implement) or incomplete (lack of consistent framework to justify PA finance), PA demand can be rationalized by developing new, more realistic policy and law. Section 3 and 4 showed that such kinds of projects have rarely been supported by CTFs. Donor funded projects, however, often support policy and law reform. One key comparative advantage of donor funded projects is the ability to procure and effect best international expertise in policy and law development. CTFs can procure such expertise too, but their comparative advantage will likely be in procuring domestic expertise and coordinate participative review processes of draft policies and legislation.
    - Increased efficiency of service provision and cost efficiency programs: Demand for finance can be reduced if PA management service provision is being reformed such that the services are provided more efficiently and cheaper. Section 3 and 4 showed that CTFs reviewed have rarely focused on projects aimed at increasing the efficiency of service provision. Donor funded projects, however, often focus on such reform. One key comparative advantage of donor funded projects here again is the ability to procure best international expertise in modern PA management practices. CTFs can procure such expertise too but their comparative advantage is to develop and implement such reform programs on the ground and in the long term, coupled with respective financial incentives.
    - Less/cheaper equipment and infrastructure; decreased O&M costs: Most PAs require infrastructure (tourism, water management, waste management, etc.), transportation vehicles and equipment. Once purchased these assets produce O&M costs. Demand for PA finance can thus be influenced at the point of purchasing vehicles or equipment and realizing new infrastructure. CTFs have a comparative advantage here as they typically better know the offer on domestic markets and requirements of end users, thus will be able to procure the assets and services more cost efficiently.
- Increase supply of PA finance
    - Increase transfers from public sources/budgets: Donor funded projects often focus on rationalizing planning on PA and PA system level in terms of management and related finance. As a result, responsible agencies are in a better position to claim increased transfers from public budgets to PAs. Such kind of

work is also supported by CTFs in some cases as the sections 3 and 4 showed (e.g., BTFECs support to establish Wangchuck Centennial Park). CTFs comparative advantage is that they typically exist over a longer time period whereas donor funded projects are operational for a limited number of years only. CTFs are thus in a position to systematically trigger increased budget transfers and co-finance these if necessary over a longer time period.

- Increase revenues from user charges, eco-taxes and PES: Donor funded projects are in a good position to support - via the provision of good international practice - work on designing new user charges, eco-taxes, PES and other economic instruments. However, donor projects will typically not be in a position to manage earmarked revenues from such sources. The ability to manage such earmarked revenues is clearly a comparative advantage of Conservation and Environment Funds. As has been argued in section 2, such a strategy is very much in line with fundamental policy principles and typically provides for more stable/predictable and higher revenues for conservation expenditure.
- Increase finance from private/commercial sources: Leveraging private and commercial sources of PA finance should always be considered an important measure to increase supply of PA finance and is also desirable in terms of decreasing subsidies over time, supporting a gradual move toward PPP and UPP application. CTFs have an important comparative advantage in leveraging private and commercial finance in several ways: They can require private and/or commercial project co-financing as a standard requirement for getting Fund support; they can react swiftly to changing market conditions by decreasing or increasing co-finance requirements; they can help develop commercial co-finance in the longer run and support a gradual transition to more marked based PA finance. In addition to these, CTFs are normally very well positioned to systematically provide financial support to projects that generate new revenue streams based on new/sustainable economic and livelihood alternatives.
- Increase finance from foreign/international sources: As the cases of several CTFs presented in section 4 shows (the Madagascar Biodiversity Fund being one of the most impressive examples), CTFs can attract, bundle and coordinate the allocation of endowment capital and sinking funds of a multitude of donors. Such donor cooperation is otherwise rather rare in development cooperation and is typically realized only to a much more limited extent in donor funded PA projects. Experienced, mature CTFs will also be able to deliver and implement PA project pipelines for financing from donor sources, act as PIUs or facilitate the flow of funds related to REDD and CDM.
- Transfer of 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 reallocating PA related revenues from one PA to another in a given PA system (e.g., on national or eco-region levels). This can be an interesting option in countries/regions which have well established “flagship” PAs generating larger amounts of revenues, while there are also PAs which have little revenues only. An important comparative advantage of CTFs can be to carry out such a redistributive function over the longer term. However, in practice none of the CTFs reviewed in section 4 seems to carry out such a function today.

The following additional comparative advantages of CTFs can be mentioned:

- CTFs are able to procure and support a great many of individual projects, including small scale projects. Donor funded projects are typically focusing on realizing a limited number of larger projects within one PA (system) support program.
- CTFs can be capable of implementing sophisticated project cycle management, consisting of procedures such as: project identification, project procurement, project appraisal, project selection, project contracting, project monitoring, project cash flow management, project completion and project evaluation. If these procedures are in line with good international practice (see table 1) they can be powerful tools to improve project quality, project results, transparence in allocating funds, accountability, cost efficiency in allocating funds and project co-finance.
- CTFs can be excellent tools to develop and widen the supplier base for PA related projects and services in a given country. This can be achieved gradually if CTFs systematically apply public tendering procedures for identifying new projects to be supported by the CTF. The existence of a well-functioning CTF may also be conditional for the emergence of specialized service companies, due to continued and guaranteed supply of finance over a longer period of time.
- CTFs can be excellent tools to systematically develop and improve project preparation capacities of potential project proponents. A well prepared project typically realizes better project results. The success of a CTF in this area is determined by the quality of the project cycle management procedures applied by the Fund.
- CTFs can be more flexible than fiscal or project budgets and can be able to respond flexibly to changing management needs or emergencies. They can facilitate a customized service to PAs while state structures tend to standardize and homogenize processes. In terms of timing of support, the case of Vizcaino/Mexico shows how a CTF can complement expenditure in months of shortage of state funding.
- CTFs professionalize PA finance organization and provision, complementing traditional skills and backgrounds found in the conservation sector. Such professionalization allows for an expansion of negotiation capacity with relevant public and private stakeholders and improved leveraging capacity/effectiveness for additional finance. Through minimum requirements included in CTFs' project cycle management procedures, CTFs may also spearhead better management practices in areas such as site-based financial planning & administration, eventually strengthening planning and management capacities of PA administrations in a sustainable manner.
- CTFs are also typically in compliance and fully supportive to international recommendations for aid effectiveness (ownership, alignment and harmonization).
- A key comparative advantage of CTFs is that they can make crucial contributions to the financial sustainability of PAs in the longer run. CTFs can be operational for a period of time which is limited by the specific purpose of the Fund only. Depending on the actual purpose of the Fund, such a time period can cover a long time period. Donor-funded projects, in turn, are typically limited in time and conclude after a few years, which can have detrimental effects on the financial sustainability of PAs supported.

Table 25: Comparison of key aspects of both the project approach and the Fund approach		
	Fund approach	**Project approach**
Favorable conditions	• Full or nearly full implementation of PPP and UPP is not possible due to market failures, institutional failures, political failures, public finance failures, policy failures, lack of management capacity. • Certain aspects/goals of environment/conservation policy cannot be implemented without subsidies • Subsidies are needed to demonstrate technologies and solutions before they can be mainstreamed using more market-based finance • Weak project preparation capacity of potential project proponents and associated need to develop/pool expertise	• Full or nearly full implementation of PPP and UPP is not possible due to market failures, institutional failures, political failures, public finance failures, policy failures, lack of management capacity. • Transfer of external (international) expertise provides for significant value added. • Transfer of foreign technology provides for significant value added and cannot be realized through market based mechanisms.
Restrictive conditions	• Full or nearly full implementation of PPP and UPP is possible, i.e. no subsidies needed for PA management; effective internalization of external costs of resource use and pollution possible; adequate environmental management & enforcement capacity and practice available; co-financing from capital and financial markets functional; sufficient private financing available; absence of public finance failures; sufficiently strong civil society pressure. • Already existing mechanisms cover the niche foreseen for a new Fund • Ministry of Finance may categorically block the creation of new EBFs	• Full or nearly full implementation of PPP and UPP is possible, i.e. no subsidies needed for PA management; effective internalization of external costs of resource use and pollution possible; adequate environmental management & enforcement capacity and practice available; co-financing from capital and financial markets functional; sufficient private financing available; absence of public finance failures; sufficiently strong civil society pressure. • Sufficient capacity available to develop and manage PAs, PA policy and PA finance according to good international practice
Main risks	• If designed inappropriately, a Fund may effectively counteract PPP and UPP implementation, for example when a Fund continues to provide subsidies for projects that could be financed with marked-based finance. • Fund may not comply with public finance principles • Inappropriate Fund governance • Inappropriate Fund management • Inappropriate spending strategies • Inappropriate project cycle management (procedures for procurement, appraisal, selection, contracting, implementation, completion, evaluation) • Inappropriate promotion/outreach policies • Corruption risk • Risk of misuse of funds • Applicable to endowment funds only: speculation; misappropriation of endowment funds; bad endowment management; insecurity in expenditure planning due to possibility of endowment investment losses • Competition with government for funding sources. • Generating capacities that might substitute national authority.	• Inappropriate project design • Inappropriate project governance • Inappropriate project management • Choice of wrong short/long term experts/advisors • Insufficient cost efficiency (e.g., when expensive international experts perform work that could be done by local experts; inappropriate levels of overheads; etc.) • Inappropriate promotion/outreach policies • Corruption risk • Risk of misuse of funds • Lack of flexibility (for example, to respond to changing project environment) • Generating capacities that might substitute national authority.

	Fund approach	Project approach
Advantages	• Contribute directly to longer-term financial sustainability of PAs by financing: – Equipment of PA administration, infrastructure in PAs, etc. – Community and business related projects in/around PAs, such as sustainable city/village development, waste and water management, pollution mitigation/prevention, sustainable livelihood projects, sustainable resource use projects, sustainable tourism projects, etc. – Specific conservation and species protection programs, as well as related research, promotion and education • May increase the effect of available scare sources by vigorously applying cost efficiency criteria in project appraisal/selection procedures • If designed/implemented properly, can be indispensable to advance PPP/UPP • Local ownership/integration of a subsidy scheme; realizing additional benefits (social, political, economic) due to knowledge of local realities • Managing a large number of small projects; widening supplier/expert base • International recognition of supported PAs and political appropriation • Capable to bear the long-term costs of conserving unique, un-restorable values (like endemic biodiversity). • Capable to stabilize the supply of PA finance; allow for predictability of supply; allow for longer term expenditure planning of larger projects • Capable to continuously and systematically leverage additional finance from various sources (project owners, commercial banks and insurers, leasing companies, national/regional/local government budgets, foreign sources) • Capable to provide a variety of financial products tailored to changing needs: grants, soft loans, credit interest subsidies, equity capital, preferential leasing • Capable to co-finance and coordinate international assistance, act as PIU for international assistance or facilitate resources generated through REDD/CDM • May be more/faster responsive to national policy requirements and emergencies (as compared to donor projects) • Capable to continuously feedback relevant information to policy makers, thus providing information base to continuously improve PA related policies	• Contribute to enabling and facilitating longer-term financial sustainability of PAs through measures such as: – On the international level: realize international revenue sources to PAs and Conservation/Environmental Funds; systematically/regularly evaluate Conservation/Environmental Funds; facilitate training of and experience change among Conservation/Environmental Funds and PAs; research on and promotion of Conservation/Environmental Funds and PAs; facilitate information exchange; etc. – On the national level: creation or evaluation of resource use and eco-taxes and charges, biodiversity offsets, PES; creation or evaluation of Environment / Conservation Funds; mainstreaming biodiversity and nature protection into MTEFs and other public budgeting and finance procedures and related capacity development; elaboration of PA system wide financing strategies – On the level of PAs: capacity development focused on improving financial management and revenue generation from local sources (economic users of PA resources, sale of PA merchandise, etc.) • Provide for, with high probability, tangible and relevant results • Provide for tailored solutions to the application of good international practice on a comprehensive scale in areas such as development of policy and legislation, development of PA (system) financing strategies, PA (system) management, patrolling and enforcement activities, education & research • Able to purchase expensive/foreign equipment, develop expensive/complex infrastructure and address expensive/complex restoration
Disadvantages	• Funds tend to be difficult to remove once their purpose has been achieved and once the Fund has not sufficient value added anymore • Specific to endowment funds: Capitalization is very expensive and capital management risky; returns from endowment are nor predictable and may even be negative	• Project interventions are typically limited and fixed in duration. • Sometimes large amounts need to be spent quickly which is not always possible to do well • The absorptive capacity of beneficiaries may not be compatible with the timescale of donors agendas

6. Recommendations

Recommendations for existing CTFs

- OECD Council Recommendation C(2006)84 on "Good Practices for Public Environmental Expenditure Management" may be used as a benchmark to further improve CTFs operations (see table 1). If necessary, request international assistance to close gaps.
- Consider the additional use of financing instruments other than grants, e.g., soft loans, credit interest subsidies, provision of equity capital for start-up companies, etc. Continuously screen for investment emerging opportunities allowing for the application of such advanced financing instruments. Note that some of these financing products allow for the eventual recovery of the investment (soft loans, equity capital), some for leveraging additional finance (interest subsidies, equity capital).
- Develop and apply a standardized methodologies and procedures to measure CTFs impact on biodiversity conservation, cost efficiency and management effectiveness.
- Based the operational practice in existing CTFs, develop standardized templates for key project cycle management procedures, including for example: eligibility criteria; project identification procedures; project appraisal and selection criteria & procedures for different types of PA projects; contracting procedures; project implementation & monitoring procedures; project completion & evaluation procedures.

Recommendations for establishing new Conservation/Environment Funds or CTFs

- The Funds' niche, objectives and expected operations should be very carefully assessed, defined and elaborated, including in the context of the UPP, PPP and OECD Council Recommendation C(2006)84 and including detailed cost benefit analysis, taking into account political, legal and governance issues in a given country.
- While determining the Fund's niche and objectives, take into account the results of PA system financing strategies if available (see discussion of figure 4).
- If possible give preference to models that are managed locally or design CTFs such that they can be eventually be managed locally.

Recommendations for new/existing donor-funded PA projects

- If possible carry out PA system financing strategies (see discussion of figure 4) and allow for adaption of the project activities based on the results of the financing strategy.
- If no CTF exists in the country of operation, carry out a feasibility study for a new CTF taking into account above recommendations for establishing new Funds. Help establish the Fund if the feasibility was positive.
- If possible assist responsible government agencies in the creation or evaluation of PA related economic instruments, including resource use and eco- taxes/charges, biodiversity offsets, PES, etc.

- If appropriate, carry out evaluations of existing CTFs and share results locally and internationally.
- Support the mainstreaming of biodiversity and nature protection into MTEFs and other public budgeting and finance procedures and provide related capacity development.
- If possible, assist PAs with capacity development focused on improving financial management at PA level and revenue generation from local sources (economic users of PA resources, sale of PA merchandise, etc.), cost efficiency/savings measures, etc.

Recommendations for international organizations and donor funded projects on international level:

- Rather than creating a specific and dedicated endowment for each new CTF, interested donors and IFIs may want to consider establishing a global endowment/investment Fund the returns of which would be provided to CTFs satisfying minimum requirements and offering good projects (e.g., cost efficient projects with a high conservation/biodiversity impact).
- New and innovative revenue sources to PAs and PA systems in Africa and Latin America should be developed and effected, especially sources that address the current large inequities in the distribution of conservation costs and benefits, whereas the greatest contribution to meeting the currently unmet costs should come from the global community, followed by national and then local stakeholders. For example, one area that could be looked into is the establishment of cooperation with selected/interested commercial banks located in OECD countries: a number of banks may be willing to develop private or institutional investment products/funds from which a small percentage of the returns would be provided to CTFs satisfying minimum requirements and offering good projects. The demand for such investment products may be large and trigger the development of similar products of other banks.
- Systematically/regularly evaluate CTFs, initially using OECD Council Recommendation C(2006)84 on “Good Practices for Public Environmental Expenditure Management” as a benchmark. Over time, a new, dedicated set of good international practice for managing CTFs may be developed as a result of such evaluations. CTFs would gradually consolidate and strengthen their operations based on the evaluations.
- Address information gaps and standardize methodologies to assess and evaluate financial gaps. Support capacity building targeted to national authorities to create a conservation finance culture: This may also include the strengthening of state counterparts to CTFs by creating conservation finance units or special task forces.
- Continue to facilitate training of and experience exchange among CTFs and finance practitioners at PAs. Extend such services to the Asia-Pacific region.

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Annex 1: Project Terms of Reference

Comparative advantages of Conservation Trust Funds (CTF) and Project Approach to support Protected Areas Systems

19 December 2011

1. Context

In May 2008, the **Conservation Finance Alliance** (CFA) Working Group on Environmental Funds published the "*Rapid Review on Conservation Trust Funds*". The purpose of this work was to conduct a review of funds' experiences to date. Its overall objective was to highlight specific aspects of fund experience that would offer information on the creation, operation and evaluation of funds, while enabling donors to better assess the rationale for further investments in these institutions. The Rapid Review was careful not to replicate the comprehensive "*Evaluation of Experience with Conservation Trust Funds*" published by the GEF in 1998. Also in 2008, the CFA started to publish an annual "*Conservation Trust Fund Investment Survey*" which argued for environmental funds as efficient and sustainable mechanisms for financing biodiversity conservation, with average positive returns over the past five years, despite the 2008 financial crisis. In spite of the favourable results evidenced by the CFA studies and the growing number of countries establishing new CTFs, several facts demonstrate that there are difficulties for donors and governments alike regarding decisions to support and finance the creation and development of such funds. One fundamental question not addressed in the Rapid Review or Investment Surveys is repeatedly and insistently asked: **"Why should significant amounts of scarce and expensive resources be committed in the capitalization of a CTF, with small returns over the long term, while more immediate and visible results could be achieved with immediate and direct investments on biodiversity conservation in the form of short-term projects?"**

- Local authorities in beneficiary countries (officials of Ministry of Environment or Finance, National Protected Area System Agencies, among others) do not see the comparative advantages of CTF financing versus a project approach to support Protected Areas Systems. This question arose, for example, in recent discussions concerning the creation of CTFs in Guinea Bissau, Mauritania, Mozambique, and Ivory Coast. The Latin American experience demonstrates that a large share of the most established CTFs has been contributed by Nature/Debt Swaps, giving the opportunity for the above question to be raised when countries negotiate allocation of resources resulting from debt swap operations. In the meantime, some administrations in charge of protected areas systems seem to feel that a CTF could be a threat to their "business model" as it could divert "traditional project" oriented Overseas Development Aid (ODA) funding to a new system or model from which they would get less and have more to account for.
- The number of international donor agencies investing in CTF does not seem to grow (at least considering Europe and European countries). So far the European Commission EDF is not investing in CTFs. The same applies to several regional development banks regarding their use of grant resources (African Development Bank, Asian Development Bank, etc.). Also, several other donors that actively invest in biodiversity conservation and protected area systems also seem reluctant to invest in CTFs (Japan, Netherland and northern European countries, Spain,

United Kingdom, etc.). Most of the ODA resources for PA systems are invested in "traditional project funding" and donors do not seem convinced of the comparative advantages of a CTF funding model and of the complementarities Funds could offer to that more traditional funding approach.

- In the recent Nagoya CBD COP 10, the broader debate (not to say opposition) on the risks with Innovative Financing Mechanisms (IFM) for biodiversity had some indirect effects upon the priority for CTF development. With CTFs considered as IFM, and IFM being in debate and not clearly considered as a priority, there's less momentum to increase the level of investment in such mechanisms, while there are claims to increase ODA investment in traditional type of projects[2]. If the political agenda driving part of this debate is not put back on rational and technical terms, CTF development will be taken hostage.

On the other hand, the efficiency of the "traditional project approach" to support Protected Areas Systems is either praised or criticized, but rarely questioned on its comparative advantage in relation to other financing tools. A "traditional project approach" is considered here as a financial intervention of several millions of USD/EUR programmed for a relatively short period (3 to 5 years) and designed to invest in Protected Area Systems (soft and hard financing) while generally avoiding payment or financing for operational and recurrent costs.

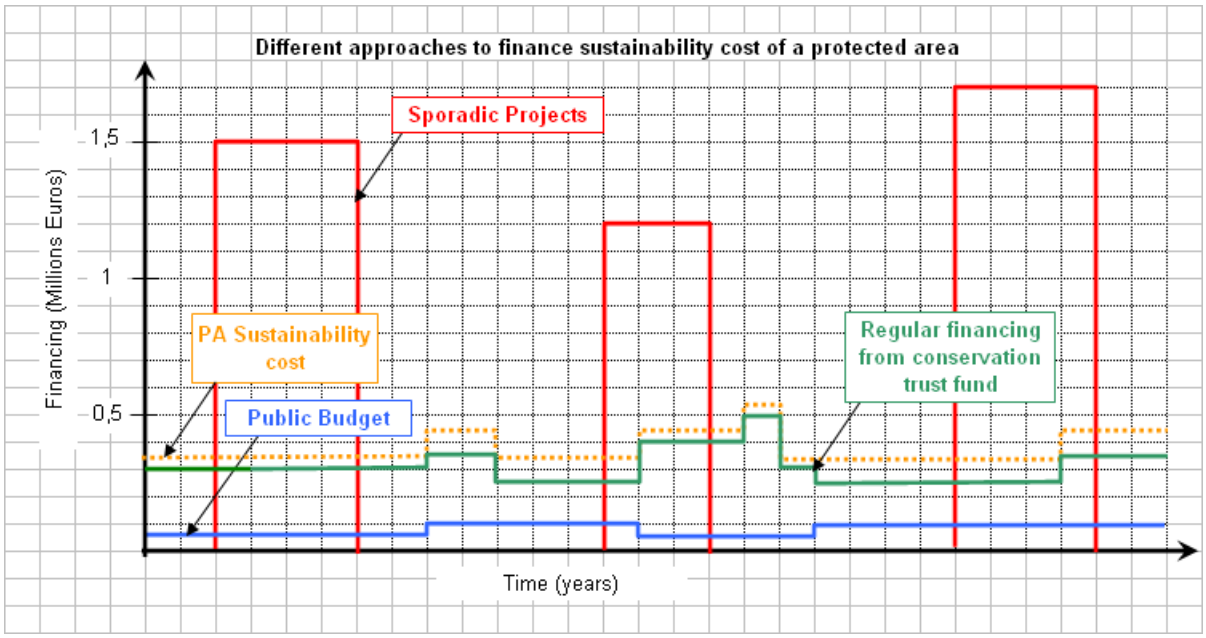
- Scientific articles on the subject[3], evaluations[4] and available data[5], although sporadic, seem to show that each 1 €/ ha invested over the long term to pay for Protected Area operational costs can be as (or more) effective than a "traditional project" investment of several millions over 3 to 5 years to secure Protected Area sustainability. On the opposite side, it appears that "traditional projects" can be either as or more efficient in establishing or rehabilitating a protected area than a small amount of money over the long term coming from an endowment fund.
- Experienced conservationists know of plenty examples of protected areas which where successively financed by different donors following a usual cycle of rehabilitate / abandon / rehabilitate / abandon The scheme below tries to illustrate the question of the complementarities of different approaches: public financing, sporadic project funding, and regular financing from conservation trust funds.

[2] One can add that the new CBD objectives to increase % of Terrestrial and Marine Protected Area surfaces, also give some argument to continue traditional "projects".

[3] For example the article (thanks to Melissa Moye): "Development and conservation goals in world bank projects" Peter Kareiva, Amy Chang, Michelle Marvier (2008) in Science Vol 321.

[4] Donors implement but rarely share their own ex post of final evaluations within a concerted effort to analyse over the long term the impact of successive investments in one place.

[5] From compilation of protected areas business plan data for example.



- The growing number of financial gap analyses of protected area systems demonstrate that, after several decades of "traditional project" support (and a national increases in the areas under protected area status), neither the national budgets nor protected areas revenue systems are not sufficient to finance the overall PA system sustainability.

2. Objective

The purpose of the proposed review is to compare the advantages and the disadvantages of financing through a long-term, CTF mechanism versus a project-finance approach to support Protected Areas Systems, as well as to put in evidence the conditions that determine the decision of both investment options

It is also designed to explore if different financial mechanisms are or can be complementary to each other, or, if they are solely adapted to answer to specific issues/purposes related to biodiversity conservation. Furthermore, the comparison between CTF financing and a "traditional project approach" should consider the usefulness for each phase of PA investment: creation, consolidation and operation. This study must consider indirect effects of the Protected Areas investment as the efficiency gains generated by the creation of human and social capital and compare the transaction costs of those initiatives. Further more the study also can determine in each example the existence of "financial synergies and consequences" generated in both approaches and evaluate the incremental costs and opportunities of those synergies. Finally the study must try to identify the adequacy between the funding offer and the PA demand.

Audiences to whom the review should be addressed include:

- Developing and developed countries decision makers in biodiversity financing
- Donor institutions (including private sector),
- Civil society,
- Managers of protected areas,
- Researchers.

3. Content

The study should address the hybrid nature of CTFs today, which accommodates endowments, sinking, heritage, matching funds and trusts, giving even more complexity to the proposed comparison.
The proposed comparison raises complex conceptual and methodological questions. One of them being that the comparison of different protected areas in different historical and socio-economical contexts, and also projects with a very different time line, limits the comparability of data collected as well as the scope of expected study outcomes.
The review should take stock, as far as possible, of case studies, particularly from Africa, where there is registry of different project approaches and of a few older CTFs. The same applies to Latin American cases, because of the more extensive experiences with both types of financing mechanisms.
The examples selected (cases) should be detailed including a brief description of the investment made (funding source and if possible the criteria for the resource allocation – geographical location, amount, duration, etc.) and the monitoring process of the example (success indicators). The consultants should use the available data of each example to build comparable indicators among cases.
In each example used in the study, mention should be made of any other considerable investments (besides the project or the investment made through the CTF) to a specific Protected Area or to the Protected Area system, and how these other investments may have influenced the result.
In each example used in the study, mention should be made, if possible, of the administrative costs involved in the transactions and these costs should be related to the results obtained, in a way that the costs are not analyzed in an isolated way (cost-effectiveness).
Several levels of review may be possible, depending on the partnerships and funding gathered and made available for the exercise.
3.1. Review should cover donor and academic literature about the subject.

- Data from PA Business Plans documenting different aspects of PA operational costs should be gathered, informing what they represent and pointing out eventual differences between these and usual allocation in "traditional project" type of funding (using "Project Documents" of existing or past assistance to Protected Area systems or sites).
- The literature about the assessment of Protected Areas Management Effectiveness should be reviewed in search of concepts about the life cycle of protected areas. This should cover concepts associated with PA development phases, making distinction between creation, strengthening, consolidation and financial autonomy (segmented between those that allow public use and those that don't allow it). Focus should also be given to comparative needs of financial assistance for the different phases of a PA development system (investment / recurrent costs). The review should assess evaluations on the adequacy of different financial tool (CTF / project) for each specific phase of the Protected Area establishment (creation/strengthening/ autonomy acquisition).
- Data analysis on country level PA system's financial gaps, co-financing and donor project investment should be compiled and processed. Ideally, a sample analysis of a Protected Area within one country (or more) should be collected as a show case.
- A sample of "traditional project" final evaluation from donors willing to share their internal documentation should be reviewed, focusing on amount invested in the PA, governance status, impacts, sustainability etc. That should be compared to a sample of protected area supported by CTF.
- Global examples of successive cycle of "rehabilitate / abandon / rehabilitate / abandon" of PA through project approach should be documented as to allow for comparison to situations in

countries where CTFs operate; (Here attention should be given to country selection criteria, both to diversify and achieve representativeness of the sample.)

3.2. The Review should collect data on financing country level PA systems from interested and participating CTFs.

- Moreover, it should also compile data from CTF PA financing experience aiming at documenting the costs categories covered (investment, research, infrastructure, operational costs, etc).
- It should include a survey among interested CTF on experiences with PA financing (amounts invested in PA or PA systems, governance schemes, impact indicators, long term sustainability, etc.)
- It should evaluate the difference made by the value financed by CTF on PA sustainability in order to test the assumption that if CTFs provide less than 5 to 10 % of PA recurrent costs there is no difference in PA sustainability. On the other hand, if a "meaningful %" of this sustainability cost is reached, then long term sustainability may be achieved.
- It should test the agility of CTF's financing delivery mechanisms, assuming that CTF response capacity to increasing climate change adaptation issues, faster pace of ecosystem deterioration and species extinction due to unplanned emergencies (fire, hurricane, drought, human migrations etc.) can make a difference when compared to traditional cycle of project approach. Compiling cases examples of such rapid response would be needed to assess this assumption.
- Assess CTF financing predictability, consistency, flexibility compared to the project approach.
- Assess CTF financing risks compared to the project approach.
- Assess CTF financing capacity to adapt to the PA absorptive capacity compared to a project approach.
- Gather any studies comparing biodiversity status within sites financed with and without some CTF support (with or without project support). One study of this type was executed for the ARPA initiative.

3.3. Implement a socio-economic and historical study of a sample of protected areas to assess comparative advantages financing via a CTF and project approach (could be with in country missions if sufficient financing).

- a sample of protected areas supported only with a project approach;
- a sample of other protected areas supported by experienced CTFs (operating at least since 2005) possibly after several years of "traditional project approach" support;
- list good practices from each approach;
- select and describe 2 or 3 benchmarks for each approach.

3.4 Produce a final comparative analysis highlighting the conditions, advantages and disadvantages of each approach, including a table that summarizes the main conclusions. A suggestion for the table format could be:

	CTF	Project approach

Favorable conditions		
Restricting conditions		
Advantages		
Disadvantages		
Main risks		

The study should conclude spelling out the conditions that influence the decision of investing through one or the other approach, in particular as these refer to:

- macro aspects, such as political environment and economic situation of the country that will receive the investment.
- institutional aspects, such as institutional arrangement, financial scheme, credibility and existing management capacity.
- investment aspects, such as scale, duration, scope and source of funding.

4. Action Plan

This study will require extensive bibliographic research and also a detailed search on evaluations of CTFs, done both internally and by donors, as well as tracking reports on the assessment of PA management effectiveness, projects reports, financial gaps and financing priorities, among other documents.

To achieve the study's goals and needs, the team should comprise **two consultants**. The proposed scheme follows:

1. Leading **Consultant** for tracking down and compiling the bibliographic information and for general analysis and writing
2. Assistant **consultant** for editing the document into an articulate and convincing report

The consulting team needs to be able to work (commonly or complementary) in English, Spanish and French. The report has to be delivered in English.

A **Peer Review Committee** will be set up to support and lead this effort, providing overall guidance and reviewing the draft and final versions of the product.

The Peer Review Committee should be broad enough to bring in critical expertise to produce an independent but deeply informed study. This committee may include one representative of the CTFs community (possibly from the EFs Network in LAC – RedLAC, for example), one expert in Protected Areas (possibly from the IUCN group, for example), academic experts in biodiversity, and public policy experts.

This review results should be presented for discussion during several events in 2012:

- if possible, Rio+20 United Nations Conference on Sustainable Development, in Rio de Janeiro, Brazil, at end of June, 2012;
- IUCN World Conservation Congress, 6 to 15 September 2012 in Jeju, Republic of Korea;
- The 11th meeting of the Conference of the Parties (COP 11) to the Convention on Biological Diversity (CBD) in Hyderabad (Andhra Pradesh), India, 8-19 October 2012.

The review planning should be as follow:

- Call for proposals 19 December 2011

- Receipt of offers no later than 15 January 2012
- Selection and contracting : end January /February 2012.
- Commencement of work : February 2012.
- Draft report : by mid may 2012
- Final report : by early June 2012.

Exact dates to be confirmed with the consultants.

5. Existing bibliographic resources and contacts

5.1. Bibliographic resources

- FFEM: Contact - J.CALAS – calasj@afd.fr

  - "Pendjari national park project in Benin" Post-evaluation of previous FFEM project
  - Benin PA system Financial gap analysis / Business plan
  - Taï national park in Ivory Coast Financial gap analysis / Business plan
  - Arly national park in Burkina Faso financial gap analysis / Business plan
  - Guinea Bissau PA system financial gap analysis
  - Draft business plans of one Community based Marine Protected Area in Senegal (Bamboung) and one in Guinea Bissau (Urok)
  - West African PA system management effectiveness assessment + working paper on lessons learnt from West African PA systems management effectiveness in the last decade.
  - Mexico PA system financial gap analysis (draft)

- FUNBIO : Contact - Camila Monteiro – camila.monteiro@funbio.org.br

  - Comparing biodiversity status within sites financed with and without some CTF in ARPA initiative.

- FIBA: contact S. Goyet goyet@lafiba.org

  - BACOMAB (Mauritania CTF) draft business plan
  - PNBA (Mauritania key PA) business plan and management plan 2011-2015
  - PNBA: evaluation of previous management plan 2006-2010; final evaluation of RARES project (one of the key projects of PNBA)

5.2. List of other contact who expressed interest to share information about this study:

- Onno Huyser – Table Mountain Fund (South Africa) - ohuyser@wwf.org.za
- Dr. Fanny N'Golo – Fondation pour les Parcs et reserves de Cote d'Ivoire (about the financing of the Ivory Coast PA system and the role of the foundation) - fondationparc@africaonline.co.ci
- Ray Victurine – WCS (USA) – rvicturine@wcs.org
- Melissa Moye – WWF US (USA) - Melissa.Moye@WWFUS.ORG
- Pedro Leitão – Funbio (Brasil) - Pedro.wleitao@gmail.com
- Manoel Serrão (Funbio) – manoel@funbio.org.br
- Lorenzo José Rosenzweig Pasquel – lorenzo@fmcn.org
- Renata L Weiss (Semeia) – renata@semeia.org.br
- Guilherme Passos (Semeia) – guilhermepassos@animainvestimentos.com.br

6. Ethics[6]

[6] DAC Evaluation Network /OECD : Evaluation Quality Standards

Independence of evaluators vis-à-vis stakeholders: the evaluation report indicates the degree of independence of the evaluators from the policy, operations and management function of the commissioning agent, implementers and beneficiaries. Possible conflicts of interest are addressed openly and honestly.

Evaluation conducted in a professional and ethical manner: the evaluation process shows sensitivity to gender, beliefs, manners and customs of all stakeholders and is undertaken with integrity and honesty. The rights and welfare of participants in the evaluation are protected. Anonymity and confidentiality of individual informants should be protected when requested and/or as required by law.

Acknowledgement of disagreements within the evaluation team
Evaluation team members should have the opportunity to disassociate themselves from particular judgements and recommendations. Any unresolved differences of opinion within the team should be acknowledged in the report.

7. Reporting requirements and deliverables

A first draft of report will be submitted within the 12 week(s) after the starting date. This report will be sent to the address below in an electronic version (Word and PDF).

E-mail address: goyet@lafiba.org

This report will be examined according to the quality standards for evaluation provided in appendix of these terms of reference. The eventual observations, remarks and comments will be transmitted to the evaluation team **within 2 weeks** after reception of the draft report.

The final report will be delivered by the consultant **within 2 weeks** following the reception of the observations on the draft report.

A **powerpoint presentation** (5-8 slides) summarizing main evaluation results and findings will be enclosed together with the draft and final reports.

The reports will enclose the following mention: “This evaluation is supported by the French Global Environment Facility (FFEM), the Fondation Internationale du Banc d’Arguin (FIBA), Instituto Semeia and The Linden Trust for Conservation, which reserve all the rights relative to its diffusion and the intellectual property of the documents and the iconography produced”.

8. Content of tender

The tender must comprise of a Technical and a financial offer and these must be submitted in separate emails.

Technical offer

- Comprehension of terms of reference (*2 pages*).
- Methodology and organization to be drawn up by the tenderer, including time schedule for the mission (*3-5 pages*).
- Presentation of the consulting firm (1 to *3 pages*).
- Composition of the team, distribution of the responsibilities between the experts, and CV of the experts.

Financial offer

The financial offer should be presented as follows:

Tasks	Estimated effort	Unity	Unit Cost Euros	Total Cost Euros
Task 1 - Review donor and scientific literature	3	Weeks	xxx	xxx
Task 2 - Review data from interested and participating CTF financing PA systems	3,5	Weeks	xxx	xxx
Task 3 – Synthesize comparative advantages of CTF and project approaches	2	Weeks	xxx	xxx
Task 4 – Synthesize comparative advantages of CTF and project approaches	2	Weeks	xxx	xxx
Miscellaneous consultants' expenses		Lump sum	xxx	xxx
TOTAL	10,5			**xxxx**

9. Submission of tender

The tenders will be sent in electronic format **before 15 January 2012 6pm Paris time** to the following addresses:

Sylvie Goyet goyet@lafiba.org and copied to Fernanda Barbosa fernanda.barbosa@funbio.org.br.

10. Evaluation of tenders

Technical offers will be evaluated in accordance with the ToR provisions and the following award criteria:

Comprehension of ToR *20 points*
Context
Objectives
Issues
Other elements

Methodology (general coherence and justification) *20 points*

Qualification of experts *60 points*
Experience in the relevant professional field
Competence regarding evaluation of public policies
Experience in the countries or regions and the study focus along with language capabilities
References of the consulting firm

Every offer meeting the requirements will receive a technical score (*St*). An offer will be rejected at this stage if it does not satisfy important aspects of the Terms of Reference, or does not reach the minimum technical score of 75 / 100 points.

The application with the lowest offer (*Fm*) will receive a financial score (*Sf*) of 100 points. The financial scores (*Sf*) of the other financial proposals will be calculated as follow:

$$Sf = 100 \times Fm/F$$

Sf being the financial score, Fm the application with the lowest offer and F the price of the considered offer.
The offers will be then sorted according to their technical score (*St*) and financial (*Sf*) combined after introduction of weightings (*T = 0,7* being the weight given to the technical offer and *P =0,3 the* weight granted to the financial offer), according to the formula:

$$S = St \times T + Sf \times P$$