

Practice guidance for protected and conserved area finance

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Practice guidance for protected and conserved area finance



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Foreword

Protected and conserved areas (PCAs) are essential for the health, wellbeing, and prosperity of all life on Earth. Investments in PCA expansion and effective sustainable management provides economic, social and spiritual returns far exceeding most alternative uses of capital. Together with an effective government led enabling environment, it has been estimated that somewhere around US\$140 billion is needed annually to effectively manage 30% of the land, fresh water, and ocean ecosystems planned under Target 3 (30x30) of the Global Biodiversity Framework. This relatively small amount of annual investment – roughly 0.14% of global GDP – seems like a bargain price for healthy seas, functional watersheds, pollination, flood control, and nature's contribution to climate regulation. This low cost is made possible by the regenerative nature of nature itself – healthy ecosystems are self-sustaining – our greatest challenge as a global community is learning to allow nature to prosper on its own.

The increasing recognition of the value of protected and conserved areas coincides with the recognition of how effective Indigenous peoples and local communities can be at managing natural ecosystems when provided with clear rights, responsibilities, and funding. Effective and sustainable management can only be achieved when PCAs are fully integrated into a landscape and seascape approach supported by government and governance structures at all levels through a whole of society approach. Predictable, well managed and appropriate levels of funding is essential for effective PCA management.

This Good Practice guidance for protected and conserved area finance comes at a crucial time in the implementation of the Global Biodiversity Framework and will support conservation practitioners and our partners at diverse scales. The comprehensive material includes resources for public, private, and civil society actors to understand and integrate the most effective finance solutions into their conservation strategies, plans and actions.

My hope is that these guidelines will advance protected and conserved area finance tangibly across countries, and help realise ambitious global biodiversity targets at national scales.

Madhy Rai



Madhu Rao Chair, IUCN World Commission on Protected Areas

Prologue and principles

Preface

Protected and conserved areas (PCAs) have become essential means by which species, habitats and ecosystems can be maintained, restored and sustainably utilised for the innumerable values they provide to humanity and the rest of life on Earth (Pulido-Chadid, Virtanen & Geldmann, 2023). In a period of expanding pressures on nature in general and protected and conserved areas in particular, it is essential that PCAs achieve their conservation outcomes. At the same time, it is important to engage more broadly in discussions that take nature conservation outside of PCAs as part of integrated landscape and seascapes.

By 'protected and conserved areas' this Guide refers to the diversity of area-based conservation approaches, including traditional protected areas, privately protected areas, what are referred to as 'other effective area-based conservation measures' (OECMs), Indigenous lands being managed for conservation outcomes, and other approaches for area-based land, water and marine conservation. This Practice Guidance for Protected and Conserved Area Finance (the 'Guide') includes any spatially focused conservation efforts and does not cover ex-situ conservation actions nor focus on nature restoration efforts per se. This Guide seeks to provide diverse actors – systems and site designers, managers and partners – with a deep understanding of how the tools of finance for nature (conservation finance) can be used most effectively to achieve conservation outcomes (see Box 0.2).

Recognising the importance of nature, 196 countries adopted the Kunming-Montreal Global Biodiversity Framework (GBF) of the Convention on Biological Diversity (CBD) in 2022, which provides the overarching framework for global biodiversity conservation efforts, including 23 targets for 2030 and four goals for 2050. The key GBF target for this good practice guidance is Target 3: Conserve 30% of Land, Waters and Seas.

"Ensure and enable that by 2030 at least 30 percent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognising indigenous and traditional territories where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognising and respecting the rights of indigenous peoples and local communities, including over their traditional territories" (CBD, 2022, p. 9, see Box 0.1).

Other key targets for PCA finance include Target 18 to reduce incentives, including subsidies, harmful to biodiversity by at least US\$ 500 billion per year by 2030 and Target 19 to mobilise at least US\$ 200 billion per year for biodiversity by 2030 (CBD, 2022).

Box 0.1

Indigenous peoples are distinct from local communities

The term Indigenous peoples and local communities (IP&LC or IPLC) has been widely used in the environmental and development space (Tugendhat et al., 2023). However, Indigenous peoples are distinct from local communities both under international law and in the challenges they face. Several Indigenous peoples (IPs) and IP coalitions have expressed concerns that the grouping of Indigenous peoples with local communities, particularly in international conventions, may undermine the rights of Indigenous peoples (A/HRC/48/75; E/2023/43, United Nations Human Rights Council, 2021;

United Nations Permanent Forum on Indigenous Issues, 2023). Finally, there is an expressed need for guidance and information resources on finance mechanisms for Indigenous peoples (IIPFCC, 2022; Road Map on Advancing Rights and Equity in the Implementation of Conservation, 2024). Therefore, this Guide seeks to uphold the distinction between Indigenous peoples and local communities, although some statistics and references will include the term 'Indigenous peoples and local communities' or acronyms 'IP&LC' and 'IPLC' due to the original source material.

In addition to the Targets, the GBF, "acknowledges the important roles and contributions of Indigenous peoples and local communities as custodians of biodiversity and as partners in its conservation, restoration and sustainable use" (CBD, 2022, p. 5). Parties must ensure, "that the rights, knowledge,... innovations, worldviews, values and practices of Indigenous peoples and local communities are respected... including through their full and effective participation in decision-making, in accordance with relevant national legislation, international instruments, ... and human rights law" (CBD, 2022, p. 5).

Acknowledging the impressive global commitments made in the GBF, there remain significant challenges to achieving its ambitious targets and goals. Central among outstanding concerns for Target 3 are substantial unmet financial needs for PCA expansion and effective management. This Guide seeks to address this challenge and will show how increased funding is only part of the necessary set of actions and finance solutions required to achieve priority conservation outcomes. For example, reducing investment in actions that cause harm is an important component. Recent reports have shown that direct private and public funding for actions that harm nature are hundreds of times greater than the funding going towards nature conservation (United Nations Environment Programme [UNEP], 2023). Even expanding funding for PCAs by a factor of five (a rough estimate of the additional funding needs (Deutz et al., 2020)) will be insufficient to counter the expanding threats and funding for nature harmful activities.

Most practitioners consider inadequate funding to be one of the main barriers to achieving successful PCA establishment and effective management. This Good Practice Guidance will lead practitioners far beyond questions of how to raise money – 'funding' in our terminology. The guidance follows the Conservation Finance Alliance's definition of conservation finance that includes, "mechanisms and strategies that generate, manage, and deploy financial resources and align incentives to achieve nature conservation outcomes" (Meyers et al., 2020, p. 4). To achieve conservation at scale, we must harness the full breadth and power of conservation finance, as implied in the definition, rather than just increase funding. Practitioners must become skilled at integrating the complex economic, social and ecological systems in which PCAs are embedded. Conservation finance solutions, along with conservation in general, must consider and integrate the needs and perspectives of Indigenous peoples, local communities, private actors, governments, and other key stakeholders.

Yucatan Peninsula, Mexico © Charles Besancon



General principles for protected and conserved area finance

Nature conservation is interwoven into almost all economic sectors and societal structures. This Guide has sought to establish a set of overarching principles to orient both the reader and the document itself. The following principles are stated up front and should be considered throughout the reading of this Guide. It is recommended that these principles be considered during the design and implementation of all finance solutions for PCAs. These principles, in essence, demonstrate the underlying values and convictions with which we can successfully choose, design and implement financing mechanisms for PCAs.

- 1. Diverse values: Acknowledge and respect the diverse values of nature. There is a diversity of worldviews regarding the value of nature and ecosystem services. While finance solutions can capture or respond to some of these values and transform them into resources for management, protection and restoration, no monetary or economic approach will encompass the entirety of nature's values. By acknowledging and respecting the broadest understanding of nature's values, we can better enable stakeholders to engage with and benefit from conservation finance mechanisms. One risk of bringing finance tools into conservation is that the perceived values associated with monetary flows may outweigh other values in decision-making processes; thus, undermining conservation outcomes. Active listening and inquiry on different perspectives of nature's values during consultative and design processes, documenting these values during implementation phases, and including these values as part of any incentive system can support the blending of diverse perspectives on value and increase a mechanism's impact and durability.
- 2. Rights-based: Utilise a rights-based approach in the design and implementation of conservation finance. A rights-based approach seeks to ensure fairness and equity for all rightsholders, enhances the durability of conservation finance solutions, and aligns finance solutions with the GBF. Indigenous peoples manage or have tenure rights to at least 38 million square kilometres (28.1% of land area) and 37% of the remaining natural lands worldwide (Garnett et al., 2018). All finance solution planning should start by considering how to recognise, respect and support the rights of Indigenous peoples and other nature stewards, local communities, key stakeholders, and nature itself. With inspiration from GBF Target 22, practitioners should ensure the full, equitable, inclusive, effective and gender-responsive representation and participation in decisions related to PCA financing. This includes ensuring local access to justice and information.
- 3. Good governance: Design and implement good governance structures, including accountability and transparency, for successful finance solutions. There is an enormous diversity of finance mechanisms, including many that involve extensive private sector engagement. Although private transactions may require a degree of confidentiality, most conservation finance solutions involve shared resources and multiple stakeholders, and thus require a high degree of transparency to assure respect for the principles of fairness and equity. Good governance and practice standards should be followed in the design and implementation of finance solutions and even contracts with private actors such as concessions should be based on open competitive bidding, and a transparent contracting process. These types of good governance approaches minimise the risk of corruption and mismanagement. One key element across all revenue-based solutions is a strong regulatory environment including effective enforcement of laws. The potential environmental, economic and social gains from aligning public, private and civil society interests towards sustainable landscapes including PCAs are enormous and justify the significant efforts required to establish and enforce science-based management and regulatory environments. Strong governance also supports social and environmental responsibility, due process and the rule of law. One key element of good governance is to follow the process for free, prior and informed consent (FPIC) when designing and implementing financing solutions (CBD, 2022, Section J).
- 4. Strong institutions: Build capacity and long-term effectiveness through strong and diverse institutions. A large number of finance solutions require robust, capacitated and effective institutions to succeed. Institutions form the framework and implementation infrastructure for PCA finance and effective management. Capacity development is necessary for the success and continuous improvement of all organisations and especially for the design and implementation of new finance solutions for PCAs. A large part of building a diversified, adequate, long-term portfolio is institutional. It is essential that the institutions that raise, manage and deploy capital and are responsible for ensuring alignment of the long-term interests of the diverse stakeholders are well-governed, financially stable, and well-managed for the finance solutions themselves to succeed.

- 5. Systems approach: Utilise a systems-based approach for PCA finance solutions. A systems approach, also known as 'systems thinking' (Mahajan et al., 2019), is essential to integrating the complex social, economic and ecological connections inherent in the design and effective implementation of financing solutions for area-based conservation. Systems thinking can help align the generation of capital with other desired conservation outcomes such as threat reduction and long-term sustainable development. This type of holistic approach is essential for a 'whole-of-government' perspective where traditionally siloed ministries and agencies work with, rather than against, each other. Coordinated government, civil society and private sector strategy and action is key to achieving lasting and efficient conservation outcomes and helping to avoid unintended consequences such as increased pressure on biodiversity or harmful impacts on people. Finance solutions should be selected based on a systemic situation analysis, which includes the wider ecological, political, economic and social context. This includes a focus on avoiding adverse incentives and considering the true cost of agricultural or industrial production and alternative land uses.
- 6. Comprehensive collaboration: Communicate and collaborate broadly to balance trade-offs. Detailed consideration, understanding and communication around diverse interests, desires, values, opportunities, rights and investments in the broad landscape or seascape can allow for the most impactful long-term conservation solutions. Consultations, joint problem solving, scenario assessment and other tools can foster important synergies (e.g. Nature-based Solutions¹ to climate change or watershed management) and provide opportunities to resolve conflicting priorities in ways that balance otherwise difficult tradeoffs. Although nature conservation clearly benefits societies and economies over the long term, short-term individual or small group costs can generate significant resistance and conflict and specific actions to address these costs should be integrated into a solution to achieve long-term alignment of interests and efficient approaches. Financial flows linked to sectors such as water, tourism, energy, fisheries and agriculture can benefit conservation if there is adequate attention and communication about trade-offs and diverse perspectives.
- 7. Portfolio approach: Build a diversified portfolio of financially meaningful and long-term finance solutions. It is important to recognise that the objective of PCA finance is the achievement of the areas' conservation and sustainable development outcomes. As such, a diversified 'portfolio' approach with a mix of finance solutions can combine to provide: 1) effective levels of short and long-term financing; 2) risk management for periods when some solutions face challenges or shortfalls, and; 3) a finance strategy for the future. The combination of a well-balanced diversified portfolio supported by effective and responsible institutions helps safeguard against shocks, such as economic crises, and enhances financial sustainability despite shifting political agendas. Practitioners are strongly encouraged to recognise that no single mechanism is likely to be sufficient to support management objectives and financial needs as they evolve over time.
- 8. Effective finance solutions: Finance solutions should be effective and efficient. Effective conservation finance solutions could achieve any combination of raising, managing and deploying capital as well as aligning incentives. Ideally these outcomes would be achieved efficiently – that is, at the least cost or effort relative to the impact. The administrative, operational, management and transaction costs of finance solutions should be considered in relation to their ultimate scale and impact. Important, as well, is the initial choice of conservation approach: for example, is it more effective and efficient to reduce a threat or to defend an area against that threat? In many cases, the most costeffective approach to conservation is dependent on strong government action – regulation, enforcement, national budgeting – yet these are often not the understood priorities of system or site managers who may feel poorly positioned to impact governments. Consultation, collaboration, partnerships and data-driven decision-making can help bring government, private and civil society partners together to achieve effective and efficient area-based conservation finance solutions.

These eight principles should be referred to at the start of all finance solution design processes as well as during feasibility studies and implementation.

¹ International Union for Conservation of Nature (IUCN) defines 'Nature-based Solutions' as "actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits" (Cohen-Shacham et al., 2016).

The purpose of this Guide

This Guide contributes to the further development of conservation finance in light of global and local challenges for biodiversity and with the goal of supporting nature and ecosystem service flows essential for human well-being.

This Guide has been produced as part of the IUCN World Commission on Protected Areas series of good practice guidance. Its purpose is to help PCA practitioners rethink, advocate for, and secure financial and operational sustainability for the delivery of the targets of the GBF.

The Guide enables practitioners to:

- Support a more informed understanding of PCAs as drivers for sustainable and equitable socio-economic development;
- Learn about durable finance solutions, help select those suited for specific sites, landscapes and seascapes and improve effective use of available finances for the effective management of PCAs;
- Use financial solutions in ways that support people and community empowerment leading to equitable distribution of benefits in an integrated approach; and
- Raise awareness for the role finance can play in environmental and social exploitation and degradation as well as positive support for nature and people.

This Guide contributes practical knowledge to improve the overall financial sustainability of PCAs of all categories and governance types from sites to systems levels. It provides insights into the means and modes of obtaining, managing and spending funds in ways that best serve conservation and mapping out the most effective finance pathways to deliver efficient and effective PCAs. This Guide also acknowledges the increasing pressures on biodiversity and the resulting need for understanding conservation finance in a broader sense. See Box 0.2 for further description of the audience of this Guide.

Box 0.2

Audience

This Guide was prepared with PCA practitioners as the primary audience. They are the people in position to influence the adoption of finance solutions in their respective contexts so that conservation finance can better contribute to halting and reversing biodiversity decline. This includes those who oversee systems of PCAs as well as site-based managers, non-governmental organisations, civil society organisations, Indigenous peoples, local communities, and private sector entities involved in supporting or managing PCAs, and the wider community of conservation finance practitioners. Others who may find this Guide useful include leaders in the ministries and government agencies responsible for water, tourism, agriculture, energy and other naturedependent sectors, local planners and decision-makers, elected officials and domestic decision-makers. Development partners, philanthropists, finance ministries and private sector investors will also benefit from the Guide, particularly elements relating to innovative and sustainable financing solutions. Other key audience members include technical specialists and conservation trust funds (CTFs) working to support protected and conserved area sites, systems and ministries to achieve sustainability and impact.

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Executive summary

Protected and conserved areas (PCAs) have been proven to provide enormous value to nature, people and the economy. They are an effective means by which species, habitats and ecosystems can be conserved, restored and sustainably utilised. The expansion and effective management of PCAs is integral to international and national strategies for sustainable development. Achieving expansion and effective management in a period of increasing pressures on nature is extremely challenging and requires improved understanding and use of a complete array of scientific, governance, policy and financial tools and knowledge to enable and sustainably finance successful PCA design, establishment and management. To achieve effective PCA outcomes, a portfolio of finance solutions should be designed and implemented with careful attention to systems thinking, equity and effectiveness, and social and cultural awareness, responsiveness and inclusiveness.

This Guide provides detailed frameworks, descriptions and insights into the use of conservation finance solutions to achieve PCA outcomes. The guidance presents the case for PCA investment and sustainable finance, describes the role and use of finance and economics to achieve PCA outcomes, and presents guidance on how to conduct strategic and practical financial planning in support of these outcomes. The preface of the document includes a series of key principles that practitioners of PCA finance should be familiar with and consider prior to any interventions.

The key principles described in the Prologue are the following:

- 1. Diverse values: Acknowledge and respect the diverse values of nature and nature stewardship.
- 2. Rights-based: Utilise a rights-based approach in the design and implementation of conservation finance.
- 3. Good governance: Design and implement good governance structures, including accountability and transparency, for successful finance solutions.
- 4. Strong institutions: Build capacity and long-term effectiveness through strong and diverse institutions.
- 5. Systems approach: Utilise a systems-based approach for PCA finance solutions.
- 6. Comprehensive collaboration: Communicate and collaborate broadly to balance trade-offs.
- 7. Portfolio approach: Build diversified portfolios of financially meaningful and long-term finance solutions.
- 8. Effective finance solutions: Finance solutions should be effective and efficient.

The main Good Practice Guidelines are the following:

- 1. Optimise resource efficiencies: Seek to achieve the greatest impact towards your conservation objectives with the resources available.
- 2. Discourage harmful actions: Implement finance solutions that disincentivise actions that harm nature and reduce the chances of achieving your conservation objectives.
- 3. Incentivise positive actions: Develop finance solutions that align incentives for positive conservation outcomes.
- 4. Increase financial capital for conservation: Mobilise additional resources and assure sound management of those resources to be utilised for direct conservation efforts.

Together the principles and the practice guidelines interact to provide an integrated approach to PCA finance as captured in the following diagram.



This Guide includes chapters on key sources of finance and finance solutions from the public sector, donors, philanthropies and international intuitions, local sources of finance, finance for Indigenous peoples, and private sector finance. The Guidance concludes with a series of Factsheets on a range of finance mechanisms pertinent to PCA finance. This publication is part of the IUCN WCPA Good Practice Guidance series.

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Abbreviations and acronyms

ADP	Afro-descendant peoples
BIOFIN	Biodiversity Finance Initiative
CBA	Cost-benefit analysis
CBD	Convention on Biological Diversity
CFA	Conservation Finance Alliance
CMP	Collaborative management partnership
CTF	Conservation trust fund
DFI	Development finance institution
DPSIR	Driver-Pressure-State-Impact-Response
EFT	Ecological fiscal transfer
ES	Ecosystem services
ESG	Environmental, social and governance
EU	European Union
FPIC	Free, prior and informed consent
GBF	Kunming-Montreal Global Biodiversity Framework
GDP	Gross domestic product
GEF	Global Environment Facility
HAC	High Ambition Coalition for Nature and People
ICCA	Indigenous and community conserved area
IFC	International Finance Corporation
IMM	Impact measurement and management
IPA	Indigenous protected areas
IPCA	Indigenous protected and conserved area
IPs	Indigenous peoples
IP&LC	Indigenous peoples and local communities
IRR	Internal rate of return
IUCN	International Union for Conservation of Nature
LAC	Latin America and the Caribbean
LC	Local communities
MPA	Marine protected area
MRV	Measurement, reporting and verification
MSME	Micro, small and medium-sized enterprise
NBSAP	National Biodiversity Strategy and Action Plan
NFT	Non-fungible token
NGO	Non-governmental organisation, also called not-for-profit organisation
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
OECM	Other Effective area-based Conservation Measures
PCA	Protected and conserved area
PES	Payment for ecosystem services
PFP	Project finance for permanence
PPP	Public-private partnership
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RFN	Rainforest Foundation Norway
RRI	Rights and Resources Initiative
SANParks	South African National Parks
SDG	Sustainable Development Goals
SME	Small and medium-sized enterprise
SPV	Special purpose vehicle
TNFD	Taskforce on Nature-related Financial Disclosures
UNDP	United Nations Development Programme
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
VBC	Voluntary biodiversity credits
WCPA	World Commission on Protected Areas
WCMC	World Conservation Monitoring Centre
WEF	World Economic Forum
WTP	Willingness to pay
WTTC	World Travel and Tourism Council

Glossary

Bonds: Bonds are debt instruments where the issuer (the borrower) is obligated to pay a fixed or variable ('floating') interest rate and repay the principal during a fixed period of time. There are many variations on bonds.

Collaborative management partnership (CMP): A CMP refers to when a protected and conserved area (PCA) authority (government, private or community) enters into a contract with a partner (private or non-governmental organisation [NGO]) for the management of a PCA (Baghai et al., 2018).

Concessions: A concession is the right to use land or other property for a specified purpose, granted by the entity that holds the land rights, such as the government. It can include a commercial operation and/or land (World Wide Fund for Nature [WWF] & International Union for Conservation of Nature World Commission on Protected Areas [IUCN WCPA], 2023). A tourism concession could provide accommodation, food and beverage, recreation, education, retail, and interpretive services (Eagles, 2009).

Conservation (or biodiversity) finance: Mechanisms and strategies that generate, manage and deploy financial resources and align incentives to achieve nature conservation outcomes (Meyers et al., 2020, p. 4).¹

Debt: Debt involves borrowing money that must be paid back, generally with interest. A debt is an obligation, something – often money – that is owed. In finance terms, debt is a commonly used finance instrument where an entity borrows money from another entity to put the money to productive use and repays the lender's capital with interest – return – on the capital. The amount paid back to the lender over and above the initial money lent is the interest and it is usually calculated as an annual rate.

Diversification: Most investors seek to diversify their investment portfolios across a range of economic sectors, investment structures, and risk/return profiles to mitigate risk of potential losses. Investments in natural capital are seen as 'counter-cyclical' to the rest of the market – that is, they tend not to track public market indices. For example, if there is an acute financial markets crisis, a 30-year investment in a forestry project will be largely unaffected and provides some store of value away from the turmoil. Investments in natural capital can therefore be more appealing to asset owners such as pension funds who have a longer time horizon and as part of a diverse portfolio of investments.

Economics: Defined as "a social science concerned chiefly with description and analysis of the production, distribution, and consumption of goods and services" (Merriam-Webster, n.d.-a) and can refer to values to which there are no associated cash flows.

Economic instruments: With regard to the environment, these are finance mechanisms such as taxes, fees and charges, tradable permits, and environmentally motivated subsidies, that provide incentives to both producers and consumers to behave in a more environmentally sustainable way.

Equity: Equity involves selling a portion of an enterprise or asset that entitles the buyer to a share of profits and proceeds from the sale of a company or assets. Equity with regard to finance can be defined as: a) the money value of a property or

¹Conservation finance and biodiversity finance are used interchangeably in this work.

of an interest in a property in excess of claims or liens against it; b) the common stock of a corporation; c) a risk interest or ownership right in property; or d) a right, claim or interest existing or valid in equity. In other words, it is an ownership share in a company, property or other commercial entity whose value is based on the percentage ownership after all debts and other obligations are considered.

Externalities: Side effects or consequences of an industrial or commercial activity that affects other parties without this being reflected in the cost of the goods or services involved, such as the pollination of surrounding crops by bees kept for honey (Oxford Languages, n.d.) – positive externality – or health problems due to pollution discharged into a river – negative externality.

Finance: In general, reflects monetary transactions, management of monetary resources, etc. and is defined as "the system that includes the circulation of money, the granting of credit, the making of investments, and the provision of banking facilities" (Merriam-Webster, n.d.-b).

Finance instrument or mechanism: Policy and fiscal tools used to mobilise, collect, manage and disburse funding and can be strictly financial instruments like bonds or equities, or fiscal and regulatory policies or practices (adapted from United Nations Development Programme [UNDP], 2018). The UNDP Biodiversity Finance Initiative (BIOFIN) categorises finance instruments into: regulatory, market, fiscal, grant, debt/equity, and risk.

Finance solutions: An integrated approach to solve a specific problem or challenge by the context-specific use of finance and economic instruments (UNDP, 2018). Finance solutions are characterised by a finance source, lead agent or intermediary, instrument, financial results and beneficiaries (see Figure G.1.)

Intermediation: This is where an intermediary creates a connection among larger investors and borrowers or entrepreneurs seeking capital. In new and/or particularly complex markets with non-standard transactions, skilled intermediaries play a vital role to identify, develop and close investments. They can also aggregate investments – as in the case of equity funds – to provide larger investors with scaled transactions and diversified risks.

Nature-based Solutions: IUCN defines Nature-based Solutions as actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits (Cohen-Shacham et al., 2016).

Public goods: Shared resources that by strict definition are both non-excludable and non-rival, that is no one can be excluded from benefiting from the good nor would the consumption of the goods by someone limit the ability to consume by another. They are the opposite of private goods, which are excludable and rival. Intermediate situations are presented in Table G.1 below.

Return: The expected return is the most important driver behind most financial investments. It is determined by combining the expected financial flows to the investor discounted by the investment risk. The higher (and sooner) the financial flow or the lower the risk, the higher the expected returns.



Risk: Risk and return are foundational concepts in finance. 'Risk' is the ability to apply probability estimates to the range of possible outcomes. Within investment approaches such as modern portfolio theory, a financial institution would construct a portfolio mix with a range of risk-return profiles, expecting that higher risk investments have higher possible returns. Risk is viewed not necessarily the same way as in standard economics nor in common usage of the term. Finance related risks include business risks, market risks, inflation risks, exchange rate risks, country political risk, project and other idiosyncratic risks among others - all importantly being quantifiable. Investment necessarily involves an amount of risk - even 'safe' or 'no risk' investments carry a degree of risks, for example, government securities such as US Treasury Bonds even of a short duration can carry inflation or currencyrelated risks. Simple 'unknowns' that cannot be quantified are considered 'uncertainties' and cannot be factored into risk-return models.

Risk transfer: Risk is an element of all investments and can be managed using different finance instruments. Usually risk is apportioned using two approaches: first, by guarantees (e.g. financial or insurance products that pay the investor if the investment is lost or declines past a predetermined threshold), and second, by choosing a financial instrument that has built-in capacity to handle risk. These instruments can allocate risks to different parties involved in a financial transaction to match investors' risk tolerances. This is a central approach in blended finance (Convergence, 2024).

Time value of money: This concept reflects that an amount of money is worth more now than the same amount of money in the future, due to inflation, perceived risk and opportunity costs. The time value of money suggests that money can grow only by investing it, and that a delayed investment comes at an opportunity cost.

Characteristics	Rivalrous	Non-rivalrous
Excludable	Private goods (houses, coffee)	Club goods (sporting events, movie theatres)
Non-excludable	Common resource goods (fish stocks)	Public goods: local (fire protection), national (national defence), global (climate regulation)

Table G.1. Characteristics of public goods

Source: Adapted from Power (2021).

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Chapter 1

The case for protected and conserved area finance



King penguins at "Reserva Natural Pingüino Rey" (King Penguin Nature Reserve) © David Meyers

1.1 Introduction

This chapter spells out the value of protected and conserved areas (PCAs), the case for expanding PCA finance and discusses some of the financial challenges that PCAs face. It looks at conservation finance needs and demonstrates the positive returns to investing in PCAs.

Protected and conserved areas lie at the centre of global efforts to conserve biodiversity and ecosystems. At the same time, biodiversity and ecosystems face myriad threats from unsustainable and destructive land, freshwater, marine and resource uses, habitat loss, invasive species and climate change. Currently covering some 17% of the world's land area and about 8% of coastal and ocean regions (United Nations Environment Programme - World Conservation Monitoring Centre [UNEP-WCMC] & International Union for Conservation of Nature [IUCN], 2021), PCAs suffer from a critical lack of funding (see Section 1.6). These financial needs are becoming ever more pressing, given the rapidly intensifying threats PCAs face as well as the expanded role they are now expected to play in helping to meet today's increasingly ambitious global and national biodiversity and climate targets (see Lessmann et al., 2024). To address this problem, the Kunming-Montreal Global Biodiversity Framework (GBF) explicitly calls for private and public fiscal and financial flows to be better aligned with biodiversity conservation, subsidies that are harmful to biodiversity to be phased out, and a substantial and progressive increase in the level of financial resources allocated to biodiversity from all sources.

Not only is there an urgent need to ensure that PCAs (and biodiversity conservation more generally) are adequately funded, it is clear that there are real economic dangers from failing to do so. The top four 10-year risks named by business leaders in 2023 are environmental, including biodiversity loss and ecosystem collapse (World Economic Forum [WEF], 2023). World Bank researchers conservatively estimate that a collapse in just three ecosystem services, namely wild pollination, provision of food from marine fisheries, and trees from native forests, could reduce global gross domestic product (GDP) by US\$ 2.7 trillion¹ in 2030, with the most pronounced impacts felt in low-income and lower-middle-income countries, where GDP reductions may exceed 10% (Johnson et al., 2021).

There is ample evidence that current funding flows are grossly insufficient to meet PCA management needs. In addition, many of the underlying (and often non-monetary) financial and economic constraints to effective biodiversity conservation are not being adequately addressed. The importance of taking an integrated, inclusive and holistic approach to PCA financing forms a recurrent theme throughout this publication.

1.2 Protected and conserved areas generate significant values for society and the economy

Nature's contribution to people is immense, and accrues across almost all sectors, socio-economic groups and scales. Ultimately humanity is part of nature and dependent on it for survival, well-being and prosperity (Dasgupta, 2021). Nature is at the centre of peoples' spiritual and cultural life and although this is hard to quantify, it is essential to remember this connection for all finance solutions. In terms of value for the economy, the World Economic Forum estimates that US\$ 44 trillion of economic value generation, equal to over half of the world's total GDP, is moderately or highly dependent on nature and its services (WEF, 2020). The GDP of global oceans, alone, was estimated at US\$ 2.5 trillion in 2015, two-thirds of which is produced by natural assets that rely on healthy ocean conditions (Hoegh-Guldberg et al., 2015). Without water regulation, climate regulation, the production of oxygen and the ability to grow food – all benefits of a functioning biosphere – there would be little economy at all.

A wide range of ecosystem services underpin the value of nature for humanity (see Figure 1.1). Sectors such as agriculture, forestry, fisheries, tourism, water provision, construction, pharmaceuticals and energy depend directly on natural products and/or provisioning services. Meanwhile, ecosystem regulating services such as waterflow and quality maintenance, flood and drought attenuation, waste processing and climate control play key roles in enabling and protecting human settlements, livelihoods and production processes. It is also important to appreciate cultural services, and to recognise that nature's contributions to people encompass multiple benefits, worldviews and knowledge systems (Díaz et al., 2018; Pascual et al., 2017).

¹All figures in this Guide are in US dollars except where otherwise noted.



This requires moving beyond unidimensional, utilitarian and market-based models to take a more pluralistic approach, which fully recognises, respects and articulates these diverse values and perspectives (IPBES, 2022).² Beyond the benefits nature provides for humanity, nature has an intrinsic value, independent of humans, and we have a moral obligation to assure our species is not harming the chances for other species to live and evolve (see IPBES, 2022).

PCAs play a key role in safeguarding valuable ecosystem services and upholding key social and economic processes. They form the backbone of countries' 'ecological infrastructure' and 'natural asset or capital' base.³ Some examples include:

- Intact tropical forests in Central Africa can store 200 tonnes of carbon per hectare or more (Sullivan et al., 2017) while severely degraded forests may only store as little as 10 to 20% of this amount.
- Carbon emissions in southeast Asian PCAs are 2.5 times lower than those outside PCAs (Graham et al., 2021).
- As many as 80% of Africa's largest reservoirs receive at least part of their water from conservation areas (Berghöfer et al., 2021).
- South Africa's Kruger National Park has sediment yields in rivers and streams that are six times lower than nearby agricultural and other non-conservation land use areas (Baade, Franz & Reichel, 2012).
- The greater pollinator diversity associated with natural ecosystems and PCAs enhance pollination during environmental and climatic perturbations (which reduces pollen) and boost the quality and quantity of crop yields in agricultural ecosystems (Katumo et al., 2022).

PCAs also directly support business and enterprise, and the income and employment that is associated with it. Wildlife tourism represented 3.9% or US\$ 344 billion of global GDP and sustained approximately 22 million jobs in 2019, according to the World Travel and Tourism Council (WTTC, 2019).⁴ In the United States, the national park system received 325 million

²The ecosystem services concept highlights the anthropocentric values of ecosystems in addition to their intrinsic values, both of which are arguments for nature conservation.

³From an economic theory point of view, ecosystems are capital assets (stocks) and ecosystem services are the 'income' (flows) derived from them. This allows for the analysis of investments in conservation from the perspective of capital allocation theory using tools such as cost-benefit analysis.

⁴Total global travel and tourism accounted for 10.4% of global GDP in 2019 according to WTTC making wildlife tourism approximately 37% of the total travel and tourism sector (i.e. 3.9/10.4 = 38%).

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visitors in 2023 who spent US\$ 26.4 billion in regions around parks and contributed 415,000 jobs to the national economy (Flyr & Koontz, 2024). In many developing countries, which rely heavily on the tourism sector, PCAs are a primary driver for visitation. Conservation areas in Africa attracted 50 million visitors in 2015 resulting in revenue in excess of US\$ 50 billion (Balmford et al., 2015), and over a third of direct tourism GDP can be attributed to wildlife (WTTC, 2019). Globally coastal and marine tourism constitutes approximately 50% of all tourism, equal to US\$ 4.6 trillion or 5.2% of global GDP. It is a vital component of the economy of small islands and coastal communities (Northrop et al., 2020).

PCAs are also associated with a variety of less tangible but no less vital indicators of human well-being. For example, in the wake of the COVID-19 pandemic, global physical and mental health benefits of PCAs have become much more appreciated (Spenceley et al., 2021). These benefits have been estimated in the trillions of dollars and there are mental healthcare programmes relying on PCAs in at least six countries (Buckley et al., 2023; Buckley & Chauvenet, 2022). At a local scale, visitors to national parks in Finland were asked to evaluate the health and well-being benefits of park visits and provided a high median response of 100 Euros per visit (Dudley & Stolton, 2023).⁵

Thus it is hardly surprising that PCAs make a major contribution towards achieving other environment and development priorities. These include global targets for climate change mitigation and ecosystem-based adaptation under the United Nations Framework Convention on Climate Change (UNFCCC), the ecosystem restoration goals laid out in the UN Convention to Combat Desertification and the UN Decade on Ecosystem Restoration, as well as the provisions of the Ramsar Convention on Wetlands and the UN Strategic Plan for Forests, and the wider Sustainable Development Goals (SDGs) such as maintaining food security, water security and healthy societies (see Figure 1.2). Support for existing PCAs and expansion efforts are arguably the most effective way to address the twin global crises of climate change and biodiversity loss within a timeframe that reflects the required urgency (De Noon et al. 2021; Smith & Young, 2022). Nationally Determined Contributions to reach climate change goals also demonstrably benefit from the explicit inclusion of PCAs (Hehmeyer et al., 2019).

Figure 1.2 How protected and conserved areas are contributing to other global environmental and development targets. *Source: Dudley and Stolton (2023).*



⁵There are myriad other studies available on the value and contribution of PCAs. Examples that include several case studies are, for instance, Stolton, Timmins & Dudley (2021), which provides 36 case studies on the economic value and benefits from PCAs and Berghöfer et al. (2021), which focuses on the value of PCAs in Africa.

1.3 Why high economic values are not enough to ensure PCAs are adequately funded and conserved

However high the economic value of PCAs is demonstrated to be, and however much decision-makers are convinced that it is in the public interest to maintain effectively-managed networks of PCAs, this is rarely enough to ensure that PCAs are adequately funded and conserved. It is also necessary that PCAs make financial and economic sense to the groups that depend on and impact biodiversity and ecosystems. In all too many cases, those who bear the costs of PCA conservation reap a disproportionately small share of the benefits. The most obvious examples are PCA managing authorities, which continue to face chronic budget shortages, and the local stewards and managers of biodiversity, who may receive few rewards for their contributions to conservation and little compensation for the costs and losses they incur. In contrast, those who stand to gain the most in economic terms from PCAs rarely contribute towards the costs of conservation. This is the case for many of the industries, companies and urban populations that depend heavily on ecosystem services that PCAs provide.

Not only is it necessary to demonstrate the economic value of PCAs, but also to address such imbalances in the distribution of their costs and benefits (Emerton & Bùi Thị Hà Ly, 2021), and to capture biodiversity and ecosystem values as tangible financial flows and concrete incentives in support of conservation (TEEB, 2010). In turn, this requires overcoming the market, price, institutional and policy distortions and failures that result in these imbalances occurring, and cause private and broader social interests to diverge. These are wide-ranging in both their causes and effects. For example, one critical manifestation of market and price failures is that many ecosystem services are under-priced (or not priced at all). Equally, products and activities that are damaging to the natural environment or directly threaten PCAs are subject to subsidies or artificially-inflated prices.

The net result is that it is difficult for people to gain in financial terms from conservation or to be penalised when they cause harm or damage to biodiversity and ecosystems. In addition, the lack of well-defined property rights for many natural areas and environmental goods and services frequently results in a situation where no one has any financial interest in, or can derive direct financial benefit from, conserving land and resources or ensuring that they are allocated to their highest-value use (Deutz et al., 2020). The mechanisms and instruments that are used to finance PCAs must also seek to address – and wherever possible correct – these distortions and failures, correct the imbalances that present disincentives or result in disinvestment in PCAs, and wherever possible seek to capture PCA values as direct financial and economic support for conservation.

1.4 PCAs have multiple costs and funding requirements

Traditionally, the establishment, operational and core institutional costs have dominated PCA financing calculations and funding efforts. Although sometimes more difficult to measure, opportunity, damage and transaction costs also have the potential to be highly significant and require management responses, including financial responses. The six main categories of PCA costs: establishment; operational; core institutional; opportunity; damage and transactions are presented in Figure 1.3.

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Establishment Costs Initial capital and other costs required to establish a PCA, change its boundaries and/or conservation status	Operational Costs Capital and recurrent expenditures necessary to plan, implement and monitor on-the-ground PCA management activities	Core Institutional Costs Spending to establish and maintain the institutions, policies, laws, processes necessary for effective and coordinated PCAs	Direct cash expenditures, mainly by PCA managing authorities
Opportunity Costs	Damage Costs	Transactions Costs	Direct and
development, land and resources use opportunities in and around the PCA and in associated sectors	livelihoods and well-being resulting from the negative effects of wildlife and conservation actions	taken to engage in conservation activities, and to enforce and comply with rules and regulations	indirect, cash and non-cash costs, mainly to local

Understanding the range of different financial and economic costs associated with PCA management provides a holistic view of the challenges and opportunities of PCA finance. For example, average PCA management costs in Tanzania's Eastern Arc Mountains were estimated at US\$ 49/hectare/year while opportunity costs were US\$ 191/hectare/year and wildlife damage costs were US\$ 9/hectare/year (Green et al., 2018). It should be noted that this is an expensive area for conservation because it is highly fragmented and under severe pressure. There are also numerous examples of the high social costs of human–wildlife conflict that continue to worsen as people and wildlife compete for limited space and resources. In Sri Lanka, conflicts associated with wild elephants in 2019 resulted in the deaths of 17 people and 405 elephants (Prakash, Wijeratne & Prithiviraj, 2020). Kenya Wildlife Service, the agency responsible for PAs and wildlife in Kenya, reported 370 deaths and over 2,040 injuries from incidences of conflict between 2020 and 2022.⁶ In Europe, the opportunity costs of land and resource uses foregone in the interests of conservation were found to contribute 80% of the EUR 10.6 billion annual outlays on implementing European Union (EU) biodiversity policy (Kaphengst et al., 2011).

Taking a narrow view of PCA costs that focuses only on direct expenditures has equity and distributional implications. It is typically local communities that incur these indirect costs of biodiversity conservation. All too often, such costs are not adequately considered in PCA planning (Green et al., 2018) and remain unrewarded and uncompensated. The topic of funding community-controlled PCAs and locally-led conservation efforts remains a critical issue, given that much of the GBF target of increasing the global area under protection to 30% by the year 2030 (the 30x30 target) will come from Indigenous and Community Conserved Areas (ICCAs) and Other Effective area-based Conservation Measures (OECMs).

1.5 PCAs are funded from diverse sources but primarily public funding

Public sources of funding dominate PCA funding and nature finance in general. In total, global funding to overall biodiversity conservation was estimated at around US\$ 52 billion a year in 2012 (Parker et al., 2012) and approximately US\$ 124–143 billion in 2019 (Deutz et al., 2020). Finance for more widely defined Nature-based Solutions⁷ including biodiversity conservation was about US\$ 200 billion in 2022 (see Figure 1.4).

⁶The costs of human-wildlife conflict are discussed further in Gross et al. (2021) along with a call for more concerted efforts at co-existence.

⁷Nature-based Solutions are defined by the United Nations Environment Assembly as "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits" (UNEP, 2023).

Figure 1.3 PCA costs categories. Note that opportunity costs may be more relevant to terrestrial than marine areas due to well-documented overspill and other economic benefits (Costello, 2024). *Source: Adapted from Emerton and Ly*

(2021) and Naidoo et al. (2006).



Public finance flows provided 82% of finance for nature with only 1% in the form of Official Development Assistance (ODA). The remaining 18% came from the private sector and includes 2% from philanthropy and non-governmental organisations (NGOs). In comparison to the total financing for nature described above, estimates of global funding of existing PCA management (operational) costs was approximately US\$ 24 billion per year in 2020 (Waldron et al., 2020) or roughly 12% of total finance for nature. A wide range of funding sources are used to support PCAs including government budget allocations, official development assistance (ODA), NGO and philanthropic support, and self-generated revenue such as from tourism fees and concessions. In most countries, the public budget lies at the core of PCA funding (in keeping with their status as public goods), although the proportional contribution from different sources is highly variable in different sites and countries.

Even though, overall, PCAs are funded from diverse sources, at the site level most PCAs rely on a relatively narrow (and potentially uncertain) funding portfolio that tends to be dominated by government budgets and international assistance. In Latin America, for example, government allocations accounted for about 60% of PCA funding in 2010, followed by 15% from ODA, 11% from self-generated revenues and 14% from other sources (Bovarnick et al., 2010). Even in the Philippines, which allows for a relatively wide range of self-generated revenues, just over a half of PCAs are generating revenues, and the primary source of PCA funding (61%) remains national budget allocations (Anda & Atienza, 2016). In eastern and southern Africa there was a wide range and variability of funding sources. The percentage split for Kenya Wildlife Service was 11% government, 5% donor and 84% self-generated funding; for South African National Parks the split was 22% government and 78% self-generated; and for Mauritius Parks and Conservation Service, 69% government and 31% donor funding (see Figure 1.5). Of the selfgenerated revenues, tourism-related revenues were responsible for an average of 81% in a sample of seven countries an African region (IUCN ESARO, 2020).⁸



Figure 1.4 Estimated global public and private finance flows to Nature-based Solutions in 2022 (US\$ billions). *Source: UNEP (2023).*



Private finance US\$ 35 billion

Figure 1.5 The split between government, donor and selfgenerated funding in Kenya, South Africa and Mauritius. Source: Based on data in IUCN ESARO (2020).

⁸Countries included Kenya, Tanzania, South Africa, Namibia, Eswatini, Uganda and Ethiopia.

Many government PCA management authorities would prefer to depend more on selfgenerated revenue, given the greater autonomy it can offer if the revenues are allowed to be retained by the PCA site or authority. In these cases, these authorities face pressure from government and donors to achieve greater financial independence. While improvements in self-generated revenue are certainly possible in many cases, there is also a limit to what can reasonably be expected from PCA agencies, often the only government agencies in remote regions, with limited revenue options that are under pressure to ensure conservation mandates are met and that public servies are provided. In addition, PCA management authorities are not necessarily able to retain self-generated revenue and, where they are, it may be matched by decreased government budget allocations leaving PCAs arguably no better off. With few exceptions, PCAs should not be expected to 'pay for themselves' and require strong support from government and donors in their role as providers of important public goods (Flores & Bovarnick, 2016).

1.6 PCAs face substantial and expanding financial needs

Substantially increased ambition and visionary leadership is required to address the myriad challenges facing natural ecosystems and PCAs. Of particular relevance is the landmark GBF adopted by 196 countries in 2022, including the 30x30 target (Target 3). Over 100 nations have joined the High Ambition Coalition for Nature and People (HAC for N & P,) championing the GBF and 30x30 (HAC for N & P, n.d.). Furthermore, the 73 member states of the Global Ocean Alliance advocate for action towards the 30x30 ocean target (GOV.UK, n.d.). With these new commitments comes an equivalent increase in ambition. For instance, the GBF promotes a near doubling of the area of terrestrial PCAs and more than a tripling of marine and coastal PCAs. This expansion is needed to secure the highly threatened natural capital and ecosystem services on which humanity and other species depend. To support this effort, Target 19 of the GBF calls for resource mobilisation of at least an additional US\$ 200 billion for nature per year by 2030 (Convention on Biological Diversity [CBD], 2022).

Despite these increased ambitions for both biodiversity conservation and PCA finance, the level of finance remains woefully inadequate. Simply put, funding flows have failed to keep up with requirements, to match the growth in areas under protection, or to meet the high expectations of what those areas are supposed to achieve (Dudley & Stolton, 2023). At the same time, threats and pressures on PCAs have intensified, in many cases exacerbated by investments in infrastructure, development activities, impacts of climate change, population growth and subsidies harmful for biodiversity. A recent estimate of finance flows with negative impacts on nature including subsidies suggest that nearly US\$ 7 trillion is spent annually by the world's governments and the private sector on activities that undermine biodiversity conservation (UNEP, 2023). These will need to be reduced or eliminated if increased spending on nature conservation is to make a genuine impact.

While estimates remain speculative, the finance needs for biodiversity conservation including the achievement of the GBF are thought to be at least six times greater than available funds (Deutz et al., 2020).⁹ PCA funding needs are also far from being met. The global funding needed to cover the direct costs of managing existing PCAs has been estimated at US\$ 68 billion per year, almost three times greater than available funding, resulting in an additional funding need of US\$ 44 billion (see Figure 1.6).¹⁰ Building on this figure, the expansion of PCAs required to achieve the 30x30 target is calculated to require funding of approximately US\$ 140 billion for management expenses, land purchase costs and possible compensation costs (Waldron et al., 2020). This expands the funding needed to US\$ 116 billion, six-times current funding for existing PCAs, which, if available, still only equates to less than 0.14% of global GDP – a small price to pay given the highly substantial benefits outlined in Section 1.7. Bear in mind that, as discussed above in Section 1.4, direct operational costs of PCA managing authorities typically represent only a portion of PCA finance needs (Emerton & Bùi Thị Hà Ly, 2021; GIZ, 2019).

A similar (although likewise incomplete) picture of insufficient finance emerges at the country and site level that significantly impacts PCA performance (see Lessmann et al., 2024).

10 This estimate of finance needs draws partially on previous estimates, which range from US\$ 12 billion to US\$ 77 billion (Bruner, Gullison & Balmford, 2004; James, Gaston & Balmford, 1999; McCarthy et al., 2012; Waldron et al., 2013).

⁹ To meet the less ambitious Rio targets, annual investment in Nature-based Solutions would need to increase from US\$ 200 billion to US\$ 542 billion by 2030 (UNEP, 2023).

Figure 1.6 Enabling financial

conditions for biodiversity conservation. *Source: Adapted* from Lazić and Emerton (2020).

- Twenty years ago, Balmford and Whitten (2003) estimated a finance shortfall of 90% or more for reserves in sub-Saharan Africa, Asia, Latin America, the Middle East and Pacific regions compared with less than 20% in North America and 55% in Australia and New Zealand.
- Gill et al. (2017) reviewed the effectiveness of management of marine protected areas (MPAs) and found, "widespread shortfalls in staff and financial resources" (Gill et al., 2017, p. 665).
- In the EU, funding to the Natura 2000 network only meets an estimated 20% of needs, and national funding is insufficient to fill the remaining gap (Kettunen et al., 2017).
- Available funding only satisfied 10 to 20% of total funding needs for a sample of 282 PCAs containing lions in 15 African countries (Lindsey et al., 2018).
- A 2019 review of 2,167 protected areas found, "less than a quarter of [protected areas reviewed] having adequate resources in terms of staffing and budget" (Coad et al., 2019, p. 259).
- Work in Myanmar found existing on-the-ground funding to PCAs to be less than 18% of that required for effective management (Emerton, Thant & Nyein, 2020).

Funding to cover conservation costs and cost-bearers
Support & strengthen (or contradict & undermine)

Financial **incentives** to enable, encourage and demand people to conduct their economic activities sustainably Systems to manage finance efficiently, effectively, equitably and sustainably, in support of conservation <u>Capacity &</u> <u>empowerment</u> measures to equip conservation managers to take control over financial decision-making

1.7 Investing in PCAs generates significant returns

The returns to investing in PCA management are consistently high but are not distributed equitably nor in many cases used for nature conservation. At a global scale, the financial benefits of achieving 30x30 in terms of higher output have been estimated at an average of US\$ 250 billion (US\$ 64–454 billion) per year by 2050 (Waldron et al., 2020). In addition, partial economic benefits from enhanced ecosystem services in PCAs, within forest and mangrove biomes only, would average US\$ 350 billion (US\$ 170–534 billion) per year by 2050 (Waldron et al., 2020). The combined financial and economic benefits of achieving 30x30 would therefore likely exceed the costs by at least 5:1 based on only partial quantification of benefits. In terms of indirect benefits, the creation of 400,000 to 650,000 jobs in conservation management and related fields is attainable, which would, in turn, generate or safeguard millions of jobs in areas such as tourism and fisheries. Carbon dioxide emissions could be reduced by 0.9–2.6 gigatons annually through avoided deforestation and regrowth equalling 4–12% of the annual emissions reductions needed by 2030 to limit global warming to 1.5°C (McKinsey and Company, 2020).

There is also ample evidence of the favourable returns to investment in national PCA networks and at the site-level in terms of direct financial and ecosystem services benefits. An economic cost-benefit analysis in Ethiopia found that increasing funding to a sufficient level to meet basic management needs would generate a Net Present Value of US\$ 900 million over 20 years with a benefit-cost ratio of between 6:1 and 8:1 (Van Zyl, 2015). Increased funding was also found to be aligned with several economic development policies and highly supportive of tourism, rural livelihoods, water provision, hydro-power energy provision, agriculture, and climate change adaptation and mitigation. Similarly, in Montenegro, adequate investment in the national PCA system has been calculated to generate a total return of almost EUR 29 per EUR 1 of public funds invested (Emerton, Kaludjerovic & Jovetic, 2011).

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In addition to these individual studies on PCA values and finance needs, making the financing case is increasingly integrated in periodic PCA management authority reporting. For example, South Africa National Parks annual reports include key indicators such as jobs and small businesses supported in making the case for funding (South African National Parks [SANParks], 2022). Parks Canada periodically releases a one-page infographic summary of the economic impacts associated with their spending and that of park visitors, which totalled CAN\$ 5.8 billion in 2019 (Parks Canada, 2020, see Figure 1.7). The United States National Parks Service regularly conducts similar economic assessments (Flyr & Koontz, 2024). Such efforts however remain the exception rather than the norm. This trend of mainstreaming the case for funding into routine PCA reporting will need to accelerate to increase and sustain support for PCAs.



Figure 1.7 Socio-economic contributions to local communities from Parks Canada totalled CAN\$ 5.8 billion in 2019. All figures are in CAN\$. *Analysis based on fiscal year 2018–19 operational spending by Parks Canada Agency (excluding transfer payments, public debit charges and other subsidies and payments) and a visitor base of 25.1 million from 117 places. Source: Parks Canada (2020).

1.8 In conclusion: The case for PCA finance is strong; sustainable finance for PCAs is challenging

Investing in expanding and effective management of PCAs produces powerful financial and economic returns and is essential for the well-being of people, planet and the economy. Despite their high and rising value, PCAs face significant challenges and threats including those of an economic and financial nature. Securing more money may be (and usually is) a necessary condition for PCAs to be effective and sustainable, but by itself it is rarely sufficient (Emerton, Bishop & Thomas, 2006; Meyers et al., 2020).

A host of other factors and conditions act as financial constraints to effective PCA management, increase conservation costs, and/or otherwise undermine the impact and effectiveness of funding. For example, one common issue is that often there is a serious disconnect between budget planning and on-the-ground management needs, suggesting that there is a gap in understanding how much funding is required to deliver PCA conservation activities and how to budget for this, where funding could come from, or how it might be accessed. Other critical issues include the source, diversity and timing of funds, the form in which they are provided, to whom they accrue, and on what they are spent, as well as the institutional, policy and planning frameworks that determine how PCA funding is requested, allocated, administered and used. Money is not always available to PCA managers at the right place and time, for the activities that have the highest priority in conservation terms or for the groups that actually bear the costs of conserving biodiversity and protected areas.

This means that, as well as making enough funding available to cover PCA costs, it is also necessary to develop the systems to manage finance efficiently, effectively and sustainably, set in place financial incentives for the people that bear the costs of conservation and/or have the potential to impact its status, and actively seek to financially empower and build the capacity of conservation managers (GIZ, 2019; see Figure 1.6). A well-balanced approach to PCA financing must address all these issues and enabling conditions.
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Chapter 2

Foundations of protected and conserved area finance



Common sugarbush (Protea repens) Kogelberg Nature Reserve, South Africa © David Meyers

2.1 Introduction

A principal concept for this Guide is that it is not enough to simply raise money for protected and conserved area (PCAs): it is also essential to think about how (and for whom) money is managed and deployed (Meyers et al., 2020). Beyond issues of funding PCAs, the effective alignment of diverse stakeholder incentives is essential to addressing and where possible reducing long-term costs. The social, political, economic, institutional and physical situations under which PCAs function determine many of the opportunities and challenges that impact finance options and, in turn, conservation success. The right enabling environment is essential for almost all finance solutions – solutions never operate in isolation and the impact of any finance solution is largely situation dependent (Bohorquez et al., 2022; de Vos et al., 2020; United Nations Development Programme [UNDP], 2018).¹

This chapter presents an overview of how to think about finance when it comes to PCAs. This is a segment of the field of conservation finance, defined by the Conservation Finance Alliance (CFA) as "mechanisms and strategies that generate, manage, and deploy financial resources and align incentives to achieve nature conservation outcomes" (Meyers et al., 2020, p. 4).² This broad approach to finance is necessary and parallels the need to manage PCAs as part of complex interconnected landscapes (see principles in Preface). Similarly, connectivity in the economic and financial landscapes is unavoidable and a systems approach is highly beneficial to assure lasting impact of finance solutions and to minimise unintended consequences. The framework includes four overarching good practices or 'practice guidelines', systems thinking considerations, and other orientations helpful for leveraging the information and knowledge provided in this Guide, the Factsheets, and the associated cases towards the significant challenges and opportunities of PCA finance.

One essential starting point is to realise that the funding needed for effective PCA management, often the main focus of conservation practitioners and site managers, is driven by a wide range of factors: threats to the area; management approach; socio-economic conditions; institutional capacities; government policy and enforcement; biophysical conditions; and evolving market factors; among others. Conservation finance tools that take these factors into consideration, appropriately developed and implemented, are essential elements for successful long-term area-based conservation.

2.2 Background

Terminology of protected and conserved area finance

The broad definition of conservation finance noted above includes PCA financial sustainability, which was defined in the 2006 International Union for Conservation of Nature World Commission on Protected Areas (IUCN WCPA) guidelines, *Sustainable Financing of Protected Areas: A global review of challenges and options,* as "the capacity to secure stable and sufficient long-term financial resources, and to allocate them in a timely manner and appropriate form, to cover the full costs of PCAs (both direct and indirect) and to ensure that PCAs are managed effectively and efficiently with respect to conservation and other objectives" (Emerton, Bishop & Thomas, 2006, p. 24).

A central concept included here is a *biodiversity finance solution* defined by the Biodiversity Finance Initiative (BIOFIN) as "an integrated approach to solve a specific problem or challenge by the context-specific use of finance and economic instruments" (UNDP, 2018, p. ix). Finance solutions (see Figure 2.1) generally include finance sources, finance instruments (sometimes referred to as mechanisms or tools), key stakeholders and conservation outcomes, and are often driven by economic models.

¹Refer to the accompanying Factsheets for examples of the types of enabling conditions for the financial solutions presented for PCAs.

²Conservation finance and biodiversity finance are used interchangeably in this Guide.





Figure 2.1 A finance solution often includes several components and can include multiple finance instruments. *Source: Adapted from Meyers et al. (2020).*

BIOFIN identified over <u>150 finance mechanisms</u> (BIOFIN, n.d.-a) and is building an extensive online database of finance sources (see FIRE; BIOFIN, n.d.-b). The Conservation Finance Alliance developed a taxonomy of finance mechanisms building on the work of BIOFIN (see Table 2.1).

Table 2.1.	Categories	of finance	mechanisms	most	of which	are rel	evant for	PCAs
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Return-based investments	Economic instruments	Grants and other transfers	Business and markets	Public financial management	Risk management	Financial efficiency
Microfinance	Environmentally related taxes	Official development assistance (ODA)	Supply chain resilience	Public fiscal planning, budgeting and disbursement	Insurance products	Management effectiveness
Peer-to-peer (P2P) investing and crowdfunding	Fees and charges	Private and corporate philanthropy	Conservation businesses	Fiscal transfers	Pay for success	Public-private partnerships
Angel investing, incubators and venture capital	Tradable resource use permits	Remittances	Corporate social responsibility and sustainability	Government grants	Blended finance	Integrated accounting
Private equity	Fines and penalties	Conservation trust funds / Environmental funds	Voluntary offsets	Reforming harmful subsidies		Mainstreaming biodiversity in development
Debt: leasing, bank loans, notes, and trade finance	Compensation and offsets		Nature credits	Earmarking revenues for nature		
Capital markets	Deposit-refund schemes					
	Environmentally motivated subsidies					

Source: Adapted from Meyers et al., 2020.

Lists of finance mechanisms for specific sectors, such as nature-based tourism (see World Bank, 2022) and marine protected areas (MPA) (see <u>MPA Finance Toolkit</u> TNC, n.d.) have also been identified. Throughout this Guide you will see the terms 'finance' and 'economics' and although there is substantial overlap, we seek to use them to mean slightly different things. *Finance*, in general, reflects monetary transactions, management of monetary resources, etc. and is defined as "the system that includes the circulation of money, the granting of credit, the making of investments, and the provision of banking facilities" (Merriam-Webster, n.d.-a). *Economics* is defined as "a social science concerned chiefly with description and analysis of the production, distribution, and consumption of goods and services" (Merriam-Webster, n.d.-b) and can refer to values to which there are no associated cash flows. Simplified: finance = money and economics = value. In general, however, economics and finance are all part of the same system.

Public policy tools can influence real world prices and markets and as such can be essential parts of finance solutions. Many finance solutions for PCAs involve a type of mechanism called *economic instruments*,³ "such as taxes, fees and charges, tradable permits, and environmentally motivated subsidies, [that] provide incentives to both producers and consumers to behave in a more environmentally sustainable way. These instruments also provide continuous incentives to achieve objectives more cost-effectively, and most can mobilise finance or generate revenue." (Organisation for Economic Co-operation and Development [OECD], 2021, p. 2). The OECD tracks economic instruments for the environment and at present is tracking 3,900 policy instruments implemented in more than 130 countries globally through the Policy Instruments for the Environment Database (OECD, n.d.).

Because PCAs provide innumerable ecosystem services and products, and financing conservation is key to maintaining these services and products, financing PCAs can be considered as investments rather than as 'donations' even though a financial return is not typically expected. Framing PCA funding as an investment will help remind finance practitioners and decision-makers that financing PCAs provides clear economic, as well as social and environmental, returns to society and is necessary for the long-term maintenance of society and the economy.

Establishing an enabling environment for successful PCA finance

PCAs provide highly valuable goods and services to society and economies locally and globally. Yet converting these economic values into financial flows that can be captured and directed towards PCA management and conservation is challenging for diverse reasons. PCAs conserve public, and often shared resources, and can be considered public goods themselves that provide diverse monetised and non-monetised benefits to a variety of stakeholders. Equally, PCAs incur diverse, monetised and non-monetised costs to a wide range of stakeholders captured in the form of opportunity costs, transaction costs and others (see Chapter 1). Government and philanthropic financial support for PCAs should be implicit based on widespread research of PCAs' total economic value that demonstrates how benefits far outweigh the costs of supporting them (Brander et al., 2020; Waldron et al., 2020). Waldron and colleagues have shown that even with a focus on only monetary benefits of PCAs, investment in creation and management shows positive returns (Waldon et al., 2020). However, these returns do not generally accrue to the PCA management actors themselves and as such PCAs remain largely underfunded and underappreciated. There are numerous reasons for this, including the fact that the distribution and capture of costs and benefits fall on different individuals, organisations, enterprises, governments and other stakeholders.

A simplified expression of this overarching challenge is captured in Figure 2.2. In the bottom left of the graph, individual (or private) benefits for short-term gain drive most business and smallholder decision-making. But what may be beneficial to the individual can harm group outcomes. As well, what is profit generating in the short term may have harmful impacts over time. The real challenge is to move the management, market and policy systems towards the upper right of the graph optimising the benefits for the larger community over the long term. This chapter provides some approaches to help PCA systems and site managers navigate these challenges and to identify, design and support sufficient funding and incentives for effective, equitable and sustainable PCA management.

³We use the terms mechanisms, tools and instruments interchangeably and maintain the distinction from solutions, which should capture the full system that seeks the finance and conservation outcomes. For example, a tool could be a 'grant' but the solution would include the finance source, the actors and the outcomes, as well as the 'grant' instrument.

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Short Term vs Long Term

Certain challenges must be understood and addressed to achieve desired conservation outcomes and optimise the leverage that conservation finance can provide. The following categories should be considered to understand and address the enabling environment for PCA finance.

Economics: PCAs protect natural resources that are frequently considered public goods or shared resources. As a result, PCAs and nature in general are poorly captured in market prices and the standard supply and demand curves for market-based products and services. That means people are generally not prepared to pay adequately for nature as the services are seen as either free, or open access. This 'Tragedy of the Commons' can lead to overexploitation of natural resources without proper measures in place, such as the eight principles developed by Ostrom (2015) see Box 2.1. Both the positive benefits of protected nature and the harms caused to nature are poorly accounted for in business and public accounting – an effect known as *externalities*. Measures to internalise these externalities, or better account for the values and harms to the environment, include mechanisms such as green taxes, improved policies and regulations, market-based systems such as cap-and-trade, and environmental accounting. Importantly, governments are primarily responsible for setting the rules of the markets and regulatory environments needed to assure nature's inclusion in finance, business and markets.

Institutions: Effective and well managed institutions are essential actors in PCA finance. Almost none of the mechanisms and approaches described in this Guide will succeed without strong institutions. Specific challenges to overcome include limited institutional capacity, corruption or adverse political incentives, silos in government management, regulatory failures, lack of clear governance systems, etc. Lack of policy and regulatory enforcement alone is enough to massively restrict most finance solutions from effectively achieving their financial and conservation objectives. Each PCA finance solution should consider and, where necessary, strengthen key management and enforcement institutions.

Policy and incentives: Recent assessments show how at least US\$ 7 trillion is being invested annually in actions that are known to be harmful to nature (United Nations Environment Programme [UNEP], 2023). Although only US\$ 1.7 trillion is based on government subsidies, the scale of harmful investment in comparison to nature-positive investment is astounding and reflects the challenging policy and market incentive systems against which PCAs must work. In addition to the direct and implicit support that countries provide to activities harmful to nature, many other laws, policies and governance systems inadvertently encourage overexploitation, pollution, habitat destruction and GHG emissions that make PCA management extremely challenging and often costly. Even when good laws and regulations are in place, many countries or regions are ineffectual at enforcing them for a variety of reasons. Although most countries state that the environment is important to them, this verbal commitment is rarely supported by strong and predictable levels of funding or effective enforcement of laws.

Information: Information and knowledge are critical for successful finance solutions for PCAs. Information about the importance of natural resources within PCAs and innovative approaches for financing are needed to scale both public investment and alternative financial solutions for PCAs. Economic valuation assessments for PCAs have helped support policy changes leading to better management in a range of countries. Often, putting the business case for a PCA or PCA system into a business plan format can help communicate the financing needs and **Figure 2.2** Universal challenges for nature. *Source: Prepared by the report authors.*

the case for investment. Even when information is available, it is not shared effectively across government and other key organisations.

Social and equity: Finance solutions work within social, cultural, political and economic systems and must address issues of social acceptability, equity and transparency among other approaches. Consultation with Indigenous peoples, local communities, private actors and other nature stewards is essential in all phases of finance solution design and implementation. Inattention to social and equity issues can easily block the implementation of a technically robust solution and/or cause unintended consequences that are counter to the conservation objectives.

Systems thinking

Protected and conserved areas are part of larger landscapes and complex socio-economic and ecological systems. From the limited perspective of the system of government alone, the use of nature is linked to different parts of government in diverse ways, such as being treated as sources of extractive revenue by one ministry, as sites for transport infrastructure by another and as opportunities to mitigate climate risk by yet another. These ministries are frequently working in silos, leading to activities and investments that work at cross purposes, such as simultaneous pollution and restoration. Breaking down the artificial silos of governance, business and nature requires a concerted effort to bring together diverse actors to share their perspectives, plans and needs. Ultimately, a whole-of-government approach is needed to ensure that all actors in a specific administrative jurisdiction are working towards the same long-term vision. By aligning policy and actions across government, communities and other stakeholders, it is possible to enhance the efficiency of resource investments in nature. This alignment can also direct new funding towards conservation efforts from a wider range of agencies, complementing the typically small allocations to environmental departments. Examples include redirecting reforestation budgets in the Philippines towards native species or the use of the social development budget for eliminating invasive species in South Africa (Working for Water).

Thinking at this bigger-picture level is called 'systems thinking'. A system is defined as "an interconnected set of elements that is coherently organised in a way that achieves something." The system will consist of three things: "elements, interconnections, and a function or purpose" (The Donella Meadows Project, n.d.-a). As noted in this Guide's Prologue and principles, systems thinking can greatly enhance the success of PCA management and especially finance. We unpack the benefits of systems thinking below.

Systems thinking was key to Elinor Ostrom's groundbreaking work on managing shared resources where she made a strong connection between management, institutions, economics and social perspectives. The eight principles proposed by Ostrom (Box 2.1) give an indication of how systems thinking can be used in practice (Ostrom et al., 2012).

Box 2.1

Elinor Ostrom's eight principles for managing a commons

- 1. Define clear group boundaries.
- 2. Match rules governing use of common goods to local needs and conditions.
- 3. Ensure that those affected by the rules can participate in modifying the rules.
- 4. Make sure the rule-making rights of community members are respected by outside authorities.
- 5. Develop a system, carried out by community members, for monitoring members' behaviour.
- 6. Use graduated sanctions for rule violators.
- 7. Provide accessible, low-cost means for dispute resolution.
- 8. Build responsibility for governing the common resource in nested tiers from the lowest level up to the entire interconnected system.

Source: Ostrom (2015).

Individual PCAs are part of PCA systems: national, state or provincial/regional systems, different types of PCA management types, etc. (see Figure 2.3). Finance solutions are designed to work at specific system levels; some solutions may work for individual PCAs while others require the entire PCA network to work together to achieve results. For example, entrance fees are collected at the local level and are often part of a national system for fees, while debt conversions operate at the national level when sovereign debt is involved. PCAs are also integral parts of landscapes or seascapes and diverse actors and interests in these spatial, cultural and economic areas should be considered during the development of finance solutions.

For example, the Network for Conserving Central India serves as a platform for individuals in the Central Indian Landscape to connect and collaborate in conservation research and management across protected areas (Schoen et al. 2022, shown in Figure 2.3).



Figure 2.3 Central Indian highlands and protected areas landscapes. Protected areas in Central Indian highlands (shown in green) make up a system that is critical for protecting tiger connectivity areas. Source: Schoen et al. (2022).

The following graphic (Figure 2.4) shows six examples of how to move from traditional thinking around PCA challenges towards a systems thinking approach. Numerous resources are available to learn about systems thinking including the works of Donella Meadows (The Donella Meadows Project, n.d.-b), Peter Senge (Center for Systems Awareness, n.d.) and articles by Leyla Acaroglu (Acaroglu, n.d.). Some examples of how these approaches relate to PCAs include:

- Disconnection to interconnectedness: PCAs do not operate in isolation and are connected to society, economy and other ecosystems. Interconnectedness would bring into the fold the suite of actors (government, stakeholders, etc.) that impact or benefit from an area to design and invest in its effective management.
- Linear to circular: The Driver-Pressure-State-Impact-Response (DPSIR, Kristensen, 2004) approach is used in the Open Standards for the Practice of Conservation (Conservation Measures Partnership, n.d.-a) (including the conservation planning tool Miradi, Conservation Measures Partnership, n.d.-b) and encourages a process to get started on a solution rather than waiting for the perfect plan by building in feedback and corrections.
- Silos to emergence: Collaboration (including shared visions and objectives) among different ministries, organisations and strategies leads to new approaches that would not have been possible working in silos. Examples include Nature-based Solutions to climate and other Sustainable Development Goals (SDGs).
- Parts to whole: PCAs as part of landscapes, seascapes and the biosphere. They are a part of the economic system to which they provide benefits and which in turn incentivises beneficial or damaging actions. This is exemplified in the 'whole-of-government' approach.

Tools of a system thinker



Figure 2.4 Tools of a system thinker. *Source: Acaroglu (2024, March 28).*

2.3 Good practices for protected and conserved area finance

There are four non-exclusive systematic approaches to conservation finance. These are presented here as Good Practice Guidelines for PCA finance (see Figure 2.5):

- **A. Optimise resource efficiencies**: Seek to achieve the greatest impact towards your conservation objectives with the resources available.
- **B. Discourage harmful actions**: Implement finance solutions that disincentivise actions that harm nature and reduce the chances of achieving your conservation objectives.
- **C. Incentivise positive actions**: Develop finance solutions that align incentives for positive conservation outcomes.
- **D. Increase financial capital for conservation**: Mobilise additional resources and assure sound management of those resources to be utilised for direct conservation efforts (adapted from UNDP, 2018; Meyers et al., 2020).

It is important to consider all four practice guidelines for any site or system. Many PCA site and system managers focus only on securing operational funding as their primary 'finance' approach and have neither the capacity nor the authority to address broader enabling conditions or underlying constraints. Consequently, they may miss highly impactful and lowcost opportunities to achieve their conservation outcomes. The holistic approach of the four practice guidelines seeks to help PCA leadership and teams to identify, prioritise, design and implement finance solutions that can support long-term conservation.

One underlying concept behind the four practice guidelines is that many PCA management costs are linked to the external threats facing the site and the management approaches used to address these threats. To achieve effective, efficient and equitable site-based conservation, these threat factors must be managed, diminished or removed as much as possible or there is no amount of funding that will be adequate to reach site-based or landscape conservation goals.

Figure 2.5 illustrates these practice guidelines in relation to equity, responsibility and rights as a central element to all. Combining these guidelines with the seven principles presented in the Preface provides a solid theoretical and philosophical approach to PCA finance. During the identification, design and implementation of finance solutions, every effort should be made to assure finance solutions and conservation actions are as effective and equitable as possible.

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Figure 2.5 Four practice guidelines of conservation finance interact with equity, responsibility and rights. *Source: Prepared by the report authors.*

Practice Guideline A. Optimise resource efficiencies

The goal of this guideline is to consider opportunities for achieving the greatest conservation impact with limited resources. The following questions can be asked for each site or system:

- Considering the desired conservation outcomes, are the current planned activities most likely to achieve the outcomes? If not, are there other actions that could have greater impact more rapidly, with lower effort, or less money?
- Are other actors better suited to implementing management and finance actions? For example, would a concession or public-private partnership be more likely to succeed or achieve better outcomes at lower cost or produce more profits?

There is strong evidence that community-led management can achieve efficient conservation outcomes and Indigenous peoples are effective managers of conservation and stewards of nature and biodiversity (see Chapter 7). A systematic review of conservation outcomes from different forms of governance found that locally controlled management structures more often led to positive outcomes for both well-being and conservation, whereas top-down, externally controlled management more often led to negative outcomes for well-being and conservation (Dawson et al., 2021). Greater local community participation correlates positively with higher levels of compliance with protected area policies (Andrade & Rhodes, 2012). Community-led initiatives, such as participatory monitoring and patrolling programmes, have been shown to effectively deter illegal activities and promote compliance with conservation measures (Gavin et al., 2018).

Tauli-Corpuz et al. (2020) summarise the advantages of community-managed conservation compared to traditional protected areas:

- Higher cost efficiency for governments or management organisations.
- Reduced cost of compensation to communities.
- Lower costs of some regulatory enforcement.
- Increased local employment, local livelihoods from conservation benefits, and reduced welfare costs relative to government or donor-funded projects (additional references in Tauli-Corpuz et al., 2020).

The <u>Center for Collaborative Conservation</u> (n.d.) at Colorado State University provides guidance, toolkits and case studies on collaborative conservation and see Chapter 5 for more information.

Where Indigenous peoples have clear, legal management control over their lands and a sustainability or nature-conservation ethic, local outcomes for biodiversity can be particularly positive (Holland et al., 2022; Sze et al., 2021). Many Indigenous peoples also possess robust social structures that facilitate the enforcement of conservation regulations and the maintenance of sustainable resource management practices (Nelson & Chomitz, 2011; Pretty et al., 2009; Stevens, 2014, as cited in Tauli-Corpuz et al., 2020). Traditional ecological knowledge (Berkes, 2018) encompasses centuries of wisdom about plant and animal behaviour, weather patterns and ecological interdependencies, and informs management decisions (Paneque-Gálvez et al., 2018). Indigenous land management practices, such as controlled burns, agroforestry and rotational grazing, can be ecologically sustainable and reduce PCA management costs (see Chapter 7 for more information).

The engagement of non-government partners in PCA management and concessions has a long history and can produce enormous savings and efficiencies for governments. A review of collaborative management partnerships (CMP) in Africa has shown how widespread this type of collaboration is (see <u>CMP Factsheet</u>). Many of the large environmental NGOs and many smaller NGOs are engaged in CMPs which save the governments substantial money and produce high quality conservation, social and economic outcomes. African Parks, an independent non-governmental organisation (NGO) managing protected areas in Africa, currently manages 22 parks across 12 countries (African Parks, n.d.). Similarly in the marine conservation field, a social enterprise called Blue Alliance: Marine Protected Areas is managing MPAs in multipartnership consortiums and bringing in impact investments to complement other sources of finance (Blue Alliance Marine Protected Areas, n.d.). Both of these organisations integrate revenue-based finance solutions into their conservation finance approaches.

Resource efficiencies can be gained in everything from PCA design, governance approach, and of course in finance. In terms of PCA design, choosing the best location, limits, use rights, etc. can impact how effective the PCA is in conserving rare and threatened species, protecting key ecosystem services including watersheds and recreation sites, and will impact the approach to and costs of engagement with the local communities. For example, perhaps the more resource effective approach to conservation is working with Indigenous peoples to empower them to achieve their conservation goals on community lands and seas. Similarly, many MPAs produce surplus seafood resources from well-protected no-take zones: engaging with local fishers and allowing them to continue sustainable fishing outside of no-take zones can result in low-cost joint surveillance efforts.

Institutions are the governance structures through which PCAs are managed at almost every scale. Building strong and resilient institutions is a necessary means of supporting management and governance effectiveness and often a prerequisite for effective conservation finance efforts. One approach that has been very effective is the use of quasi-governmental agency structures for protected areas agencies. These parastatals are overseen by the government but often have the ability to function semi-independently; thus, offering more competitive salaries to retain high quality staff as well as retaining and managing entrance fees and other revenue. Some parastatal PCA agencies have established their own conservation trust funds (CTFs) (see CTF Factsheet) to assure long-term financing.

Many enterprises regularly go through a resource optimisation exercise to find efficiencies required to stay competitive on cost and operational effectiveness. Cost effectiveness analysis is recommended as part of the business planning exercise for PCAs (see Chapter 3).

In summary, options to consider under this practice guideline include: outsourcing, partnerships, biodiversity mainstreaming (whole-of-government approach, see Effective Collaborative Action, UNDP, 2022), institutional restructuring, better coordination between funders and sectors, joint planning actions, landscape or seascape planning, avoiding duplication of efforts, enhancing co-funding, identifying and building economies of scale, and identifying alternative actions that might result in the same conservation outcome. A wide range of technological advances offer cost savings, as do approaches such as citizen science, enhanced community engagement, and a myriad of other possibilities. For additional guidance, review the category 'Financial Efficiency' and 'Risk Management' in the conservation finance taxonomy (Meyers et al., 2020).

Practice Guideline B. Discourage harmful actions

In Chapter 1, we note the large expenditures from both governments and the private sector on activities that harm nature, such as government and corporate policies and regulations that either establish harmful incentives (such as subsidies) or clearly incentivise short-term private gains over long-term ecological and social well-being. Pressure on PCAs is impacted by a wide range of factors (Geldmann et al., 2019) and threats assessments are among the first actions that PCA managers take in preparing their management and work plans. Understanding and using finance solutions to address the harmful actions that limit or block conservation outcomes requires understanding the PCA site or system in the broader context. Integrating social, economic, policy and market conditions requires capacity and interventions at multiple decision-making levels from communities to the international policy arena.

Decreasing threats by discouraging harmful actions can be one of the most efficient approaches to PCA finance. A broad range of finance solutions can be deployed to support PCA objectives by directly or indirectly mitigating threats to biodiversity and as a result can reduce certain financing needs for site and system management. Most practitioners are familiar with this approach and consider reducing threats as part of their management plans and actions (e.g. work with communities to decrease poaching). However many managers believe finance solutions such as fines, penalties and taxes are beyond their control. Although both of those perspectives can be accurate, it is essential to seek finance solutions to reduce harmful actions as these approaches can be long-term, cost-effective and extremely impactful.

Economic instruments such as fines or penalties that work on the <u>polluter pays principle</u> (Grantham Research Institute, n.d.) can create financial disincentives for harmful activities: helping to align long-term goals. If PCA managers and advocates are not able to identify, promote or support these types of options, and as a result are not able to mitigate threats, then pressures will continue into the future and are likely to get worse (and more costly to manage) as unsustainable consumption and production patterns, population growth and other drivers are increasing while ecosystem area and function is decreasing.

Economic instruments such as taxes, fines and penalties for activities that harm biodiversity are an excellent starting point for consideration. Another opportunity at the system and national level is advocating for the redirection or restructuring of harmful public subsidies (e.g. fisheries and fossil fuels) towards conservation finance or less harmful actions, such as redirecting fertiliser subsidies towards regenerative or organic farming subsidies (e.g. Dempsey, Martin, & Sumaila, 2020; UNEP, 2023). For more ideas see the Conservation Finance Guide's Economic Instruments (CFA, 2022a).

Box 2.2

Brainstorming exercise for mechanisms to discourage harmful actions

An exercise to brainstorm ideas should start with elaborating your specific conservation outcomes, identify primary drivers of degradation or barriers to achieving your outcomes, and identify the actors, institutions and policies that are behind them: companies, government agencies, individuals, etc. Starting with the most significant local drivers on your site or system, begin to list the actions and incentives that should change and seek to define what a better activity or incentive structure would look like. As an example, assuming unmanaged tourism is the main driver of high site degradation, identify actions that could better manage tourist activity: entrance fees to limit the number of visitors, mooring buoys to reduce anchor damage, diver training, etc. Where there is an option to reduce harmful actions and increase financial capital for conservation – such as with green taxes or by adjusting entrance fees, with the revenues retained for conservation – these are some of the most effective finance solutions.

Practice Guideline C. Incentivise positive actions

This guideline seeks to encourage financial solutions that incentivise key stakeholders to act in ways that directly or indirectly benefit PCAs. Solutions might include a range of collaborative partnerships, direct support to livelihoods and enterprises, as well as market, economic, fiscal and policy mechanisms that incentivise positive impacts on conservation outcomes. Incentives could be non-financial or financial – such as the positive impact ecotourism has in certain cases to discourage poaching and illegal fishing in PCAs (Stronza, Hunt & Fitzgerald, 2019). A responsible tourism operator that brings tourists to a PCA can have both financial and behaviourally positive impacts on the site and collaboration between the PCA and these tourism operators can produce positive outcomes for all involved.

The range of potential positive incentives includes the following:

- Economic instruments tax breaks, tradable resource use permits, compensation and offsets, and environmentally motivated subsidies for individuals, companies and practices;
- Fiscal approaches including direct government budget allocation, ecological fiscal transfers, government grants all directed at positive behaviour;
- Other government and private sector incentives certification schemes for sustainable products and services, favoured trading and promotional opportunities, technical support, etc.; and
- Blended finance including technical assistance and concessional loans, sustainability linked loans and bonds, financial guarantees, etc.

Additional resources can be found at www.conservationfinancealliance.org/cfa-white-paper (CFA, 2022b) and the BIOFIN Catalogue of Finance Solutions (BIOFIN, n.d.-a).

Box 2.3

Brainstorming exercise for financing solutions incentivising positive actions

Begin by identifying key stakeholders that are having negative, neutral or positive impacts on the ecosystems in question and specifically on your conservation outcomes. These are likely to include beneficiaries of the ecosystem services such as local communities, smallscale fishers or smallholder farmers, hotels, restaurants, artisans, tour companies, dive shops, etc. Identify mechanisms that could better align these actors' incentives with your outcomes including certification approaches, ecotourism, sustainable fisheries, forestry and agriculture, access to capital, access to markets, etc. Try to identify cost-effective ways to either finance good actions (government subsidies, microfinance) or encourage positive behaviour. Often the best solutions are identified directly through discussions with the partner stakeholders. Describe these as potential finance solutions to be prioritised with the others. It is likely that these will be extremely cost efficient, produce cobenefits, and increase the legitimacy of conservation programmes (Bennet & Dearden, 2014; Gurney et al., 2021).

Practice Guideline D. Increase financial capital for conservation

The goal of this guideline is to identify means to increase the availability and long-term stability of financing for PCAs. Where it is possible to align the goals of increasing financial capital for conservation with the other practice guidelines, this can be an efficient outcome. Economic instruments such as fines, penalties and green taxes often can be useful for this but almost all economic instruments and many market-based solutions can also achieve both revenue and behavioural alignment. There are several important aspects to the use of economic instruments for revenue generation: 1) generating revenue from nature only contributes to conservation if the revenue is earmarked or retained for nature management; 2) the existence of retained revenue should not reduce government or donor financial support; 3) the policy objectives of the economic instruments should take priority or at least be of equal importance to the revenue generation; and 4) care is required to avoid adverse incentives where revenue generation results in direct harmful impacts on nature (e.g. overtourism, aggressive tree 'thinning'). The latter can occur when an agency becomes dependent on revenue flows and does not have a diversified portfolio of finance sources.

Financing PCAs is principally the government's role and responsibility. This is clear for a number of reasons. First, most terrestrial and marine PCAs are located on government owned and managed land, water and marine ecosystems. They are managed as public assets on behalf of citizens. Secondly, although PCAs provide enormous economic and financial value to governments and businesses (e.g. water; taxes from hotels, restaurants, air travel, salaries, etc.), governments are best able to capture a portion of this value through taxes and fees. Finally, private market systems do not adequately price and finance the supply of natural capital and ecosystem services. Substantial revenues captured through general income taxes, corporate profits or almost any other economic activity are indirectly or directly dependent on nature and PCAs (Balmford et al., 2015). Because of nature's indirect economic benefits, it should not be necessary to require a direct link between revenues from nature (entrance fees, timber stumpage fees, etc.) and government budgetary finance for nature. Although, a limited number of PCAs are able to do so while maintaining the integrity of the PCA (Balmford et al., 2015; Coad et al., 2019), Balmford and colleagues (2015) found that on average, only 2% of tourism income went back to park management and maintenance globally. As well, many sites with strong tourism revenues are used to subsidise sites that are more remote or those with lower revenues.

PCA managers often and repeatedly need to make the case for their benefits of the PCAs they manage to the government, key local and regional stakeholders, donors and other partners to continue to secure both financial capital and other support needed to achieve their objectives. Making the case can include economic valuations, jobs created, ecosystem services provided, climate resilience and mitigation, and other arguments that address the interest and needs of the target funding sources.

Box 2.4

User pays and polluter pays principles

Potential finance sources and mechanisms can be developed by documenting the principal beneficiaries of the main ecosystem services provided by the site or system. This could include tourists, restaurants, collectors, fishers, exporters, aquaculture producers, etc. Of these beneficiaries, who might have a willingness and an ability to pay to support these services? In terms of polluter pays, review who may be harming those services or natural assets through pollution, overuse and direct impacts. Are there ways to reduce those harms through economic instruments such as green taxes, fines, mitigation legislation and public disclosure requirements?



Figure 2.6 User pays versus polluter pays. *Source: Prepared by the report authors.*

Equity, responsibility and rights

The overall goals of finance for PCAs is to achieve long-term conservation outcomes with careful attention to issues of equity, cultural respect, and other social and human capital objectives. The Guide's Preface identified eight principles that should be considered while designing and implementing PCA finance (see Prologue and principles). The four practice guidelines interact with these principles in multiple ways as exemplified in the following matrix of examples in Table 2.2.

Table 2.2.	Examples	of the interactions	among the practice	guidelines an	d the principles
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4 Practice guidelines and 8 Principles	Optimise resource efficiencies	Discourage harmful actions	Incentivise positive actions	Increase financial capital for conservation
Diverse values	Consider diverse values and definitions for optimisation	Understand the varied drivers of nature loss Integrate Indigenous peoples' and local communities' respect for nature into laws and regulations	Individuals and groups have diverse values and motivations regarding nature	Explore willingness to pay and receive payment from diverse perspectives including non-monetary values
Rights-based	Recognise and support traditional nature stewards as efficient managers Engage disadvantaged communities as partners	Empower nature stewards' rights to reduce harm Understand and compensate opportunity costs	Consider and enhance traditional and community rights and responsibilities	Clarify tenure and rights to enable new financial flows Enable access to capital in favour of conservation
Good governance	Develop governance capacity at all levels Use science and local knowledge for management	Effective governance discourages corruption and illegal activities	Governance systems for nature enable diverse economic opportunities	Trust and accountability is key to securing finance Natural resource management systems enable returns from sustainability
Strong institutions	Institutional effectiveness = efficiency Robust and capacitated organisations are resource conservative	Ability to lobby and negotiate to reduce nature impacts Enhanced enforcement of legislation	Effective partnerships, governance and trust	Well financed institutions assure continuous and impactful PCA support and management
Systems approach	Whole-of-government approach Balanced costs/benefits Effective planning and implementation Avoiding counter- productive finance and adverse incentives	Landscape and seascape interactions integrated across agencies and institutions into planning and finance Full cost accounting on public and private impacts on nature	Economic, social and ecological systems working together	Wise investment in nature benefits numerous actors
Comprehensive collaboration	Increased effectiveness through partnerships	Avoiding adverse incentives and working at cross purposes	Public-private partnerships enable effective solutions Rightsholders and nature stewards recognised and empowered	Blended finance to transfer risk to appropriate funding sources Funder coordination
Portfolio approach	Finance solutions interact to increase efficiency	Combining solutions to impact the system	Mix of positive incentives and other solutions	Diverse times and scales of financial flows to meet funding needs
Effective finance solutions	Finance solutions themselves must be cost- effective	Clear incentives to reduce harm are often the most effective	Minimise transaction costs by effective collaboration	Enhanced efficiency leads to more funding for actions Direct finance to conservation actors

Some of the principles are addressed in the Guide's chapters to emphasise their importance and several are explained in more detail in the following section on implementation. *Source: Prepared by report authors.*

2.4 Implementation guidance

Overview

There is a wide diversity of potential finance solutions available to the PCA finance practitioner. It is essential to use a systematic approach to identify, prioritise and implement finance solutions, combining ambition with practicality. This section presents a few overarching points of guidance:

- Build from what you know.
- Consider complexity and cost along with impact.
- Build balanced portfolios of finance solutions.
- Effectively engage stakeholders.

Build from what you know

Given the overwhelming diversity of potential finance mechanisms that can be incorporated into finance solutions for PCAs, it is essential to build solutions from what currently exists, and from existing capacity. Capacity is a critical issue: PCAs and PCA agencies are often grossly understaffed (Coad et al., 2019), meaning that there simply are insufficient or under-capacitated human resources to develop and implement new finance solutions (or even, in some cases, to effectively spend any increase in funds). Technical and managerial capacity is also crucial. There is no point in deciding to pursue financial solutions which require expertise and skill-sets that are not available to a particular PCA, have large data or research needs, or presuppose a level of policy change, stakeholder engagement, and dialogue that PCA staff are not equipped or authorised to carry out.

Practitioners are often drawn to pursuing the most recent innovation or novel mechanism for financing nature; mechanisms that make it to the news or social media due in large part to their novelty. However, it is strongly recommended that PCA staff and management initially focus efforts on approaches most likely to succeed in producing significant and stable funding. Figure 2.7 suggests that practitioners should first seek to improve or enhance solutions they are already familiar with, like expanding finance sources such as new donors (recognizing this is not necessarily sustainable), then expanding the types of finance mechanisms (i.e. adding camping or diving fees in addition to entry fees). Only after source and mechanism types with which practitioners are familiar are in place should completely new mechanism / source combinations be implemented.Some useful resources for finance mechanisms can be found at the following:

- BIOFIN Catalogue (BIOFIN, n.d.-a).
- CFA Website (CFA, 2023).
- CFA Guide (CFA, 2022b).



Figure 2.7 Developing PCA finance solutions building from existing capacity. *Source:* Prepared by the report authors.

Consider complexity and cost along with impact

PCA managers, system directors, and staff are often underfunded and under-capacitated. As a result, time spent developing finance solutions for their site and system must be targeted and efficient. Finance solutions differ widely in their potential conservation or financial impact, their cost, as well as their ease of implementation. The ease of implementation can be based on the nature of the finance mechanisms involved, the existing capacity levels, and on site, regional and national conditions such as the existing legislation, economic, physical or business environment, and a range of other factors. These site or situation specific factors can vary so widely that it is not possible to categorically attribute complexity, cost or impact potential to finance mechanisms; that classification must be done based on the specific situation. The graphic below (Figure 2.8) provides some general guidance on how to think about balancing impact, cost and complexity.



Complexity and/or Cost

In general, the highest priority finance solutions will be those with the greatest conservation or finance impact potential and the lowest complexity and cost. Where the impact is moderate, but complexity and cost are low, there could be quick wins worth including in the mix – a diversity of solutions adds to financial resilience. Complex, costly but potentially highly impactful solutions could be high priority if they have high likelihood of success or have been done before – such as debt conversions. However, in general, complex or costly solutions can be considered long-term priorities and in some cases finance solutions must be developed and socialised over time until the political or social conditions are favourable or capacity is built. Finally, those highly complex and low-impact solutions are low priorities.

Build balanced portfolios of finance solutions

A diversity of finance solutions is essential for almost any PCA and PCA system. There are some rare cases where the government covers all PCA costs adequately and thus one or a few funding sources may be adequate and sustainable. However, even in the USA where parks and reserves have historically been well-funded, additional sources of funding are often necessary to complement government budgets (see National Park Foundation, n.d.). Well-balanced and diversified finance solution portfolios can provide the following benefits:

- Consistent flows of adequate resources over time financial flows or impacts from certain solutions may change over time and quite abruptly a political crisis, a pandemic, etc.
- Reduced risk of political, market or social impacts avoid total dependence on any one source, such as tourism, government budgets or international project funding.
- Balance issues of inflation, currency risk and changing future needs.
- Increased financial adequacy more finance sources can lead to more finance.
- Counterbalanced and manageable sequencing and timing of different financial flows or impacts.
- Ability to target different types of financial needs (e.g. operating costs) and cost-bearers.
- Better integration with other UN SDGs through collaboration and partnerships.

Figure 2.8 Prioritising finance solutions based on impact and complexity or cost. Source: Prepared by the report authors. One particular opportunity in taking a portfolio approach is to identify where existing finance mechanisms or economic instruments can be more effectively applied, better targeted or combined. Packages of mutually-reinforcing finance mechanisms can often leverage much greater impact, at lower cost, than the development and use of single finance mechanisms in isolation (as had traditionally tended to be the case in the design of PCA finance approaches, especially externally-funded projects). One mechanism may, for example, generate funding, while another incentivises a particular target group, and a third simultaneously addresses or penalises a key threat. One example is the use of carbon taxes to provide recurring finance managed by a conservation trust fund (e.g. Costa Rica, Colombia). This solution reduces fossil fuel consumption by increasing price, funds the CTF, and thus enables grants to protected areas.

Effectively engage stakeholders

Finance solutions work best when their design considers the conditions, cultures and constraints of the systems within which they function. The design and implementation of finance solutions should take into consideration political economy conditions. Political economy is "a branch of social science that studies the relationships between individuals and society and between markets and the state, using a diverse set of tools and methods drawn largely from economics, political science, and sociology" (Britannica Money, 2024, June 14; see *also* Frieden, 2020). It is extremely valuable to understand the interrelations of these different sectors and drivers. One effective way to promote success of a finance solution is to effectively engage with key stakeholders so the political economy impacts are integrated into the solution's design and implementation.

The systematic engagement with stakeholders must be embedded from the start, as finance solutions need to be carefully and closely tailored to challenges being addressed including the type of PCA costs that are intended to be covered, and the groups that could be bearing costs. The process of solution development and implementation is as important as the economic or financial models that underpin the solutions – solid consultation and engagement is needed regardless of a solution's technical merits.

The identification of key stakeholders can be done through standard approaches to conservation planning such as the <u>Open Standards for Conservation</u> (Conservation Measures Partnership, n.d.-b) and as presented in the <u>BIOFIN Methodology</u> (Cruz-Trinidad et al., 2024). The finance planner should identify stakeholders that could harm or help the conservation outcomes and not focus only on one set of stakeholders. A useful model for engagement approaches for stakeholders is captured in the power–interest matrix (see Figure 2.9).



Figure 2.9 Power-interest matrix. See Vogler et al. (2017) for a detailed presentation. Stakeholder groups can be ranked by how much power they have - a finance ministry will have more power than a community-based organisation - and how much interest they have in positive conservation outcomes - the community group may have a higher interest compared to the finance ministry. The matrix suggests that for stakeholders with a high ranking of both power and interest, close engagement and partnership would be beneficial. Different placement in the matrix suggests alternative strategies - Advocacy for high power and low interest, Empowerment for high interest but low power, and Awareness Raising for low interest and power. Source: Adapted from Vogler et al. (2017).

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Chapter 3 Finance strategy and planning



Coastal fishers in Western Madagascar © David Meyers

3.1 Introduction

Integrating finance into conservation planning and management is essential to support successful long-term conservation outcomes. Site and system finance and business plans allow for taking stock of finances, the estimation of finance needs and provide a structured framework for the identification, development and eventual implementation of viable finance solutions. Without a finance or business plan, it is difficult to implement a general management plan or to successfully request finance from public and private sources. In addition, the planning process itself can offer an opportunity for engagement and deeper partnership with new and existing stakeholders and for drawing on a range of expertise to address conservation challenges and opportunities. This chapter outlines the benefits of undertaking finance strategy and planning, its alignment with overall protected and conserved area (PCA) management planning, the key elements and steps involved, useful tools, guidelines and resources, and case studies.

Finance planning is sometimes thought of as a distinct sub-component of business planning, but there is substantial overlap. In addition, many PCA finance plans and similar documents tend to cover elements of strategy and planning. What matters is that time and effort is devoted to both strategic thinking and the nuts-and-bolts of planning. It is also useful to recognise that PCA finance planning is a process that incorporates various elements. which are tailored to the specific needs, purpose, context and planning/management cycle in which they are being applied. Throughout this chapter, we refer to 'finance planning' or 'finance plans' to include the approach and products that produce a business plan, finance plan or finance strategy, depending on the scale and target audience.

PCA finance planning should be undertaken as part of broader conservation strategies and typically would be expected to directly support, and be subordinate to, conservation management strategy and planning. PCA finance planning should¹ consider the wider context, legislation, strategies and policies that impact conservation as shown in Figure 3.1. These include the financial context and associated legislation governing public finances generally and applicable to the PCA management authority. Finance planning can apply to different spatial scales, namely nationally or on a system-wide level for all PCA management authorities in a country, for specific regions or management authorities, and for individual PCAs or even for individual projects and sites. Certain finance solutions and strategies are applicable to specific PCA system levels and others may be more broadly applicable. For example, revenue sharing models are generally covered in system-level strategies and regulations because of implications to the government and the overall PCA network, but may also be managed or specialised at individual PCAs.²



Figure 3.1 Finance strategy and planning in the overall PCA management planning hierarchy. *Source: Prepared by the report authors.*

Note: More detailed project plans (e.g. to establish several tourism concession sites across a PCA network) and site plans (e.g. for one concession site) could also flow from general management plans and have financial elements.

¹The existence of a PCA management plan is highly preferable but not essential to inform finance planning. In its absence, it is necessary to at least have a clear vision of your main conservation objectives and a basic roadmap to achieve them (BlueSeeds, 2021).

²In Uganda, Bwindi Impenetrable National Park has a specific revenue sharing component which is different to other parks, namely an additional US\$ 10 of revenue shared per gorilla-tracking permit sold (Archabald &Naughton-Treves, 2001).

3.2 Benefits of finance planning

There is an urgent need for most PCA management authorities to improve their finances and the chances of achieving this can be greatly enhanced by explicitly integrating sustainable finance into the overall PCA(s) management strategy and planning process. Some of the key benefits of finance planning processes include:

- Finance and business plans introduce a business-oriented approach to PCA management. They can help focus management authorities towards priority services, finance sources, and approaches. They can allow for the systematic assessment of ecosystem service benefits that PCAs provide to individuals and companies in sectors such as tourism, fishing, agriculture, water supply and hydroelectricity. This process identifies 'customers' or beneficiaries of the PCA, their benefits or impacts, and whether these benefits or impacts can be converted into revenues for the PCA.³
- Detailed assessments of the PCA finance context and finance needs are key elements of finance planning. These can assist in understanding needs and conveying them to funders and investors. They can assist in uncovering and addressing resource inefficiencies, identifying underexploited revenue opportunities (e.g. fee levels that have remained the same for several years) and designing finance solutions to address priority conservation targets.
- Strategising about finance can focus attention on clarifying longer-term objectives and seeking solutions that offer the chance of more substantial, diversified and more stable finances. It can assist with understanding and addressing over-reliance on single-sourced income or one funding stream.
- Finance planning introduces greater structure and general rigour needed for better management. It allows for self-assessment, thinking through concepts and plotting key steps and tasks along with their costs, timeframes and desired results. This assists with fundraising, execution, monitoring progress, and adapting when needed.
- Committing to the finance planning process is a strong signalling mechanism in and of itself. It shows potential funders and investors (government, public and private donors, potential concessionaires, and communities) that PCA finances are being taken seriously. In addition, having financial management information and data readily available can make a difference should there be a need to respond rapidly to data requests from potential funders.
- Plans can highlight the case for investment and support of PCAs and of the implementation of finance solutions. In this sense they serve a key communications and marketing role.

3.3 Key elements and steps

PCA finance strategies or plans are relatively diverse in terms of their contents, approaches and structure. The key steps involved in finance planning depend on which specific guidance and methodology is followed and typically include (see Figure 3.2):

- 1. **Preparation and process:** The approach and process to elaborating a finance plan is as important as the resulting plan. It is an opportunity to bring staff, stakeholders, funders and other key target groups into the process to assure engagement, create an understanding of the financial requirements and build finance and management capacity.
- **2. Situation assessment:** Assessment of financial information including past revenues and expenditures, funding sources, existing finance mechanisms, areas of inefficiencies and key risks and challenges to achieving the conservation objectives.
- **3. Finance objectives:** Refinement of the conservation outcomes, financial needs and specific targets (results) that can be achieved with stable and adequate funding and effective implementation of finance solutions.
- 4. Portfolio of finance solutions: Following the identification of finance solutions, a mix of solutions should be prioritised to address finance needs and objectives based on a range of criteria.
- 5. **Presentation:** The results of the planning process are captured and presented in a format relevant for the target audience.
- 6. Adaptive management: Implementation should follow a clear plan and include feedback loops to adapt to changing circumstances and opportunities.

³Note that the objective is not profit-making as such, but rather generating revenue and otherwise improving finances to improve PCA management (Conservation Finance Alliance [CFA], 2003).



There are several guidance resources available for different aspects of the finance planning process. The choice of which model and methodology to use will be up to the PCA or PCA system. Some countries or PCA networks have their own approaches which should be followed for budgeting purposes but may be enhanced by adding additional elements if useful. One of the most comprehensive approaches for site-level finance planning is from Emerton and Bùi Thi Hà Ly (2021a) who provide a practical field-tested guideline on <u>A Stepwise Approach</u> to Sustainable Finance Planning for PCAs. The approach involves ten steps grouped into three main stages of strategic thinking and planning (see Figure 3.3). The **diagnosis** stage is used to frame the financing context, issues and needs, looking at the broader PCA landscape, including both the core and buffer zone. A spreadsheet-based <u>PAFSAT: Protected Area Financing Self-assessment Tool</u> is available to assist PCA managers to carry out the diagnosis phase (Emerton & Bùi Thi Hà Ly, 2021b). The **response** stage then determines which finance solutions can be used by the PCA-managing authority to overcome these constraints. Finally, the **delivery** stage charts out what needs to be done to translate the finance strategy into practice, and implement the identified finance solutions in support of the PCA management plan.

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Figure 3.3 Example of the finance planning process. Source: Emerton and Bùi Thi Hà Ly (2021a). At a national level, the Biodiversity Finance Initiative (BIOFIN) applies an approach that results in a 'biodiversity finance plan' which seeks to address the financing of all biodiversity resources, not just those within PCAs (United Nations Development Programme [UNDP], 2018, see Cruz-Trinidad et al., 2024 for new version). The biodiversity finance plan is built on a policy and institutional review, a biodiversity expenditure review, and a finance needs assessment, and seeks to prioritise the most appropriate finance solutions for the country context, addressing funding needs, also delivering better, avoiding future expenditures, and realigning expenditures. Another example of a programme, or large-scale finance solution, which requires the application of elements of large-scale system level financial planning is the project finance for permanence (PFP) approach. It aims to develop a long-term project finance model for sustainable finance and management of country-wide or regional PCA systems and surrounding landscapes. This requires national-level financial assessments and conservation and community development planning as outlined in the guide by Cabrera et al. (2021). Further details are available in the <u>PFP Factsheet</u>.

The following sections address the key elements and steps listed above and elaborate on best practices, useful tools and case studies for both individual PCAs and PCA systems. Further details including key guiding questions per step, data collection tools and sources, and general tips can be found in these sources of guidance on PCA financial and business planning:

- Guidelines for a Stepwise Approach to Sustainable Finance Planning for PCAs (Emerton & Bùi Thị Hà Ly, 2021a) and the spreadsheet-based Protected Area Financing Self-assessment Tool (PAFSAT) (Emerton & Bùi Thị Hà Ly, 2021b).
- Coast Funds (2024) Finance for Forests: A Guide to Conservation Finance Options for First Nations' Conservation and Stewardship provides Criteria for Evaluating Strengths and Weaknesses of Conservation Finance Mechanisms, in-depth analysis of conservation finance solutions used by the Indigenous-led Coast Funds in British Columbia, Canada, and indicators for community health for First Nations that can be adapted by Indigenous peoples and organisations.
- Wildlife Conservation Society tool and guidelines for conservation investment planning, focusing on participatory approaches which engage and are 'owned' by PCA managers and local-level stakeholders (Emerton, Tizard & Saw Htun, 2018).
- Conservation Finance Alliance Conservation Finance Guide including guidance and excel tool for PCA business planning (CFA, 2003 and CFA, 2022).
- Securing Sustainable Financing for Conservation Areas: A Guide to Project Finance for Permanence (Cabrera et al., 2021).
- Slovenian Guidelines for Protected Areas Business Plans (Ruzzier et al., 2010).
- Guidebook for the Development of Simplified Business Plans for Protected Areas (Landreau, 2012).
- MedPAN and BlueSeeds Sustainable financing guides for marine protected area (MPA) managers focused on the Mediterranean (Binet et al., 2015 and BlueSeeds, 2021).
- BIOFIN Workbook (Cruz-Trinidad et al., 2024).
- A New Tool to Evaluate, Improve, and Sustain Marine Protected Area Financing Built on a Comprehensive Review of Finance Sources and Instruments (Bohorquez et al., 2022).

Preparation and process

Adequate preparation and organisation prior to the start of finance planning can substantially increase the chances of success. Preparation includes:

- Define the scope target areas, sectors, and planning time-horizon (often five to ten years).
- Define the audience for final products and desired outcomes.
- Identify key stakeholders to be involved in the planning process, and identify a strategy for engagement and communication.
- Assess the nature of possible involvement of outside experts and set terms of reference.
- Develop a detailed work plan and budget for the process and ensure adequate allocation of personnel and resources.
- Initially engage with partners to secure their interest, support and participation.

The process associated with finance planning is crucial. Inclusive stakeholder engagement is an important overarching determinant of success and acceptance, as it is for general PCA management planning processes. It is particularly important to engage with stakeholders to elicit and prioritise new finance solution ideas in each local context. Stakeholders should be identified from actors associated with all four finance practice guidelines presented in Chapter 2 including those that benefit from, impact on, or bear the costs of PCAs. Internal actors within PCA management authorities and sites including non-financial staff should also be included as they can build capacity, contribute meaningfully to the process, and increase their buy-in for implementation.

PCA finance is an increasingly specialised and fast-moving field. If capacity is not available within the leading authority, agency or organisation, the engagement of expert consultants is recommended at various stages of the process. Where internal capacity is low, high levels of outside expert involvement may be necessary in all aspects of finance planning. Where capacity is high, limited outside expertise may be needed for specific inputs such as prioritising among finance solutions or for specific finance solution feasibility and implementation.

Situation assessment

The diagnosis or situation assessment stage frames the financing context, issues and needs, looking at the broader PCA landscape, including both the core and buffer zone. It sets the scene for the subsequent design and implementation of finance solutions and includes a review and assessment of the PCA's financial status and context, existing finance solutions, conservation costs and cost-bearers.

One key part of the situation assessment is to identify the conditions and issues that need to be addressed in finance planning. As mentioned in Chapter 2, these do not just concern monetary funding gaps. It is also important to identify and understand the underlying structural constraints that may serve to undermine, disincentivise or otherwise challenge the financial effectiveness, equity and sustainability of PCA management. Figure 3.4 shows examples of a range of factors and conditions that act as financial constraints to effective PCA management, increase conservation costs, or otherwise undermine the impact and effectiveness of finance solutions. It is thus necessary to identify and consider these constraints and opportunities throughout the finance planning process starting in the situation assessment or diagnosis stage.

Figure 3.4 Key elements of financial sustainability. *Source: Emerton (2023).*



Emerton and Bùi Thị Hà Ly (2021a) observe that, for example, a common challenge is that there often remains a serious disconnect between PCA budget planning and on-the-ground

management needs and conservation priorities. Other key issues include the source, diversity and timing of funds (cash flow), the form in which finance is provided, whether revenues can be retained and reinvested in conservation or at the site level, to whom income accrues, what funds are spent on, as well as the institutional, policy and planning frameworks that determine how financial resources are requested, allocated, administered and used. Money is not always available at the right place and time for the activities that have the highest priority in PCA management terms or for the groups that actually bear the costs of conservation. Effective financial planning for PCAs also requires a comprehensive understanding of the legal, operational and socio-economic environment for conservation. It is important to review existing conservation policies, regulations, current interventions and the financial picture at the site, regional and national level. This includes documenting and understanding finance mechanisms that have been supporting the area and the country's broader PCA network as well as other mechanisms that significantly impact conservation and natural resource management. Understanding these mechanisms, including their strengths and weaknesses, is key to their improvement and supports the identification and prioritisation of potential new mechanisms.

Early stages in financial planning should include the establishment of the finance baseline including the collection and review of key financial information. Funding and revenue sources should be described (how they are generated, fee schedules, etc.) and annual amounts provided per source and per individual PCA where relevant. The distinction can, for example, be made between government allocations, donor funding, and own/commercial/site-based revenues. It is also important to be clear whether funding for infrastructure) or are general and can be used for any purpose. Clarity on capital and operational expenditure on management is needed preferably disaggregated into expenditure categories (e.g. staff, fuel, maintenance, etc.) and per individual PCA where relevant. Data should be gathered for a long enough period (ideally 10 years) for it to show trends in revenues and expenditures. Unfortunately, this type of data is often limited, patchy or unavailable, which can inhibit finance strategy development and future investment (Bohorquez, Dvarskas & Pikitch, 2019). Consistent and structured financial planning can effectively address this challenge by assuring robust collection of data going forward (Bohorquez et al., 2023).

Consideration should be made to capture these key elements in a situation assessment:

- Review of applicable laws, policies, plans and regulations with relevance to PCA finances.
- Management authority organisational structure (organogram) and indications of decisionmaking, governance and available capacity.
- Spatial analysis including usage zones along with any restrictions that may apply (e.g. tourism carrying capacity).
- Basic economic assessment where feasible including the identification of cost bearers and beneficiaries for effective conservation.
- Review of all existing finance mechanisms and any information or assessment of their effectiveness.
- Partner assessments and profiles of any conservation trust funds (CTFs) or similar structures, key non-governmental organisation (NGO) partnerships, volunteer or 'Friends' groups, private-public partnerships, etc. including their relevance and financial contribution through funding, co-management and other forms of assistance.
- Clarity on whether revenue retention at site or system level is possible and what restrictions or limitations exist (e.g. for all own revenue sources or only certain portions of selected sources).
- Description of revenue/benefit sharing programmes with communities and partners and historical amounts shared.
- Outline of existing finance solution development processes or pilots to avoid duplication or replication and to leverage new and innovative opportunities.
- Other key data with relevance to PCA finances such as tourism visitor numbers, humanwildlife conflict incidence and compensation processes/amounts, nature and amount of direct use of PCA resources (e.g. harvesting), etc. as they have a direct bearing on PCA costs and incomes.

The UNDP Financial Sustainability Scorecard for PCA systems (Bovarnick, 2010) can be used as a framework to assess existing PCA finances and gauge whether they are improving. The Protected Area Financing Self-assessment Tool (PAFSAT) aids with structuring the diagnosis phase including the use of 'scorecards', to collecting the site-level information that is required to identify and understand the financing status, trends, challenges and opportunities faced by PCAs (Emerton & Bùi Thi Hà Ly, 2021b).

Finance needs and objectives

Establishing clear objectives for the finance plan is essential and should include specific conservation outcomes, financial targets and implementation milestones. Conservation outcomes are often determined through a general conservation management planning process into which finance planning should be integrated (see Figure 3.3). Financial targets are determined from a combination of a bottom-up costing process combined with incremental budgeting processes to establish realistic and aspirational financial needs assessments (see UNDP, 2018; Cruz-Trinidad et al. 2024).

In determining or solidifying conservation outcomes, practitioners should evaluate past, present and future impediments to those objectives and seek to understand how finance solutions can mitigate these barriers. It is important to review the four finance practice guidelines when considering these desired outcomes and potential impediments. For example, a comprehensive finance plan considers not only how to raise funds, but also how to assure resource efficiency, leverage finance solutions to encourage positive and discourage negative behaviours that can influence conservation outcomes, and how to deliver funds better (Meyers et al., 2020; UNDP, 2018).

A financial needs assessment is the core quantitative work required for an effective finance plan regardless of the scale for which a plan is being established. At the site level, the financial needs should be an estimate of what financing will be required to achieve the conservation outcomes defined in the site's general management plan. There may be a wide degree of subjectivity on what is needed for achieving conservation outcomes and it should be noted that much of what is spent in protected and conserved areas – especially those that involve high tourism levels – is spent on infrastructure, tourism management and other activities not closely related to conservation outcomes. Agreement on priorities and realistic needs should be integrated into the budgeting process and some business plans include a baseline and an optimum funding level to reflect this subjectivity.

Even the smallest private or community site should have clear objectives that can be costed. Most formal protected areas establish and maintain a management plan but often the plan does not include measurable, and therefore 'costable', results. Finance needs estimation is made considerably easier if it is integrated into general management planning from the start. Throughout this process of assessing financial needs in greater detail, it is important to track how each activity that is budgeted helps attain the conservation objectives. A simple cost to impact assessment can provide insight which activities should be revisited and redesigned. This is important for prioritising the most important actions to finance and making the most impactful use of available funds.

There are a range of guidance documents and spreadsheet templates for assisting with the financial needs assessments for PCAs. It is essential to include all capital and operational costs to fully implement the management plan to secure the desired conservation results for all identified plan categories (i.e. administration, community outreach, research, etc.). At the site level, all needs should be itemised including personnel, equipment, vehicles, fuel, administration, travel, professional services, infrastructure, etc. Annual costs should be estimated per programme in the management plan where possible. Tools that can assist with estimating finance needs include the Protected Area Financing Self-assessment Tool (PAFSAT, (Emerton & Bùi Thị Hà Ly, 2021b), the CFA Conservation Finance Guide Excel tool (CFA, 2003), chapter 5 of the 2018 BIOFIN Workbook (UNDP, 2018) and MedPAN 2015 (Binet et al., 2015) for marine PCAs.⁴ It is advisable to estimate finance needs over a minimum period of five years and ideally, to attract durable investment, a 10-year estimate is needed that accounts for inflation.

Many approaches compare financial needs with the existing financial flows to determine the 'finance gap' and seek to establish a set of finance solutions to fill it (see Figure 3.5). Finance solutions can be designed to reduce pressures or address opportunities and it is as important to support (and hopefully expand) existing finance flows as it is to find new ones. The finance plan for PCAs and PCA systems should include a plan for supporting the full portfolio of finance solutions that contribute to the PCA finance and conservation outcomes including existing finance sources and mechanisms as well as additional finance solutions.

⁴The BIOFIN Workbook focuses on finance needs assessment for biodiversity conservation which applies similar concepts and approaches to a finance needs assessment for PCAs.

Finance needs (after efficiencies taken into account)

Finance available

Additional finance needed (finance gap)

It should be recognised that many PCA managers have limited control over their main budgets and that plans to increase funding will be limited by the realities of their situation. Expanding funding and leveraging finance solutions should be seen as progressive initiatives where sometimes leveraging small gains can lead to larger opportunities.

Generally, the establishment of terrestrial PCAs involves significant costs, with some requiring purchases of private land. Marine PCAs can be comparatively inexpensive to establish as fewer private property rights exist in marine areas, but can have expensive long-term operating costs due to logistical challenges of conducting management activities at sea (Bohorquez, Dvarskas & Pikitch, 2019). For long-term operating costs, personnel costs typically make up the majority of annual spending (Bohorquez et al., 2023; Gill et al., 2017).

Cost models have been published that can provide preliminary estimates of PCA costs at network-scale (Balmford et al., 2003; Balmford et al., 2004; McCrea-Strub et al., 2011). These models have been helpful for estimating global needs and can provide a rapid estimate of general budget expectations. They should not be used to replace detailed planning based on bottom-up costing of individual conservation actions. Multiple finance need estimates can be generated for different PCA management scenarios if required. For example, (1) a basic or minimum management scenario, which would be the minimum level of funding required to operate basic programme requirements to sustain ecosystem functions in the PCAs; and (2) an optimal or ideal management scenario which would be the aspirational level of funding sought to operate all programmes to reach and sustain optimal ecosystem functioning in PCAs (Flores et al., 2008). For PCA networks, finance needs can be estimated by summing individual PCA finance needs, taking synergies into account. System level assessments based on the costing models noted above (see Waldron et al., 2020) can be extremely useful for a rapid assessment of system finance needs as detailed bottom-up estimates are rarely possible for all sites in a PCA network. Additionally, if estimates can be generated from a good sample of PCAs then those estimates can be extrapolated to the rest of the network (see Box 3.1).

Box 3.1

Georgian protected area finance needs assessment

In 2020 a finance needs assessment was completed for the protected area network managed by the Agency of Protected Areas of Georgia (Goduadze & Van Zyl, 2020). Detailed bottom-up estimates of finance needs were made for eight PCAs assuming a Basic Management and an Optimal Management Scenario. Results were then projected to the rest of the PCA network by grouping other PCAs according to similar management objectives influenced by ecological context (terrain, habitat, need for restoration, etc.), socio-economic contexts (remoteness, public access, and uses such as tourism, pasture, etc.) and existing levels of management effort and budget allocation. Existing finances available for the management of the PCA network averaged US\$ 4 million per year. For the Basic Management Scenario, finance needs were estimated at US\$ 9 million implying a finance gap of US\$ 5 million equivalent to 125% of existing finances. Needs for the Optimal Scenario were US\$ 11.5 million per year or 185% of existing funding. The finance gap was found to be relatively variable between the eight PCAs. Under the Basic Management Scenario, it varied from 27% of finance available for Vashlovani National Park where additional management needs were less, to 437% for Tusheti Protected Areas cluster, which had extensive needs.

Figure 3.5 Assessing additional finance needs for PCAs. *Source: Prepared by the report authors.*

Establish a portfolio of finance solutions

A primary outcome of finance planning is the identification, prioritisation and planning for implementation of a portfolio of finance solutions to support the achievement of conservation outcomes. A portfolio of solutions is key to financial stability, effectiveness and efficiency. This section covers the identification of finance solutions, their prioritisation and initial feasibility studies.

Finance solutions are essentially the ways in which finance can be improved and can include solutions that achieve one or more of the outcomes discussed in Chapter 2, namely the four finance practice guidelines. At any finance planning scale, it will be useful to implement a process of exploration and discussion around these four guidelines to help identify finance solutions. Additional guidance is provided in Chapter 2 that suggests building from existing capacity and finance mechanisms. The situation assessment or diagnosis step described above will have produced a comprehensive list of existing finance mechanisms, sources and flows. Reviewing this list for opportunities to expand, enhance, diversify or otherwise build from existing regulations, mechanisms and finance sources, is an excellent step and should be integrated into any exercise using the four practice guidelines.

It is often beneficial to cast the net relatively wide to start when identifying appropriate finance solutions. A relatively extensive initial list (a 'long list') of solutions, which show some potential can be identified including enhancements of existing finance solutions, scaling of pilot solutions, and the incubation and implementation of new solutions. Identifying solutions generally requires self-assessment and diagnosis (see situation assessment stage above), brainstorming with key stakeholders, and expert inputs and can be informed by:

- Identification of the beneficiaries, users or 'customers' of PCA ecosystem services such as water provision and purification, carbon sequestration, genetic resources, breeding grounds, and tourism. This can be augmented by an assessment of the value of these services and the practical potential to generate finance from beneficiaries through payments for ecosystem services (PES) mechanisms or PES-like arrangements. (Guidance includes the International Union for Conservation of Nature (IUCN) 2020 Protected Areas Benefits Assessment Tool (PA-BAT+ (Ivanić et al., 2020), IUCN 2018 Tools for Measuring, Modelling, and Valuing Ecosystem Services (Neugarten et al., 2018), Rode et al. (2016) ecosystem services framework for identifying economic instruments, Institution of Environmental Sciences (IES) 2013 guide on how to conduct an ecosystem services assessment in practice (Everard & Waters, 2013), Identifying and Prioritizing a Portfolio of Marine and Coastal Conservation Finance Solutions, CFA (Meyers et al., 2024)). Assessing the role and importance of ecosystem services is also increasingly important to allow PCA managers to understand what stakeholders, such as Indigenous peoples or local communities, might need and want from the areas they manage with implications for benefit sharing (Dudley & Stolton, 2023).
- Identification of the actors that negatively impact PCAs to devise finance solutions that change the incentives that drive their harmful actions and/ or generate revenue/ compensation from them. These may, for example, include sectors such as mining, oil and gas, agriculture and fisheries.
- Identification of those, primarily in neighbouring communities, that bear the opportunity or damage costs of PCAs, such as through human–wildlife conflict, with a view to devising finance solutions that alter their circumstances, incentivise conservation and increase their support for PCAs. These can include, for example, benefit or revenue sharing schemes, support for alternative livelihoods and compensation schemes.
- Assessment of opportunities for increased cost efficiencies or savings. For example, deploying PCA and Other Effective area-based Conservation Measures (OECM) management teams as one unit where these areas are contiguous or adjacent as opposed to having two separate teams.
- Review of previous local studies and initiatives on PCA finance, including what finance solutions worked, what failed, and why. This should ensure that the identification process for finance solutions learns from previous experiences.
- Review of international studies, cases, databases on finance solutions (see Factsheets, BIOFIN Catalogue of Finance Solutions (BIOFIN, n.d.), CFA Finance Guide (CFA, 2022) and IUCN Panorama Solutions (IUCN, n.d.)) to look for finance solution ideas. Understanding the building blocks or critical success factors of a particular solution and determining if these are present assists with understanding whether solutions are replicable or transferable to different contexts.
- Learning exchanges with other PCA managers and management authorities and engagement in conservation finance training, workshops and forums.

Once a comprehensive list of potential finance solutions is developed, a prioritisation exercise should be implemented that includes the full range of stakeholders and experts available. This can be relatively simple or more elaborate depending on needs in a particular context. For example, BIOFIN (UNDP, 2018, see Cruz-Trinidad et al., 2024 for new version) recommends a two-phased prioritisation process that:

- 1. Clearly describes each finance solution to be assessed so that it is understood by the assessors.
- Agrees to a rapid scoring criteria and a scoring scale. Include at least three criteria, namely impacts on biodiversity, financial impact and likelihood of success (see Box 3.2 for case study).
- 3. Scores all proposed finance solutions and select a narrowed group of solutions (usually the highest scoring) for a more detailed assessment.
- 4. Conducts a detailed prioritisation scoring (BIOFIN has 20 questions) and from the results select a portfolio of prioritised finance solutions.

Box 3.2

High-level screening of finance solution in the Comoros

In the Comoros, a list of initial MPA finance solutions was subjected to screening roughly based on the approach used in BIOFIN (Van Zyl, 2023). Each solution was evaluated against the following criteria (with relative weightings per criteria indicated given that all criteria were not considered equally important):

- Likely feasibility and successful implementation (including consideration of technical, social acceptability, legal, political and other risk factors) – weighting of 40%.
- Socio-economic and environmental benefits (e.g. jobs for local community members) weighting of 20%.
- Magnitude and sustainability of potential net financial gains (i.e. considering likely costs of implementation) – weighting of 40%.

Each solution was allocated a subjective score out of 10 per criteria based on expert and stakeholder inputs which was converted to a weighted overall score out of 10 with only higher scoring solutions being prioritised.

Bohorquez et al. (2022) developed a tool to identify and screen finance solutions with relatively greater potential with a focus on MPAs. It allows for the consideration and subjective scoring of the following combined criteria or indicators:

- **Sources of finance** in terms of the willingness or likelihood of the source to contribute or otherwise be leveraged to support the MPA.
- Feasibility for **finance instrument implementation** as a qualitative function of legislative barriers and other requirements for implementing against the MPA's capacity.
- Feasibility for **finance instrument management** and monitoring as a function of personnel and equipment requirements, and any other insightful indicators for assessing the potential to maintain and (if necessary) enforce the instrument over time.

The Sustainable Finance Coalition uses an approach that explicitly breaks down finance solutions into 'building blocks' (critical success factors or criteria) that allow for viability to be determined and solutions to be replicated (Stevens, Maduray & van Wyk, 2021). It also allows the stages of a finance solution to be better understood, such as when there is a need for deliberate incubation, when implementation can proceed and when scaling up is an option. For example, a human–wildlife conflict finance solution for communities living alongside PCAs piloted in Kenya by AB Consulting was broken down into its building blocks allowing for the innovation to be assessed for application in Uganda, which was found to have similar building blocks (Stevens, Van Zyl & Van Wyk, 2023).

Successful screening and prioritisation of finance solutions requires explicit consideration and integration of the often highly variable PCA context, as well as the views of PCA managers and other key stakeholders and decision-makers. This is partially because finance solutions tend not to have characteristics that are universally generalisable. Much depends on the specifics of the context within which they would be implemented. For example, not all applications of tourism use fees will be characterised by medium revenue and complexity of implementation; not all applications of biodiversity offsets will result in high revenue and complexity of implementation.

Screening and prioritisation provides for a limited analysis of each solution and should be followed by more detailed feasibility assessments of individual finance solutions to determine whether they should be included in the finance plan. Feasibility assessments can form the basis for further design and development of finance solutions and for clarity on implementation requirements. Key considerations, to be included in feasibility analysis for finance solution planning and implementation, can include the following:

- Required legislation or institutions.
- Political support and champions.
- Key constraints and risks.
- Necessary capacity including governance, financial management, and niche or technical skills.
- Technology to increase efficiency and scale.
- Market studies, research, piloting or incubation needs.
- Operational work planning: details of the activities and steps, responsibilities, timing, milestones, stakeholder engagement, technical assistance, infrastructure construction, administration, marketing, costs and monitoring.
- Funding requirements and resource mobilisation strategy.
- The expected annual financial and conservation benefits of each individual finance solution and the combined implementation of the portfolio of finance solutions over the chosen planning horizon.
- Key performance indicators that should be specific, measurable, achievable, relevant and time-bound.

A summary of the extent to which the portfolio of finance solutions will address the finance needs of the PCA is useful. This can include a comparison of their expected financial results with the annual capital and operational finance needs (cost requirements) of the PCA. Costs should be subtracted from revenues over the planning horizon to show net revenues. Finance planning and the associated choice of finance solutions should aim to strike a balance between realism and ambition.

Presentation

The previous steps including the situation assessment, finance objectives, and developing a portfolio of finance solutions are all inputs into the development and presentation of a plan. The plan should be prepared with one or a few key target audiences in mind and the plan's form, style and content should all contribute to its desired impact as defined initially and revised during the process. Most guidance materials provide example formats including chapter headings and key content to include. No attempt is made here to suggest one form over another. However, a few key features should be present in any PCA finance plan.

- Positive values of success: what does success look like and why should the reader / funder / partner be engaged in supporting this success. If the main goal of the finance plan is not clear, it will be difficult to motivate key actors and decision-makers.
- 2. Institutional framework: who is responsible for achieving the conservation outcomes and the finance solutions?
- 3. Historical financial information: five to ten years of historical information on expenditures, sources of finance, and if possible, outcomes.
- 4. Finance needs: a clear estimate of finance needs relative to expected existing funding sources.
- 5. Proposed finance solutions portfolio: prioritised and feasible finance solutions with expected impacts (financial and other).
- 6. Action plan: a realistic timetable and resources needed to implement the plan along with clarity on how implementation will be monitored and evaluated.

Some key considerations for the plan include the following:

- 1. Language: the plan should be written in a style that is easily understood by the target audience. The goal of the plan is communication it should not be too long, complex, or contain technical jargon. Detailed technical information can be included in annexes.
- 2. Time-bound: the plan should have a clear implementation period, generally five to ten years is appropriate.
- 3. Living document: all finance plans should be considered to be adaptable and should be

updated on a regular basis as conditions change and progress is made. They should be the responsibility of the management body of the PCAs and key stakeholders.

4. Easy access: finance plans should be made available to the stakeholder community via websites and other media.

Finance or business plans require catalytic resources or seed capital for their implementation and therefore often need to make the case to potential funders or investors not just about the value of the PCA site or system but also about investing in the finance solutions proposed. As such, the plan is a marketing exercise which sends a strong signal to potential funders and investors that existing finances have been analysed, PCA management costs accurately estimated, and that diverse yet integrated finance solutions have been identified. Chapter 1 outlines the overall case for investment in natural ecosystems and PCAs and includes examples of making the case for increased funding of PCA networks and individual PCAs.

What to include when making the case for investment or donor funding will differ depending on the audience. A stakeholder analysis as described in Chapter 2 can assist with identifying key decision-makers with influence, and how to best engage with them. Such an analysis can assist with tailoring messaging and communications and deciding on which approaches or modalities for engagement would stand the greatest chance of success (lyer et al., 2018). Emerton, Tizard and Saw Htun (2018) suggest the generation of 'investment packages' of potential projects that are understandable and attractive to investors and can mobilise financial support for a PCA. These projects can correspond to the unfunded activities required in the PCA management plan, and packaged in ways that should have greater appeal to funders. Lessons and guidance on how to increase central budget allocations to PCA networks through a strengthened budget negotiation process are provided by Flores and Bovarnick (2016) with a focus on Chile, Guatemala and Peru.

Typically, funders or investors are familiar with and may expect a financial and/or economic cost-benefit analysis (CBA) of investment. Financial CBA focuses only on actual financial cost and benefit/revenue flows. Economic CBA extends to the consideration of wider economic costs including opportunity costs and benefits often in the form of increased ecosystem services. Indicators used to show the desirability of investments in CBAs include net present value, benefit:cost ratio, and return on investment. There may also be interest in key policy alignments and sectoral support that the plan would achieve. For example, alignment with biodiversity conservation, tourism development, water provision, climate change mitigation and adaptation, agricultural support, rural livelihoods enhancement, job creation, etc.⁵

Adaptive management

Finance plans should be viewed as living documents subject to periodic revision based on progress and changing circumstances. Plan implementation and adaptation should follow the action plan and be informed by monitoring and evaluation based on indicators of success with finance solution implementation (see Figure 3.6). For each specific finance solution being implemented, it is essential to assess feasibility criteria and develop a detailed work plan, budget, and a set of key performance indicators. Key performance indicators and other progress indicators depend on the nature of the individual solutions and could include, for example, additional financial benefit achieved and importantly, how the financial benefit produced positive impacts for PCAs and their key stakeholders.



Figure 3.6 Adaptive management and planning. *Source: Prepared by the report authors.*

⁵For example, Spenceley et al. (2021a) provide guidance on analysing the economic benefits and other impacts associated with PCAs tourism. An associated Massive Open Online Course is freely available.
Changing circumstances can include new opportunities at the national or sub-national level such as new laws or economic changes, or they can be global such as the Kunming-Montreal Global Biodiversity Framework (GBF). Challenges can also emerge over time such as the impacts felt by PCAs around the world because of the COVID-19 pandemic and its impact on tourism income at a global scale (Cumming et al., 2021; Spenceley et al., 2021b) or at a local level (Lindsey et al., 2020).⁶ Covid associated impacts were felt across 62 protected areas in Mexico, including substantial changes in tourism and subsequent changes to management capacity and monitoring (Powlen et al., 2023). The Uganda Wildlife Authority, responsible for the management of PCAs in Uganda, was impacted financially due to the pandemic and identified its over-reliance on international tourism income as a future risk to be addressed by identifying sustainable finance solutions for future financial resilience and diversification (Stevens, Van Zyl & Van Wyk, 2023). It is also necessary to sometimes make the difficult decisions to abandon or substantially reduce the focus on a solution if it cannot be made to work within a reasonable amount of time particularly if it becomes too much of a distraction from potentially more fruitful options.

In conclusion, a finance plan is like any plan. It has the best chance of success if it is well designed and built with strong stakeholder participation. But any plan that is not implemented effectively has little chance of success. When embarking on a finance planning effort, it is essential to see it through to successful implementation and anticipate that adaptive management will almost inevitably be needed.

3.4 Case studies

The Protected Areas Business Plan Resources Database (Government of Seychelles, UNDP & Global Environment Facility [GEF], 2017) contains over 40 examples of terrestrial and marine protected area business plans and development guidelines. Case studies of finance plans are provided below for a network of MPAs in Indonesia and an individual PCA in Slovenia. This is followed by links to other examples of plans.

Blue Abadi business plan for the Bird's Head Seascape

The Bird's Head Seascape in West Papua, Indonesia is a vast area that includes 3.6 million hectares of MPAs co-managed by local communities and the government of Indonesia. The marine ecosystems protected within the MPA network are more biodiverse than any other place of its size and are central to local livelihoods in communities that are characterised by high rates of poverty.

In 2015 the Bird's Head Seascape Coalition developed a comprehensive finance needs assessment and business plan (Katz et al. 2015). The finance needs assessment estimated that the effective management of the MPA network by local institutions would cost approximately US\$ 6.7 million annually. This was contrasted with existing funding of US\$ 4.1 million consisting of US\$ 3.1 million from local and national government agencies and US\$ 1 million from visitor fees established by the Bird's Head Seascape Coalition (these covered about two-thirds of management costs of the Raja Ampat MPA which is world renowned for diving).

The business plan proposed that the finance gap of approximately US\$ 2.6 million be met by:

- 1. Increasing visitor fee revenues by US\$ 400,000 primarily from a user fee from divers visiting Raja Ampat.
- 2. Raising US\$ 800,000 through annual fundraising by local civil society partners.
- 3. Establishing the Blue Abadi Trust Fund with an annual distribution of US\$ 1.4 million. The initial endowment required for the Fund was estimated at US\$ 38 million of which a sizable portion (US\$ 24 million) has already been raised. The Blue Abadi business plan is currently being implemented and a recent debt conversion has contributed to the endowment (The Jakarta Post, 2024).

Source: Katz et al. (2015).

⁶This impact is a key topic of IUCN World Commission on Protected Areas (WCPA) (2021)

Financial strategy and business plan for Sečovlje Salina Nature Park

The Sečovlje Salina Nature Park was designated in 2001 and is situated on the Adriatic coast at the mouth of the Dragonja River in Slovenia. It covers 6.5 km² (of which 0.98 km² is dry land) and is part of the Piran Salinas (salt flat lands). A financial strategy and business plan was developed for the park in 2010. While funding was sufficient for basic conservation operations, the park required additional funding for optimal conservation management.

The park's existing annual income was estimated at approximately EUR 1.01 million per year consisting of a EUR 265,256 state budget allocation, EUR 197,763 from the agriculture fund, EUR 357,421 private sector support from Mobitel, EUR 90,000 tourism-based revenue (entrance fees, income from renting boat piers) and EUR 100,000 in sponsorships. Finance needs to undertake optimal management were estimated at EUR 1.41 million per year resulting in a finance gap of EUR 400,000 per year.

The following five finance mechanisms shown in Table 3.1 were proposed to meet finance needs with a total additional revenue potential of EUR 551,000. In an optimal situation it was projected that this level of revenue would be achievable over a period of five to seven years.

Table 3.1. Finance mechanisms for Sečovlje Salina Nature Park

Finance mechanism	Estimated additional revenue (EUR)
Improved park entry system, payment options and fees types or passes (only about half of visitors were actually paying for entry)	121,829
Mud-bath spa concession to a local hotel	17,903
Royalties from the sale of biodiversity-related postal stamps (through a proposed partnership with Pošta Slovenije)	286,350
Establishment of a new Nature Parks Trust Fund which could start with a few parks including Sečovlje Salina Nature Park and then expand to others	100,000
Introduction of donation options including donation boxes	25,000
Total	551,082

Source: Flores et al. (2010).

Other examples

Other selected finance and business plan examples include:

- Sample Business Plans for Collaborative Management Partnership Bids and Planning (World Bank, 2021).
- Business Plan of the Dajti National Park in Albania (Binet & Le Port, 2019).
- Business Plan and Sustainable Finance Strategy for Dorob National Park, Namibia (Van Zyl, 2012).
- Sustainable Financing Plan for Jamaica's System of Protected Areas (JPAS) 2010–2020 (Gallindo, 2009).
- Wadi El Gemal-Hamata Protected Area (WGHPA) Business Plan (Chemonics International, 2008).
- Papua New Guinea Protected area finance and investment plan (Koch et al., 2021).
- United States National Parks Service Point Reyes National Seashore Business Plan (National Park Service Business Management Group, 2007).
- See more business plans at the Protected Areas Business Plan Resources Database (Government of Seychelles, UNDP & GEF, 2017).

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Chapter 4.

Public finance for protected and conserved areas

The following chapters explore finance for protected and conserved area (PCAs) from the perspective of different funding sources, scales and stakeholders. The examples and cases in the chapters are supplemented by a Factsheets section.



King protea (*Protea cynaroides*) in Table Mountain National Park, South Africa © Hugo Van Zyl

4.1 Introduction

Governments remain the most important stakeholders and decision-makers for protected and conserved area (PCA) finance because of their pivotal role in policy, natural resource rights and enabling conditions; but this central role can also hinder essential actions if the government does not recognise and embrace this role. Public funding¹ and government regulations are crucial in supporting and maintaining PCAs. As described in Chapter 1, globally, public finance remains the main source of funding for PCAs, yet in most countries PCAs are still generally underfunded and undermanaged (see Besancon et al., 2021; Waldron et al., 2020). Some key aspects of the role and importance of public finance include:

- Nature is a public good and shared resource: National and sub-national governments are uniquely situated to capture taxes, fees and fines either generated by ecosystem services or imposed to protect natural capital. Governments also set the rules of use and damage that create incentives for private companies and individuals. This places the government at the centre of both sustainable finance and incentive alignment for nature conservation. PCAs can also generate economic benefits through tourism, non-extractive activities, and ecosystem services like clean water and carbon sequestration. Public finance and regulations can help manage these areas in ways that maximise the benefits while minimising negative impacts.
- Long-term financial support for conservation: Public funding, with its potential for long-term vision, fiscal planning and annual budgets, provides the necessary basic financial resources to establish, manage and monitor PCAs. This includes funding for staffing, equipment, infrastructure development (like visitor centres and trails) and scientific research. PCAs require ongoing and sustained management to deliver long-term conservation outcomes, manage ecosystems sustainably, and mitigate human impacts. Public funding can ensure these efforts are maintained over the long term.
- Long-term investment and strategy: Public funding, in some cases, appropriately supports scientific research on nature and conservation, helping to understand ecological processes, monitor biodiversity, set sustainable use quotas and rules, and assess the effectiveness of conservation strategies. The government's ability to invest in long-term economic strategies is essential for effective landscape and seascape planning, adaptive management, communicating science-based results, and implementing evidence-based conservation practices.
- Setting rules for natural capital: Governments establish and enforce laws, regulations, rights and responsibilities for natural resource management including recognition and support for Indigenous peoples' stewardship. Indigenous peoples manage or have tenure rights to at least 38 million square kilometres (28.1% of global land) and 37% of the remaining natural lands worldwide (Garnett et al., 2018). Environmental and social laws, regulations and enforcement aligns long-term incentives within government, private companies and individuals, and civil society and have large impacts on sea, fresh water and land use and management.
- International commitments: Countries engage in international commitments under diverse agreements.

Most economic benefits from PCAs are captured by general government taxation and by the private sector through revenues from tourism, transport, production, water delivery, and other ecosystem products and services. Private revenues are shared with governments through general income taxes – contributing financial resources that could be returned to support PCA management through the budgeting process. Appropriately, in most countries, national and sub-national public budgets are the main long-term funding sources for conserving and managing PCAs.

In general, public funding is provided to PCA management agencies or authorities as annual public budgets, retention or sharing of entry fees, concession fees from services such as tourism activities, and other fees and tariffs. Public financing for PCAs and the implementation of the Kunming-Montreal Global Biodiversity Framework (GBF) Target 3 should be seen as an investment, not a cost, by the government and other key stakeholders. Representative government reflects the desires of the population, so society, relevant stakeholders and productive sectors must recognise the value PCAs represent to their everyday lives, their businesses and their well-being and encourage the government to invest in natural capital. Until their value is adequately understood and appreciated, PCAs will remain underrepresented, underfunded and undermanaged.

¹Public funding includes government budget allocations as well as government grants and positive subsidies.

National and sub-national governments have a range of policy, fiscal and regulatory tools with which to improve PCA finance. Some of the tools that governments have at their disposal for nature finance and management include:

- Environmental policy, laws and regulations.
- Public sector fiscal management.
- Taxes.
- Royalties, fees and fines.
- Subsidies.
- Market mechanisms.

Public finance interacts heavily with the other sectors and additional tools and finance solutions that are explored in this chapter include:

- Public-private partnerships.
- Sovereign debt, bonds and debt conversions.
- Natural capital accounting.
- Official development aid aligned to agreements and conventions.
- Public interaction with the financial sector.

4.2 Public finance tools

Environmental policy, laws and regulations

Governments set critical policy that determines almost every aspect of PCA design and management and has massive impacts on costs, threats, roles, responsibilities, rights and finance options for sites and systems. For example, the rights and responsibilities of Indigenous peoples for PCA management is primarily supported (or not) by national governments and has a profound effect on the ability of Indigenous peoples to manage and protect land and sea resources. Policies are set by national and sub-national elections, planning cycles, economic analyses and the budgeting processes.

Laws, regulations and enforcement work together to set the parameters for what is legally acceptable with regards to natural capital and ecosystem services. For PCAs, they are essential for establishing the conditions (and costs) of use of sites, what actions are allowed in and around sites, and what individuals and companies are allowed to do that may harm or benefit a site. Finance solutions such as those surrounding tourism or management concessions, sustainable use, licences and permits, etc. are all allowed or constrained based on regulations. Taxes, fees and penalties all require laws and enforced regulations to be effective.

Effective public finance for PCAs and nature in general will require integrating and effectively mainstreaming biodiversity into cross-sectoral policies and strategies. There is a wide range of national-level efforts seeking to better integrate nature into public and private finance using a whole-of-government approach. These efforts include spatial planning, National Biodiversity Strategy and Action Plans, National Biodiversity Finance Plans (Biodiversity Finance Initiative [BIOFIN], see Box 4.1), national and sub-national development plans and even finance roadmaps that may establish rules of engagement for the active participation of the private sector. However, these public approaches face key challenges that often hinder increasing financial allocations for nature, including: limited fiscal space (competing financial needs), short election cycles (particularly at sub-national levels), managing private sector demands, limited capacity, and the false notion that biodiversity finance is a cost centre not an investment in the economy.

Overall, the policies, laws and regulations governing conservation finance for PCAs aim to promote sustainable management, equitable benefit-sharing, and compliance with international commitments to biodiversity conservation. These frameworks are essential for ensuring that funding is effectively utilised to protect natural ecosystems and their biodiversity for future generations.

One example of the junction between PCAs, policy and finance are Other Effective area-based Conservation Measures (OECMs). Some countries have been adapting the definition of OECMs to their PCA context. The first OECMs include diverse sites such as game reserves, ecological corridors and archaeological zones, where long-term biodiversity conservation is part of the site and landscape management strategy. Notably, most of the reported OECMs (in Protected Planet) until June 2024 are managed by government authorities. However, the diversity of sites that could be recognised as OECMs needs an equally diverse portfolio of financial and policy

instruments to sustain the effective management of land and seascapes. Because OECMs have biodiversity as an outcome and not necessarily their primary purpose (International Union for Conservation of Nature World Commission on Protected Areas [IUCN WCPA] Task Force on OECMs, 2019), OECMs may have diverse private and public funding sources not available to more formal protected areas yet most remain dependent on government regulations to support their conservation outcomes.

Box 4.1

United Nations Development Programme (UNDP) – Biodiversity Finance Initiative (BIOFIN)

In 2012, UNDP's BIOFIN was launched to support countries in developing finance solutions that address conservation finance challenges and opportunities through a holistic approach. BIOFIN's rationale is to develop comprehensive finance plans for biodiversity, building on the understanding of how much is invested in biodiversity, what is needed, who is investing, and through which mechanisms money is being invested (see BIOFIN's Knowledge Base).

The understanding of these issues comes mainly from information generated under participatory processes. The data gathered are used to build a finance solution portfolio that addresses market and policy failures hindering the effective use of finance for nature. The BIOFIN approach works with governments, conservation practitioners, private business and finance sectors, Indigenous peoples and local communities and the process helps identify and prioritise sustainable finance solutions. BIOFIN has developed a Finance Solution Catalogue with over 150 solutions (BIOFIN, n.d.-a).

- **Policy and institutional review:** A detailed review of the legal, governance, institutional and policy situation in a country provides essential understanding of the current situation for nature finance and opportunities for efficient finance solutions.
- **Expenditure review:** The BIOFIN process seeks to understand how much is spent on biodiversity and from which sources. This analysis requires the

development of biodiversity expenditure taxonomies, access to information – especially public spending – and forms the basis for discussing opportunities and challenges.

- Finance needs assessment: BIOFIN encourages a result-based budgeting approach to clarify the expected results of finance streams and better justify nature finance.
- **Biodiversity finance plan (BFP):** Building from these three above analyses, practitioners build the BFP to act on priority opportunities and build consensus at the national level on nature finance.

Main recommendations for a BFP are: 1) having a clear governance framework in which all interested actors are convened from the beginning; 2) institutionalise the BFP or parts of it to ensure sustainable solutions; 3) diversifying the portfolio to balance risk and opportunity; and 4) consider innovative approaches for scaling up ambition.

One insight from the BIOFIN process is that PCAs should be created and managed under strong design, governance and participatory processes standards. Poorly designed or managed sites are administratively costly whereas well designed and managed sites can reduce future finance needs and assure alignment with key stakeholders.

More information can be found at www.biofin.org UNDP (2018), and Cruz-Trinidad et al. (2024)

Public sector fiscal management

Public sector fiscal management includes detailed fiscal strategies, planning and budgeting and is where many important choices are made that impact PCA finance and management. Fiscal management occurs at various governmental levels and timeframes including national or sub-national fiscal planning (usually done in five-year increments) as well as annual budgeting. The budget process may be predictable but budget disbursement is often erratic or delayed and this creates a risk for PCA management and generates a need for a financial buffering mechanism such as a working funds account or an endowment fund.

One interesting public finance tool for PCAs is ecological fiscal transfer (EFT). This system links national funding for sub-national units (states, provinces, municipalities) to ecological indicators established by the national government. Targets such as area under conservation, forest cover, and more can be linked directly to fiscal flows resulting in improved alignment between national and sub-national planning and investment. Malaysia recently put a system for EFT in place and has allocated up to US\$ 42 million in 2024 for the programme (Pandey, 2024).

Box 4.2

Results-based budgeting

Governments can use results-based budgeting to link budgets to expected results. Results-based budgeting can contribute to cost-savings and better defining priorities by closer attribution of budgets to results for scarce public or private resources. The results-based budgeting process requires significant capacity-building for government officials, from both technical and management teams aimed at increasing efficiency in budget planning, allocation and expenditure. There are many capacity-building opportunities for PCA managers to base their annual budget planning on results-based budgeting approaches (see BIOFIN, n.d.-a and Conservation Finance Alliance [CFA], 2021).

Taxes

Taxes are involuntary fees levied on individuals or corporations and enforced by a government entity – local, regional or national – in order to finance government activities (adapted from Gordon, 2024). Taxes are the primary means by which the economic benefits of nature can be captured by governments for reinvestment in nature. In addition to general corporate, income and sales taxes, some governments have implemented taxes or levies specifically aimed at generating revenue for conservation efforts. Taxes can impact both prices (thus incentives) and revenues and must be carefully designed. Designing and implementing tax-based finance solutions requires consideration of economic conditions, potential impacts on stakeholders, and mechanisms for revenue collection and management. Since taxes generally go to government treasuries and are not usually retained by the collecting agency, they are difficult to earmark for conservation. Interesting exceptions are found in Costa Rica and Colombia, which allocated a part of a gasoline (carbon) tax to finance conservation. In both cases, the tax revenue was committed to a conservation trust fund to manage the resources efficiently and transparently on behalf of the government.

Some examples of the use of earmarked taxes for PCAs are the following:

- **Pollution levies:** Taxes on pollutants discharged into ecosystems can fund conservation efforts aimed at mitigating environmental damage and restoring affected habitats within PCAs. The tax also discourages pollution discharges.
- **Conservation stamp duty:** A tax or levy applied to property transactions, with proceeds dedicated to acquiring land for conservation purposes or managing existing PCAs.
- Airport arrival or departure tax: A tax on airline tickets that is earmarked for financing PCAs. Examples include Belize and Palau (RPPL 10-2: Pristine Paradise Environmental Fee, 2017).

Royalties, fees and fines

Unlike taxes, royalties, fees and fines are more conducive to earmarking or retention for direct conservation action at PCAs. These tools are often used in a way that combines management objectives with revenue generation. For example, royalties from sustainable forestry are part of a system that limits access to wood resources. Tourism entry and activity fees are a classic site-based finance source that generally requires government regulation and oversight. These types of mechanisms differ from taxes in that they are based on the user pays principle and are not obligatory unless a certain resource is used. They are also often tied to the cost of provision of services including some penalties for environmental damage that seek to cover both the economic damage and the cost of ecological restoration.

Some examples of these types of tools include the following (some of these are further explored in the Factsheets):

- **Tourism entry fees:** PCA authorities can impose entry fees on tourists visiting protected areas. These fees are collected at park entrances and can generate substantial revenue, which can be reinvested into conservation efforts, infrastructure development and local community projects.
- Bed taxes: A small percentage of hotel or accommodation fees can be earmarked for conservation in areas where tourism commonly involves overnight stays.
- **Resource extraction fees:** Royalties levied on extracting natural resources (such as timber, minerals or oil) from areas adjacent to or within PCAs. These funds can compensate for environmental impacts and support conservation initiatives in affected regions. Although there are good examples of these funds being well managed for environmental purposes, such

as the Environmental Investment Fund of Namibia, in many cases revenues are not used for conservation outcomes.

- **Development or compensation fees:** Charges imposed on land developers for converting natural habitats into urban or agricultural areas. These funds can be used to acquire and manage land for protected areas or to restore degraded ecosystems.
- Hunting licences and concessions: Charges for hunting licences or hunting concessions.
- **Pollution emission and accidental spill penalties:** Businesses and individuals have liability for ecological damage including to PCAs.
- Fines for illegal logging activities: Fines are commonly established by law but often not evenly applied or enforced.

Governments often collaborate with conservation organisations, local communities and stakeholders to ensure transparency, equity in benefit-sharing, and effective use of funds for the sustainable management of PCAs. Reporting requirements may be established to track the use of funds allocated for PCAs and assess their impact on biodiversity and ecosystem health.

Box 4.3

Mexico's PCA entrance fees

Historically, Mexico's National Commission of Protected Natural Areas has not received the total amount of money charged for entering PCAs. From 2019, through improved administrative and requisition processes, it has increased its retention of entrance fees from zero to US\$ 4 million annually. This was achieved by engaging the Secretary of Finance with a clear results-based budget plan and by increasing fees in 2022.

Subsidies

Subsidies are a benefit given to an individual, business or institution, usually by the government, and often in the form of a cash payment or a tax reduction (adapted from The Investopedia Team, 2024). A subsidy is considered to be in the overall interest of the public, given to promote a social good or an economic policy. Subsidies can often be unintentionally harmful to biodiversity or can benefit biodiversity by influencing costs or prices. Two types of harmful subsidies have been identified: those which underprice the use of biodiversity and lead to over-utilisation (water, wood, etc.); and those which promote agricultural or other production that results in unintended harm to nature (e.g. fertilisers, pesticides, fossil fuel use, UNDP & BIOFIN, 2024).

The Organisation for Economic Co-operation and Development [OECD] estimates harmful subsidies to amount to US\$ 800 billion per year (OECD, 2021) and recent information suggests they have increased to US\$ 1.7 trillion – this would be nearly an order of magnitude higher than the amount spent on biodiversity conservation (*State of Finance for Nature* report, UNEP, 2023). The subsidies included in the United Nations Environment Programme (UNEP, 2023) report include fossil fuels, agriculture, forestry and fisheries. Current estimates suggest that the agricultural sector receives between US\$ 378 billion and US\$ 1 trillion of potentially biodiversity harmful subsidies (WWF, 2023). An additional US\$ 5 trillion coming from private sector investment is also harming nature (UNEP, 2023).

Target 18 of the GBF seeks to "identify by 2025, and eliminate, phase out or reform incentives, including subsidies, harmful for biodiversity, in a proportionate, just, fair, effective and equitable way, while substantially and progressively reducing them by at least US\$ 500 billion by 2030, starting with the most harmful incentives, and scale up positive incentives for the conservation and sustainable use of biodiversity" (Convention on Biological Diversity [CBD], 2022, p. 12). With a substantial portion of global emissions and over-use of water resources tied to food production, redirecting agricultural, water and fuel subsidies could significantly aid climate mitigation efforts. Repurposing as well as realigning expenditures to reduce harm to nature, including PCAs, is one of the most ambitious targets for countries under the GBF. To ensure national and global biodiversity targets are met, it is therefore essential to identify policies and practices that generate harmful incentives and to consider their removal, phase out or reform, for instance by mitigating their negative impacts through appropriate means (CBD, 2022; UNDP & BIOFIN, 2024). A successful strategy requires policy dialogue at the highest political level. Subsidy reform is a long-term process, often exceeding the usually short-term project cycles of activities supported through international cooperation. The World Bank report Detox Development: Repurposing Environmentally Harmful Subsidies explores the efficiency, equity and environmental effects of harmful subsidies on air, land and ocean and presents a policy framework for reforming and repurposing subsidies (Damania et al., 2023).

Market-based mechanisms

Governments can establish market-based mechanisms for environmental outcomes that are generally considered more efficient than other types of regulatory solutions to conserve nature. Market-based mechanisms allow for lower-cost solution providers to compete to provide the desired services – including nature restoration and conservation – which are then purchased by companies or government agencies less well suited to produce these outcomes. Well-known and financed nature markets exist for wetland and habitat banking in the USA, Australia and Colombia. Recent new legislation in the United Kingdom (UK), European Union (EU) and elsewhere is exploring regulated nature markets; in the UK it is called 'Biodiversity Net Gain'. Other market-based approaches are the following (see Factsheets):

- **Tradable fisheries quotas:** This mechanism allows the government, usually through a science-based management body, to set total quota levels for sustainable fisheries and maintain flexibility to assure efficient use of these quotas. Flexibility can reduce wasted bycatch and benefit the industry's profitability without impacting the well-being of the fishery.
- **Carbon offsetting:** Governments or companies may pay into a fund or purchase carbon credits to offset their carbon emissions. Credits can be generated by supporting conservation projects in and around PCAs that sequester carbon dioxide through natural processes like forest preservation or restoration.
- **Biodiversity offsets:** Companies that impact biodiversity negatively may be required to offset their impacts by regulators or investors through investing in creating or restoring PCAs. Biodiversity offsetting involves compensating for the unavoidable loss of biodiversity through equivalent gains elsewhere. Some states in Brazil require developers to contribute funds based on the investment size for investment in protected areas.
- **Biodiversity credits:** This currently developing concept is being explored as a voluntary means by which a company, government or donor can finance conservation or restoration outcomes with a quantified and verified result, registry and verification system. In general, credits are generated and sold based on area-based biodiversity units within a specific timeframe. The potential for a national or sub-national regulated market is high and would be the main means to scale this concept.
- Payment for ecosystem services (PES): PES schemes involve payments made to landowners, user groups or communities in return for managing their land to provide ecological services. These schemes are generally voluntary and often involve key intermediaries such as water funds, conservation trust funds (CTFs) and hydro-electric facilities. PES programmes allow governments and private actors to compensate landowners or communities for the environmental services provided by protected and conserved areas. The most successful PES systems are supporting water regulation (see Box 4.4 below).
- lle aux Aigrettes Nature Reserve, Mauritius © Hugo VZ



Box 4.4

Payment for ecosystem services

Costa Rica's Payment for Ecosystem Services: Costa Rica's PES programme is a globally recognised example of effective public financing. The government pays landowners to preserve forests, promote biodiversity and maintain ecosystem services. This financial incentive has contributed to increased forest cover and sustainable land management.

Payment for Ecosystem Services – Galapagos Conservation Trust Fund: The Galapagos Islands, renowned for their unique biodiversity, face conservation challenges due to increasing tourism and other anthropogenic activities. To address these challenges, a PES programme was established by the Galapagos Conservation Trust Fund (GCTF).

Key components:

Objective: The primary goal of the GCTF is to incentivise and reward landowners for preserving and enhancing the ecosystem services provided by the Galapagos Islands.

- 1. Funding mechanism: The GCTF is funded through a combination of international contributions, philanthropic donations and revenue generated from tourism-related activities.
- 2. Landowner compensation: Local landowners and communities voluntarily participate in the PES programme. They receive financial compensation in exchange for implementing conservation measures that contribute to the protection of the unique biodiversity and ecosystem services of the Galapagos.
- **3. Programme oversight:** The GCTF operates with a robust governance framework involving local authorities, conservation organisations and community representatives. This collaborative approach ensures transparent decision-making and effective implementation.
- 4. Results-based approach: The programme utilises a results-based approach, linking financial incentives to the measurable outcomes of conservation efforts. This ensures that funds are directed towards activities that yield tangible conservation benefits.

4.3 Multi-sector collaboration

Public-private partnerships

Engaging the private sector through partnerships can bring in additional resources and expertise. There is a vast diversity of ways in which government, private companies and civil society actors collaborate for the benefit of PCAs. Almost all the mechanisms described in this chapter will be more successful if designed and implemented with broad stakeholder engagement. Classic PCA public-private partnerships (PPPs) are tourism and management concessions but can also include blended finance solutions, Payment for Ecosystem Services, debt conversions, and more. A description of the PPP approach for PCA management – collaborative management partnerships (CMPs) – is presented in the CMP Factsheet.

Sovereign debt, bonds and debt conversions

Perhaps the most impactful source of new capital for conservation currently is the use of green and blue bonds to finance nature conservation. This includes the conversion of sovereign debt (public or commercial) with improved conditions as part of nature finance plans. Termed 'debt-for-nature swaps', debt conversions or sometimes 'blue bonds' (for marine conservation), these solutions convert distressed sovereign debt to a risk reduced, lower interest bond and allocate a portion of the savings to conservation through a conservation trust fund. In addition to debt conversions, sovereign bond issuances (national or sub-national) that are focused on nature conservation are increasingly being used to raise needed capital for countries. There are a diversity of bond types and targets with a growing body of sustainability principles and guidance. In addition to national and sub-national bonds, many countries have municipal bonds that are used to finance infrastructure and can be used for nature and PCA finance. Bond interest rates generally depend on risk and can be influenced (thus altering the cost of capital) through insurance products, such as political risk insurance, and through linking interest rates to sustainability outcomes. There are two main types of sustainability linked bonds - those that are considered sustainable based on the use of the proceeds and those that have specific sustainability targets that are linked to the interest rates (Climate Bonds Initiative, n.d.) see Impact investing Factsheet.

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Natural capital accounting

Governments track their progress mostly using indicators such as Gross Domestic Product. Integrated accounting, including natural capital accounting, seeks to better incorporate nature into the government's decision-making processes. Accounting for stocks and flows of natural capital and ecosystem services is critical for mainstreaming natural capital into policy and fiscal planning and strategy. Numerous resources are available for more information, including the UN System of Environmental-Economic Accounting, the Capitals Coalition, and Wealth Accounting and Valuation of Ecosystem Services.

Official development assistance aligned to agreements and conventions

Collaboration among governments, international organisations, bilateral aid agencies and philanthropic foundations can bring in substantial funding for global conservation initiatives. Countries can seek financial support and technical assistance from the international community to achieve commitments related to the 30x30 target. For example, the Convention on Biological Diversity encourages countries to establish and manage PCAs effectively and may influence national legislation and funding mechanisms. The Global Environment Facility and its newly established Global Biodiversity Framework Fund aims to scale up finance for the Convention's goals including for PCAs. Engagement with other international conventions such as the Ramsar Convention, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and United Nations Educational, Scientific and Cultural Organization's (UNESCO's) Man and the Biosphere and World Heritage programme have proven their importance when allocating public budgets to conservation actions and sites.

Public interaction with the financial sector

One of the main areas where national governments can have great leverage on private investments and actions is the finance sector, which generally includes the insurance sector as well. Governments directly or indirectly (through quasi-governmental agencies) establish the rules regarding financial disclosures, risk management, and more. Government funded development banks and associated fiscal instruments are also essential to transfer risk away from the private sector for investments and enterprises that provide public benefits such as PCAs. Some examples are the following:

- Regulatory disclosure and reporting: Publicly traded companies are required to disclose to shareholders and the public (potential shareholders) information regarding their business profitability and risks. The Taskforce on Nature-related Financial Disclosures (TNFD) produced guidance on public company disclosures regarding their impacts and dependencies on nature. Where governments are able to include disclosures on nature such as those recommended by the TNFD as regulatory requirements, the impact could be substantial since it has been shown that public information impacts company actions and companies manage better when they have clear measurements.
- Blended finance: Blended finance is defined as the use of catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development (Convergence, 2024). Governments play a critical role at providing concessional funds or assuming higher levels of risk in a blended transaction especially where traditional financing mechanisms may be insufficient or inaccessible. By 2023, blended finance had mobilised approximately US\$ 213 billion in capital towards sustainable development in developing countries, ranging considerably in size with the median transaction being US\$ 64 million in total size (2010–2018). Blended finance related to biodiversity is still incipient and an opportunity to explore (Convergence, 2024).

4.4 Summary of public finance

To successfully achieve the 30x30 target including sustainable finance and effective management, a combination of finance mechanisms, tailored to the specific context of each region or country, or even landscape, is essential. A holistic and collaborative approach involving governments, non-governmental organisations (NGOs), businesses and local communities is essential for the success of these financing strategies. This multifaceted approach helps ensure the long-term conservation of biodiversity and ecosystem services. A diversified portfolio not only contributes to significantly reducing the financial gap but also increases the financial resilience of the PCA or PCA system.

Table 4.1 How public finance contributes to protected and conserved area finance

Optimise resource efficiencies	 Whole-of-government approach Result-based budgeting Natural capital accounting Public-private partnerships
Discourage harmful actions	 Redirection of harmful subsidies Environmentally related taxes, fines, penalties and quotas Environmental policy, laws and regulation Required disclosure of environmental impacts and dependencies
Incentivise positive actions	 Positive subsidies Debt conversions linked to conservation commitments Project finance for permanence (PFP) Facilitating market-based mechanisms Support for privately protected areas Recognition of Indigenous peoples' conservation areas
Increase financial capital for conservation	 Blended finance Earmarking revenues for nature Government grants Ecological fiscal transfers Support from development banks

Source: Prepared by the report authors.

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Chapter 5.

International cooperation, donors and philanthropies



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5.1 Introduction

International cooperation sources of funding for protected and conserved area (PCAs) comprise public sources from bilateral international cooperation, multilateral sources from multilateral development banks and regional development banks, the Global Environment Facility (GEF), and other multilateral funds, private grant funds from companies, philanthropies, and international nongovernmental organisations. Some of these sources are grouped as official development assistance (ODA) which is defined as, "government aid designed to promote the economic development and welfare of developing countries" (Organisation for Economic Co-operation and Development [OECD], n.d.-a). While the amount of international funding varies from country to country (OECD, n.d.-b), international cooperation constitutes an important source of PCA funding. The Kunming-Montreal Global Biodiversity Framework (GBF) included a general pledge for international sources of funding for biodiversity to increase to at least US\$ 30 billion per year by 2030 (public development finance for biodiversity amounted to US\$ 9.6 billion in 2020, while private philanthropic flows amounted to US\$ 686 million in 2020) (OECD, 2023). Given the 30x30 target of the GBF, the role of international funding for PCAs can be expected to increase in the future but will likely not account for more than 10% of funding for biodiversity. Most international donors have specific country and thematic priorities, many with a focus on low-income countries, which should be taken into consideration.

This chapter explores international cooperation and philanthropic funding through the prism of the four practice guidelines described in Chapter 2.

5.2 Practice Guideline A. Optimise resource efficiencies

The effectiveness of international development assistance, or 'aid effectiveness', has been a topic of substantial research and improvement for decades (Deutscher & Fyson, 2008) and there are many lessons learned. International and national philanthropic funding, including bilateral and multilateral donors, is focused on resource effectiveness largely because it is designed to be only part of the finance solution and only temporary in nature. Donors seek to achieve strong leverage, often requiring co-finance, seek a sustainability plan (or at least an exit strategy), and often require extensive project preparation phases to assure that the implementing organisation has thought through their plans and budgets in detail.

In recent years, increasing attention has been given to PCA costs and financial sustainability in donor funded projects. These financial sustainability activities include studies to determine long-term PCA operating and investment costs; developing sustainable finance mechanisms to cover these different costs; and tracking financial management of PCA sites and systems.

Many countries have used international funding to develop a cost baseline and projections for different scenarios of biodiversity funding costs, based on their national plans, such as the National Biodiversity Strategy and Action Plans – a process greatly strengthened by BIOFIN (Biodiversity Finance Initiative) (United Nations Development Programme [UNDP], 2018). These studies have been key to raising resources and developing finance solution portfolios that can cover funding needs. Project finance for permanence (PFPs, see Box 5.1) is an example of high level donor coordination and planned resource effectiveness using donor funds to build long-term capacity and durable finance mechanisms at the site and system level.

Box 5.2

Conservation trust funds (CTFs)

Conservation trust funds are private, legally independent mission-driven institutions that provide sustainable financing for nature conservation. They operate as conservation financing institutions rather than directly implementing biodiversity conservation projects. Their core business is to mobilise resources from diverse sources – including public and private donors, national governments and the private sector – and to direct these resources, primarily through grants, to multiple programmes and projects through NGOs, communitybased organisations, small and medium-sized enterprises (SMEs) and governmental agencies (such as national protected areas agencies). The effectiveness of CTFs lies in linking the goals of donors with investments in these local organisations, thereby building capacity and experience in locally-led project implementation. As more large-scale, national- and regional-level PCA initiatives are implemented, CTFs are increasingly seen as a key tool to manage and efficiently deploy conservation financing resources (see Bath et al., 2020). As part of their conditions for funding, international cooperation and other philanthropic donors often require grantees to adopt robust methodologies for monitoring the management effectiveness of PCAs. These donors sometimes directly fund management effectiveness improvements including efforts to enhance administrative, operational, management and financial operations. There have been many PCA sustainable finance projects financed by the GEF over the last few decades that have financed business plans, finance mechanisms, tourism development and conservation trust funds (CTFs) (see Box 5.2 and CTF Factsheet) among other approaches that improve efficiency of resource use.

5.3 Practice Guideline B. Discourage harmful actions

There are many government policies that are harmful to biodiversity including biodiversity harmful subsidies that have been targeted by the GBF Target 18. International cooperation finance can support the transformation of harmful subsidies towards less damaging finance while achieving the social objectives targeted by the original subsidies (see UNDP & BIOFIN, 2024).

The role of international cooperation in reforming environmentally harmful subsidies is to set common goals and standards, promote the exchange of experiences and best practices, and provide incentives and support for the implementation of reforms. Discouraging harmful action through subsidy reform requires a cross-sectoral approach, which considers conservation, and specifically protected area finance, as part of a holistic government approach. To support policy reforms and institutional changes in a particular sector, financing approaches such as policy-based lending are gaining traction. Policy-based lending serves to promote (sectoral) policy reforms that improve the framework conditions for sustainable development in partner countries by tying concessional credit to specific policy reform targets (KfW Entwicklungsbank, 2017).

Development finance often requires that beneficiaries adhere to stringent social and environmental safeguards. This requirement can increase awareness and capacity for rigorous screening and risk management systems that mitigate potential harms to biodiversity in public and private development projects. The safeguards also apply to working with Indigenous peoples and local communities including the requirement for free, prior and informed consent (FPIC) (see Box 7.2). The World Bank Safeguard Policies (n.d.) are often used as a reference for high quality environmental and social safeguards.

The convening and negotiating power of international cooperation can be even more important than the actual funding, as it can raise awareness among decision-makers, in recipient countries and donor countries, on the need for biodiversity and PCA finance.

5.4 Practice Guideline C. Incentivise positive actions

International cooperation can also support partner countries to scale up the use and ambition of economic instruments (i.e. in the form of positive incentives) that promote biodiversity conservation and sustainable use. These instruments (including biodiversity-relevant taxes, fees and charges, tradable permits, biodiversity offsets, natural capital accounting, payments for ecosystem services) can integrate the true value of biodiversity into economic decision-making, and provide continuous incentives for environmentally sustainable patterns as well as generate revenue or mobilise finance for biodiversity (Casado Asensio, Blaquier & Sedemund, 2022).

In the context of using economic instruments, development finance institutions (DFIs) have provided credit enhancement tools to support countries in their conservation finance strategies. Debt conversion transactions are a good example of the use of these tools. International conservation NGOs and DFIs have partnered¹ with countries interested in refinancing their sovereign or commercial debt to lower interest rates and extend maturity while agreeing to direct part of the repayments to fund legally binding conservation commitments. Normally these commitments are related to the countries' targets, currently linked to the GBF, including creation of new PCAs or improving the management effectiveness of the existing ones. NGOs involved in such agreements provide the country with technical assistance to help them achieve the conservation commitments, which also include expansion of PCAs and policy reforms.

De-risking tools are also being applied through international cooperation to promote new business models that reduce drivers of degradation or generate positive impacts to ecosystems and protected areas. Beyond insurance and guarantees, blended finance vehicles have offered grants, technical assistance, and concessional loans for enterprises to launch nature-positive businesses, which can then access commercial investments that allow them to scale up. One example is the Global Fund for Coral Reefs, which provides grants for convening agents in their target countries to create blended finance schemes for reef-positive businesses and MPCAs. These businesses can contribute directly to PCA financing if they are related to tourism and ecosystem restoration, and they can also contribute indirectly by reducing harm and consequently reducing costs for the area management. For example, businesses in waste management and sustainable fisheries can reduce the needs for cleaning, restoration, patrolling, etc.

As noted above, the adoption of environmental and social safeguards has become a requirement by international cooperation funding sources. These safeguards are aimed at avoiding, minimising, mitigating and compensating for potential risks to biodiversity and communities, as well as improving the sustainability of projects and programmes to achieve nature-positive outcomes. Conservation projects targeting PCAs are increasingly including gender mainstreaming objectives, stakeholder consultation efforts, information disclosure, and capacity-building actions as ways of promoting more sustainable results. As another example of DFIs supporting positive actions, a recent publication from the International Finance Corporation (IFC) provides guidance on biodiversity finance for development assistance and green loans (IFC, 2023).

¹In recent debt conversion for nature projects, the United States International Development Finance Corporation (DFC) has provided political risk insurance for deals in Belize, Ecuador and Gabon, while the Inter American Development Bank has provided guarantees in Ecuador and Barbados.

5.5 Practice Guideline D. Increase financial capital for conservation

Direct international sources of funding have long been essential for PCA management, with grants and donations historically being an important vehicle for this financing. As interest in non-grant financing mechanisms has increased in recent years, grants are increasingly being positioned as a tool to be strategically deployed to complement non-grant financing and commercial finance (see description of blended finance models above). Still, grant funding plays an important role for PCA management in many contexts and is likely to do so for some time to come.

The increasing global focus on the biodiversity and climate crises, along with global agreements such as the GBF, have driven current philanthropic and public funding for biodiversity, protected areas and climate issues to far exceed historical levels. In recent years, biodiversity and climate financing have become intertwined, with nearly 90% of biodiversity-related ODA also including a focus on climate-change adaptation or mitigation (OECD, n.d.-c).

Conservation philanthropy in recent years has been on an upward trajectory, with the US\$ 10 billion pledge by the Bezos Earth Fund being just one prominent example. Though growing quickly, the overall percentage of environmental philanthropy in the United States is still just 3% of total giving and generally lower in other countries (Gruby et al., 2023). In some underserved thematic areas such as marine conservation, philanthropic grants serve an outsize role: the amount of philanthropy for marine conservation is comparable to the amount provided by official development assistance (in part because public marine conservation finance has been extremely low) (Gruby et al., 2023). This bias is mirrored in ODA estimates, which show less than 10% of biodiversity-related ODA allocated primarily to marine conservation activities (9% for multilateral ODA and just 4% of bilateral funding) (OECD, n.d.-d).

There are several notable global alliances that seek to coordinate and promote an increase in amounts and effectiveness of international donor finance for Target 3 including Campaign for Nature (Campaign for Nature, 2024) and the High Ambition Coalition for Nature and People. In marine conservation there are similar groups such as the High Level Panel for a Sustainable Ocean Economy and the Blue Prosperity Coalition. Most of these initiatives combine philanthropy, bilateral or multilateral donations, and government engagement to achieve combined impact.

Financing from multilaterals and bilaterals can take several forms, with the GEF, the Green Climate Fund, and the new Global Biodiversity Framework Fund being major players in the interlinked space of financing biodiversity and climate objectives. Among bilateral opportunities, Germany, Japan, France, the USA and the European Union (EU) are the leading contributors to biodiversity (OECD, n.d.-e). In a Joint Donor Statement on International Finance for Biodiversity and Nature released at the Convention on Biological Diversity (CBD) Conference of Parties in 2022, several ODA-providing countries committed to significant increases in their ODA budgets for biodiversity, with many planning to double funding levels by 2025 (Joint Donor Statement, 2022).

Official development assistance also has provided essential support to conservation finance mechanisms and instruments that seek to be eventually independent of philanthropic sources. International donors have provided financial and technical assistance for capacity-building, pilot programmes, knowledge sharing, policy, and regulatory support, to advance the creation and implementation of carbon market-based mechanisms which also benefit biodiversity. The Widening Informed Stakeholder Engagement Reducing Emissions from Deforestation and Forest Degradation (REDD+) initiative, for example, supported by the US Department of State, sought to strengthen informed stakeholder engagement in national REDD+ and the role of conservation, sustainable management of forests, and enhancement of forest carbon stock readiness programmes and has led to greater private investment in carbon and biodiversity outcomes in several participating countries.

Crowdfunding is a relatively new form of internet-enabled philanthropy, where funding is sourced from individuals rather than formal organisations or foundations. Studies have indicated nearly 600 conservation-related projects have been supported by crowdfunding since 2009 (Kubo et al., 2021). However the modest amounts generated by these initiatives makes them best suited to small-scale and discrete fundraising needs as opposed to recurrent management costs. Niue recently developed a unique approach that incorporates elements of crowdfunding: the country's Ocean Conservation Commitments aim to capitalise a trust fund for the long-term

management of Moana Mahu Marine Protected Area and seeks sponsorships from individuals, government and corporations.

The private sector is estimated to spend between US\$ 6 and US\$ 13 billion annually on biodiversity-related activities, including biodiversity offsets, sustainable commodities, philanthropic donations and payment for ecosystem services (PES) (OECD, n.d.-b). Although much of this financing is part of corporate regulatory or business spending (see Chapter 8), a portion can be described as corporate philanthropy. Corporate contributions take many forms, from Coca-Cola's long-standing support of USA national parks (channeled through the National Park Foundation), to the multinational mining and metals company BHP's support for improved management and sustainable financing of the Valdivian Coastal Reserve in Chile, and investments by tourism operators in the conservation of PCAs where they are based (e.g. tourism operators Wilderness and &Beyond in southern Africa). In some cases, these relationships can raise conflict of interest concerns that should be considered carefully, but these partnerships can also boost awareness of and interest in the value of protected areas. They remain an important financing option for charismatic protected areas that may have marketing and branding value for corporate partners.

5.6 Summary of international cooperation, donors and philanthropies

International cooperation including grants and concessional finance from international donors, philanthropies and individuals targeted to support PCAs provides key strategic finance, leverage and policy drivers. The following table summarises some main contributions. One key element of international cooperation is its support for capacity-building of organisations at the national and sub-national level to access international resources. The level of complexity and administrative capacity needed to access international funding commonly prevents national and local organisations, including Indigenous peoples and community-based organisations, from receiving funding directly. CTFs are one solution offering intermediate access to resources at the national level but can also lead to complexities that only allow for large organisations to become grantees. Solutions for direct access of international funding for Indigenous and community-based groups and individuals remains an issue to be improved. International cooperation supports the creation of standards, harmonising requirements, and integrating reporting obligations that facilitate access to funding. This is cited in GBF Target 19, which seeks "to enhance the effectiveness, efficiency and transparency of resource provision and use" (CBD, 2022, p. 12).

Finally, international cooperation is expected to make a difference by playing an innovative role, especially in the development of new mechanisms for conservation finance. Innovative mechanisms are needed to leverage private finance, promote blended finance, establish market-based schemes (such as PES, green bonds, biodiversity offsets and credits), and create benefit-sharing mechanisms that allow for collective action around protected areas. Funding is needed to test innovative mechanisms and to systematise their results in a way to promote replication and upscaling. The IDB's Natural Capital Lab (IDB, n.d.) has been pioneering this approach in Latin America and the Caribbean.

The international conservation finance community has a role to play in promoting lessons learned and exchange of experiences through regional and global networks and communities of practice. Engagement in such groups and initiatives is a way for PCA directors and managers to better understand how to access international funding and attract the necessary support.

Optimise resource efficiencies	 Financial needs baselines Tracking financial effectiveness Fundraising through coordinated pledges Integrated management through CTFs Donor coordination Shared learning among donors and recipients Practice standards and guidance
Discourage harmful actions	 Harmful subsidies reform Policy-based lending Risks screening Banking and investment safeguards and best practices
Incentivise positive actions	 Develop and scale up economic instruments Debt conversions linked to conservation commitments De-risking and blended finance Support innovation in PCA finance
Increase financial capital for conservation	 Funding leverage for biodiversity and climate crises Crowdfunding Increased ODA budgets directed towards PCAs Grants for sustainable PCA finance solutions Conservation Trust Funds

Source: Prepared by the report authors.

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Chapter 6. Site-based finance



Mass tourism in Phuket, Thailand © David Meyers

6.1 Introduction

Site-based finance includes revenues that are received by protected and conserved areas (PCAs) as well as actions that can be taken at the site and system level that utilise any of the four finance practice guidelines described in Chapter 2. The importance of site-based finance varies enormously among different sites and countries. Some conservation sites are entirely financed by on-site entrance and activity fees which are retained by the site or system management while other PCAs are financed through government budgets and general taxation and tend to be completely free to visit and conduct most tourism related activities (Andrianambinina et al., 2024; International Union for Conservation of Nature Eastern and Southern Africa Regional Office [IUCN ESARO], 2020; Lindsey et al., 2020).

One often overlooked site-based finance issue is the potential for local individuals, communities and enterprises to benefit economically from the protected and conserved sites. Where opportunities for revenue generation by these local actors can be enhanced, the benefits for conservation can be substantial through improving community relationships, decreasing pressure on resources within the conservation area, and building a committed base of beneficiaries who support the sound management of the site (Dawson et al., 2021; Stolton, Timmins & Dudley, 2021). Many of the issues covered in this chapter complement the guidance for Indigenous peoples finance presented in Chapter 7.

6.2 Practice Guideline A. Optimise resource efficiencies

Optimising resource efficiencies requires careful attention to site-based management decisions. This includes the choice of key conservation activities, investments in infrastructure, and identifying and implementing collaborations with communities, private sector partners, suppliers, and more. Many of these efficiency approaches have been presented in Chapter 2, and Chapter 3 provides detailed guidance on how to include efficiency options in the planning process. Some of the most consequential choices to be made at the site level concerning the efficiency of conservation involve tourism. Although tourism can provide enormous benefits, it can also become the most costly aspect of site management, both in terms of providing and maintaining infrastructure as well as assuring that the impacts of tourism are well managed (Leung et al., 2018; Stolton, Timmins & Dudley, 2021). A detailed business plan or feasibility study together with environmental and social impact assessments for tourism are highly recommended prior to development.

There is a wealth of experience in community and collaborative management partnerships around the world that can guide site and system managers on how to use collaboration for resource efficiency opportunities through reducing costs and increasing the quality of management. Community managed sites as well as Indigenous managed territories and conservation areas are likely the most resource efficient means of achieving nature conservation outcomes and should be considered and supported wherever possible (Dawson et al., 2021; Stolton, Timmins & Dudley, 2021; Tauli-Corpuz et al., 2020. The Forest Peoples Programme's Local Biodiversity Outlooks platform and publications (Local Biodiversity Outlooks n.d., Forest Peoples Programme et al., 2020) provide case studies of Indigenous and local community conservation successes.

Collaborative management partnerships are a type of public-private partnership (PPP) where governments devolve certain management responsibilities to private companies or non-profit organisations and therefore reduce government costs (see Collaborative Management Partnership Toolkit (World Bank, 2021a)). Similar cost savings can be gained through tourism concessions for the construction and management of lodges, camping sites, restaurants and other tourist amenities (see United Nations Development Programme's [UNDP's] Tourism concessions in protected natural areas: Guidelines for managers (Thompson et al., 2014), the Convention on Biological Diversity's [CBD's] Guidelines for tourism partnerships and concessions for protected areas (Spenceley, Snyman & Eagles, 2017), the World Bank's Stimulating sustainable development through tourism concessions in Protected Areas (Bladon, 2020)). Box 6.1 provides an example of a longstanding collaborative management partnership program in Namibia.

Box 6.1

Namibia's Community-based Natural Resource Management Programme

Beginning in the 1990s as part of Namibia's Communitybased Natural Resource Management Programme, the government passed legislation allowing communities to form community conservancies in the form of communal conservancies, community forests and community fisheries where community members have full rights to manage and use wildlife, forests and fisheries. In 2022, there were 86 communal conservancies, 46 community forests and 20 community fisheries, covering 166,179 km², representing 20.2% of Namibia and almost 60% of all communal land in Namibia, and supporting 244,587 residents in 2022 (Ministry of Environment, Forestry and Tourism & NACSO, 2023). Conservancies are registered and monitored by the Ministry of Environment, Forestry and Tourism (MEFT) which sets rules and guidance for conservancies, however the conservancy is fully governed by the community.

Community conservancies are first established with a defined boundary, membership of the community, committee to represent members, constitution to set the rules of operation, and preliminary benefit distribution plan. Once established the community must comply with four key requirements: holding an annual meeting; distributing benefits according to a benefit distribution plan; reporting on the management and use of wildlife, forests or fisheries as part of a utilisation plan; and

producing satisfactory annual financial reports (MEFT, 2013; MEFT & NACSO, 2023). Conservancies are encouraged to develop enterprises such as tourism for financial sustainability and receive technical support from MEFT, the Namibian Association of Community-based Natural Resource Management Support Organisations (NACSO), and partner non-governmental organisations (NGOs) like World Wildlife Fund in carrying out feasibility studies, developing business plans and operating the business. Many resources can be found on the CBNRM website (MEFT & NASCO, n.d.) and the MEFT Guidelines for Management of Conservancies and Standard Operating Procedures provides guidance on governance and benefit sharing structures (MEFT, 2013).

Community conservation has contributed an estimated N\$ 13.466 billion to Namibia's net national income from 1990 to 2022, and in 2022 alone, "conservancies generated total cash income and in-kind benefits to rural communities of N\$ 140,254,009" (MEFT & NASCO, 2023, p. 21) from tourism (66%), conservation hunting (25%), meat (6%), indigenous plant products (1%) and other activities (2%). In 2022, 74% of conservancies generated returns, and more than three-quarters of those were able to cover their operational costs with their own income (MEFT & NASCO, 2023).

Community-based natural resource management (e.g. as an Other Effective area-based Conservation Measures [OECM]) can produce substantial conservation benefits while producing valuable products for communities and markets. This approach can be extremely efficient and is detailed below under the Practice Guideline C on incentivising positive actions.

Another area of site-based resource efficiency is the importance of building management capacity at the local level for effective management and conservation of sites. Having high levels of appropriate capacity located at the conservation site itself is essential for almost all aspects of effective management (Appleton et al., 2022; Don Carlos et al., 2013; Nielsen, 2012; O'Connell et al., 2019, as cited in Allen et al., 2023). Capacity-building budgets tend to be low compared to more concrete or urgent priorities for limited budgets. IUCN's A Global Register of Competences for Protected Area Practitioners (Appleton, 2016) provides a framework and guidance on 300 skills and knowledge requirements for effective protected area management. A growing array of online course offerings and Massive Open Online Courses (MOOCs) can be found and are either free or low cost (see MOOC Conservation). Efficiency can also be improved through collaborating with neighbouring sites and PCA networks using shared resources and learnings (Mitchell et al., 2018). Additionally, funders and CTFs can provide capacity-building directly or as part of grants.

Advances in data and technology have led to a plethora of conservation technologies that can help reduce costs and improve monitoring and resource management, including satellite data and drones, near real-time fire and deforestation alerts, camera traps, wildlife-trackers, and management tools. Products can vary in terms of costs and ease of use, which should be considered when selecting which technology to adopt (Schulz et al., 2023). The Inventory by WILDLABS provides a searchable database of conservation technologies products along with community forums for collaboration.

6.3 Practice Guideline B. Discourage harmful actions

Discouraging actions that are harmful to PCAs is one of the most cost-effective conservation finance approaches. Site managers can prioritise their actions based on a combination of threat assessment (common in management plans), internal capacity and emerging opportunities. From a site-based perspective this can include supporting communities as they move towards sustainable and regenerative livelihoods in agriculture, fisheries, aquaculture and more (Stolton, Timmins & Dudley, 2021; World Bank, 2021b). Supporting alternative, sustainable or regenerative livelihoods can greatly reduce pressure on the conservation area and although this kind of technical or financial support is often outside the common management tasks of PCAs, efforts to bring in partners who are able to provide support can be extremely beneficial towards the site's conservation goals. In many cases, such as with larger companies, incentives to reduce harm to nature are driven by national policies and finance institutions far from the local level. As such, site-based decision-makers may be limited in their ability to influence larger drivers of harm.

Other means of assuring sustainable use of the resources in and around the conservation site include the use of quotas and other forms of collection or harvest management. Systems of tradable quotas have been increasingly used in fisheries management as are periodic or permanent no-take zones (Andradi-Brown et al., 2023). It is recommended to design management restrictions in collaboration with communities and stakeholders, as these approaches are more likely to have higher compliance, local buy-in and reduction in cost than if restrictions are imposed without consultation, which can lead to lack of compliance and distrust of institutions (Dawson et al., 2021; Sharkey et al., 2024; Stolton et al., 2021).

Depending on site threats and needs, other opportunities could include enhanced surveillance and enforcement approaches, better collaboration with communities and local businesses that impact the site, and improved education and awareness of key stakeholders. One good example is through education delivered by tourism operators to assure that tourists have a minimal impact on the site's ecology such as with <u>Green Fins</u> (Green Fins, 2024) training programmes for diving companies. Aligning the interests of the site management and the tourist operators through this awareness and education improves long-term outcomes to the benefit of all (Leung et al., 2018).

In most cases, threats to PCAs evolve over time and regardless of how effective relationships are with local communities and other actors, there is always some pressure on the resources that require effective surveillance and enforcement mechanisms. Sites must have the means to identify infractions and charge fines or penalties where appropriate. Without an enforcement mechanism – or if the chain of enforcement is broken at some step (Keane et al., 2008) – it is extremely difficult to avoid site degradation over time.

6.4 Practice Guideline C. Incentivise positive actions

When implementing Practice Guideline C – incentivise positive actions – individuals, communities, businesses and other organisations adjacent to or otherwise directly associated with PCA sites are the most important stakeholders to consider. These stakeholders have powerful interest in the outcome of the site's management and condition – which in many cases provides vital ecosystem services and products to these individuals and groups (Stolton, Timmins & Dudley, 2021). Engagement with these key stakeholders is beneficial across many elements of PCA finance and is rightfully a key part of a site management's priorities.

Aligning interest in positive outcomes can be enhanced by community-based ecotourism development and support including local service provision – restaurants, hotels, guiding, adventure trips, gifts – and especially offers such as homestays where minimal additional investment is required and broad participation can be encouraged. The sharing of entrance fee revenues with local communities through benefit share schemes is a relatively common practice and one that has shown positive outcomes towards reducing threats or overexploitation when designed correctly (Leung et al., 2018; Spenceley, Snyman & Rylance, 2019; World Bank, 2021b). Examples of revenue sharing arrangements include direct and indirect employment, direct sharing of revenue through an organised trust or community development projects, sustainable harvesting agreements, and new business opportunities (World Bank, 2021b).

Tourism sector collaboration is valuable in general; when tourism is well managed, it can align incentives of tourism companies, their staff, tourists, site managers, local communities and associated groups, suppliers, government (producing jobs and taxes), and more (Balmford et al., 2015; Leung et al., 2018; World Bank, 2021b). Partnerships can be as informal as casual communication or formalised through legal concessions and contracts – the degree of engagement depending on the opportunities for Transforming Coastal and Marine Tourism: Towards Sustainability, Regeneration and Resilience, provides a review of the economic value of tourism in coastal and marine areas, key future trends, and includes a set of priorities for long-term sustainability following on from the COVID-19 pandemic (Ocean Panel, 2020).

Collaborative management partnerships (CMP) described above and in the <u>CMP Factsheet</u> are also excellent means of aligning incentives and encouraging positive outcomes. In fact, collaborations between site managers and non-profit organisations are commonplace and can benefit the site through collaborative fundraising, volunteer services such as conservation science actions and habitat restoration, and other joint efforts. Voluntourism is a growing opportunity where tourist visits are organised around direct service contributions to the site – often organised by the site management or a partner university or non-profit (Leung et al., 2018).

Emerging certification schemes for diverse products in and around PCAs could be a useful approach including the Wildlife Friendly Certification (Wildlife Friendly Enterprise Network) as well as other sustainability certifications such as ecotourism, organic, Forest Stewardship Council and Marine Stewardship Council.

Other finance approaches that positively align incentives include payment for ecosystem services (PES) which is also a solution that increases capital for conservation. In countries with well enforced and meaningful land taxes, conservation easements (Conservation Finance Alliance, n.d.) and other well designed tax breaks or subsidies can enhance incentives for privately protected areas (Mitchell et al., 2018).

An additional opportunity for local engagement and collaboration is the provision of access to finance including microfinance, financial technology, and village savings and loans. These tools can support financial inclusion for local communities in and around PCAs through encouraging investments in sustainable and regenerative agriculture, harvesting, and tourism highly compatible with the PCA's conservation objectives. Several large environmental NGOs have been using village savings and loans approaches to improve livelihoods in combination with environmental actions such as mangrove restoration, fisheries no-take periods, and other efforts that may result in temporary loss of income while the ecosystem recovers, yet produce viable financial returns once the ecosystem or stock recovers. An emerging tool in this regard is the use of micro-insurance to lower fishing risks and offset costs of lost fishing days due to periodically adverse climate conditions, such as the Weather Index-based Parametric Insurance for Small-scale Fishers (Ocean Risk and Resilience Action Alliance, n.d.).

6.5 Practice Guideline D. Increase financial capital for conservation

Protected and conserved areas are largely underfunded and increasing sustainable revenue for local communities, enterprises and civil society groups is essential to ensuring strong engagement and collaboration from these key stakeholders.

Some examples of the diverse array of finance mechanisms for site-based capital generation include:

- Tourism user fees: entrance and activity fees, concessions.
- Licences and permits: hunting, collecting wildlife and non-timber products, boat licences, fishing, filming, etc.
- Sustainable land-use arrangements: ranching, forest thinning, etc.
- Infrastructure and utility easements.
- Payment for ecosystem services, including carbon credits.
- Crowdfunding.
- Biodiversity offsets and biodiversity credits.
- Grants and other donations, including from conservation trust funds.

- Sponsorships and 'Friends' groups.¹
- Local and community livelihoods, businesses, and other revenues.

Navigating among the options of finance mechanisms at the site level can be guided by the concepts presented in Chapters 2 and 3. Finance planning is especially relevant at the site level and, as a reminder, is more effective when key local stakeholders are involved throughout the planning cycle.

Generating capital for conservation at the site level can result in several outcomes for revenues: 1) collected and sent to government treasuries; 2) retained by the site or PCA agency, or 3) generated and retained by local private actors. In multiple countries, site-based fees are sent to the national treasury and integrated into general government budgets - only to be returned for conservation activities through the national or sub-national budgeting process. This approach has costs and benefits and is highly dependent on an effective budgeting process that allocates adequate funding to PCAs - which is rarely the case. Revenues such as entrance fees which are allowed to be retained by management at site level can be more efficiently shared with local communities and integrated into the PCA agency or local site budgets. When tourism fees are shared with local communities this can incentivise positive actions such as the reduction in poaching, improved community livelihoods, and more. Where revenue retention is allowed it provides a strong incentive to site managers to increase tourism quality and has a positive feedback on local revenue generation. In some cases, this incentive can become problematic such as when the drive for revenue impacts negatively on conservation as in the case of mass tourism. Although mass tourism can be an effective means of revenue generation, it often is extremely expensive to manage in terms of infrastructure development and maintenance, site protection and restoration, interpretation costs, legal and finance issues, etc. (Leung et al., 2018).

Significant capital may be generated by the site for local populations and businesses without passing through the site management institution or agency at all. This is the case for community-based tourism, local food, jobs and beverage services, and local livelihoods that benefit from the PCA. This revenue is extremely important as it contributes to key stakeholders and can greatly influence perceptions about the value of site-based conservation to the population and counterbalance the threat of ecosystem conversion for alternative land or sea uses.

There are several case study publications that provide a diversity of examples of site-based revenues with a focus on local communities and small enterprises. Stolton and colleagues (Stolton, Timmins & Dudley, 2021) carried out a study exploring local economic values from protected areas that produced 36 case studies from around the world. Their research identified the following lessons:

- 1. Sustainable management is at the heart of successful business models and needs to be carefully monitored and maintained.
- 2. Innovation works best from the ground up, with Indigenous peoples and local communities as the innovators or at least as willing and active partners/participants from the beginning.
- 3. A three-way link between communities, protected area managers and businesses is the most successful model for economic development connected to a protected area.
- 4. High-value and quality market products are a key element when use of natural resources is the basis of the economic model.
- 5. Successful models cannot simply be replicated, each protected area is different and needs its own approach; innovation is essential.
- 6. A diversification of money-making options is a good insurance policy in case one or more initiatives fail.
- 7. Climate change is providing fresh challenges to some economic models but also resulting in a number of additional funding models associated particularly with carbon capture and storage.

¹The US National Parks Foundation has a strong collaboration with the car company Subaru.

6.6 Summary of site-based finance

Site-based finance includes the revenues, costs and incentives that can be managed at the site and interacts with finance solutions and approaches from the local to the global level. Stakeholders and managers at the local level are some of the most important actors for PCA finance and strong collaboration and engagement with these actors on site-based finance will likely result in impactful outcomes. It is important to recognise the limitations of decision-making at the site level. Many finance solutions work only with engagement with the PCA agency or government entities. Site-based actors can engage directly with these key partners to advance finance solutions and look for opportunities to advance their objectives. Even setting and retaining tourism fees and charges can require legislation and regulations. A summary of some approaches is presented in the following table.

Table 6.1 How site-based finance contributes to protected and conserved area finance

Optimise resource efficiencies	 Business planning Collaborative management partnerships Enhanced community engagement Supporting Indigenous stewards Tourism concessions Implementing cost-saving technology
Discourage harmful actions	 Community defined sanctions Community-based surveillance and governance Retention of fines and penalties at site-level Harvest or use quotas
Incentivise positive actions	 Revenue sharing with local communities Promoting sustainable livelihoods Payment for ecosystem services Microfinance Tourism education Ecotourism and voluntourism Create policy, regulatory and fiscal incentives for privately protected areas
Increase financial capital for conservation	 Tourism user fees: entrance and activity fees, concessions Licences and permits: hunting, collecting wildlife and non-timber products, boat licences, fishing, filming, etc. Sustainable land-use arrangements: ranching, forest thinning, etc. Infrastructure and utility rights of way payments Payment for ecosystem services, including carbon credits Crowdfunding Biodiversity offsets and biodiversity credits Grants and other donations, including from conservation trust funds Sponsorships and 'Friends' groups

Source: Prepared by the report authors.

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Chapter 7. Finance for Indigenous peoples conservation areas



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7.1 Introduction

Indigenous lands and territories are essential for safeguarding biodiversity, and in many cases Indigenous peoples are successful stewards of nature. Indigenous definitions of conservation, stewardship or guardianship can vary, by one definition, "conservation is achieved when the relationships and uses that have conserved the lands and waters for thousands of years remain intact or are re-established" (The Indigenous Circle of Experts, 2018, p. 35). Garnett et al. (2018) estimates Indigenous peoples manage or have tenure rights to at least 38 million square kilometres (28.1% of land area). These areas cover 37% of the remaining natural lands (Garnett et al., 2018) and 36% of all intact forest landscapes (Fa et al., 2020). These Indigenous areas contain a substantial portion of Earth's biodiversity (O'Bryan et al., 2021; Sze et al., 2023) and have lower rates of invasive species compared to other lands (Seebens et al., 2024). Afro-descendant peoples (ADP) in Latin America and the Caribbean (LAC) are recognised as Indigenous peoples (Antón Sánchez, 2022), with a population of over 134 million people (21% of LAC population) and inhabiting over 2 million square kilometres. "In Belize, Bolivia, Costa Rica, Ecuador, Guatemala, Honduras, Nicaragua, and Panama, 100 percent of Afro-descendant territories are in areas considered to be biodiversity hotspots" (Rights and Resources Initiative [RRI] et al., 2023, p. 2). Indigenous areas are as effective as PAs in reducing deforestation in Brazil and Panama (Halverson, 2018; Nepstad et al., 2006; Nolte et al., 2013; Stevens 2014, as cited in Tauli-Corpuz et al., 2020) and in vertebrate biodiversity in Australia, Canada and Brazil (Schuster et al., 2019). In 2018, 20.7% of mapped Indigenous managed or tenured lands overlapped with protected and conserved areas (PCAs) (covering 40% of PCAs) (Garnett et al., 2018), but in many cases Indigenous rights are not fully acknowledged (Tauli-Corpuz et al., 2020). Tauli-Corpuz et al. (2020) estimated that Indigenous peoples and local communities invest an estimated US\$ 3.16-4.75 billion on conservation, including initial investment, re-investment and indirect investments (e.g. labour).

Investments in Indigenous organisations and Indigenous-led conservation focused programmes have been shown to generate significant economic returns. Since 2008, the First Nations led conservation trust fund (CTF), Coast Funds in British Columbia, Canada created 1,253 new permanent jobs, employing 962 community members, and invested CAD 63.5 million in salaries for local, family-supporting jobs through both a conservation fund and an economic fund (Coast Funds, 2023). Similarly in Canada's Northwest Territories, the First Nations Lutsel K'e and Dehcho guardian programmes, "generated CAD 11.1 million in social, economic, cultural, and environmental value" (Social Ventures Australia, 2016, p. 5) from an initial investment of CAD 4.5 million between 2009 and 2016. Additional investment in full-time positions and training would generate further returns of CAD 2.5 to CAD 3.7 for every CAD 1 of investment (Social Ventures Australia, 2016a). A study of the investment value of five Indigenous Protected Areas and associated Indigenous ranger programmes in Australia found between 2009 and 2015, "an investment of AU\$ 35.2m from Government and a range of third parties has generated social, economic, cultural and environmental outcomes with an adjusted value of AU\$ 96.5m" (Social Ventures Australia, 2016b, p. 4).

Box 7.1

Indigenous peoples are distinct from local communities

The term Indigenous peoples and local communities (IP&LC or IPLC) has widely been used in the environmental and development space (Tugendhat et al., 2023). However Indigenous peoples are distinct from local communities both under international law and in the challenges they face. Several Indigenous peoples (IPs) and IP coalitions have expressed concerns that the grouping of Indigenous peoples with local communities, particularly in international conventions, may undermine the rights of Indigenous peoples (A/HRC/48/75, E/2023/43; United Nations Human Rights Council, 2021; United Nations Permanent Forum on Indigenous Issues, 2023). Finally there is an expressed need for guidance and information resources on finance mechanisms for Indigenous peoples (IIPFCC, 2022; Road Map on Advancing Rights and Equity in the Implementation of Conservation, 2024). Therefore, this chapter focuses on conservation finance solutions for Indigenous peoples and recommendations for governments, businesses, non-governmental organisation (NGOs) and philanthropies to improve their funding and support of Indigenous conservation, although some statistics and references will include the term 'Indigenous peoples and local communities' or acronyms 'IP&LC' and 'IPLC' due to the original source material. While Indigenous peoples' important contributions to conservation are more recognised today, Indigenous peoples have also suffered from the establishment of protected areas and other conservation mechanisms. Establishment of protected areas in some Indigenous lands has resulted in partial or full relocation of Indigenous peoples from lands they inhabited, sometimes with no evidence of compensation. Indigenous peoples can be subject to extrajudicial killings from protected area rangers (Tauli-Corpuz et al., 2020), or assassinated for their activism (Global Witness, 2023). A review of carbon offset projects by Carbon Brief found the majority of projects they reviewed showed evidence of the project causing harm to IP&LCs (Carbon Brief, 2023), and the unregulated carbon market has promoted land grabbing of unrecognised Indigenous lands (A/HRC/54/31). In the Amazon, Indigenous peoples report companies taking advantage by means of opaque deals for up to 100 years for carbon rights written in English (Guardian News and Media, 2023). Outside of protected areas, Indigenous lands are also threatened by development, with one estimate of 60% of Indigenous lands in 64 countries being threatened by industrial development (Kennedy et al., 2023).

The rights of Indigenous peoples are enshrined in the United Nations Declaration on the Rights of Indigenous peoples (see Box 7.2); the International Labour Organization's Indigenous and Tribal Peoples Convention, 1989 (No. 169); and the Nagoya Protocol which provides a legal framework for the fair and equitable sharing of benefits from the utilisation of genetic resources (Secretariat of the Convention on Biological Diversity, 2024). Additional voluntary guidelines include the Akwé: Kon Guidelines for impact assessments of developments on Indigenous lands and waters (Secretariat of the Convention on Biological Diversity, 2014) and the Mo'otz Kuxtal Voluntary Guidelines for the fair and equitable sharing of benefits from Indigenous knowledge (Secretariat of the Convention on Biological Diversity, 2022). Indigenous insights can also provide guidance on conservation finance strategies (Williams-Davidson & Sarra, 2021).

Box 7.2

United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)

Under the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), Indigenous peoples are entitled to individual and collective rights, including:

- To enjoy full human rights (Article 1), and the right to equality and non-discrimination (Article 2).
- The right to self-determination, including to freely pursue their economic, social and cultural development (Article 3), and the right to autonomy or self-government (Article 4).
- The right to participate in decision-making in matters which would affect their rights (Article 18).
- The right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired; and the right to own, use, develop and control the lands, territories and resources that they possess (Article 26).
- The right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources (Article 32).
- The right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources (Article 29).
- The right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures (Article 31).
- The right to redress for the lands, territories and resources which they have traditionally owned or otherwise occupied or used, and which have been

confiscated, taken, occupied, used or damaged without their free, prior and informed consent (Article 28).

UNDRIP also specifies that states must obtain free, prior and informed consent (FPIC) of Indigenous peoples before adopting and implementing legislative or administrative measures that may affect them (Article 19), before relocation of Indigenous peoples (Article 10, United Nations General Assembly, 2007). FPIC can be understood as,

- Free: "The consent is free, given voluntarily and without coercion, intimidation or manipulation. A process that is self-directed by the community from whom consent is being sought, unencumbered by coercion, expectations, or timelines that are externally imposed."
- **Prior:** "The consent is sought sufficiently in advance of any authorization or commencement of activities."
- **Informed:** "The engagement and type of information that should be provided prior to seeking consent and also as part of the ongoing consent process."
- **Consent:** "A collective decision made by the right holders and reached through a customary decision-making process of the communities."

Adapted from Fao.org (n.d.). In addition to the right to redress for lands taken without FPIC, states must provide effective mechanisms for redress for violation of rights (United Nations General Assembly, 2007).
7.2 Funding Indigenous groups

There are a range of efforts to provide increased financial support to Indigenous peoples engaged in nature conservation. A report by Rights and Resources Initiative (RRI) and Rainforest Foundation Norway (RFN) estimates annual disbursements from international donor funding for Indigenous peoples, Afro-descendant peoples and local communities tenure rights and forest guardianship averaged US\$ 517 million per year from 2020 to 2023 (reported in 2020 dollars), an increase of 36% over the preceding four-year average. About 72% of this increase was due to the IPLC Forest Tenure Pledge (RRI & RFN, 2024), a "collective pledge of [US]\$ 1.7 billion of financing, from 2021 to 2025, to support the advancement of Indigenous peoples' and local communities' forest tenure rights and greater recognition and rewards for their role as guardians of forests and nature" (United Nations Framework Convention on Climate Change [UNFCCC], 2021) announced at UNFCCC COP26. Of funds analysed in the report, bilateral donors, multilateral donors and foundations represented the largest funding sources (45%, 32% and 17%, respectively; RRI & RFN, 2024).

While these funding increases are promising, they still fall short of estimated needs of Indigenous peoples for securing land tenure and guardianship, let alone sustainable finance. Between 2011 and 2020, projects supporting IP, ADP and LC tenure and forest management received funding equivalent to 0.74% of all official development assistance (ODA) that went to climate change mitigation and adaptation over the same period (Hatcher et al., 2021). Indigenous owned funds, the Podaali Fund and the Nusantara Fund, were only able to fund 8% and 20%, respectively, of proposals received, and similarly, international funds for IPs, ADPs and LCs – the Global Environment Facility's (GEF's) Inclusive Conservation Initiative (GEF, n.d.) and the Climate Investment Fund's Dedicated Grant Mechanism for Indigenous Peoples and Local Communities (DGM, 2024) – could only fund a fraction of projects (RRI & RFN, 2024). Around 73% of 50 African civil society organisations identified insufficient funding as a barrier to success (Paul et al., 2022). Path to Scale estimates "at least [US]\$ 10 billion is required by 2030 to support the recognition of an additional 400 million hectares of tropical forests, a minimum level of support and rights recognition for collective rightsholders to meaningfully contribute to the achievement of the climate and biodiversity targets" (RRI & RFN, 2024, p. 11).

Additionally, while bilateral, multilateral and philanthropic financing for the purposes of supporting Indigenous peoples has increased, only a small amount of financing is directed to Indigenous owned or managed organisations. Only 17% of projects between 2011 and 2020 analysed by RRI and RFN included the name of an IP, ADP or LC organisation, amounting to US\$ 46.3 million per year on average, an equivalent of 0.13% of all climate development aid (Hatcher et al., 2021). Similarly, for the COP26 IPLC Forest Tenure Pledge, only 7% of the funds distributed to date have directly reached IP, ADP or LC groups (Forest Tenure Funders Group, 2023), with the Ford Foundation estimating just 17% of their funding for the pledge goes directly to an IP, ADP or LC organisation (Ford Foundation, 2023).

The reasons or 'targets' that require Indigenous peoples' finance begin with the maintenance of the traditional practices that have proven positive for biodiversity. Decision-makers are aware that to conserve a state protected area, one must maintain the integrity of the human and social systems there - the management, education, relationships and enforcement. Without consistent funding and regulatory support, these human systems decline, and biodiversity is lost. In the same way, if there is a decline in an Indigenous culture with a deep knowledge and ethic of conserving a forest, then the forest is likely to suffer. That decline is now happening, as Indigenous communities suffer cultural loss (including loss of oral nature-management traditions), increasing poverty and insecure or weak rights to their lands (Jerez, 2021). Better funding is critically needed to sustain biodiversity-positive Indigenous peoples' livelihoods and traditions, especially in the face of 'opportunity costs' and increasing land values (see Chapter 2) and increasing legal or illegal threats to their areas. Representatives of the International Indigenous Forum on Biodiversity give other examples of concrete financing targets that include: documenting and passing on elders' oral tradition of wildlife and land management systems (especially when children are increasingly being sent away to standardised schooling); compensating individuals if actual patrolling is needed (taking them away from their livelihoods); and funding the rehabilitation of natural areas (e.g. planting of new native vegetation on degraded lands). There are also multiple ethical reasons to support Indigenous 'conservators'. ranging from fair reward for their role to the basic justice of supporting diverse, often marginalised groups in society.

Box 7.3

Resources for Indigenous peoples conservation finance solutions

- Coast Funds (2024) Finance for Forests: A Guide to Conservation Finance Options for First Nations' Conservation and Stewardship provides 'Criteria for Evaluating Strengths and Weaknesses of Conservation Finance Mechanisms', in-depth analysis of conservation finance solutions used by the Indigenousled Coast Funds in British Columbia, Canada, and indicators for community health for First Nations that can be adapted by Indigenous peoples and organisations.
- Indigenous Peoples Alliance for Rights and Development (IPARD) is a global development alliance convening multi-sector partners to create long-term solutions with and for Indigenous peoples.
- The IPARD Indigenous Learning Platform collects information for and about Indigenous peoples including reports, case studies and videos on economic models, Indigenous-based solutions and climate partnership; capacity development; human rights policy and advocacy; and monitoring, evaluation, adapting and social learning.
- The Forest Peoples Programme's Local Biodiversity Outlooks platform and publications (Forest Peoples Programme et al., 2020; Local Biodiversity Outlooks, n.d.) provides case studies of Indigenous and local community conservation successes.
- The Indigenous and community conserved area (ICCA) Consortium offers the ICCA Self-Strengthening Process (Borrini-Feyerabend, Campese & Niederberger, 2021) at local level; networking, peer-

support and advocacy at national, sub-national level and international level; and reports on ICCAs in the <u>Territories of Life</u> report (United Nations Environment Programme - World Conservation Monitoring Centre [UNEP-WCMC] & ICCA Consortium, 2021).

- The <u>Global Alliance of Territorial Communities</u> (GATC) is a political platform of Indigenous peoples and local communities in Africa, Asia and Latin America that recently launched Shandia, "[a] common platform to promote and facilitate direct, predictable, effective and sustainable funding to our peoples and communities through the establishment of direct regional and national funding mechanisms, capacity-building, exchange of experiences and enhanced dialogue with donors and partners."
- The Community Land Rights and Conservation Finance Initiative, "a new international funding mechanism led by RRI and Campaign for Nature... aims to contribute to raising US\$ 10 billion by 2030 and strategically deploying public and private funds to scale up the formal recognition of Indigenous Peoples', Afrodescendant Peoples', and local communities' land rights, conservation, and sustainable management of their territories" (RRI & the Campaign for Nature, n.d.).
- The Indigenous Protected and Conserved Area (IPCA) Knowledge Basket "holds stories, videos, songs, government reports and policies, academic articles, resources, and artwork available to all who seek to support Indigenous-led conservation" (IPCA Knowledge Basket, n.d.) from First Nations in Canada.

7.3 Practice Guideline A. Optimise resource efficiencies

Where Indigenous peoples have clear, legal management control over their lands and a sustainability or nature-conservation ethic, local outcomes for biodiversity can be particularly positive (Holland et al., 2022; Sze et al., 2021). A systematic review of conservation outcomes under different forms of governance found that locally controlled cases more often lead to positive outcomes for both well-being and conservation, whereas top-down, externally controlled cases more often led to negative outcomes for well-being and conservation (Dawson et al., 2021). Greater local community participation correlates positively with higher levels of compliance with protected area policies (Andrade & Rhodes, 2012). Many Indigenous peoples also possess robust social structures that facilitate the enforcement of conservation regulations and the maintenance of sustainable resource management practices (Nelson & Chomitz, 2011; Pretty et al., 2009; Stevens, 2014, as cited in Tauli-Corpuz et al., 2020; RRI et al., 2023). Traditional ecological knowledge (Berkes, 2018) encompasses centuries of wisdom about plant and animal behaviour, weather patterns, and ecological interdependencies and can inform management decisions (Paneque-Gálvez et al., 2018). Indigenous land management practices, such as controlled burns, agroforestry and rotational grazing, can be ecologically sustainable and reduce the need for certain conservation interventions in protected areas. Community-led initiatives, such as participatory monitoring and patrolling programmes, have been shown to effectively deter illegal activities and promote compliance with conservation measures (Gavin et al., 2018).

To meet global conservation targets, a diversity of protected and conserved areas is needed, and the type of conservation area depends on the location, local needs and conservation threats. Tauli-Corpuz et al. (2020) summarise the advantages of community managed conservation compared to traditional protected areas:

- Higher cost efficiency for governments or management organisations.
- Reduced cost of compensation to communities.
- Lower costs of some regulatory enforcement.
- Increased local employment, local livelihoods from conservation benefits, and reduced welfare costs relative to government or donor funded projects. (adapted from Tauli-Corpuz et al., 2020 and see for further references).

There are several tools available to assess site-level governance quality, including for Indigenous peoples, such as the ICCA Consortium Self-Strengthening Process (Borrini-Feyerabend, Campese & Niederberger, 2021), Site-level assessment of governance and equity (SAGE), Social assessment for protected and conserved areas (SAPA), Governance assessment for protected and conserved areas (GAPA) (IIED, n.d.-a, n.d.-b, n.d.-c), the International Union for Conservation of Nature [IUCN] Green List Standard (IUCN World Commission on Protected Areas [WCPA], 2017), the Natural Resource Governance Framework (NRGF) (Springer, Campese & Nakangu, 2021), and country- or system-specific assessment tools.

Funding mechanisms involving Indigenous peoples are most effective when Indigenous peoples have direct access to and direct management of funding through a fit for purpose model (RRI & RFN, 2022). Direct access refers to "direct negotiation and discussions with financial partner countries or funders to determine level of funding, parameters, and agreements on the funding mechanisms" (IIPFCC, 2022, p. 3). Fit for purpose can be defined as "an approach whereby climate, conservation, and rights funding is channeled in ways that are relevant and appropriate for IPs and LCs, and ensures funding engagements are led by their organizations, flexible and long-term, gender-inclusive, timely and accessible, and mutually accountable" (RRI & RFN, 2022, p. 6; See also A/HRC/54/31; IIPFCC, 2022; Paul et al., 2022). The basis of a fit for purpose model is the involvement of Indigenous peoples "at every stage of the process, including in the design of funding strategies and the governance of funding mechanisms" (RRI & RFN, 2022, p. 6), with rights enshrined by UNDRIP including FPIC. With this approach, Indigenous peoples will be able to design funding programmes that fit their needs and capabilities, and are unique to different groups and their geographies (Dawson et al., 2021; Holland et al., 2022; Scott-Enns, 2020). We will also expand on this definition to include other recommendations from Indigenous peoples and organisations (see Box 7.4), noting that direction from Indigenous peoples themselves in regards to their funding should be prioritised.

Examples of good practice in more direct finance include initiatives like <u>The Poverty and</u> <u>Conservation Learning Group's small grant initiative</u> (IIED, n.d.-d), which does not prescribe the type of activities funded, but rather allows for locally led action and prioritisation by communities themselves. The Netherlands <u>'Reversing the Flow'</u> (RVO, n.d.) programme takes a similar approach for watershed management.

One factor limiting the percentage of funding designated for Indigenous peoples that actually arrives at Indigenous organisations is the reliance on intermediary organisations. This includes diverse NGOs, multilateral agencies, funding facilities, and others, that access funds from donors and channel funds and technical assistance to Indigenous peoples (Charapa Consult, 2022). On the positive side, intermediaries support Indigenous peoples with technical assistance, capacity-building, and compliance with internal and international funding requirements; facilitate access to financial institutions like banks; and provide safeguards to investors through fiscal sponsorship and oversight. However, Indigenous coalitions and organisations have highlighted challenges in relying on intermediaries due primarily to the high percentage of finance that remains with the intermediaries. Although the transaction costs associated with intermediaries is a global issue, multiplied with each additional intermediary, the issue is felt acutely by IPs and can contribute to a lack of transparency in the sources of funding, transaction costs and decision-making (Charapa Consult, 2022; Paul et al., 2022; A/ HRC/54/31).

When possible, funding for Indigenous peoples conservation should go directly to Indigenous peoples or if an intermediary is required by a donor, Indigenous peoples should choose the intermediary with FPIC. Where the intermediary is used as a pragmatic solution to transfer cash to remote groups with limited or no banking, innovative mechanisms such as mobile money transfers can provide a more cost-effective solution (e.g. <u>Terraspect</u>). Although overcoming these challenges may necessitate a paradigm shift in conservation finance (Cosma et al., 2023), there are numerous simple solutions that can begin to move financing practices for IPs in a more just and effective direction.

<u>Charapa Consult</u> (2022, Annex B) provides an overview of some key intermediary funding mechanisms for Indigenous peoples conservation, including Indigenous led intermediary funds. See <u>Charapa Consult</u> (2022, pp. 39–40) for guidance on assessing intermediaries. Many Indigenous led and trusted intermediaries also provide funding for capacity-building for Indigenous peoples.

Box 7.4

Recommendations for funders to follow a Fit for Purpose model

- Meaningful participation and representation of Indigenous peoples in the design, implementation, oversight and decision-making of funding opportunities from the outset to ensure that funding is responsive to their needs, priorities and aspirations, and that it aligns with their vision of sustainable development.
- Terms of funding that recognise self-determination over lands, territories and resources.
- Make grants more flexible and aligned to grantee Indigenous peoples' priorities and strategies, rather than being top-down and predetermined, through soliciting feedback from Indigenous peoples.
- Provide more unrestricted or flexible core funding for organisations to invest in core management functions and community needs.
- Recognise the importance of Indigenous women: allocate more funding directly to Indigenous women's organisation funds, engage Indigenous women directly through bottom-up finance, and monitor gender inclusivity in decision-making and funding.
- Move beyond short-term project grants to more longterm funding systems.

- Make funding calls and application processes more transparent and accessible, including eliminating invitation only calls and providing additional language options.
- Simplify and streamline reporting and adopt common or shared reporting formats that can be used with multiple funders.
- Promote greater funding to cover transaction costs and greater acceptance of risk by funders.
- Build stronger direct relationships with Indigenous peoples and provide direct grants to them wherever possible, followed by selected and trusted intermediaries, rather than through intermediaries selected without FPIC.
- Include funding for capacity-building needs, as determined by Indigenous peoples, of both recipients and funding organisations to ensure mutual learning.

Adapted from A/HRC/54/31; Dawson et al. (2021); IIPFCC (2022); Road Map on Advancing Rights and Equity in the Implementation of Conservation (2024); Paul et al. (2022); RRI & RFN (2022); Young (2024).

7.4 Practice Guideline B. Discourage harmful action

The greatest threat of harmful action to Indigenous peoples' conservation areas and territories is the risk that outside actors will exploit the areas against the desires of the IPs. Effective ways to combat this are clarifying and enforcing rights, responsibilities and legal tenure. Clear legal and enforced rights can be extremely effective in ensuring tenure security and funding and such tenure security is generally desired by IPs (IIPFCC, 2022; Road Map on Advancing Rights and Equity in the Implementation of Conservation, 2024; RRI & RFN, 2022). Land titles may be a formal requirement for communities to receive government support (Forest Peoples Programme, 2021). Defensible claims on land including property rights can reduce investment risk for transactions like payment for ecosystem services (PES) and easements, which can take the form of legal rights or agreements of customary tenure (EcoAdvisors, 2020). Formal titling of customary lands also can provide Indigenous peoples with a robust platform from which to defend their lands and resources against externally-driven overexploitation (Forest Peoples Programme, 2021).

There are some risks associated with using governmental systems as the main solution. First, governments have been known to change or cancel previous agreements (Monterroso & Sills, 2022). Second, in some cases, assigning legal tenure can cause IPs to alter historically communal management of areas in favour of individual ownership, leading to land sales and the loss of shared management approaches (Larson et al., 2023). Tenure agreements and definition of property rights, like any intervention, should be designed by Indigenous peoples with FPIC to ensure agreements align with customary values.

Under international law, states are primarily responsible for the establishment of institutional mechanisms and legal frameworks for the protection of rights of Indigenous peoples (A/ HRC/54/31). Implementation, however, varies greatly by state (ST/ESA/375). RRI (2020) provides an evaluation of low and middle-income readiness for investments in "projects to formally recognise the land and forest rights of local communities, Afro-descendants, and Indigenous Peoples" (RRI, 2020, p. 7), and provides analysis across five parameters: legal framework, federal/central government willingness, sub-national government willingness, government capacity, and civil society capacity,

Under various frameworks, businesses are encouraged to take a human rights-based approach, reducing infringement of human rights resulting from business activity. A business's failure to respect Indigenous rights can lead to financial losses, reputational damage, and cancellation of projects (Fredericks et al., 2018; Herz et al., 2007; Temper et al., 2020, as cited in Amazon Watch, 2023). Additional guidance is available for private actors on fair and efficient engagement with Indigenous peoples, which in turn avoids financial and reputational risk:

- Amazon Watch (2023) Respecting Indigenous Rights: An Actionable Due Diligence Toolkit for Institutional Investors.
- Forest Peoples Programme Stepping up: Protecting collective land rights through corporate due diligence (Mei & Perram, 2021).
- Investor Alliance for Human Rights Investor Toolkit on Human Rights (Blackwell & Muñoz Quick, 2020).

Perhaps the most powerful means by which to avoid harmful actions is a combination of adequate finance and effective governance. The finance is needed to both reward IPs for their conservation outcomes and to compensate for lost opportunity costs. Finance also can be helpful to support the governance structures needed to defend IPs' rights to their land and ocean resources. Financial structures such as land trusts, and CTFs can be better integrated into the portfolio of financial tools accessible to IPs (see Bioregional Finance Facilities).

7.5 Practice Guideline C. Incentivise positive actions

The best means to incentivise and enable positive actions for Indigenous peoples' sites is to strengthen Indigenous governance and management of these sites. Today, more states and international organisations are acknowledging Indigenous protected and conserved areas through formal labels, designations and arrangements, such as IUCN's Indigenous and Community Conserved Areas (ICCAs), Canada's Indigenous Protected and Conserved Areas (IPCAs, a term we will use for a general description) and Australia's Indigenous Protected Areas (IPAs). These Indigenous protected and conserved areas can be considered as "a suite of Indigenous-driven initiatives to protect, conserve, or steward areas where they exercise agency in territorial management" (Tran et al., 2020, p. 2), and vary in formation, political support, management, tenure, durability and formal recognition. A literature review of IPCAs found the vast majority of studies reported political, sociocultural or ecological successes or benefits from IPCA initiatives (57 of 58 papers covering 86 site-specific initiatives across 25 countries; Tran, 2020). State support for IPCAs can be motivated by reconciliation policies, such as in Canada (Townsend & Roth, 2023). IPCAs are also being created and financed under the project finance for permanence model.

When the rights and responsibilities of Indigenous people are not adequately supported or accounted for in the design, creation, management and finance of PCAs, significant opportunities can be lost for positive actions and corrective action may never return the site to efficient and equitable management. For example, conservation restrictions can result in significant opportunity costs to forest communities (Poudyal et al., 2018). Any opportunity costs to IPs (e.g. restrictions on hunting) associated with a PCA should be mutually recognised and potentially compensated, including through additional finance where appropriate. PCAs that generate income (e.g. through ecotourism or sustainable use of natural resources) can establish appropriate benefit-sharing that follows basic principles of equity as a means to offset the opportunity costs, and as an effective way to align the interests of diverse parties. Establishment of equitable governance structures along with transparent profit-sharing mechanisms and benefits that are commensurate with the scale of threats to biodiversity is essential (Spenceley et al., 2021). Green growth projects in PCA buffer areas also have the potential to create local employment opportunities and income generation, thereby mitigating poverty in buffer zone communities and alleviating the pressure on protected areas. The implementation of payment for ecosystem services programmes could also serve to compensate IPs for their integral role in maintaining ecosystem services, thereby incentivising conservation and diminishing management costs. Economic incentives for engaging in community-based conservation initiatives and equitable revenue-sharing arrangements can align economic interests with conservation goals (Mitchell et al., 2018). However, these instruments remain complex and require effective public-private partnerships.

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7.6 Practice Guideline D. Increase financial capital for conservation

Increasing finance for conservation actions by Indigenous people is clearly needed and is one of the most significant areas of opportunity for increasing the impact and effectiveness of nature conservation globally. Although most means of increasing finance for conservation described elsewhere in this guidance are relevant to IP-led and managed areas, there are some important specificities noted throughout this chapter. For any increase in finance for conservation, attention should be paid to issues of FPIC, local concepts of stewardship, rights and responsibilities – including the rights of nature, risks of disrupting pre-existing and effective cultural and management systems, elite capture and unintended consequences. Although these issues arise for any new financial flows or finance solutions, mistakes with finance can have profound social, cultural and ecological impacts on IP systems that have been effective for millennia.

Fortunately, increasing attention is being paid to finance for IPs and there are a growing number of Indigenous Led Funds that "are guided by Indigenous worldviews and led-by and for Indigenous peoples. Indigenous Led Funds strengthen self-determination and support a process that empowers the communities, at the local to the global level, to be able to change paradigms and shift power relations addressing the asymmetry of powers and resources to recognition and reciprocity" (Scott-Enns, 2020, p. 4). See Charapa Consult (2022, Annex A: Indigenous Led Funding Mechanisms) and Young (2024, Box 2: Examples of Indigenous-led funds) for examples of Indigenous Led Funds.

Additional funding is available from international sources including the GEF's Inclusive Conservation Initiative (ICI, n.d.) and Small Grants Program (GEF SGP, n.d.), and the Climate Investment Fund's Dedicated Grant Mechanism for Indigenous Peoples and Local Communities (DGM, 2024). More funding should be available from the new Global Biodiversity Framework Fund, where the GEF announced as much as 20% of its resources will support Indigenous-led initiatives to protect and conserve biodiversity (GEF, 2023).

7.7 Summary of finance for Indigenous peoples

In conclusion, Indigenous peoples are extremely important stewards for biodiversity and cultural diversity, and consultative approaches supporting IP groups are likely to have strong benefits for effective PCA management and sustainable finance. The following table highlights opportunities identified in this chapter.

Optimise resource efficiencies	 Strengthening governance Shared learning between funders and recipients Capacity-building Bridging scientific and Indigenous knowledge Direct finance of Indigenous groups and Indigenous intermediaries
Discourage harmful actions	 Clarifying and enforcing rights, responsibilities and legal tenure Government enforcement of protection and rights of Indigenous territories
Incentivise positive actions	 Recognition of Indigenous PCAs Project finance for permanence Climate and biodiversity markets Microfinance and livelihood support
Increase financial capital for conservation	 Supporting Indigenous led funds and intermediaries Philanthropic grants Public funding Ecocultural tourism

 Table 7.1 How Indigenous peoples interact with protected and conserved area finance

Source: Prepared by the report authors.

<image>

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Chapter 8. Private sector finance



Day Gecko (*Phelsuma spp.*) from Makira Natural Park, Madagascar © David Meyers

8.1 Introduction

Nature provides significant economic value, estimated at more than US\$ 150 trillion annually to the private sector (Kurth et al., 2021). Currently, this value – often described as natural capital and its associated ecosystem services – is being eroded rapidly. Companies and financial institutions are starting to recognise this value loss as a major risk to their operations and investments. Organisations and efforts such as the Capitals Coalition, Business for Nature, the Taskforce on Nature-related Financial Disclosures (TNFD) and Principles for Responsible Banking are bringing nature to the attention of mainstream economic and finance actors, creating new opportunities for addressing the financial needs of nature conservation. Given the extraordinary value of natural capital estimated at supporting more than half (World Economic Forum & PwC, 2020) to well over the total global gross domestic product (GDP) (see Dasgupta, 2021), the estimated financial needs of maintaining nature at US\$ 700 billion per year (less than 1% of global GDP, Deutz et al., 2020) are clearly worth the investment (see Chapter 1).

Regardless of this low relative cost and enormous value, private enterprises, banks and other private finance institutions are not investing significantly in nature and protected and conserved area (PCAs). This is due to a combination of underlying economics of nature and the way nature is treated by business (public goods, externalities, etc.) and partly due to the structure of the financial system and market mechanisms. There are two key elements to consider. First, private companies are designed to maximise their value for their owners – this is written into many laws and regulations and not simply a choice of company leaders. Second, markets and people in general place more value on the short term than the long term (see definition of 'time value of money'). Because of these and related features of the market systems that drive the flow of capital and corporate activities, nature is not seen as a priority and continues to be undervalued, degraded, ignored and underfunded by the private sector.

Increasingly the finance sector and private companies are becoming more aware of the importance of nature in their decision-making and investing, although the change is slow. One useful overarching framework for understanding the private company and investment perspective has been nicely summarised by the Natural Capital (see Figure 8.1).



Figure 8.1 Business impacts and dependencies on natural capital. Source: Natural Capital Coalition (2016); Capitals Coalition and Cambridge Conservation Initiative (2017).

Private companies tend to have both impacts and dependencies on nature. These relationships can lead to both risks and opportunities for the company and society. PCA managers and planners can seek to understand and use this framework to better partner with the private

sector. Not-for-profit organisations have been partnering with for-profit companies for many years. One example is WWF's collaboration with Hewlett Packard to conserve forests and reduce the impact of printer paper on nature (see Hewlett Packard, n.d.).

There is growing interest from private finance and corporate actors in supporting the implementation of the Kunming-Montreal Global Biodiversity Framework (GBF) goals and targets, reaching 'nature positive', and more broadly a convergence of sustainability target-setting and disclosure by large corporations and financial institutions. This is driven by regulatory requirements, shareholder and customer demands, and societal pressure that correlates into reputational risk. This interest suggests the potential for an increasing scale of private finance for nature. Still, a scaling effort also needs broad policy reform to set the enabling environment and there is, at the same time, pushback to the 'hegemonic narrative' (e.g. in Kedward et al., 2022) that private finance is coming to the rescue of nature. Indeed, even if private finance can make a substantial contribution, funding the public goods associated with PCAs will most likely always require a significant degree of public finance and is dependent on strong policy support.

This chapter seeks to provide guidance on how PCAs, PCA systems and their key stakeholders can better integrate private sector finance into their operations and funding. The chapter follows the four practice guidelines presented in Chapter 2 with an emphasis on practice guidance 4 – increasing financial capital. For a description of key terms, see the Glossary.

8.2 Practice Guideline A. Optimise resource efficiencies

Business and markets are known for being efficient at allocating capital but are not efficient at achieving equity nor avoiding harmful social and environmental impacts. Some of the better business approaches have been integrated into PCA strategy and operations, especially the use of business planning as a vehicle for building consensus, identifying finance solutions and raising funding for implementation of management plans. Private sector enterprises can offer substantial savings and efficiencies for PCAs, if structured well, by taking on a range of services for which they are more efficient. It is extremely common for PCA management to outsource various tourism related services such as hotels, restaurants, camping, diving and other amenities to the private sector under contracts including tourism concessions. In fact, some PCA system managers (or governments) outsource PCA management to private companies or non-profits through public-private partnerships (PPPs) or collaborative management partnerships. In addition to tourism concessions, the private sector performs many services for PCAs including road construction, electricity provision, technology, accounting, financial management, and many more products and services engaged by the PCA management through outside procurement of these services. Effective, transparent and competitive procurement processes can save the PCA significant amounts of funding. FUNBIO, the Brazilian conservation trust fund, actually makes purchases on behalf of the many Brazilian parks they support in order to assure low prices and high quality. PCAs should also consider 'green' procurement to source environmentally and socially responsible products and services compatible with their conservation missions.

In addition to the private sector supporting public PCAs, privately established PCAs also exist. There are a wide suite of tools that can encourage the establishment and conservation of privately protected areas that result in efficient conservation area establishment and management. These tools include tax breaks such as conservation easements, the provision of technical or financial support to privately protected areas, and the use of land trusts (see International Land Conservation Network, The Private Protected Area Program, Queensland Government, n.d.). More information is available from the Guidelines on Privately Protected Areas (Mitchell et al., 2018).

PPPs in general are a common means of co-financing PCAs and many resources exist on this topic (e.g. Brugière, 2020) and collaborative management partnerships for PCAs are a common format. The partnership approach varies based on the regulatory landscape in countries, for example:

- Tourism focused concessionaire groups/firms Group Cataratas in Brazil Iguaçu, Fernando de Noronha, Tijuca (Grupo Cataratas, n.d.); Tayrona Colombia (Parque Tayrona, n.d.).
- Protected area collaborative management partnerships (CMPs), such as co-management for example, Bahamas National Trust; Gonarezhou Conservation Trust (Zimbabwe).

Tourism concessions such as those described here require engagement by the government, PCA management authorities or the site owner, and are often reliant on the existence of enabling legislation and regulations.

8.3 Practice Guideline B. Discourage harmful actions

The private sector, including private individuals, tend to consider nature as a public good, external to their private calculations of profit, expenses or investment priorities. This generally results in excessive harm to nature from almost all actors. Although this harm is a byproduct of basic business operations – targeted efforts are required to build awareness of this harm and to put in place lasting mechanisms that reduce or reverse the harm in order for nature to thrive and continue to provide the vast ecosystem services on which we as a society and economy depend. Where harm cannot be avoided, biodiversity offsets may be considered.

Government actions to reduce harm from the private sector are described in Chapter 5 and include a wide range of economic instruments, market mechanisms, and mainstreaming biodiversity through a whole-of-government approach. At the PCA system level, responsible authorities can work closely with government and private sector actors to ensure that the boundaries and rights of PCAs are known and respected, for example by extractives, agriculture, fisheries, infrastructure development and other industries with a high risk of harmful impact on PCAs. PCA management should have a seat at the table for all environmental impact assessments that could impact the PCAs and be well informed on how to assess these studies, receive adequate finance to properly assess impact studies, and provide written feedback.

In the cases where agriculture infringes upon PCA limits or regulations, collaboration with banks, microfinance organisations and government extension agencies can help reduce habitat conversion and infringement into PCA limits. Surveillance and enforcement of the law is crucial and the PCAs can build engagement from all aspects of the legal and court systems to assure that illegal private activities are identified and discouraged through fines, penalties and other consequences.

The growing efforts to encourage or require private companies to identify and disclose their impacts on nature through the Taskforce on Nature-related Financial Disclosures, Science Based Targets Initiative and national regulations provides an important opportunity to PCAs to work with companies that are impacting their sites and make sure they are aware of and include these impacts in their disclosures. This will provide a strong incentive to reduce these harmful impacts.

8.4 Practice Guideline C. Incentivise positive actions

Private sector actors can be powerful allies in supporting PCAs. Many companies are dependent on the ecosystem services produced from PCAs such as water regulation, silt control, microclimate benefits, pollination and coastal protection among others. A growing example of collaboration around positive actions is the use of water funds or payment for ecosystem services. The Nature Conservancy has been supporting the development of water funds in Africa which are funding conservation in critical watersheds (see The Journey of Africa's Water Funds (Kihara, 2023)). Another area commonly included in positive collaboration is ecotourism where the key private sector partners are strongly incentivised to ensure the PCAs where they bring tourists are well maintained. Opportunities for collaboration include joint fundraising and promotion, voluntourism, local guide or service provider training, and landscape-level tourism planning and development. For example, special arrangements or deals with airline operators, logistics companies, tourism agencies or other private sector partners may offer opportunities to promote PCAs and private sector partners simultaneously. providing potential discounts for outreach and engagement for PCAs. In addition to reducing costs, advertising campaigns with private sector partners can also help increase income for PCAs by helping increase awareness and demand for tourism, which can lead to an increase in PCA entry fees or boosts to other tourism-based finance mechanisms.

Different forms of third-party sustainability certification can be supported by PCAs such as sustainable forestry, sustainable agriculture and sustainable tourism in, where permitted, and adjacent to PCAs. PCAs can use their reputation to support local sustainable products using special labels and certifications and private actors can use the PCA's reputation to improve their marketing. Other opportunities for funding PCAs exist via companies in the agricultural,

extractives, infrastructure and energy, real estate, and light manufacturing sectors. This is somewhat of a frontier opportunity for PCA funding but examples are emerging, such as:

- Sustainable seafood companies in Indonesia around PCAs, such as 'carbon shrimp' around Berau (YKAN, n.d.), where shrimp farmers engage in mangrove restoration and reduce the area they use for ponds by adopting technology and best management practices.
- 'Rhino Gold' in the mining sector: bars of gold earmarked for rhino conservation (B2Gold, n.d.) via a local gold mine in Namibia.
- The <u>Rooiberg Breede River Conservancy</u> in the wine industry: for every 1 hectare of land utilised for producing wine or stud horse farming on the Graham Beck Estate in South Africa, 4.5 hectares of land are conserved. The benefits include an increase in pollinators adjacent to the wine and fruit farms of the company. Also see the <u>Biodiversity</u> and <u>Wine Initiative</u> (CAPE, 2009).
- The Wildlife Friendly Enterprise Network provides a certification and promotion scheme for wildlife friendly products for farming, ranching and other enterprises, and FairWild (FairWild, n.d.) or wild harvesting-related enterprises.

Both international and domestic companies may be interested in supporting PCAs that contribute ecosystem services of relevance for their businesses or to offset historical damages to nature to meet company-wide targets, to build their reputation, or assure their licence to operate. PCA agencies should follow clear criteria on engaging with businesses to avoid working with those businesses that are degrading ecosystems but seek to greenwash their reputations.

8.5 Practice Guideline D. Increase financial capital for conservation

The engagement of the private sector and finance institutions for increasing funding for conservation has long been sought with only partial success. Private return-based or investment capital depends on the ability of the PCA, the PCA system, entities working with the PCA site or system, or the government to be able to generate free cash flows (net profit) that can be returned to the investor. As such, the ability to generate cash flows or revenue is an essential part of securing private finance for PCAs.

There are a range of reasons that private investment in nature is challenging and currently extremely limited. The main barriers to private investment in nature are generally related to rights, risk, returns and scale (see Chapter 1).

- **Rights:** Protected and conserved areas tend to be shared resources with governmental, communal or traditional management systems that are designed to constrain private gain and maximise social benefits.
- **Risk:** A significant number of nature-positive investment opportunities are in areas that are high risk for investments because they are remote, lack critical infrastructure or are dependent on weak governance systems.
- **Returns:** Many nature associated investment opportunities have relatively low returns based on the natural and sustainable growth rates of living species and ecosystems. Most of nature's assets (natural capital) are not adequately priced (water, storm protection, pollination, etc.) and are thus difficult to monetise. Some of the largest private transactions for PCAs involve government bonds because governments have the ability to generate revenue (taxes) from the many benefits provided by PCAs.
- **Scale:** Private investment is easier at large scales. Many interested investors are seeking larger projects for investments yet smaller projects tend to be more responsive to nature and community needs and have relatively high transaction costs.

Thus, although there may be willing investors and willing investees, these challenges in matching viable projects to available capital are monumental.

Funding solutions available from private finance are best understood when broken into their component parts. Most private finance requires a clear business plan or a demonstrated track record of revenue generation. The large majority of finance transactions can be categorised as debt or equity (see Glossary). Equity owners take on greater risk than debt holders but have a greater potential for financial returns.

While the basic concepts of private transactions can be easily understood, there can be significant 'cultural' gaps between private finance and conservation actors in identifying mutually agreeable solutions due to different priorities on conservation versus financial outcomes. The field of impact investing has been growing steadily and is a term used for investors seeking both a financial return and a social or environmental impact (see <u>Global</u> <u>Impact Investing Network</u>). Conservation-focused investments will be, for the most part, impact investments. Navigating the complexities of private finance can be challenging for PCA managers and system leaders. There are a range of civil society organisations that specialise in conservation finance such as NatureVest or Conservation International Ventures which can make excellent partners to support the PCA in thinking about private finance opportunities. NatureVest, for example, has played a central role in sourcing, structuring and executing debt-for-nature conversions in several countries. For-profit advisory services such as Okavango Capital, Conservation Capital or Finance Earth, which specialise in this topic can also provide similar support.

8.6 Key actors in private finance for PCAs

Private sector financial institutions oversee trillions of dollars of investable capital, both in their domestic markets and internationally. Key actors in this space include:

- Commercial banks: domestic and international, may provide sustainability-linked bonds or loans as an increasingly routine practice.
- Insurers and reinsurers: a niche but growing number of opportunities.
- High net worth individuals and family offices.
- Institutional investors: venture capital, private equity, other asset managers and asset owners, domestic pension funds, etc.
- Development banks: credit guarantees, political risk insurance, other de-risking support particularly for large projects, such as debt conversions.
- Domestic conservation agencies: could underwrite private enterprise in conservation landscapes where there is a conservation dividend such as a lodge which pays for conservation management.
- Export credit agencies: facilities that provide working capital to facilitate export due to the time lag between exporting and ultimately receiving payment from the importer.
- Real economy companies in different sectors (e.g. infrastructure or agriculture).

Private finance can contribute capital to PCAs in three main ways:

- 1. Investments in the PCA management authority or actor.
- 2. Investments in companies, communities or individuals working in collaboration with the PCA
- (i.e. ecotourism, local communities, sustainable agriculture in buffer zones, etc.).
- 3. Government finance and public private investments.

Direct investments in PCAs

Nearly all private finance funding solutions require a revenue stream to pay back loans or investors. Some examples of revenue streams from PCAs include:

- Ecotourism and other recreation services.
- Carbon and nature markets; restoration services.
- Game or trophy hunting.
- Fishing.
- Payment for ecosystem services: water, watershed management.
- Sustainable forestry.
- Wildlife-friendly food, agriculture and commodities.
- Residential agreements.
- Sustainable apparel, furniture and handicrafts.
- Renewable energy, rights of way and related services.

All PCAs have assets, whether these are the land or sea area, access or use rights, the natural resources themselves (although there will be restrictions on use), and cultural assets. However, not all PCAs have the ability to generate profits from these assets. Each PCA can assess its potential revenue streams and whether these revenue streams are predictable enough to

create a sustainable business model that would enable viable private financing options. One challenge with using these revenue streams to provide viable returns for the private sector is that the revenue is then not available for the site management itself. The advantage of taking a private investment is that with adequate initial capital, greater long-term revenue can be produced that would not have been possible without the up-front investment. If grant resources or government budgets are available for these up-front investments, they will be preferable to private investment since there is no repayment or profit-sharing required. On the other hand, a clear focus on revenues and profitability can encourage PCA management to assess actions, investments and priorities with a business mindset around efficiency – as long as issues of equity and impact are also included.

Public agencies may sometimes be restricted from pursuing external funding opportunities. PCAs that are managed by or co-managed with private organisations (for-profit or not-forprofit) have more flexibility in pursuing revenue generating mechanisms or enterprises and are generally preferred by private investors. Publicly managed PCAs may consider partnering with private organisations to better access private finance (Bohorquez et al., 2023).

Voluntary carbon offset markets have historically not been a source of finance for national or sub-national protected areas but could play a larger role in other types of conservation areas. There are successful voluntary carbon projects in PCAs in Kenya and Zambia. An emerging mechanism called biodiversity credits or nature stewardship certificates also could provide finance for PCAs but are still in the early stages of design and development (see Biodiversity credits Factsheet).

Investments in individuals, communities and companies

Protected and conserved areas are integrated into landscape and seascape systems. Investments in individuals, communities and companies active in these systems, whose actions may negatively or positively impact biodiversity, can be the best means to bring private investment in support of conservation objectives. For example, investment in sustainable agriculture projects in the PCA buffer area. As noted elsewhere in this Guide, there are innumerable partners contributing positively to PCA conservation outcomes. Successful private investment funds have focused on sustainable agriculture including Clarmondial's Food Security Fund (Clarmondial, 2024), biodiversity (Ecobusiness Fund), and a range of other nature positive approaches (Climate Asset Management - a collaboration between HSBC and Pollination (Climate Asset Management, n.d.)). Enormous opportunities exist for support to micro, small and medium-sized enterprises (MSMEs) through microfinance organisations, local banks, development banks and via not-for-profit organisations. Many governments provide incentives and low interest loans to socially and environmentally responsible MSMEs that can be combined with more commercial investments. This is referred to as blended finance and is extremely common in the development field with growing examples from the environment sector - especially climate change finance (see Convergence).

One alternative strategy for PCA managers is to identify the main threats on the target PCA and seek sustainability-linked finance that can help convert or transform harmful sectors towards reduced or neutral impacts on the PCA. Private finance can result in a shift from practices that are not compatible with conservation towards technologies or companies which support conservation outcomes. Reducing threats to coral reef areas is the approach behind the blended finance solutions of the Global Fund for Coral Reefs (Meyers et al., 2021).

Government finance and publicprivate investments

The private finance sector works closely with governments on a range of finance mechanisms many of which are discussed in Chapter 5. Of special interest to PCAs, especially PCA systems at the national level, is the use of sovereign bonds or debt conversions for nature (also called debt-for-nature swaps). These larger-scale financial instruments and transactions can bring substantial finance to PCAs, provide a return to investors backed by government taxes, and are at the scale level that is appropriate for institutional investors. The Nature Conservancy has implemented a series of debt conversions for nature in Belize (TNC, 2022), Barbados (TNC, 2023) and elsewhere that save the government money (through reducing the debt burden and lowering the cost of capital) and contribute substantial long-term finance to marine conservation (TNC, 2022 and 2023). Other opportunities for private sector investment are through large infrastructure projects such as waste treatment facilities, clean energy, green infrastructure associated with large ports or other facilities, and more.

8.7 Safeguards when engaging with private sector

When a non-profit organisation or government agency is working with the private sector, there is often a power imbalance between actors. In most cases, the private sector may not have interest in safeguarding nature or local populations and the responsibility falls on the government or civil society to hold the private sector accountable. Where civil society is funded by the private sources, project proponents should not compromise social and environmental objectives of the PCA in order to pay back loans, for example, and expectations need to be set clearly amongst all parties prior to engaging in any contract or agreement. Because the private sector is designed to maximise financial returns, attention should be directed to avoiding social and environmental risks during engagement with private finance. Contracts and financial agreements should have safeguards to reduce the risk that the people and nature inside and adjacent to the PCA are not inadvertently harmed. In many cases, governments themselves seek to maximise their revenues from PCAs at the expense of conservation or community, and private companies or civil society can seek to hold the government accountable.

There are a variety of safeguards, standards and guidance that support mutual benefits such as the UN Guiding Principles on Business and Human Rights; FPIC; Verra Climate, Community and Biodiversity Standard; ART TREES; Gold Standard; International Finance Corporation (IFC) Performance Standards; PlanVivo, and more. There should also be a grievance mechanism, so a voice, fair hearing and ultimately compensation can be given to any negatively affected community members.

8.8 Summary of private sector finance

It is clear that the private sector plays a pivotal role in conservation finance, including PCA finance, as companies have both impacts and dependencies on nature. Not only can they bring positive business practices to the management of conservation areas, such as developing business plans and costing exercises, but they can also foster sustainable business models that reduce the drivers of degradation and pressures on PCAs. Some of these models include area management, such as co-management, and efficient provision of services within the PCA. All these public-private partnership arrangements require regulations and monitoring to ensure that the conservation agenda is prioritised and regulations are enforced. Business frameworks that disclose impacts and costs on nature have gained importance in the last decade, including sectoral commitments to make companies more accountable for their footprint on nature, which can discourage harmful actions that affect PCAs. Nature conservation is also perceived as an opportunity by some private companies and sectors, who are increasingly adopting sustainability certifications or engaging in conservation schemes that reduce their production costs and lower risks related to natural resource dependency. Additionally, capital markets are slowly engaging in market transactions that have nature conservation as a core objective, such as sovereign debt refinancing with funding directed to PCAs and other conservation commitments, or impact investments and blended finance to scale up business models that contribute to conservation (e.g. waste management facilities, ecotourism enterprises, insurance related to natural disasters recovery, etc.).

There is a long way to travel before PCAs derive meaningful benefits from private sector finance, but there are a variety of models presented in this chapter that have been tested and can be replicated and upscaled in the next few years. PCA managers and government decision-makers for PCA systems can explore these options to identify opportunities that are worth pursuing to gain efficiency, reduce damage, incentivise positive actions and increase capital for conservation.

 Table 8.1 How private sector finance interacts with protected and conserved area finance

Optimise resource efficiencies	 Use of business plans for PCAs Public-private partnerships, including collaborative management partnerships Tourism and other concession arrangements Procurement of private services by PCAs Policy and fiscal incentives for privately protected areas and conservation focused MSMEs
Discourage harmful actions	 Disclosure and reporting requirements to identify and disclose companies' impacts on nature and on PCAs specifically Effective use of environmental impact assessments
Incentivise positive actions	 Adoption of sustainability certifications Water funds and payment for ecosystem services Bioeconomy opportunities including ecotourism and wildlife economy
Increase financial capital for conservation	 Impact investments and blended finance for sustainable business models Debt conversion or debt-for-nature swaps Carbon and nature credit markets Leases and rights of way Tourism and other business partnerships

Source: Prepared by the report authors.

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Annex 1 Recommendations on conservation-based revenues by local communities from Stolton and colleagues

(Stolton, Timmins & Dudley, 2021, pp. 13-14)

Enabling conditions

- 1. There must be something to sell but it can be a product, ecosystem service or experience.
- 2. It is important to ensure there is a good market strategy, an adequate market demand and honest, reliable supply chains.
- 3. A stable and supportive legal and political environment will greatly improve the chances of success.
- 4. Security of tenure over resources is vital in providing insurance that an enterprise can be sustainable, making stakeholders feel safe to invest, and more generally as a necessary basis for sustainable use and conservation.
- 5. Similarly, care is needed to ensure equitable benefits accrue, including to the poorest members of society, which also helps to maintain support for conservation policies.
- 6. Seed funding and institutional support are both sometimes important in driving forward new projects, but conversely long-term donor support can be counterproductive by encouraging dependency.
- Commercial expertise is needed and is absent from many remote communities, meaning that investment in education, technology transfer, training and capacity-building is often important.
- 8. Local enthusiasm is key, and projects imposed in places where there is apathy or resistance will seldom work.
- 9. Even where successful sustainable businesses have been developed, protected areas need the assurance of sustainable, long-term funding to create favourable economic conditions for management in general and to provide replacement funding in cases of emergency.

Good practices

- 10. Clear conservation objectives are also needed so that the economic activities support rather than undermine the central aims of nature conservation.
- 11. Monitoring and adaptive management are essential; projects seldom work perfectly to begin with and will need to be adjusted as workers learn more, and as conditions change in the market.
- 12. Enterprises linked to a protected area need local relevance and to be appropriately matched to, and ideally build upon, local cultures, belief systems, traditional knowledge and practices.
- 13. Socially and environmentally responsible private sector partners are often needed, which means companies with good business sense but also in tune with the wider social and environmental aims of any project.
- 14. Government spending policies are also often essential in supporting green enterprise.
- 15. Community partners are vital, with appropriate governance structures and rights over the natural resources required for products and services.
- 16. Transparent benefit-sharing arrangements usually include agreed contributions to wider community development (schools, health clinics, etc.).
- 17. Local coordination with other enterprises, particularly if these are also associated with the protected area, can help to maximise gains such as local food producers linking with ecotourism companies.

- 18. Conservation enterprises need to be nested within overall conservation strategies, covering issues of tenure rights, legality, mitigation of human–wildlife conflict, etc.
- 19. Sound financial planning should align with accounting best practices such as the Generally Accepted Accounting Principles and International Accounting and Reporting Frameworks.
- 20. Use of voluntary certification systems can provide assurance that enterprises are truly sustainable and therefore help build markets and financial viability.

Reporting success

- 21. Clarity on reporting economic results (see Stolton et al., 2021) is important, both for internal purposes and to build evidence of wider benefits from protected and conserved areas.
- 22. More reporting of successful examples is needed and protected areas should also be encouraged to report on their methods and innovations to produce economic benefits where this is applicable given the area's conservation objectives.

Annex 2 Diverse impact finance instruments

Table A.1 is adapted from the book *Adventure Finance* (Power, 2021) that provides a categorisation of diverse impact financing approaches. Many of these approaches and instruments are applicable to startups and small businesses and can be adapted to the needs of protected and conserved area (PCAs) and their partners. The book itself is a good resource designed to help grow an understanding of some of these options and walks through real examples of how others have put them to use in a range of impact areas (including climate and nature).

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Table A.1. Private sector instruments relevant to PCA finance

Equity-based finance	Debt-based finance	Grant / philanthropic options		
 Shares: Standard equity or ownership in a company. SAFE (Simple Agreement for Future Equity): The most popular type of convertible instrument for early-stage startups. KISS (Keep It Simple Security): A hybrid between SAFEs and convertible notes. Redeemable equity: Also known as an equity buyback, is a type of revenue-based investing (RBI) capital product. Equity-based crowdfunding: Allowing and promoting access by many small investors to private company equity. 	 Bond: A debt instrument where the issuer (the borrower) is obligated to pay a fixed or floating interest rate and the principal during a fixed period of time. There are a lot of variations on bonds. Unsecured or secured loans (based on whether collateral is used). Invoice factoring: 'Sell' some or all outstanding invoices to a third party who collect directly. Supply chain finance: An agreement in which the buyer partners with a financial institution that will then pay suppliers on the buyer's behalf. Revenue-based financing (RBF): Pledge a percentage of future ongoing revenues in exchange for money invested. Debt-based crowdfunding: Allowing and promoting access by many small investors to private company debt. Debt conversion/restructuring e.g. debtfor-nature swaps (at country level). 	Donation-based crowdfunding		
Equity and debt mixes		Debt and grant mixes		
 Convertible notes: Originally structured as a debt investment but has a provision that allows the principal plus accrued interest to convert into an equity investment at a later date. Venture debt: A type of loan that the holder can convert into a specified number of shares of common stock in the issuing company or cash of equal value. Mezzanine debt: A type of subordinated debt with embedded equity instruments attached. Convertible revenue-based financing: RBF with feature of conversion. 		Guarantees Recoverable grants Forgivable loans		
Other funding, spanning categories above				
Convertible grants: Grants that can be converted to equity or debt. Social investments: e.g. Programme-related investments (PRI) – from a 'carve-out' from a foundation's endowment where				

return criteria from an endowment are lower, and 'mixed motive investments' - investing to both further impact aims and generate a financial return.

Rewards-based crowdfunding: Promoting contributions by many private individuals to a company or non-governmental organisation (NGO) in exchange for products or services.

Offtake agreement: An arrangement between a producer and a buyer to purchase or sell portions of the producer's upcoming goods. It is normally negotiated before the construction of an asset to secure a market and revenue stream for its future output.

Insurance-based funding:

Parametric (or index-based) insurance: a type of insurance cover that settles (pays out) on a pre-agreed parameter or index. Payments are made based on the predefined event rather than on an estimation of damages or actual loss incurred.

Specialised insurance products based on Sovereign Risk Transfer, e.g. for disaster prevention / preparedness or humanwildlife conflict.

Source: Adapted from Power (2021).

Annex 3 Protected and conserved area finance solution factsheets

- 1. Entrance fees: Charges levied for access to protected and conserved area (PCAs); one of the most widely implemented site-based revenue strategies.
- 2. Tourism concessions: The right to use land or other property for a specified purpose, granted by a government, company or other controlling body.
- **3.** Debt conversion: Conversion of sovereign debt that simultaneously reduces a country's debt burden or interest rate and allocates finance for conservation.
- 4. Collaborative management partnerships: A PCA authority (government, private or community) enters a contract with a partner (private or non-governmental organisation [NGO]) and devolves certain PCA management responsibilities to the partner.
- 5. Conservation trust funds (CTF): Private, legally independent institutions that provide sustainable financing for biodiversity conservation.
- 6. Payment for ecosystem services (PES): Creation of a market-based approach where users pay providers for ecosystem services benefits received from a site.
- 7. Project finance for permanence: A financial model that brings together governments, Indigenous peoples and local communities, funders and other partners to secure longterm conservation, full and sustained funding, and community benefits through a single closing.
- 8. Biodiversity offsets: Compensation (finance or actions) for significant adverse biodiversity impacts; offsets are designed to achieve measurable conservation outcomes.
- 9. Biodiversity credits: Conservation actions with measurable positive biodiversity impacts are verified and 'credited' such that credits can be sold and the buyer can claim positive impacts.
- **10. Impact investing:** Investments that generate social and environmental impact alongside financial returns, often through blended finance.
- **11.** Sustainability certification: The use of standards for production or trade, along with monitoring and labelling processes, to recognise and incentivise products that meet specific environmental and social criteria.
- **12.** Human–wildlife conflict insurance: The use of insurance products and innovative finance to address human-wildlife–conflict impacts.
- **13.** Parametric insurance: Parametric insurance pays out according to predefined parameters and does not require an estimate of the actual losses enabling rapid recovery of damaged ecosystems.
- **14.** Climate finance for nature: Finance mechanisms designed for climate mitigation and adaptation that can be used for nature finance.
- **15.** Loans and other traditional debt: Return-based finance mechanisms useful to finance investments in government, civil society and business in support of PCAs.
- 16. Non-fungible tokens (NFTs) and the Metaverse: Innovative use of Web3 to enhance finance for nature.

SUSTAINABLE FINANCE FACTSHEET

ENTRANCE FEES

Hugo Van Zyl

Practice guidance for protected and conserved area finance

Overview and key characteristics

Protected and conserved area (PCA) entrance fees are charged for access to sites. They are premised on the user pays principle and are one of the most widely used and mature sources of self-generated protected area revenues with a long history of application globally. Fees are commonly charged per individual or group and, in some cases, are included with the payment for the means of transport used to gain access including vehicles, boats and aircraft. In most cases they provide access for a specified period such as 24 hours or for a season/ year (e.g. season passes such as the South African National Parks (SANParks) WildCard and Parks Canada Discovery Pass). Entrance fee revenue can be an important contribution to site management budgets or community benefits if the fees are retained by the site management authority, communities, or other agency that consistently allocates part or all the funding to the site management or community activities.

Entrance fees have high gross revenue potential where visitor numbers are high, or fees can be elevated due to unique attractions. They represented over 80% of total site-based or self-generated revenues in more than half of Latin American countries (Bovarnick et al., 2010), between 40% and 50% in the United States, approximately 75% in Namibia (Van Zyl et al., 2022) and between 25% and 30% in Uganda (Stevens, Van Zyl & Van Wyk, 2022). Revenue levels can be highly variable due to their dependence on tourism flows linked to ease of access, popularity trends, disease (COVID-19 decimated revenues from international tourists in many countries), political instability, crime, etc. Revenues also tend to have annual seasonal variations, which can be extreme, for instance if a PCA shuts down entirely for winter.

Moremi Game Reserve, Botswana © Hugo Van Zyl



How to plan for and implement entrance fees

Table F1.1. Typical broad steps required to implement entrance fees

1	Scoping and feasibility:
	 Clarify the legal mandate to charge fees and compatibility of visitors accessing the PCA with its general management plan.
	 Assess whether baseline conditions are favourable including engagement with stakeholders such as local communities, tourism operators and businesses, tourism authorities and PCA visitors.
	• Assess market demand including a consideration of what will attract people, infrastructure needs and product niche.
	 Consider whether charging fees would be socially acceptable, what access and access-control infrastructure is in place or needed, etc.
	• Conduct a feasibility study including determining appropriate fee schedule and amounts, likely revenue from fees vs all cost of implementing especially to avoid the introduction of loss-making fees. This can be done using a cost-benefit analysis.
	• Determine a mechanism for retaining revenue for conservation and communities and assure political buy-in.
2	Design and preparation:
	 Design and implement a work plan (assuming positive feasibility study results) including notifying stakeholders, establishing infrastructure and facilities, purchasing equipment, establishing payment mechanisms and banking channels, clarifying management and finance protocols, and training staff.
3	Launch and adaptive management:
	Commence charging fees, managing finance and communicating to stakeholders. Update fee schedule regularly.

Source: Prepared by the report author.

Determining appropriate fee structures is a critical determinant of success. In addition to revenue maximisation, management authorities consider other objectives or criteria depending on the context, which include (Banerjee et al., 2017; Brown, 2001; Eagles et al., 2002; Oleas, 2008; Watson, 2013):

- Ensuring optimal visitor numbers, to manage the level of ecological impact within the PCA and to reduce congestion for visitor satisfaction.
- Encouraging or discouraging visits to substitute sites, or visits during particular times.
- Achieving a socio-economic purpose, such as tourism sector promotion, environmental education or ensuring that people have access to places for recreation.
- Aligning fees with those of similar attractions; thus, matching them with public expectations.

Formal fee determination protocols and procedures can assist with fee setting and transparency though they are not particularly common (Van Zyl, 2019). To varying degrees, fee determination tends to be the outcome of consultations and negotiations/bargaining with key stakeholders often in the tourism industry (Wankuru, 2011). In South Africa, the SANParks Authority applies a Tourism Pricing Protocol and a Tourism Yield Management Protocol to pricing decisions. At its core, it requires that fees must be market related, affordable to locals and not be influenced predominantly by operational budget requirements (SANParks, 2014). Benchmarking relative to fees elsewhere is a critical informant (see Van Zyl, Kinghorn & Emerton, 2019) along with understanding the likely impacts of fees and monitoring tourist numbers and impacts. Management authorities also rely on consumer research, which look at visitors' willingness to pay (WTP) to inform PCA pricing (for application examples *see* Adams et al., 2008; Baral, Stern & Bhattarai, 2008; Bruner et al., 2015; Letley & Turpie, 2018; etc). While helpful, WTP surveys are complex and fairly resource-intensive. If done properly, they require detailed design, testing, large enough samples, and skilled survey administrators to help control for the various potential biases among respondents.

To achieve the varied goals of ecotourism in PCAs, entrance fees can be differentiated or discounted in numerous ways including:

- By age with children, pensioners and student groups paying lower or no fees.
- According to citizenship or place of residence particularly in developing countries with the
 most common distinction between international visitors and national citizens reflecting the
 higher ability/willingness to pay of the former and tax contribution, rights of the latter. In
 some cases, a third category for citizens of regional blocks is included, such as countries
 that are part of the Southern African Development Community (SADC). Members of local
 host or neighbouring communities often are allowed free access or passage through sites.
- Within a network of PCAs, entrance fees for individual sites can be differentiated according to the level of attraction (landscape features, key species, etc.), amenities and infrastructure. Most Southern and Eastern African national parks networks use between two and five different 'classes' or 'tiers' of parks.
- For different seasons or even times of day with lower fees for less popular periods.
- Some PCAs offer discounted fees to persons that are accompanied by registered guides (who then pay an annual licence fee to the site) to support them (e.g. Botswana and Zambia).

Required elements

- An attractive tourism offering (e.g. natural features, landscapes, wildlife, infrastructure quality, service quality, security) and adequate visitor numbers to the PCA or the prospect of achieving them through adequate tourism infrastructure/facilities development, marketing, etc.
- Compatibility of visitors accessing the PCA with its objectives and management plan including visitor carrying capacity, zonation and permitted uses.
- Legal mandate that allows the PCA management authority to charge fees or good prospects for the necessary legal changes.
- Social acceptability, or good prospects of securing it, of paying for entrance which may be low for some stakeholders such as citizens that feel their tax contributions should pay for PCA management.
- Access control and a secure system for the collection and banking of fees.

Success factors and risks

- Marketing and branding to support/increase demand. It is highly beneficial to partner with national tourism promotion agencies, tourism operators, local communities and individual champions to assist.
- Appropriately and transparently determined fees informed by research and consultation.
- Regular updating of fees to adjust for demand, inflation and comparable PCAs (it is substantially more difficult to raise fees by one highly significant increment than through gradual annual or bi-annual adjustments).
- Transparent and timely communication of fee increases is important for tourism stakeholders who, for example, may take payment for tours that include entrance fees several months in advance.
- The ability to retain fee revenues, at least within the parks network, is preferable from a finance, efficiency and management alignment standpoint and may increase the willingness of visitors to pay fees.
- Credit card and other electronic payment options can increase visitor satisfaction, reduce costs, limit fraud and increase staff safety.

Case studies

Botswana National Parks

In 2019, with support from the Biodiversity Finance Initiative (BIOFIN) programme, the Botswana Department of Wildlife and National Parks (DWNP) commissioned a review of entrance and tourism activity fees at their parks that had last been adjusted in 2000. The review focused on (Van Zyl, 2019):

- Benchmarking of Botswana against nine African countries for fee structures, fee amounts, and criteria used for fee determination and revenue retention practices.
- The impact that inflation adjustments between 2000 and 2019 would have had on fees.
- Review of previous WTP studies on entrance fees in Botswana.
- Assessment of the product quality and park experience based on field visits and interviews.
- Stakeholder engagement with the tourism sector, community leaders, non-governmental organisations (NGOs) and others.

Fee setting criteria were recommended that aimed to strike a balance between generating revenues, promoting affordable access for citizens, supporting tourism and assisting with management goals. A revised fee schedule was provided including the introduction of two tiers of parks and a distinct fee for SADC nationals. Examples of revised amounts included fees for the most popular parks increasing from P10 to P30 (US\$ 3) for citizens and from P120 to P270 (US\$ 21) for non-residents. Albeit significant, fee increases which were adopted in 2021, were generally less than inflation as this would have resulted in unjustifiably high fees relative to key competitors.



Komodo National Park, Indonesia

Until 2022, visitors to the Komodo National Park in Indonesia paid an IDR 225,000 (US\$ 15) entrance fee on weekends. This was considered too low, especially as the park is the only practical place in the world to see the impressive Komodo dragons (Varanus komodoensis) in their native habitat. In mid-2022, the regional authorities and national Ministry of Forestry and Environment announced an almost 17-fold increase of the fee to IDR 3.75 million (US\$ 250). This resulted in the tourism sector embarking on a two-day strike in protest, which effectively brought tourism to a halt. The strike was only called off once the authorities agreed to revert to the US\$ 10 entrance fee until December 2022. In April 2023 a revised fee of IDR 450,000 (US\$ 30) was announced and the fee structure was also revised. This case shows the importance of thorough engagement and feasibility/impact assessment to inform the determination of appropriate, and implementable fees and the importance of advance communication to stakeholders about fee changes.

Pilanesberg National Park, South Africa © David Meyers



Trends and future directions

- More use of digital and mobile payment technologies to make it easier for visitors to pay and to reduce the security and fraud risks associated with cash payments.
- More sophisticated fee schedules and price differentiation including more flexibility in pricing.
- More use of seasonal passes and potentially in groups of countries.
- Better ongoing monitoring and research to support fee determination and implementation.

Additional resources

- Conservation Finance Alliance (CFA) (2022). Tourism Entrance and Activity Fees. Conservation Finance Guide. Retrieved August 5, 2024, from https://www.conservationfinance.info/entrance-and-activity-fees-14
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- Links to a selection of online fee schedules can be found here for Canada, Argentina, Nepal, Kenya, South Africa, Uganda.

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SUSTAINABLE FINANCE FACTSHEET

TOURISM CONCESSIONS

Dr Sue Snyman

Practice guidance for protected and conserved area finance

Overview and key characteristics

Tourism user fees (TUFs) are market-based mechanisms, which are defined as "fees on tourism-based activities designed to generate revenues to support conservation" (CBD, 2001). TUFs can include entrance fees, concession fees, licences, permits and other tourism-related fees and taxes. This Factsheet focuses on different types of tourism concessions and the related legal instruments. Tourism concessions can enable protected and conserved areas (PCAs) to raise revenues and meet goals of making the PCA accessible to visitors with quality services, while meeting social and environmental objectives (Wood, 2010). The term PCA concession can also refer to different forms of collaborative management partnerships (CMP), This Factsheet is focused on tourism associated concessions rather than management concessions.

A concession is the right to use land or other property for a specified purpose, granted by the entity that holds the land rights, such as the government. It can include a commercial operation and/or land (WWF & International Union for Conservation of Nature World Commission on Protected Areas (IUCN WCPA), 2023). A tourism concession could provide accommodation, food and beverage, recreation, education, retail, and interpretive services (Eagles, et al., 2009). Many tourism activities in PCAs fall under the definition of a 'tourism concession'. A concession may be awarded via several processes, including auction, tender, direct award to an affected community, or in response to an unsolicited application. It is considered best practice to award a concession in a competitive and transparent manner (Spenceley, Snyman & Eagles, 2017).

Not all PCAs are suitable for tourism because of environmental or cultural sensitivities, for example tourism is inappropriate in 'Strict Nature Reserves' (Spenceley et al., 2016). The capacity to generate revenues from concessions depends on the PCA's and concession holder's ability to attract tourists. This will depend on the PCA's attributes, location, facilities, access, and the feasibility of offering services for which visitors are willing to pay more than the cost of operations. A feasibility study is essential to determine if a concession could be profitable and should include an analysis of the different tourism activities that can take place in the PCA, and matching tourism products to market demand. Tourism concessions should be compatible with, and complement, the PCA's own provision of tourism opportunities, resources and attractions present.

The types of tourism concessions allowed in PCAs varies greatly, depending on the PCA type, relevant national level legislation around sustainable use, and the site's condition.

Stakeholders will have varying interests as to why they want to operate a concession in a PCA. Some of the main incentives to choose certain areas over others include:

- Potential profitability.
- Biological or geological values of the area.
- Remoteness and privacy of the location.
- Quality of facilities and other infrastructure provided by the PCA authority (e.g. road network).
- Marketability and public awareness of the PCA.
- Ease of access and ability to link into an already existing tourism circuit.
- Supportive legislation.
- PCA authority support for developing tourism.

Tourism activities can be insourced or outsourced. For insourcing, the PCA authority staff may deliver and finance the service. Insourcing involves the authority functioning like a business, with the PCA facilities and staff providing visitor services, like an effective public utility or company. The case for outsourcing or private management of resources on public lands is often one of efficiency. When public agencies do not have the expertise to perform a service, or when they lack the funding or legal abilities required to build such capability in-house, transference of rights on the lands to other organisations can relieve public agencies from resource constraints of budget, capability or expertise (Eagles, 2002). Many PCA agencies focus on management, while they engage partners to manage the concessions, thereby complementing skillsets and expertise. There is a range of legal options for the use of outsourcing, which include concessions, leases, licences and permits. The characteristics of these options are described in Table 1. A PCA management authority can use one or several of these legal options depending on the situation. For example, a guiding company may need a licence to operate its business and a lease to work out of a PCA-owned building. Many countries have specialised legal instruments that affect tourism outsourcing procedures.

Table F2.1. Characteristics of legal instruments for tourism outsourcing

Type of legal instrument	Description	Length	Examples
Concession	A concession is the right to use land or other property for a specified purpose, granted by a government, company or other controlling body. It can include a commercial operation and/or a piece of land. A tourism concession could provide accommodation, food and beverage, recreation, education, retail, and interpretive services.	10–40 years	Accommodation, restaurant or retail facilities.
Lease or management contract	A contractual agreement in which one party conveys an estate (i.e. land and facilities) to another party for a specified, limited time period. The lessor retains ownership in the property while the lessee obtains rights to use the property. Typically, a lease is paid for by the lessee.	5–30 years	Use of fixed infrastructure such as accommodation, airports, restaurants, shops, etc. for a rental fee.
Licence	Gives permission to a legally competent authority to exercise a certain privilege that, without such authorisation, would constitute an illegal act. Often seen by the public as a form of quality control and requires due diligence by the competent authority, in contrast to a permit. Possession of the land is not granted through the licence. Licences give PCA authorities the ability to screen applicants to ensure that they fulfil a set of conditions.	Up to 10 years	Vehicle-based tours (e.g. game drives, hot-air ballooning, white-water rafting, boat cruise) using operators' own equipment.
Permit	A temporary form of permission giving the recipient approval to do a lawful activity within the PCA. Permits normally expire within a short length of time. Usually, the number of permits is large and limited by social or environmental considerations. In most cases, permits are given to anyone who pays the corresponding fee.	Up to 10 years	Activities such as guiding, canoeing, hunting and climbing using operators' own equipment.

The provision of tourism services in PCAs is a complex professional activity and there are five main types of entities that might enter a concession contract with the managing authority (Spenceley, Snyman & Eagles, 2017; Snyman & Spenceley, 2019):

- For-profit, private companies
- Non-profit organisations
- Local community organisations
- Another government department
- A joint-venture company (i.e. public-private, private-community, public-community or public-private-community) designed for this task.

How to plan for and implement tourism concessions

The Guidelines for tourism partnerships and concessions for protected areas: Generating sustainable revenues for conservation and development (Spenceley, Snyman & Eagles, 2017) outline key steps in planning and implementing tourism concessions, including:

Table F2.2. Key steps in planning and implementing tourism concessions

1	Scoping: This phase establishes whether tourism partnerships and concessions are the right approach for a particular PCA and allows the PCA authority to develop a strategic plan as a basis. Key characteristics of this step may include motivation, previous experience, attractiveness to investors, the legal framework, political will and financial support, and potential risks and barriers. The output of this step will be a strategic plan .
2	Design and feasibility: This phase builds on the scoping to establish what the tourism concessioning programme will look like, including available sites, tourism products to promote, potential markets and the most favourable type of concession model to use. Key characteristics of this step may include PCA and site identification, legal assessment, stakeholder engagement, design of concession opportunity, viability and market assessment, setting fees, commercial viability for investors, and value-for-money for authorities. The output of this step will be a high-level business plan .
3	Procurement, negotiation and contracting: This phase implements the high-level business plan and includes the preparation for the procurement (including the strategy and package, promotional materials, and bidding documents) and then the transaction process itself. Key characteristics of this step may include procurement preparation, transaction management, negotiation and contracting. The output of this step will be a concession contract between the PCA authority and an investor.
4	Management and monitoring of the contract: Adaptive management is essential and if there are problems or other challenges during implementation, there should be clear options for remediation and resolution. Most concessions require annual reporting to the management authority.

Source: Adapted from Spenceley, Snyman & Eagles (2017).

Required elements

Key requirements for the delivery of tourism services and products include the following:

- Having a robust legislative and regulatory framework to oversee and manage tourism concessions, with supportive institutions and relevant capacity.
- Having a well-protected asset (fauna, flora, cultural, etc.) base for the tourism product or service to attract tourists.
- Local community support for the tourism products and services, which requires engagement and equitable benefit-sharing.
- Choosing the correct partner, i.e. private sector, community, non-governmental organisation (NGO), etc. to manage/operate the tourism concession.
- Access and infrastructure: having access for tourists to get to the tourism product or service, and the necessary infrastructure to support operations. An established tourism route/circuit can be beneficial and encourage greater investment, and increase visitor numbers.

Success factors and risks

Key success factors for effective tourism concessions include (Spenceley et al., 2016):

- Aligned with conservation objectives: The PCA's management plan needs to allow for tourism and given that the primary function of a PCA is to protect nature and biodiversity, the tourism activity must not negatively impact this objective.
- Attractiveness: The tourism services offered need to be suitably attractive, competitive and commercially viable to be profitably marketed and sold. When the available unique natural and cultural resources are leveraged, the tourism concession tends to be more successful and more likely to attract investors to develop tourism products and services in the area.
- Accessibility and infrastructure: The tourism activities need to be accessible, taking into account costs and time needed to travel to them, and the proximity of already established tourism routes/circuits with which to align. Communication, water, power and other utilities and the cost of these are also important to consider depending on the tourism product and/ or service.
- Governance: A legally robust, clear and transparent concessions framework is important for success and sustainability. A concessions framework is the essential underlying architecture that enables a concession to be awarded and operated. It includes, but is not limited to, the legal and regulatory structure, and may also encompass the governance and institutional set-up, as well as practical tools and guidelines for implementation (Spenceley et al., 2016, p. 19). Examples of national policies for concessions and partnerships in Africa can be found in the Additional Resources section.
- Management: A PCA management plan is essential for concession planning, to ensure that there is guidance related to what tourism can be developed, where and how (Thompson et al., 2013). There needs to be sufficient local authority capacity and willingness to support the tourism concession process and ongoing running of the activities, including the maintenance and management of the asset base of the PCA and its biodiversity. If the natural asset becomes degraded through deforestation, poaching, pollution, etc., then visitor demand and pricing will be affected, which will impact the commercial viability of the tourism concession.
- Transparency: There needs to be transparency and if possible, experience or capacitybuilding to manage tourism concessions. Clear and transparent procurement processes are important to build trust.
- Choosing the appropriate model: Selection of the appropriate tourism concession model for the particular situation is important in terms of ensuring long-term success and maximising the socio-economic benefits expected from tourism. See Snyman and Spenceley (2019) for details on various arrangements and case studies.
- Equitable and effective contracts: Concession contracts that are comprehensive and clear protect the interests of all parties. Contracts need to be flexible to allow for changing circumstances, e.g. the COVID-19 pandemic. An effective contract achieves the right balance of responsibilities and accountabilities and addresses issues that are important for financing, including the allocation of risks and rewards, transfer and assignment of rights and termination.
- Safety, political stability and security: There needs to be safety, stability and security in and around the PCA so as not to discourage tourists from visiting, as has been seen for example in some parts of West Africa due to the activities of Boko Haram.
- Sustainability: Sustainability in tourism relates to ensuring a long-term, positive impact on the local community, environment, society and the economy. Ensuring that the tourism activities are aligned with sustainability objectives is more likely to lead to long-term success: commercially and environmentally.
- Benefit-sharing: Communities that receive consistent, tangible benefits from tourism are more likely to be supportive of tourism and to welcome tourists, enhancing the tourism experience and providing a more supportive overall business environment.
- Stakeholder engagement and ongoing communication: Successful and sustainable concessions identify and engage local stakeholders early on to understand their expectations, concerns and interest in being involved or not. Continued communication and engagement are important for long-term sustainability.
- Risk management: Successful tourism concessions practise effective risk management by identifying, mitigating and monitoring risk through stakeholder engagement, site assessments, regular monitoring, evaluation and reporting, adequate due diligence, and employing experienced/reputable technical personnel.

Case studies

Partnership types in Brazilian protected and conserved areas

The federal government of Brazil manages 327 PCAs, of which 72 are national parks, comprising 26.7 million hectares. These areas are under the responsibility of the Chico Mendes Institute for Biodiversity Conservation (ICMBio). Concessions and partnerships are promoted by ICMBio to strengthen the quality of visits, while respecting the diversity of recreational opportunities, and goals of these areas related to biodiversity conservation and sustainability. There are concession contracts in progress in the following national parks: Tijuca, Iguaçu, Fernando de Noronha and Serra dos Órgãos. In the northeast of the country, the Fernando de Noronha Marine National Park, known for its beautiful beaches and rich marine biodiversity, also provided some services and infrastructure such as entrance fees, trail maintenance, information centre with equipment rental and a snack bar through a concession. In 2016, the park received 390,000 visitors and raised about US\$ 386,000 from tourism. In addition to the concessions, some services such as a visitors' guide, boat tours, transportation, are offered through authorisations (as a licence for operation).

In the Chapada dos Veadeiros National Park, in the central region of the country that protects the cerrado ecosystem, the canyoning is operated by an authorisation, which establishes some obligations for operators related to visitor safety and to the minimum impact on the natural environment.

Tavora Falls, Taveuni Island, Fiji © David Meyers



Breakdown of different tourism activity expenditure, Tanzania

Almost half (47%) of the average US\$ 1,376 that a tourist spends on a mountain climbing holiday to Mount Kilimanjaro in Tanzania goes towards park fees. A further 18% is spent on wages and tips for porters and guides, and 4% on local cultural goods and services (Figure F2.1). Increasing the proportion of expenditure that reaches the local economy is typically a primary aim of national governments. Such a high percentage that is captured by park entrance fees is extremely rare and park fees often form a very small percentage of total tourist expenditure.

Figure F2.1 Distribution of financial benefits from Mount Kilimanjaro National Park, Tanzania



Source: Spenceley et al. (2016).

Trends and future directions

- **Sustainability:** There is an increasing demand from consumers for tourism products and services to be more sustainable. With tourists' access to social media, greenwashing is to be avoided at all costs.
- Linking to conservation: Tourists want to see linkages between their tourism experience and conservation, particularly in terms of supporting conservation. It has also been shown that where tourists are more closely involved in the conservation experience, they also have more positive attitudes towards conservation (see Skibins et al., 2023; and Kredens & Vogt, 2023).
- **Partnerships and collaboration:** There is increasing interest in forming tourism partnerships, particularly public-private partnerships (PPPs) and through these building the capacity of the public sector to engage more equitably in tourism going forward.

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Additional resources

Tourism concessions

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SUSTAINABLE FINANCE FACTSHEET

DEBT CONVERSION

Camila Monteiro, Andreas Hansen, Ximena Ecvar-Fadul and Slav Gatchev Practice guidance for protected and conserved area finance

Overview and key characteristics

There are several debt-related conservation finance mechanisms available to governments. Traditional debt-for-nature swaps originated in the late 1980s and usually involved an official government creditor forgiving a portion of a country's debt in exchange for an equivalent amount of funding being channelled towards a specific conservation outcome, normally through a conservation trust fund (CTF) see CTF Factsheet. A large portion of these debt swaps involved the United States government providing bilateral debt forgiveness under the Enterprise for the Americas Initiative Act and the Tropical Forest Conservation Act (now the Tropical Forest and Coral Reef Conservation Act (TFCCA)). Most of the traditional debt swaps were in the range of US\$ 1 million to US\$ 25 million. In 2023, a 12-million-euro debt-for-nature swap agreement between Portugal and Cabo Verde and a US\$ 20 million <u>TFCCA agreement</u> between the United States and Peru were signed. Over a 25-year period, approximately US\$ 380 million was unlocked for conservation under TFCCA across 22 transactions.

Debt conversions represent a more recent model that focuses on refinancing a country's commercial debt to establish new funding for biodiversity conservation. With these mechanisms, a sub-investment grade sovereign issuer taps international capital markets with a credit-enhanced investment grade issuance and thus achieves an interest rate and/or debt stock reduction compared to its uncovered, 'plain vanilla' commercial bonds or loans. International non-governmental organisations (NGOs) and development banks are partnering to provide these credit enhancement mechanisms, such as credit guarantees and political risk insurance. The savings from the transaction (whether they stem from debt stock reduction, interest rate reduction, or otherwise) can then be channelled towards nature and climate projects at no additional burden to budgets or debt levels. Between 2021 and 2023, four large-scale debt conversions were closed, generating an estimated US\$ 800 million for conservation (based on total capital raised of US\$ 2 billion).

Sovereign Green Bonds (Green Bonds) and Sustainability Linked Bonds differ from debt conversion and debt-for-nature swaps in their focus on incurring new debt rather than refinancing or forgiveness, see Loans and other traditional debt Factsheet. As such, they are appropriate for countries that have significant headroom to borrow more, typically sovereigns with a high (investment or near-investment grade) credit rating. With Green Bonds and other so-called 'use of proceeds' bonds, the proceeds may only be spent on certain types of projects (for example renewable energy projects) in line with the internationally agreed frameworks. The Nature Conservancy (TNC) has led this type of transaction and refers to them as Blue Bonds projects (when directed to conservation beyond marine including terrestrial, freshwater and climate adaptation).

With SLBs, the proceeds can be spent on general budget needs, but the country agrees on a set of indicators. Failing to achieve such indicators will result in additional interest payments to bondholders. Unlike debt conversions, Green Bonds and Sustainability Linked Bonds do not typically benefit from credit enhancement and thus carry interest rates in line with the sovereign's typical cost of financing.

How to plan for and implement debt conversions

Key enabling conditions include that there is debt to refinance (and a willingness from the government to do so) and governmental conservation and climate commitments. There are some conditions that need to be in place for this transaction to be financially viable, such as debt amount, type of debt (Eurobonds are the most convenient type of debt for these transactions), interest (coupon) rates and pricing of current debt, among other factors. If the conditions are favourable and a debt conversion can generate resources to direct to the conservation commitments, the country will formally adopt clear commitments that can be incorporated into the transaction. For that, it is key to have a conservation partner identified (such as an experienced NGO), as well as a credit enhancement partner to be engaged (typically a Development Finance Institution).

Besides the Ministry of Finance, the conservation partner and the credit enhancement partner, the Ministry of Environment will be a key player in creating the conservation commitments and including other environmental agencies, such as the protected and conserved areas (PCA) agency. In many countries, ministries responsible for fisheries, agriculture and climate change will also be key partners. There are also legal and financial advisors to support the government in the negotiations of the debt conversion agreements and an investment bank to be the bond issuer.

As the debt conversion relies on the success of a bond issuance in the capital markets, the details of the transaction are typically kept confidential until financial closing. This has generated some concerns suggesting that the approach is not as participatory as other financial solutions. Such concerns do not apply to debt conversions structured to high standards where the conservation commitments are generally developed in close consultation with the Ministry of Environment and relevant government agencies, are based on existing country targets (in their National Biodiversity Strategies and Action Plans or Nationally Determined Contributions), and carefully consider the processes and enabling conditions required to achieve them. The final conservation commitments include clauses related to following global standards and science-based, inclusive and participatory processes in line with international best practices and the legal framework of each country. As such, these projects often *increase* participation in planning processes and conform to standard policymaking processes, where the government's targets are subject to consultation and further development with key stakeholders.

The main risk of a debt conversion for the country is the possibility of a default, which can be related to the repayment of the new debt or to the achievement of the conservation commitments. As with any other debt service default, a payment default in the context of a debt conversion can affect the country's credit rating. However, it should be noted that the new issuances for debt conversions are extended at favourable terms (competitive interest rate, long repayment period), and thus they can improve the debt sustainability of the sovereign and reduce the probability of default.

The risk of not achieving the conservation commitments is minimised by using an independent CTF, which can ensure resources will only be directed for the purpose established. In addition, the presence of a credible conservation advisor improves the probability of a successful conservation programme. Nonetheless, the capacity of the government to use the resources, establish the required policies and report to the CTF is a risk factor that should be considered and managed for the implementation.

Required elements

Countries considering debt conversions make decisions based on many factors, including the current and expected economic conditions, debt and budget sustainability, political stability, and the ability to manage the conservation and financial commitments. While circumstances are different and unique for each country, some key considerations for successful debt conversions include:

• Strong political will and commitment: A debt conversion is a government-led debt liability management exercise. It is a decision of the country government to adopt the credit enhancement tools provided by partners and enter legally binding conservation and/or climate commitments. The government must have a strong commitment to environmental conservation and sustainable development, and a willingness to prioritise debt conversion as a viable financing mechanism. It involves a cross-cutting effort among governmental bodies to agree on financial and social environmental terms. The debt conversion is especially interesting for developing countries, which often face biodiversity, climate, and debt crises as well as harsh lending conditions, effectively preventing their access to capital markets (particularly in the current environment of rising interest rates).

- Availability and affordability of guarantors and credit enhancement: To achieve significant savings to be directed to conservation, credit enhancement tools are needed in the context of debt conversions to lower the interest rates and/or extend tenors. For that, political risk insurance and credit guarantees have been successfully provided by bilateral and multilateral development finance institutions.
- Availability of debt to refinance: It is essential that the existing debt can be refinanced with better conditions to generate savings. While debt conversions work well with sovereign debt trading at a discount in the capital markets, they are not exclusively for countries threatened by high debt distress. High-coupon bonds and/or syndicated loans traded at little to no discount can still be refinanced with lower coupons and longer tenors to create funding for conservation and climate.

Success factors and risks

In addition to the key conditions detailed above, success factors include:

- **Conservation partnerships for technical assistance:** A pillar of debt conversions is the conservation commitments created and assumed by the government. These are aligned with the country's international commitments, and can include the development and implementation of spatial plans, new and improved PCAs, new or reformed legislation and structures, etc. International NGOs have played a key role in partnering with the countries to provide technical assistance during the design of these commitments and monitoring them after the debt transaction closes.
- Conservation trust fund in place: All debt conversion resources are channelled through a CTF. A new sub-account to receive funding can be created if a CTF already exists. If a CTF does not exist, a new CTF can be created. The CTF's essential role is to receive, invest and disburse the resources to local project implementers and to ensure compliance with social and environmental standards, monitor and report on the funded initiatives. Debt conversion partners should adopt international best practices to select the CTFs, which ensures the funding is going to be used for the purpose agreed until the end of the debt period, which has ranged from 15 to 25 years.
- Complementarity with other programmes: The debt conversion mobilises significant
 amounts of funding but will not fulfil the whole financial gap of a country's conservation
 goals. It is key that it is used by the country in addition to current public budgets, and in
 coordination with other initiatives, such as a project finance for permanence (PFP) see PFP
 Factsheet, so that the debt-generated funding is contributing to public budgets and other
 public and private resources. A CTF facilitates coordination between different programs.
- Communications and transparency for national buy-in: A complicating factor of the debt conversion is that they must often be kept confidential until the transaction's closing, so that negotiations do not influence the conditions achieved in the capital markets. This requires that involved entities sign non-disclosure agreements and stakeholder consultation for the conservation commitments are restricted to government and closer partners. Nevertheless, the planning process to agree on conservation commitments promotes increased coordination among government agencies and a thorough review of best available science and data. Developing the debt conversion in parallel with other initiatives allows the broader stakeholder consultation to be carried out through the other programme and inform the debt agreements. In the case of a stand-alone debt conversion, detailed communications around the transaction are needed as soon as it closes, to clarify the arrangements and implementation plan, including sharing documents on the governance and management of the CTF.

Case studies

Belize Blue Bonds Project

In November 2021, TNC and the Government of Belize (Belize) announced the completion of a US\$ 364 million debt conversion for marine conservation that reduced Belize's debt by 12% of gross domestic product (GDP), unlocked an expected US\$ 180 million in long-term sustainable financing for conservation, and established a commitment to protect 30% of Belize's ocean, in addition to a range of other conservation measures.

The debt conversion enabled Belize to repurchase US\$ 553 million, a quarter of the country's total public debt, from bondholders at a 45% discount through a 'Blue Loan' arranged by TNC. The debt conversion resulted in a US\$ 189 million reduction in principal outstanding. The savings achieved in the refinancing will enable Belize to create an estimated US\$ 180 million in conservation funding over 20 years, composed of annual cash flows from the government and an endowment capitalised through the Blue Loan.

As part of the transaction, Belize committed to ocean conservation, including placing up to 30% of its ocean under protection by 2026, subject to the outcomes of a transparent, participatory Marine Spatial Planning process, and establishing an independent CTF to allocate the conservation funding to in-country partners.

The debt conversion was arranged by TNC, and Credit Suisse arranged and financed the Blue Bond. The structure was credit enhanced by the United States International Development Finance Corporation (DFC) and incorporated a commercial parametric insurance policy by Willis Towers Watson (WTW) to mitigate the financial impact of natural disasters.

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Galapagos Life Fund

In May 2023, Ecuador, with technical and financial support from the Pew Bertarelli Ocean Legacy Project and other partners, converted US\$ 1.6 billion in existing commercial debt into a US\$ 656 million loan financed through a bond structured and issued by Credit Suisse. DFC provided political risk insurance against default on the note. The deal provides significant and dedicated financial resources for conservation in the Galapagos in perpetuity through a long-term funding commitment by Ecuador, which includes a CTF endowment to support conservation activities, estimated at US\$ 12–13 million annually.

By leveraging a loan guarantee from the Inter-American Development Bank to support the reserve requirements for DFC's political risk insurance, the new arrangement will also save Ecuador more than US\$ 1 billion in total borrowing costs – resulting from forgiven debt and reduced interest. Over the next 20 years, the deal will generate conservation resources totalling more than US\$ 450 million (including payments and assets) for the globally significant Galápagos Islands marine reserves, including a newly created Hermandad Marine Reserve.

The Galapagos Life Fund (GLF), a Delaware-based US 501(c)(3) non-profit operating in Ecuador, was established to oversee allocation of the conservation funding. The GLF has an 11-member board of directors composed of five government and six non-government representatives of the artisanal fishing, local tourism, conservation and academic communities.

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Trends and future directions

- Scale: Given the debt crisis facing many countries and the success of debt conversions, more debt conversions are expected in the coming years. Already, there is growing demand from governments to explore debt conversion options, and more actors are becoming interested and available to provide support to governments on the different building blocks of debt conversions (technical assistance on the conservation commitments, credit enhancement products, and different types of debt to refinance). It is imperative that future projects be structured and carried out to high standards and for the right reasons (ambitious biodiversity and climate targets vs primarily for liability management).
- Expansion beyond oceans: Initially, the debt conversions were focused on marine conservation, with the Blue Bonds in Seychelles inaugurating this modality and the transactions in Belize, Barbados, Gabon and Ecuador following the focus on the sea. Discussions are already underway with different countries to use the debt conversion as an instrument to finance terrestrial and freshwater conservation objectives, in addition to marine conservation, as well as climate and community development.

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SUSTAINABLE FINANCE FACTSHEET

COLLABORATIVE MANAGEMENT PARTNERSHIPS

Kathleen H. Fitzgerald

Practice guidance for protected and conserved area finance

Overview and key characteristics

Collaborative management partnerships (CMPs) are being deployed across Africa to enhance protected and conserved area (PCA) management effectiveness and catalyse community benefits and green development. While not as prevalent as in Africa, CMPs have been used in other countries around the globe. A CMP refers to when a protected and conserved area (PCA) authority (government, private or community) enters a contract with a partner (private or non-governmental organisation (NGO)) for the management of a PCA (Baghai et al., 2018). By entering the CMP, the management authority devolves certain management responsibilities to the management partners. CMPs are a type of public-private partnership (PPP).

There are three kinds of CMPs:

- 1. Financial and technical support.
- 2. Co-management (which includes bilateral and integrated management).
- 3. Delegated management.

The duration of the contract varies and is dependent on the PCA and the goal of the PCA authority. The following table describes co-management and delegated management models.

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Table E4 1	Co-management	and	hatenalah	mananament	model	description	าต
Table F4.1.	CO-management	anu	uelegaleu	management	model	description	15

	Bilateral CMP	Integrated CMP	Delegated CMP
Structure	Partners maintain independent structures and coordinate on PCA management	A special purpose vehicle (SPV) is created, forming one entity for PCA management	SPV created, forming one entity for PCA management
Governance	State leads strategy and oversight with involvement and in some cases, consensus of the partner on certain project-related issues; joint steering committee might appoint project leadership in the PCA	Partner shares governance responsibility with the state. Generally, a joint entity and SPV (e.g. foundation, non-profit company) is created in the host country. Representation on the board is split evenly between the partner and government. Strategy and oversight are managed by the SPV board	Partner shares governance responsibility with the state. Generally, a joint entity and SPV (e.g. foundation, non- profit company) is created in the host country. The majority of the SPV board is appointed by the private partner. Strategy and oversight are managed by the SPV
Management	PCA authority has management authority but allocates certain management aspects to the partner. For example, the PCA authority may oversees management of law enforcement and management of PCA staff and shares authority with the partner for project- related decisions such as ecological monitoring and tourism development	Management is delegated to the SPV and shared to varying degrees between the state and NGO; often includes secondment of law enforcement manager by the government; all staff managed by the SPV, under leadership of the partner, with some government staff seconded. Secondment is defined as when an employee is temporarily transferred to another department or organisation for a temporary assignment	Management is delegated to the SPV. The partner appoints the PCA manager; often includes secondment of law enforcement manager by the government; all staff managed by the SPV, under leadership of the partner
Examples	Africa Nature Investors and the Nigerian National Park Service, Gashaka Gumti National Park, Nigeria	Frankfurt Zoological Society and Zimbabwe Parks and Wildlife Management Authority, Gonarezhou National Park, Zimbabwe	African Parks and Department of National Parks and Wildlife, Liuwa Plains, Zambia

Source: World Bank (2021).

According to a 2021 assessment by the World Bank's Global Wildlife Program, approximately 11.5% of Africa's PCA network is covered by co-management and delegated CMPs. This does not include South Africa, which has contractual parks, which is when conservation areas owned by private entities and communities are managed by the South African National Parks (SANParks); and Madagascar, which manages more than 100 of its PCAs in partnership with NGOs and communities. Madagascar's PCA network includes 147 nationally designated PCAs. The ministry responsible for the environment directly manages 15; Madagascar National Parks (MNP) manages 43; and the remaining areas are managed in partnership with national and international NGOs, and local communities (World Bank, 2021). CMPs have demonstrated success across the following pillars (World Bank, 2021):

- **Economic drivers:** attract donor funding and in some cases having a CMP structure is a donor requirement; enhance investment flow; diversify revenue; increase foreign exchange, tax revenue, and employment; and increase community benefits.
- **Technical support drivers:** attract skills not currently represented in the PCA agency; and enhance PCA agency capacity and systems.
- **Operational drivers:** enhance governance and decision-making; help transform non-operational PCAs; avoid downgrading, downsizing and degazettement; enable governments to fulfil national and global commitments; enhance brand recognition; increase security; and reduce conflict.

PCAs with CMPs have higher operational budgets than those without. Researchers find that the median PCA funding associated with CMPs is 2.6 times greater than the baseline of state funding for bilateral and integrated CMPs, and 14.6 times greater for delegated CMPs (Lindsey et al., 2021).

How to plan for and implement CMPs

Section two of the <u>Global Wildlife Program Collaborative Management Partnership Toolkit</u> outlines a process for engaging in a CMP. The Global Wildlife Program recommends a competitive and transparent process to attract a management partner, as opposed to direct negotiation or auction. If done properly, a public tendering process, even when not legally required, creates transparency, enables the PCA to drive the process, and determine the best possible CMP candidates. Because the process associated with direct CMP negotiation is unclear, it can delay the process resulting in extended CMP contract negotiations. Even when a partner has been active in a PCA, a tendering process will help this partner, if selected, avoid misperceptions about its engagement with government and potential challenges in the future that could either delay or derail a CMP (World Bank, 2021). The following steps are recommended in the CMP Toolkit:

Table F4.2. Key steps in planning and implementing CMPs

1	Scoping and feasibility:
	 Government / private owners / community owner decision to engage in a CMP
	Legal review to determine if and how a CMP is feasible
	 Review of goals and whether a CMP fits into the overall PCA strategy
	 Screen and select which PCAs are suitable for a CMP
	 Screen and select the CMP model (i.e. co-management vs delegated)
	Review regional plans to ensure consistency and compliance
2	Prepare for establishing a CMP through a tendering process:
	 Complete a feasibility study (sometimes guided by PPP or PCA legislation in the country)
	• Determine the management partner selection process (single sourcing, auction or competitive tender, the latter is recommended)
	 Pre-tendering stakeholder awareness and engagement
	Formation of a committee to support the selection process
	Develop clear and transparent criteria for partner selection
	 Develop a prospectus and informational material about the PCA and CMP opportunity to attract and inform potential management partners
	• Tendering process (expression of interest, followed by a request for full bids) and selection of the most suitable partner
3	Contract and manage a CMP:
	Contract the management partner
	Management of partnership

Source: Prepared by the report author.

Required elements

Key requirements for the implementation of CMPs include the following:

- Clear and transparent process for engaging CMP partners.
- **Contracts** that are very clear in roles and responsibility, devolve adequate management responsibilities to the management partner to ensure the ability to achieve management objectives, and provide sufficient duration for the management and development objectives.
- **Government support** at all levels. The level of government support at local and national levels for the CMP is a key determinant of success whether it is contributing funding, or being responsive, supportive and helpful.
- A shared vision between the government and management partner.
- Trust between the government and management partner.
- **A qualified partner**. The management partner needs to have adequate technical and operational capacity to partner with the government and enhance PCA management.
- Adequate financing for a minimum of five years of operations and a clear pathway for generating adequate durable finance long-term.

Success factors and risks

Key success factors for the implementation of CMPs include:

- **Enabling policies** that outline clear processes for governments and PCA authorities to engage in CMPs.
- A government PCA strategy that outlines how CMPs may be used to achieve overall objectives.
- Revenue retention options at PCA level.
- Adequate duration (15–20 years) to attract investment and restore areas as needed.

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Case studies

Three case studies are outlined below from the World Bank Global Wildlife Program CMP Toolkit (2021), each depicting ecological, social and economic growth, recovery and impact. Additional case studies are profiled in Lindsey et al. (2021).

Akagera National Park, Rwanda (Delegated CMP)

Akagera National Park (Akagera) is managed through a CMP between the Rwanda Development Board and the NGO African Parks that was established in 2010. The CMP establishment took three years and will last until 2030. The CMP is managed through the Akagera Management Company Limited with the Board of Trustees consisting of three seats appointed by the government and four by African Parks.

All revenue is retained by the park and the Government of Rwanda contributes to the operational budget. Between 2010 and 2019, revenue grew from US\$ 203,000 to US\$ 2.6 million. New tourism partnerships include the Mantis Group (60 rooms) and Wilderness Safaris (6 rooms) and tourism has grown from 15,000 tourists (2010) to 50,000 (2019).

The operational budget grew from under US\$ 400,000 in the 2009 budget to US\$ 2.84 million in 2020, this included an increase in staff from 18 (2010) to 273 (2020), with ranger numbers growing from 42 (2012) to 82 (2019) and ranger field days from 9,719 (2012) to 19,177 (2019). They have also built a 120 km solar-powered predator-proof fence to reduce human–wildlife conflict and increased community benefits from US\$ 0 in 2009 to US\$ 604,000 in 2019, and cash spent on community guides from US\$ 22,500 in 2014 to US\$ 160,000 in 2019. In schools 22 teachers and mentors were trained from 11 different schools in 2020 and now 2,000 school children visit Akagera annually.

By 2020, 25 eastern black rhinos had been introduced along with 35 lions.

Gonarezhou National Park, Zimbabwe (Integrated co-management CMP)

Gonarezhou National Park (Gonarezhou) is managed through a CMP between the Zimbabwe Parks and Wildlife Management Authority (ZPWMA) and the Frankfurt Zoological Society (FZS) in 2016. FZS had supported ZPWMA for years prior with financial and technical support, but once parties began to negotiate a CMP, the process took three years to establish and will last until 2036. The partnership takes place under the Gonarezhou Conservation Trust (GCT) with the Board of Trustees consisting of three seats appointed by the government and three by FSZ.

There was a 50% increase in investment in the first year and all revenue was retained by the park and between 2016 and 2022, tourism revenue grew from just under US\$ 330,000 to US\$ 920,000.

The operational budget grew from under US\$ 2.8 million in 2017 to US\$ 4.5 million in 2022, this included an increase in ranger numbers from 40 (2016) to 207 (2022) and ranger field days from 6,547 (2017) to 11,929 (2019). GCT employs 330 permanent staff, 73% are from local communities (within 15 km of the park's boundary). GCT established the Makonde Training Facility to train community members as chefs and guides for tourism, supported local enterprises with group loans and saving schemes, supplied 42 school libraries surrounding the park with books and solar-powered reading lamps and supported a grower scheme in partnership with other local NGOs.

In this time, GCT also assumed management of Malipati Safari Area, a key connectivity zone in the Greater Limpopo Transfrontier Conservation Area and initiated a human–wildlife conflict programme in partnership with the local council for rapid responses and mitigation. Between 2016 and 2019, lion numbers increased from 54 to 112, and elephant poaching decreased from 39 incidents to just two.



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Gorongosa National Park, Mozambique (Integrated CMP)

Gorongosa National Park (Gorongosa) is managed through a CMP between the Government of Mozambique and the Gregory Carr Foundation in 2008, which was renewed in 2018 until 2043. The CMP establishment took four years. The partnership takes place under the <u>Gorongosa</u> <u>Project</u> with the Oversight Committee consisting of one representative from the government and one from the Gregory Carr Foundation.

All revenue is retained by the park, of which 20% goes to the local communities and 80% is reinvested into the park. Before the CMP, the park had a revenue of US\$ 0, by 2019 this had increased to over US\$ 737,000. Before Mozambique's civil conflicts and repeated cyclones, tourism had grown from under 1,000 people in 2006 to approximately 7,000 in 2011.

The operational budget grew from under US\$ 100,000 in 2004 to US\$ 13.7 million in 2020, with US\$ 85 million invested back into the park since 2004. The operational budget now funds 700 permanent staff, 400 seasonal staff, including over 300 rangers – 85% of staff are local.

The Gorongosa Project has invested over US\$ 1.78 million in local development, impacting 200,000 people – they have generated 300 additional jobs and improved food security through agroforestry activities, supported clinics and community training programmes for 88 community health workers and 129 traditional birth attendants. The project developed Community Based Natural Resource Management committees in all 16 communities surrounding the park and established science research and education programmes. This includes funding 64 scholarships to local high school girls in 2019 and supporting masters in conservation biology, 50 primary schools and six (100% of existing) secondary schools.

Elephant numbers have increased from less than 200 in 2000 to almost 1,000 in 2022. Wild dogs, reintroduced in 2018, numbered 167 in 2022. Lions have recovered from under ten individuals to 190 and buffalo from 200 to 1,200 by 2022.



Trends and future directions

- **Government Interest:** More than 11% of the government managed PCA network in Africa is managed through CMPs (excluding South Africa and Madagascar). There is continued and growing interest in CMPs from governments given their demonstrated ecological, financial and social impact.
- **Donor Interest:** Philanthropic and institutional donors are increasingly interested in funding conservation projects that have demonstrated government commitment and durable management agreements.
- **Private sector:** Investors are supportive of CMPs and in some cases more likely to invest because of the long-term management agreement.

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Addo Elephant NP, South Africa © Hugo Van Zyl SUSTAINABLE FINANCE FACTSHEET

CONSERVATION TRUST FUNDS

Camila Monteiro

Practice guidance for protected and conserved area finance

Overview and key characteristics

Conservation Trust Funds (CTFs), often called Environmental Funds in Latin America, are private, legally independent institutions that provide sustainable financing for biodiversity conservation and community development.

The core business of CTFs is to mobilise resources from diverse sources – including international donors, national governments, the private sector, and sustainable finance sources – and to direct them, primarily through grants, to a diverse range of environmental programmes and projects through non-governmental organisations (NGOs), community-based organisations and governmental agencies (such as national parks agencies; Bath et al., 2020). Thus, one of CTFs' greatest values is to provide a vehicle to receive large grants from international donors and efficiently and effectively convert them to smaller funding streams to national conservation actors such as NGOs and Community-based Organisations.

In addition to managing funds, CTFs encourage transparency and accountability of financed conservation efforts and increase the capacity of conservation practitioners to absorb funding. The CTFs accomplish this by:

- Adopting multi-stakeholder independent governance systems, developing and enforcing clear decision-making policies and procedures, including a Conflict-of-Interest policy.
- Providing transparent and equitable application and selection processes for grant allocation.
- Ensuring risk screening and independent technical review of proposals.
- Overseeing compliance with funder policies and required standards, including environmental and social safeguards, during implementation of projects.
- Publishing monitoring and impact assessment reports and audited financial statements annually.
- Managing financial assets professionally and efficiently for long-term financial continuity.
- Funding key research, policymaking, capacity-building, and strengthening of civil society activities.
- Designing and testing innovative financial mechanisms to diversify their funding sources and programmes.
- Supporting partnerships and coordination with and between public and private sectors.

How to plan for and implement CTFs

There are many steps to designing and implementing Conservation Trust Funds. An overview of the elements of CTFs can be seen in the Conservation Finance Alliance (CFA) Conservation Trust Fund Practice Standards 2020 (Bath, Luján-Gallegos & Guzmán-Valladares, 2020). One key initial step in designing a CTF is to form a coalition of interested stakeholders and carry out a comprehensive legal analysis to help define the structure of the new entity. The coalition of stakeholders is strategic, as CTFs have a convening role, congregating multiple actors under their governance system. Government participation is essential to align resource mobilisation with public policies and commitments. Many CTF donors will require government endorsement on new programmes to be managed by the CTF. Nevertheless, governments should always participate as a minority, as a way to keep the CTF independent of political influence. Other

sectors, such as groups of local NGOs, community-based organisations, academia and private sector, are important participants in a CTF, bringing different perspectives and engaging different partners in common conservation objectives. A practical way of designing a CTF in a participative way is to create a working group or a steering committee with representation of the relevant stakeholders and carry out extensive consultations with this group to validate the governance and structure of the new fund. In many cases, an international NGO, a development agency or a large bi- or multilateral donor have played the role of funding and facilitating the CTF design process. This can include convening the working group, hiring specialised consultants to carry out the design, and mobilising the seed capital to start the operationalisation of the CTF. Commonly this development stage can take two years or more.

The definition of the legal structure is part of this process and is also a strategic aspect. It will provide the CTF with important features, such as tax exemption, protection against expropriation of assets, and flexibility to manage different types of funding. Some CTFs opt to be registered abroad, commonly in the US or UK, when the country of operation does not offer a robust legal framework, or to facilitate international fundraising.

Perhaps the most important element of creating a CTF is identifying and securing the financing required. Ideally an anchor donor will have been identified to finance the development process and initial grant-making so the CTF can go through the design phase, develop its creation and operational documents and procedures, and prove to both stakeholders and other donors that the institution is independent, transparent and efficient. Continuous improvement can be supported by engagement with the CTF regional networks as well as the Practice Standards (Bath, Luján-Gallegos & Guzmán-Valladares, 2020), guidance and self assessment tool.

Required elements

To comply with the international standards expected of CTFs by most bi- and multilateral donors, development banks and international funders, CTFs should address the following:

- Are a legally independent entity (not controlled by the government or any other third party).
- Have a governance system with a governing body that assumes the fiduciary duties.
- Have governing body members who have the necessary competencies to carry out their fiduciary role.
- Have an operational structure with an Executive Director or CEO and a secretariat team that include conservation and finance experts.
- Have full legal recognition in the country or region with tax-efficiency.
- Are positioned to provide the disbursement of grants, technical assistance support and capacity-building.
- Are able to raise and receive funds from multiple sources, national and internationally.
- Have broad stakeholder approval and representation at the governing body level, including from the government and civil society.
- Have effective financial investment management with the funds managed by a competent professional under the direction of the CTF's governing body.

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Success factors and risks

The CFA 2020 Review of CTFs (Bath et al., 2020) outlines five aspects that lead to CTF success:

- Transparent financial and programmatic reporting.
- Administrative capacity to respond quickly to urgent needs (such as fires or hurricanes).
- Continuity in conservation programmes during government administrative transitions and stability in times of political turmoil.
- Ability to partner with governments and other actors to achieve national goals.
- A long-term focus on conservation, as CTFs are established to be stable, durable and vocal institutions.

Other success factors include:

- Ability to decentralise the governance system to incorporate new funding opportunities, with the creation of multiple Programme Accounts, in collaboration with a varied range of actors, who participate in the governance system through Programme Committees. For example this is the case when a CTF manages a project finance for permanence initiative or other large programmes.
- Facility to learn fast and innovate through collective sharing of lessons learned. Networks such as the Latin America and Caribbean Network of Environmental Funds (RedLAC), and the Consortium of African Funds for the Environment (CAFÉ) have consistently held annual meetings and supported knowledge exchange among CTFs.
- Compliance with best international practices, such as the CFA Practice Standards for CTFs (Bath, Luján-Gallegos & Guzmán-Valladares, 2020), which allows them to get accredited as national agencies of global funds, including the Green Climate Fund, the Global Environment Facility, the Global Fund for Coral Reefs and the Adaptation Fund.

Case studies

There are many case studies published on CTFs, focusing on different aspects. The CFA tenyear review of CTFs publication on CTFs (Bath et al., 2020) profiles five case studies on CTFs:

- 1. Launching a new CTF: BIOFUND in Mozambique.
- 2. Public-private challenges in CTF governance: FAN to FIAS in Ecuador.
- 3. Coast Funds: Integrating finance for conservation and sustainable development of Indigenous communities.
- 4. Fondo para la Acción Ambiental y la Niñez (Fondo Acción): Evolution of private sector engagement strategies.
- 5. Micronesia Conservation Trust: The role of a regional conservation trust fund in capacitybuilding for conservation.

In addition, RedLAC and CAFÉ have published more than 30 case studies through their joint capacity-building projects, covering issues on governance, resource mobilisation, communication, monitoring and evaluation, safeguards, impact investing from CTFs in Latin American, the Caribbean and Africa.

Regional and global CTFs have taken lessons learned from national CTFs and global multilateral funds, and have used international NGOs and national CTFs as their implementing agencies. This is the case for the Blue Action Fund and the Legacy Landscapes Fund.

Legacy Landscapes Fund

The Legacy Landscapes Fund (LLF) was founded as an independent foundation by the German government through the Federal Ministry for Economic Cooperation and Development (BMZ) and German Development Bank (KfW) in late 2020. LLF aims to mobilise around US\$ 1 billion for a portfolio of 30+ Legacy Landscapes with outstanding biodiversity value. In less than 3 years, LLF has successfully managed to mobilise more than US\$ 350 million from public and private sources for 14 Legacy Landscapes covering more than 430,000 km – the size of Iraq.

In a combination of endowment and sinking funds, each selected Legacy Landscape receives US\$ 1 million annually for 15–30 years to cover the base operating costs; one-third of the funding is provided as match funding from private sources. LLF focuses on supporting professional partnerships between experienced NGOs and protected area authorities (or custodians of the land), as well as Indigenous and local communities with the goal of managing terrestrial conservation areas effectively and sustainably. Legacy Landscapes are selected through public Calls for Proposals. A similar intermediary model is adopted by the Blue Action Fund and the Global Funds for Coral Reefs.

Under the guidance of the LLF Supervisory Board, a Management Board conducts all daily operations. In an effort to maximise synergies and minimise costs, the four independent CTFs created by BMZ and KfW – LLF, Blue Action Fund (BAF), Caucasus Nature Fund (CNF) and Prespa-Ohrid Nature Trust (PONT) – are all using the same back-office provided by the Nature Trust Alliance (NTA), providing services such as finance and accounting, administrative and legal support as well as communications.

Trends and future directions

- Scale: Recognising that CTFs can gather different funding sources and accommodate multiple stakeholders in a decentralised governance system under clear and comprehensive institutional policies, they are well positioned to manage increased sums of resources, including those related to the 2022 Kunming–Montreal Global Biodiversity Framework targets, such as countries achieving 30% of protection by 2030 (Target 3). As accredited agencies of global funds, some CTFs are also increasing their scale of funding and impact.
- **Risk management:** Increasing scale and directly accessing global funds require that CTFs adopt robust risk management systems that can identify and mitigate environmental and social impacts generated by the funded projects. Environmental and Social Management Systems (ESMS) have been adopted by CTFs in the last decade, improving the quality and sustainability of projects they fund. A challenge still to be addressed is how to avoid such requirements making access to funding more difficult, especially by Indigenous peoples and local communities grantees. Specific finance mechanisms, such as small grants programmes and microcredit, combined with comprehensive technical assistance, have been developed by CTFs to ensure access to funding by small local organisations.
- **Blended finance:** Using their grant resources to leverage private concessional and commercial capital to sustainable business models has been a modality some CTFs have adopted recently, in order to increase the impact of the funding they provide. Grant capital and technical assistance provided by CTFs have the potential to de-risk investments in new business models that reduce drivers of degradation to biodiversity and/or generate positive environmental and social impacts.



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SUSTAINABLE FINANCE FACTSHEET

PAYMENT FOR ECOSYSTEM SERVICES

Mitali Sharma

Practice guidance for protected and conserved area finance

Overview and key characteristics

A payment for ecosystem services (PES) solution is a market-based approach in which those who benefit from ecosystem services (ES) compensate those who provide them (Smith et al., 2013). Ecosystem services are the diverse benefits provided by ecosystems that contribute to human life and include cultural services (e.g. recreation), provisioning services (e.g. food), supporting services (e.g. ecosystem process maintenance) and regulating services (e.g. natural hazard regulation) (Ivanić et al., 2020). Due to the wide range of ES, PES may be widely applied across different types of protected and conserved areas (PCAs), if they meet suitable conditions, but to date have been primarily used for water regulation services and carbon sequestration.

A PES has been defined as:

- 1. "a voluntary transaction where
- 2. a well-defined ES (or a land-use likely to secure that service)
- 3. is being 'bought' by a (minimum of one) ES buyer
- 4. from a (minimum of one) ES provider
- 5. if and only if the ES provider secures ES provision (conditionality)," (Wunder, 2005)

Variability in PES solutions can be expected and the 'voluntary' nature of a PES rarely applies in a publicly-funded scheme (Reed et al., 2022).

Four key groups of individuals typically participate in PES schemes (Smith et al., 2013):

- **1. Buyers:** The beneficiaries of ES who are willing to pay to conserve, improve or restore these services.
- 2. Sellers: The land and resource managers whose actions have the potential to secure the supply of the clearly defined ES benefits.
- **3. Intermediaries:** Individuals or organisations who facilitate the connection between buyers and sellers, and assist in designing and implementing the PES scheme.
- 4. Knowledge providers: Experts in resource management, valuation specialists, land use planners, regulators, and business and legal advisors. They offer knowledge and expertise for the development and implementation of the PES scheme.

Those who govern and/or manage PCAs could be the providers (sellers) of ES and use the payments as a sustainable finance mechanism. Payments could incentivise public, community and private landowners to enhance management of their lands and waters.

There are three main categories of PES schemes (Smith et al., 2013):

- 1. Public payment schemes, where the government compensates land or resource managers to improve ES on behalf of the general public.
- **2. Private payment schemes**, which involve voluntary agreements directly between beneficiaries of ES and the providers of those services.
- **3.** Public-private payment schemes, which combine funding from both the government and private sources to remunerate land or resource managers for their role in delivering ES.

There are two main types of payment modes for PES (Smith et al., 2013):

- 1. **Output-based payments** are made based on measurable factors such as carbon sequestration levels or waterflow.
- 2. Input-based payments are made based on the implementation of specific land or resource management practices. For instance, payments may be made for establishing and maintaining buffer strips along watercourses or for the restoration and maintenance of green spaces. Input-based payments require buyers to be confident that the specified management practices result in the desired ES and are more prevalent than output-based payments. That is because establishing contracts solely based on a predetermined level of ES provision, or output, may be impractical or unacceptable to the involved parties.

PES schemes often require the support of technical experts who can help measure, monitor and verify the ES, as well as those who have business skills to negotiate deals (Forest Trends, The Katoomba Group & United Nations Environment Programme [UNEP], 2008). PES is a relatively mature concept, introduced over two decades ago, that includes over 550 schemes globally leading to payments totalling over US\$ 36 billion annually (Salzman et al., 2018).

How to plan for and implement a PES

Table F6.1. Key steps in planning and implementing a PES

1	 Identifying ecosystem service prospects and potential buyers Defining, measuring and assessing the ecosystem services in a particular area Determining marketable value Identifying prospective buyers Considering whether to sell as individuals or as a group
2	 Assessing institutional and technical capacity Assessing legal, policy and land ownership context Examining existing rules for PES markets and deals Surveying available PES-support services and organisations
3	 Structuring agreements Designing management and business plans Reducing transactions costs Reviewing options for payment types Establishing the equity and fairness criteria for evaluating payment options Selecting a contract type
4	 Implementing PES agreements Finalising the PES management plan Verifying PES service delivery and benefits Monitoring and evaluating the deal
Source: Fo	prest Trends, The Katoomba Group and UNEP (2008).

Required elements

In every PES arrangement, it is essential to establish the identity of the buyer, understand the market conditions (including any requirements), and ensure that the service provider is legally recognised. There also needs to be supporting information available about the ES (Fripp, 2014).

According to Smith et al. (2013), there are seven key principles for PES:

- 1. Voluntary participation: Stakeholders willingly enter into PES agreements.
- 2. Beneficiary payment: Payments are made by those who benefit from ES, including individuals, communities, businesses or governments.
- 3. Direct remuneration: Payments are made directly to the providers of ES, often facilitated through an intermediary or broker.
- 4. Additional contributions: Payments are made for actions that go beyond the expected responsibilities of land or resource managers. The specific definition of additional actions may vary, but they must surpass regulatory compliance.
- 5. Conditional payments: Payments are contingent upon the delivery of ES benefits or inputs. Typically, payments are based on the implementation of agreed-upon management practices expected to generate these benefits.
- 6. Ensuring permanence: Actions supported by beneficiary payments should be durable and not easily reversible, ensuring continued provision of services.
- 7. Preventing leakage: PES schemes are designed to avoid situations where securing an ES in one location leads to the loss or degradation of ES elsewhere.

Success factors and risks

Key required elements:

- Awareness of the importance of ES and access to information to buyers and sellers for participation in the scheme (Kazakova et al., 2007).
- A demand for financially valuable ES from motivated buyers and sellers to supply them (Forest Trends, The Katoomba Group & UNEP, 2008; Salzman et al., 2018).
- Relevant stakeholders, such as local communities, NGOs, government officials, and the private sector, involved in the design and implementation of the PES (Fripp, 2014).
- When the supply of ES is threatened due to clear resource depletion and scarcity, resource management actions can address supply constraints (Forest Trends, The Katoomba Group & UNEP, 2008; Salzman et al., 2018).
- Appropriate transaction infrastructure is in place (Fripp, 2014) and the transaction costs do not exceed the potential benefits (Kazakova et al., 2007).
- The presence of effective brokers or intermediaries to document ES conditions, identify management alternatives, engage with prospective buyers, and handle implementation activities such as monitoring and certification (Forest Trends, The Katoomba Group & UNEP, 2008).
- Contract laws are enforced, resource tenure is clearly defined, and there are distinct criteria for evaluating equitable outcomes among partners (Forest Trends, The Katoomba Group & UNEP, 2008).

Key risks and challenges:

- The complexity of demonstrating the additional and long-term nature of benefits and the costs associated with monitoring and verifying these benefits (Reed et al., 2022).
- Free riders. The need for coordination among investors to prevent non-paying beneficiaries from taking advantage of investments, and the possibility of one investor's benefits conflicting with those of others (Reed et al., 2022).
- Leakage. Increasing the provision of an ES in one area could lead to pressure on ES elsewhere (Smith et al., 2013).
- Increased competition for land or loss of land rights for Indigenous and local communities, especially in areas with low levels of tenure security, and a loss of control over local development and land management options due to long-term contracts and poorly designed easements (Forest Trends, The Katoomba Group & UNEP, 2008).

Case studies

Costa Rica

Costa Rica is recognised as a leader in the PES sector. The country's PES Program is a financial mechanism established by the state where a fund pays owners and holders of forests and forest plantations for the ES they provide. The programme bundles the provisions of four ES: carbon sequestration, biodiversity protection, water regulation and landscape beauty. It makes direct cash transfers to private landowners for five or 10-year contracts for different activities of forest protection, reforestation, sustainable forest management and agroforestry.

The Fondo Nacional de Financiamiento Forestal (FONAFIFO) executes the programme. It protects primary forest, allows secondary forest to flourish, and promotes forest plantations to meet industrial demands for lumber and other wood products. The private or public agreements with national and international investors can be directed to financing specific PES and specifically to compensate for impacts of the private companies' productive activities, which can impact air, soil, water, communities or biodiversity. The agreements are adaptable, as they allow for the establishment of different conditions for those participating in the PES Program as long as they comply with the legal framework. They offer the opportunity to pay a differentiated amount to owners of farms or according to the strategic importance of the environmental service provided by the property. More than 18,000 families have benefited from the PES Program from 1997 to 2019 (United Nations Framework Convention on Climate Change [UNFCCC], 2023).

Tree frog, Costa Rica © David Meyers



Natura 2000 sites (protected areas) in Italy

The Natura 2000 network is the most significant network of PCAs in the European Union. A study by Schirpke et al. (2018) assessed PES cases across 21 Natura 2000 sites in Italy, and found that PES initiatives in PCAs can help bridge the biodiversity financing gap and reinforce sustainable development. They found positive impacts on the socio-economic growth of local communities and advancements in achieving conservation goals, and at larger geographic scales, potential effects were linked to increased knowledge, innovation, and public funding for supporting environmentally friendly practices. Their results suggest that the magnitude of socio-economic effects is influenced by a combination of factors, such as the type of ES, the conditions of the PES agreement, and the overall socio-economic environment. Notably, PES schemes associated with regulatory functions (e.g. water replenishment, flood prevention) and cultural services (e.g. recreational value) had favourable outcomes for both ecological and socio-economic conditions. However, they note that it is crucial to carefully plan PES programmes to avoid favouring specific ecosystems or services, and since PES programmes typically have a limited timeframe, long-term effects still need to be evaluated.

Trends and future directions

- The market for watershed PES, which is the most mature PES sector in terms of transaction value and geographical distribution, increased from 2009 to 2015 across multiple categories (Salzman et al., 2018), suggesting continued growth and interest in this financial mechanism.
- There is growing interest in and uptake of natural capital accounting by governments, which may present an opportunity for PCAs to be financed through PES.
- Corporates are increasingly seeing ecosystem service projects demonstrate environmental commitments that are being demanded by investors, customers and staff.

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SUSTAINABLE FINANCE FACTSHEET

PROJECT FINANCE FOR PERMANENCE

Kathleen H. Fitzgerald

Practice guidance for protected and conserved area finance

Overview and key characteristics

Project finance for permanence (PFP) is a tool to enable governments and Indigenous peoples or local communities, in partnership with funders and non-governmental organisations (NGOs), to secure long-term conservation, management and financing of large-scale conservation including networks of protected and conserved areas (PCAs) in the form of an agreement with a 'single close'. PFP signatories endorse and agree to a set of commitments around a shared vision, which ensures that the conservation and sustainable development objectives and associated financing are secured in advance of the project launch. In this way, PFPs aim to create long-term financial sustainability and shift conservation and development to a more durable and holistic approach. PFPs secure major commitments from multiple partners in the single closing to ensure large-scale systems of marine and/or terrestrial PCAs are well-managed and sustainability financed, and engage, empower and benefit the communities who depend on them.

Each PFP contains unique features depending on context and conservation ambition yet they share a set of common attributes, including:

- **Project finance approach based on proven private sector models:** Structured as a 'transaction' with a single closing agreement that brings together the detailed finance and conservation plans, funding and commitments needed to achieve agreed-upon durable conservation and community development goals. The single closing agreement aligns all partners around a shared vision. It is modelled after the private sector practice of 'project finance', in which funding is raised for complex projects with a financial closing conditional upon the development of an agreed business plan, the establishment of all the necessary preconditions for success, and the commitment of all needed funds together comprising the complete set of resources and conditions needed for project success (Redstone Strategy Group, 2011).
- Large-scale impact: Broad networks of ecologically significant, connected and representative PCAs and the leadership and engagement of communities.
- **Rigorous plans:** Detailed and thorough conservation and community development plans, and a financial model that incorporates thorough cost estimates and durable funding mechanisms.
- Community leadership and engagement: Robust engagement of, and leadership by, and support from Indigenous peoples or communities, and benefits linked to their own development and conservation goals, self-determination and priorities.
- High levels of accountability: Independent governance of PFP funds in alignment with the Conservation Finance Alliance Conservation Trust Fund Practice Standards (Bath, Luján-Gallegos & Guzmán-Valladares, 2020), with clear disbursement conditions to ensure PFP commitments are met.
- Leveraged funding: Private philanthropic and public funds catalyse significant investments and policy commitments from national, regional and/or local governments and support the transition to full and sustained funding sources over time.
- **Long-term funding:** PFPs are designed to provide up-front capital to leverage and develop sustainable funding mechanisms to ensure long-term financing for conservation and community development.

Enduring Earth is an ambitious collaboration of The Nature Conservancy, The Pew Charitable Trusts, World Wildlife Fund and ZOMALAB (the family office of Ben and Lucy Ana Walton), that was formed in 2021 to work with countries, partners and communities to develop and advance PFPs around the world (Enduring Earth, 2023).

How to plan for and implement PFPs

To evaluate the readiness, suitability and applicability of the PFP approach to a given conservation opportunity, Enduring Earth established a 'stage-gating process' to determine the viability and feasibility of a PFP before it moves into the planning phase (which culminates in the single close). These three phases together have historically taken three to five years to complete. The stage-gating process assesses five key enabling factors (Cabera et al., 2021; Linden et al., 2012).

- 1. Ecological viability: Must ensure long-term health of large landscapes and ecosystems. Areas must be sufficiently large and the PFP must be able to result in durable protection that will maintain biodiversity.
- **2. Political stability:** Must have strong, high-level, sustained government commitment and good national governance.
- **3. Organisational capacity:** Must have capacity to successfully design, execute and monitor activities to deliver on conservation and community development goals.
- **4. Capital:** Must have sufficient funds and strong fund management, obviating need for future fundraising.
- 5. Social: Must be supported and/or led by those who live in or near the PFP area. Rightsholders should be recognised and actively lead or participate in governance, management and especially finance solutions. Environmental and social safeguards must be followed according to global and local standards, including rights such as free, prior and informed consent and others identified in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (United Nations General Assembly, 2007).

Required elements

- The PFP model is differentiated from piecemeal approaches to conservation projects by a unique set of defining elements. Linden et al. (2012) outlines these as follows:
- 1. A single, measurable goal unifies the parties. The setting of a single measurable and charismatic conservation goal is one of the most important elements of the PFP process. This could be the achievement of 30% conservation targets for example.
- 2. A holistic and collaborative deal structure ensures that all necessary conditions for permanence are agreed to, and that all rightsholders and other stakeholders are able to meet their own objectives. The PFP should be structured so that all parties contribute to and receive something from the project, so that each is better off accepting the deal than rejecting it. The PFP must also be structured in accordance with international and local environmental and social safeguards to ensure full participation of Indigenous peoples or communities.
- 3. A high-capacity organisation. The partner organisation can, in collaboration with local organisations, provide planning support, scientific expertise, mediate partner relationships, support during post-closing implementation with technical assistance and ongoing advocacy, and lead fundraising. Depending on the nature of the PFP, it may be led by an NGO or Indigenous community, in the latter case, the NGO may provide technical and fundraising support.
- 4. A set of core partners shares fundraising responsibilities. The costs of permanently protecting large areas of land or water are substantial, and responsibility for covering these expenses must be shared among a set of core partners.
- 5. A financial plan estimates the full costs of securing key landscapes and seascapes in perpetuity and supporting community development. The project team needs to develop a comprehensive financial plan that estimates all the financial resources necessary to achieve the programme goals.
- 6. A full-cost fundraising effort ensures permanent funding. To close the deal, the project team needs commitments to cover the financial plan's estimates for programme implementation and a clear pathway to sustainable finance post implementation.
- 7. A set of clear and formal closing conditions ensures completeness. Once the project meets certain stipulations for the closing, the negotiated terms become formally binding.

- 8. A set of formal disbursement milestones ensures ongoing compliance. Disbursement milestones written into the deal ensure post-closing compliance by conditioning the distribution of funds for implementation of the post-closing activities necessary for success.
- 9. A single closing lends urgency, creates leverage for every entity involved, and thereby draws out new resources and commitments.

Success factors and risks

The success of a PFP also hinges on a set of 'enabling conditions' which should be in place by the time of the PFP single close:

- 1. Strong national governance and legal structures: In addition to having a stable system of government (e.g. no recent history of unlawful leadership change, dictatorships, military governments or unlawful constitutional changes), the relevant government(s) should have the ability to enact and enforce regulations, the legal system must be mature enough to enforce contracts and provide for financial vehicles such as trusts, and expropriation risk must be low (Redstone Strategy Group, 2011).
- 2. High-level, strong and continuous political commitment: Because, in most cases, the government plays a central role in sustainable conservation, high-level political support is needed throughout the life of the PFP at national and sub-national level (Redstone Strategy Group, 2011).
- **3.** Strong potential and plan for sustainable finance mechanisms to ensure durability and long-term finance for conservation and development initiatives, such as a conservation levy, carbon credits, payment for ecosystem service or park entry fee.
- 4. Clear expectations from all rightsholders and stakeholders from the beginning: PFPs are voluntary and all parties need to be fully aware of the PFP and the intended costs and benefits to ensure durability.
- 5. A 'deal broker' leads stakeholder engagement and drives the process: A deal broker can help ensure that all necessary parties come to the table, that each party's interests are considered, and that the project stays focused on its goals.

Case studies

Enduring Earth partners have supported governments and local leaders in executing eight PFPs, conserving more than 175 million hectares using the PFP approach. Brief descriptions of a few PFPs in implementation are provided below.

Great Bear Rainforest, Canada

The Great Bear Rainforest (2007) <u>agreement</u> (Coast Funds, 2023a) was the first PFP, a collaboration between First Nations and the Government of British Columbia, Canada, to conserve 8 million hectares of temperate rainforest, which continues to support Indigenous-led conservation and sustainable economic development.

Through the early 2000s, First Nations worked with the Government of British Columbia to conserve one of the world's largest remaining intact temperate rainforests. Starting in 2006, TNC supported a conservation finance effort to secure durable funding for Indigenous stewardship and catalyse the transition to a sustainable, conservation-based economy. This initiative led to an innovative finance agreement among First Nations and private funders; and to the creation of Coast Funds, an Indigenous-led conservation finance institution, to manage CAD 120 million for conservation and economic development – through endowment and sinking funds.

First Nations leveraged this funding to advance their visio-ns for their territories, create more than 138 businesses and over 1,292 new jobs (13% of First Nations' workforce), and conserve critical habitats for spirit bears, salmon and centuries-old cedars (Coast Funds, 2023b).

Since the signing of the Great Bear Rainforest PFP, as of 2024, seven other PFPs have been executed:

- Forever Costa Rica (2010) tripled the country's marine protected areas (MPAs) and improved the management of its entire national park system, allowing Costa Rica to meet its goal to protect 30% of its lands and ocean.
- The Amazon Region Protected Areas for Life (2014) project in Brazil maintains a 60 millionhectare network of PCAs. This project is expected to avoid 1.4 billion tonnes of carbon emissions by 2050.
- Peru's Natural Legacy (2016) expands and more effectively manages 16.7 million hectares of the Peruvian Amazon, where 87% of the country's PCA network is located.
- Bhutan for Life (2018) permanently protects the nation's 2 million hectare network of PCAs. More than half of the nation is now under conservation protection.
- Eternal Mongolia (2024) will support community-driven proposals to safeguard 14.4 million hectares of Mongolia's lands and waters.
- Great Bear Sea, Canada (2024) enables collaborative implementation of a marine protected area network of approximately 3 million hectares.

Herencia Colombia

Herencia Colombia entered implementation in 2022. The Colombian Government, in partnership with a broad coalition of community, public sector and private sector partners, signed an agreement to launch Heritage Colombia PFP (HECO), which secures US\$ 245 million in public and private funding to permanently protect 32 million hectares of landscapes and seascapes. HECO includes land outside of PCAs, such as lands managed by Afro-Colombian communities and lands owned by Indigenous communities.

HECO is a major step forward in Colombia's effort to protect 30% of its land by 2030. The project contributes to a regional cluster of PFP initiatives that, together, provide permanent protections for approximately 12% of the entire Amazon rainforest.

Over 10 years, HECO aims to support the creation of more than 3 million hectares of new terrestrial PCAs and at least 15 million hectares of new MPAs. It will also improve the management of existing national, regional and private lands, and maintain ecosystems that millions of Colombians rely on for clean air and water, food, medicines and their livelihoods (Enduring Earth, 2023).



Trends and future directions

In December 2022, nearly 200 countries adopted the Kunming-Montreal Global Biodiversity Framework (GBF) during the fifteenth meeting of the Conference of the Parties (COP 15). Within the framework is a pledge to protect 30% of the planet by 2030. As a result, there is increased demand for mechanisms, such as PFPs, that will support countries, regions and communities in meeting this commitment.

Within the Enduring Earth partnership, four relevant priorities have emerged which are guiding decisions on future PFP opportunities:

- **Scale:** Recognising the potential to scale in conservation, climate mitigation and adaptation, and sustainable development through PFPs, Enduring Earth is working with governments, partners and Indigenous peoples and local communities to scale up the development of PFPs.
- **Indigenous led:** Given the importance of Indigenous peoples' and local communities' leadership and engagement, and the ownership of large territories by Indigenous peoples and local communities, several PFPs currently in scoping and planning with Enduring Earth are led by or in partnership with Indigenous peoples and local communities.
- **Government interest:** Following the signing of the Kunming–Montreal Global Biodiversity Framework, governments are interested in PFPs as they provide the financing needed to achieve and sustain conservation and development targets. In a unique situation, Canada committed at COP 15 to support four Indigenous led PFPs.
- **Donor interest:** Philanthropic and institutional donors have been shouldering the cost of biodiversity conservation around the world and are seeking more sustainable outcomes. PFPs appeal to donors because of the scale, inclusive design and durable outcome.

Rock Creek Park, District of Columbia, USA © David Meyers

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SUSTAINABLE FINANCE FACTSHEET

BIODIVERSITY OFFSETS

John J. Bohorquez

Practice guidance for protected and conserved area finance

Overview and key characteristics

Development projects such as infrastructure, mines, industrial plants and other private and public activities can result in severe negative biodiversity impacts. Biodiversity offset mechanisms are designed to reduce long-term impacts of the planned loss of nature due to these activities. Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from infrastructure and industrial projects that remain after appropriate avoidance, minimisation and restoration measures have been taken (BBOP, 2012; CSBI, 2015). They are the final option in the mitigation hierarchy most often applied in Environmental Impact Assessments (Figure F8.1). This approach is reflected in leading sector guidance and development financing standards such as the International Finance Corporation (IFC) Performance Standards, Equator Principles, as well as in various regulatory compliance regimes.



Figure F8.1. The mitigation hierarchy.

Biodiversity offsets are designed to achieve 'no net loss' and preferably a 'net gain' of biodiversity, sometimes also referred to as a Net Positive Impact (Maron et al., 2023)¹. More recently practitioners and stakeholders have argued to broaden the 'mitigation hierarchy' to the 'mitigation and conservation hierarchy' to place emphasis on the importance of net gain in support of the Kunming-Montreal Global Biodiversity Framework vision to both halt and reverse the loss of nature (Interdisciplinary Centre for Conservation Science, 2023).

Biodiversity offsets are a type of mitigation finance, like carbon offsets, and their use has been targeted to shared watersheds, habitat types and other similar ecosystems in what is commonly referred to as 'like-for-like' compensation. This differs from carbon offsets due to the fungibility of greenhouse gas credits as compared to nature and ecosystem services. Biodiversity credits borrow from some methodological elements of biodiversity offsets (Verra, 2023) yet are considered a newly emerging distinct mechanism (see Biodiversity credits Factsheet).

¹An example of the application of this is the IFC, which applies Performance Standard 6 to all the development projects that it finances, which requires a Net Gain of the biodiversity values for areas qualifying as Critical Habitat and No Net Loss of biodiversity where impacts affect less important Natural Habitat (IFC, 2012).

Figure F8.1 The mitigation hierarchy. The offset is indicated in the far right column after efforts to avoid, minimise and rehabilitate biodiversity have been enacted. *Source: World Bank (2016)*. Biodiversity offsets were developed to compensate for certain human activities that are unlikely to completely avoid harmful impacts on nature. Although some development actors initiate biodiversity offset actions voluntarily, most actions are done through regulatory requirements. Over 30 countries require offsets or compensation (such as 'in lieu payments') for planned damage to nature and these regulations seek to reduce risks in various ways and assure net neutral or net positive outcomes. However, even in highly regulated countries, biodiversity offset implementation continues to be challenging and achieves mixed results (Brownlie et al., 2017; World Bank, 2019, 2020; Zu Ermgassen et al., 2019). Often biodiversity offset regimes are critically underenforced², and for this reason they tend to have a greater chance of success where legislation is in place and offsets have already been successfully implemented, and substantial scientific and enforcement capacity is available. They are estimated to generate US\$ 6.3–9.2 billion for conservation per year globally and full enforcement could increase this to US\$ 168 billion per year by 2030, giving biodiversity offsets one of the greatest margins for potential growth of any other financial mechanism reviewed by Deutz and colleagues (Deutz et al., 2020). Historically biodiversity offsets have provided limited finance for protected and conserved area (PCAs) as offsets generally require additionality and thus only poorly financed or managed PCAs would be eligible as is the case for carbon offsets. One example of where PCAs receive funding is Brazil's FUNBIO conservation trust fund, which has been receiving and distributing compensation payments for years to the benefit of state parks. It should be noted that certain critical species or habitats have additional requirements if offsets are to be used (IFC, 2012).

Offsets are potentially relevant to PCAs when: 1) development projects are proposed within their boundaries; 2) projects developed outside PCA boundaries will result in a negative impact on the PCA; or 3) when PCAs are determined to be an appropriate location to achieve the offset. Using offsets as a tool for PCA expansion is accepted practice and often the main objective of offsets programmes such as those in South Africa, Kazakhstan and Colombia.³ Using offsets to assist existing PCAs is more controversial and the burden of proof for showing additionality is higher particularly in higher and middle-income countries but less so in lowincome countries.⁴ For example, the Mozambican regulatory system requires offsets to support additional activities in existing PCAs only. While this restricts funds for new PCAs, this is not as limiting as potentially perceived as Mozambigue's existing PCA network is guite comprehensive, covering 27% of the country with high ecological representativeness⁵ but underfunded and with limited management capacity. Colombia has biodiversity offset legislation for exploration and exploitation of fossil fuels, both marine and terrestrial, with significant levels of exploration offshore in the Caribbean Sea in recent years. Conservation interventions including PCAs that protect deep-sea corals in the Colombian Caribbean, which are threatened by these activities, could potentially be eligible, but PCAs (marine and terrestrial) have yet to receive support from biodiversity offsets in the country to date (Bohorquez et al., 2022).

How to plan for and implement biodiversity offsets

In most cases, biodiversity offsets start with the legal requirement of a developer or a financier to develop an offset. As noted above, countries with legislation and enforcement of the mitigation hierarchy are locations where offsets have a greater chance of being effective. PCAs with 'like-for-like' conditions may be eligible to receive funds from biodiversity offset programmes if 'in lieu payment' is allowed as part of the programme's design. Offsets require close collaboration between and agreement across stakeholder groups including:

²Deutz et al. (2020) found evidence of enforcement in less than 20%

of the 42 countries with biodiversity offset policies.

³See DFFE (2023) for the South African and Kerteshev & Van Zyl (2021) for the Kazakhstani biodiversity offsets guidelines.

⁴This is primarily because using offsets for the financing of conservation actions is not additional if these actions are believed to be a government's responsibility, which is more likely in middle and higher income countries.

⁵See World Bank (2016) for more details on the Mozambique offsets system. Githiru et al. (2015) address whether and how offsets should be used to fund PCAs.

- 1. Government agencies administering permits or other regulation with respect to the planned activity.
- 2. Companies, government entities or others conducting the activity.
- 3. The environmental authority administering the PCA or site receiving the funds.
- 4. Any other local stakeholders directly impacted by the planned activity or the PCA that benefits from the programme.

In addition to rigorous research included in environmental impact studies, additional research is required to plan for and assess the future benefits of an offset site, ensuring that the benefits are, at minimum, equivalent to the harm done. Once the offset baseline and projected benefit of the offset 'project' is determined, an action plan and budget are created for the offset project and agreements are signed between the relevant parties. Monitoring protocols are key to the offset success. In the US and elsewhere, multiple government agencies validate the offset site and management plan to provide an offset credit and an endowment fund is often required to assure long-term funding of the conservation site.

Required elements

Offsets should only be considered when all other avoidance and mitigation options have been explored and implemented (Figure F8.1) and residual impacts of the development project are unavoidable. Other key principles or requirements for the design and implementation of best practice biodiversity offsets include the following elements.

- Additionality: Biodiversity offsets should achieve conservation outcomes above and beyond results that would have occurred if the offset had not taken place.
- **Equivalence:** Biodiversity offsets should conserve the same biodiversity types and values (species, habitats, ecosystems or ecological functions) as those lost ('like for like') or, if this is not possible, then they should conserve more important biodiversity.
- **Permanence:** The need for permanence in biodiversity offsets over the long term arises as they are required to compensate for permanent or near-permanent biodiversity losses.
- Stakeholder participation and equity: Effective participation of relevant stakeholders should be ensured and offsets should be designed and implemented in an equitable manner. Special consideration should be given to respecting both internationally and nationally recognised rights of Indigenous peoples and local communities.
- **Transparency, use of science and traditional knowledge:** Design and implementation should be undertaken in a transparent and timely manner informed by sound science and including an appropriate consideration of traditional knowledge.

Constance Lemuria, Seychelles © David Meyers



Success factors and risks

Key success factors for biodiversity offsets

- 1. Establishing a cost-effective, reliable and efficient monitoring system.
- 2. Fostering the promotion of verifiable and substantial positive impacts.
- 3. Adopting a co-design approach with local stakeholders, where appropriate, emphasising a rights-based approach to conservation.
- 4. Generating locally meaningful benefits that acknowledge the diverse local uses of nature and result in verifiable net benefits to biodiversity.
- 5. Advocating for the equitable distribution of benefits and responsibilities among all involved parties.
- 6. Implementing robust safeguards to prevent any potential adverse social impacts.

International guidelines are available on how to design and implement successful offsets based on the above principles (see Additional Resources). Some of the main suggestions and considerations with particular relevance to effective PCA participation in offsets include:

- 1. PCA managers should rely on national biodiversity offsets legislation and implementation frameworks where possible, or specific international best practice.
- 2. A detailed understanding of the biodiversity within the PCA and existing or a clear plan for robust scientific monitoring.
- 3. PCA management, potentially with assistance from a conservation trust fund (CTF, see CTF Factsheet), non-governmental organisations and other partners, and adequate financial and human management capacity for successful offsets.
- 4. Ability of the PCA management authority or CTF to receive earmarked funds for the establishment and management of offset areas.⁶
- 5. Clarity on how adequate and guaranteed funding will be managed over the long term (often in perpetuity) to achieve agreed conservation outcomes.⁷
- A robust and binding biodiversity offset agreement approved by the PCA management authority that clearly specifies roles and responsibilities for offset implementation and financing.
- 7. Understand and engage on timeframes for delivering measurable ecological outcomes through a socio-ecological perspective (Sarmiento & Morgan, 2023).
- 8. Biodiversity offsets must provide 'additional' value to the community and ecosystem they serve, including Indigenous peoples and local communities, by sharing the benefits or involving them as project proponents (Ducros & Steele, 2022; World Economic Forum, 2022).
 - a. Strengthening and empowering relevant institutions and stakeholders to access the necessary resources for biodiversity conservation and management, including securing land tenure rights.
 - b. Assuring financial compensation for offsets prioritises those who demonstrate the most effective biodiversity management practices as well as those disproportionately affected by biodiversity loss (Ducros & Steele, 2022).

Risks and challenges include:

- Poor assessment of counterfactual.
- High costs of ecological monitoring.
- Regulatory complexity.
- PCAs are not considered 'additional' due to their legal mandate.
- Offsets can be perceived as enabling the destruction of nature.
- Achieving permanence.

⁶CTFs can be particularly helpful as reliable partners that manage relationships between private developers requiring offsets and PCAs. They can ensure that offsets funding is targeted, well managed and outcomes are monitored. They can fulfil these roles on an ad-hoc basis only for those projects where developers contract them to do so, or the national offsetting system can be set up so that all offsetting projects must go through one specific CTF such as in Mozambique.

⁷The development of financial mechanisms to guarantee long-term funding for offsets is not particularly well advanced even in countries where offsets are a legislative requirement. More information on options and financial mechanisms for the financing of offsets can be found in Barnard et al. (2017).
Case study

Biodiversity offset for the Moyen Bafing National Park, Guinea

Guinea is a major producer of bauxite, the world's primary source of aluminium, with mining operations throughout the country. Guinea is also home to Fouta Djallon, a landscape that serves as vital habitat for critically endangered western chimpanzees, with the majority of individuals in the region having been lost in the last 25 years.

New bauxite mining projects in Guinea, led by the Guinea Alumina Corporation and the Compagnie des Bauxites de Guinée, are expected to incur additional losses of western chimpanzees. Since 2010, these companies alongside the Guinean Office of Parks and Reserves, the Wild Chimpanzee Foundation, and the International Finance Corporation (IFC) of the World Bank have collaborated on a project aimed to offset the impacts of these mining activities. Together, they committed to support the creation of the Moyen Bafing National Park (MBNP), a 7,000-km² protected area home to 4,000–5,000 western chimpanzees, approximately 8–10% of the subspecies' remaining population. As part of their commitments, the mining operations are required to financially support 20 years of the park's operations, which is projected to result in an increase in chimpanzee populations.

The MBNP is a valuable case study that reflects the time, resources and collaborative efforts required to implement biodiversity offsets as highly complex endeavours. It also demonstrates the scale of potential impact offsets can have (Appleton et al., 2021; Boesch et al., 2021; Fauna & Flora International, 2021; Starkey et al., 2017).

Male chimpanzee (*Pan troglodytes*) in Kibale National Park, Uganda © David Meyers



Trends and future directions

Biodiversity offsets have tremendous potential for growth via better enforcement of current governmental programmes, and opportunities where they are already established in legislation should be maximised. Even without formalisation, shareholders, customers and employees are demanding better performance from companies.

As more countries formalise and improve their systems for environmental impact assessments, they will increasingly require offsets to be an option if they strive for best practice and the application of the mitigation hierarchy. This may result in more offsets being undertaken and more opportunities for PCAs to benefit. PCAs should not be passive in this regard and should advocate for, and shape, relevant legislation to maximise their potential to benefit from offsets.

Greater application of 'target-based offsetting' that is explicitly linked to more ambitious conservation targets, driven by the Kunming-Montreal Global Biodiversity Framework for example, will generally require increased offset commitments to the benefit of conservation and PCAs.⁸

Additional resources

Guidance on how to achieve best practice biodiversity offsets, with reference to cases studies in some instances, includes the following:

- Business and Biodiversity Offsets Programme (BBOP) publications series, especially:
- BBOP (2012). Standard on biodiversity offsets. Washington, DC: BBOP. https://www.forest-trends.org/publications/standard-on-biodiversity-offsets
- BBOP (2012). *Biodiversity offset design handbook Updated*. Washington, DC: BBOP. https://www.forest-trends.org/publications/biodiversity-offset-design-handbook/
- Gullison, R. E., Hardner J., Anstee, S. &, Meyer, M. (2015). *Good practices for the collection of biodiversity baseline data.* Prepared for the Multilateral Financing Institutions Biodiversity Working Group & Cross-Sector Biodiversity Initiative. http://www.csbi.org.uk/our-work/good-practices-for-the-collection-of-biodiversity-baseline-data
- International Council on Mining and Metals International Union for Conservation of Nature (ICMM IUCN) (2012). *Independent report on biodiversity offsets*. Prepared by The Biodiversity Consultancy. www.icmm.com/biodiversity-offsets
- International Finance Corporation (IFC) (2012). *IFC Performance Standard (PS) on Environmental and Social Sustainability: PS6 on Biodiversity Conservation and Sustainable Management of Living Natural Resources*. Washington, DC: IFC. <u>https://www.ifc.org/en/</u> insights-reports/2012/publications-handbook-pps
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^eThis approach is receiving greater support in the academic literature (see Maron et al., 2018; Moilanen & Kotiaho, 2018; Simmonds et al., 2020) and is applied in countries such as South Africa, Brazil and Kazakhstan.

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SUSTAINABLE FINANCE FACTSHEET

BIODIVERSITY CREDITS

Mitali Sharma and David Meyers Practice guidance for protected and conserved area finance

Overview and key characteristics

Biodiversity credits are a novel financial instrument designed to incentivise investments into nature conservation and restoration (Porras & Steele, 2020). Biodiversity credits are provisionally defined as, "a certificate that represents a measured and evidence-based unit of positive biodiversity outcome that is durable and additional to what would have otherwise occurred" (Biodiversity Credit Alliance, 2024, p. 7). The term 'credit' is commonly used to indicate that the owner possesses the ability to make a claim related to an action they have taken or a value represented by a purchased 'credit' or certificate. This claim can encompass financial aspects, the potential for profit through trade, or even serve as a reputational claim (NatureFinance, 2023). Biodiversity credits could potentially include biodiversity offsets as a type of credit in some definitions, but here the focus is on voluntary biodiversity credits (VBC) and not biodiversity offsets intended to compensate for residual planned impacts on nature.

Although there is currently no universally agreed-upon definition for biodiversity credits, (NatureFinance & Carbone4, 2023), a VBC can be broadly defined as a measurable unit that represents a positive impact for biodiversity from predetermined management actions aimed at enhancing or conserving biodiversity compared to a specified baseline (Biodiversity Credit Alliance, 2024; Porras & Steele, 2020). In general, VBCs are focused on supporting measurable nature-positive actions (Gray & Khatri, 2022) but can include the maintenance of high quality ecosystems (Verra, n.d.). Examples of such actions include the protection of endangered species and habitats and restoration efforts (Porras & Steele, 2020). An impartial standard-setting organisation issues credits to authorised project developers once the management actions have been independently verified, which is the same process for voluntary carbon credits (Porras & Steele, 2020). These credits can theoretically be traded in the market or sold through direct agreements.

VBCs could be supplied by various entities involved in biodiversity conservation, such as individual households and farmers, local groups, non-governmental organisations (NGOs), private developers specialising in carbon or biodiversity projects, as well as government and public agencies to finance protected and conserved area (PCAs). VBCs could be purchased by various stakeholders, including government entities striving to achieve their conservation objectives, philanthropic organisations with an interest in conservation, companies aiming to invest in biodiversity, private resellers and intermediaries specialising in biodiversity, and individual consumers (Porras & Steele, 2020).

Some VBCs that are coming to the market seek to finance the biodiversity conservation efforts needed to implement planned interventions and achieve associated outcomes. Although the minimum price of a VBC should be to cover the additional costs of conservation and monitoring outcomes, eventually the market demand will determine the price of a VBC. VBCs are considered a novel way to financially support various types of PCAs and their custodians if they can meet the emerging standards or buyers' requirements. For instance, the startup CreditNature offers VBCs that symbolise the protection of one hectare of land for a specific project site over a period of 10 years. The company is also committed to directing 80% of the revenue generated from their VBCs towards the custodians who are responsible for protecting these areas (ValueNature, 2023).

Multiple ongoing initiatives are striving to establish the required standards, methodologies and governance approaches to foster a rigorous, equitable and impactful biodiversity credit system that directs meaningful funding towards valuable conservation initiatives and stewards. This is a rapidly changing field at the time of this writing.

How to plan for and implement biodiversity credits

Voluntary biodiversity credits are an emerging finance mechanism and there are well over 50 different methodologies being proposed. There is no set approach or historical references on how to develop biodiversity credits. In general, there appear to be several steps to create and market credits.

Key steps in planning and implementing biodiversity creditss

- 1. Clearly define the area of focus and establish clear tenure or stewardship.
- 2. Determine or choose a standard and methodology under which the VBCs will be certified or credited.
- 3. Review the conditions and requirements for the standard and prepare a project document that describes the project, the metrics to be measured, and the expected results along with all other information required. This is very likely to include specific information on the involvement of Indigenous people and local communities as well as safeguards and other risk mitigation actions.
- 4. Establish a baseline of data on biodiversity based on the methodology.
- 5. Raise financing for project activities. This could include advanced purchases of future credits to be issued or more typical project financing.
- 6. Implement the conservation and restoration activities planned under the project document with an adaptive management approach.
- 7. Third party verification of project document and site data (likely required).
- 8. Conduct periodic measurement, reporting and verification.
- 9. Credits are issued based on the appropriate standard and results.
- 10. Credits are added to a registry.
- 11. Continue to maintain the conservation outcomes and activities as needed.

Required elements

- A VBC system must provide quantifiable ecological results and offer investors and biodiversity custodians long-term assurance (Sarmiento & Morgan, 2023).
- VBCs must provide additional value to the community and ecosystem they serve, including Indigenous peoples and local communities, by sharing the benefits or involving them as project proponents (Ducros & Steele, 2022; World Economic Forum, 2022).
- Most methodologies require 'additionality' that could include increasing financial support for conservation sites already engaged in efforts to enable effective management and protection.
- VBCs must be associated with a specific geographical area, remain valid for a specified duration, and be measurable in comparison to an established baseline, including biodiversity data and socio-economic data (Ducros & Steele, 2022).
- Obtaining independent validation, verification and issuance of VCBs by a third party (similar to the existing practice for carbon credits) plays a vital role in gaining market acceptance for VBCs (rePLANET, 2023).

Success factors and risks

Key success factors include:

- Establishing a cost-effective, reliable and efficient monitoring system.
- Efficiently producing verifiable and substantial positive impacts.
- Adopting a co-design approach with local stakeholders, emphasising a rights-based approach to conservation.
- Viewing the timeframes for delivering measurable ecological outcomes through a socioecological perspective which takes into account local social and ecological processes (Sarmiento & Morgan, 2023).

- Transparent and effective governance and the inclusion of safeguards for Indigenous peoples and local communities, as well as their outcomes (Gray & Khatri, 2022; Taskforce on Nature Markets and Pollination, 2023).
- Generating locally-meaningful benefits that acknowledge the diverse local uses of nature.
- Advocating for the equitable distribution of benefits among all involved parties.
- Implementing free, prior and informed consent (FPIC) as well as other robust safeguards to prevent any potential adverse social impacts (The Biodiversity Consultancy, 2022).
- Strengthening relevant institutions, organisations and stakeholders, empowering them to access the necessary resources for biodiversity conservation and management, including securing land tenure rights.
- Redistributing financial compensation for conservation to prioritise those who demonstrate the most effective biodiversity management practices, such as Indigenous peoples and local communities investing significant time and resources, as well as those disproportionately affected by biodiversity loss (Ducros & Steele, 2022).

Key risks and challenges include:

- Uncertainties on which metrics to measure and the cost of monitoring them (The Biodiversity Consultancy, 2022).
- Markets could value the aspects of nature that offer short-term economic rewards resulting in greenwashing (NatureFinance, 2023).
- Potentially high costs of reliable, timely and accurate measurement and monitoring systems to assess the state, improvement and/or preservation of biodiversity.
- High costs of measurement, reporting and verification.
- Scaling up consistent and trustworthy demand for credits and the associated financing to support long-term sustainability.
- Guaranteeing fair pricing and equitable distribution of rewards to project developers, sovereign entities and Indigenous peoples and local communities.
- Establishing strong governance structures and transparent institutional arrangements to support effective implementation and accountability (NatureFinance & Carbone4, 2023).
- Preventing 'leakage' due to the measures taken within the VBC site (Ducros & Steele, 2022).

Moss sporophytes, Maryland, USA © David Meyers



Case studies

Voluntary biodiversity credits in Colombia

In May 2022, Colombia unveiled its newly introduced VBC product developed in collaboration with ClimateTrade, a blockchain-based climate marketplace, and Terrasos, a Latin American biodiversity conservation and habitat banking organisation. The first to issue these VBCs was the Bosque de Niebla-El Globo Habitat Bank (also known as the Spectacled Bear Habitat Bank). Each credit, priced at US\$ 30, symbolises the preservation and/or restoration of a 10 square metre section of the Bosque de Niebla forest for a duration of 30 years. This ecosystem holds great significance for conservation due to its crucial role in providing essential ecosystem services like water management, carbon sequestration and nutrient cycles.

The conservation project encompasses a forest area spanning 345 hectares and serves as habitat for a diversity of wildlife, including 290 bird species, 32 reptile species and 76 mammal species, including 71 endemic species and 20 endangered species. Additionally, this forest serves as the source of more than six water springs, supplying local aqueducts and serving as vital headwaters for local development.

The project holds a potential of 310,000 credits, out of which 62,000 credits are presently accessible. These credits are released gradually over a ten-year duration as performance milestones are achieved. Based on the current available stock on the ClimateTrade website (47,223), it appears that as many as 14,777 credits have been sold for this project as of October 2024 (ClimateTrade, 2022, 2023; World Economic Forum, 2022).

Australian biodiversity units and EcoAustralia[™] credits

In February 2018, the Australian division of South Pole, a private company for carbon finance, introduced a bundled carbon and biodiversity product called EcoAustralia[™] credit for voluntary buyers. Each EcoAustralia[™] credit combines an Australian biodiversity unit (ABU) with a carbon credit issued by Gold Standard. An ABU represents the protection of 1.5 square metres of habitat. Purchasers of EcoAustralia[™] credits include Porsche Australia, the University of Melbourne and CareSuper.

By leveraging state legislative schemes, ABUs ensure that contributions to conservation are robust, measurable and verified. They rely on accepted scientific practices to assess habitats and measure biodiversity. Buyers of EcoAustralia™ credits voluntarily support biodiversity conservation projects in Australia, without any corresponding offsetting.

One example of a project that has issued ABUs is the Mount Sandy project, located in the Coorong region of South Australia. This project preserves a rare pocket of intact native vegetation on the traditional lands of the Ngarrindjeri people. The management of the project involves close collaboration with the nearby Raukkan Aboriginal Community and local Ngarrindjeri Elders, Clyde and Rose Rigney, who oversee vegetation management and conservation at the site. It is unclear how many credits have been sold for this project. However, the South Pole website notes that they have "already sold the combination credits to several voluntary buyers", and that another one of their projects, the Lavers Hill conservation project, "reached its allocation and is now sold out" (South Pole, 2018, 2022, 2023; World Economic Forum, 2022).

Trends and future directions

The push for a wider development of biodiversity credit markets is gaining momentum (NatureFinance, 2023) and there is an increasing interest in biodiversity credits among private investors, individuals and governments seeking to make investments in biodiversity conservation and restoration (Ducros & Steele, 2022). There are a range of motivations including pure commitment to catalyse conservation, emerging mandatory requirements, disclosure and reporting needs, concern over value chains, corporate reputation and more. The term 'nature credits' is being used by Verra and the concept of nature certificates for the maintenance of nature is also being explored. Multiple entities are seeking to define and support this emerging space including the Biodiversity Credit Alliance, the World Economic Forum and the International Advisory Panel on Biodiversity Credits.



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10

SUSTAINABLE FINANCE FACTSHEET

IMPACT INVESTING

Mitali Sharma

Practice guidance for protected and conserved area finance

Overview and key characteristics

Impacting investing is defined by the Global Impact Investing Network (GIIN) as "investments made into companies, organisations, and funds with the intention to generate social and environmental impact alongside financial return" (GIIN, 2016, p. 3). Impact investing is also considered to be a subset of responsible or sustainable investing, which is an approach to investing that incorporates non-financial factors into investment decisions (Baumann et al., 2017). The term 'impact' refers to positive effects or benefits, such as cleaner water, more jobs, or greater protection for species.

The majority of impact investments typically support initiatives aimed at enhancing social development, alleviating poverty and improving public health, while those that are environmentally-focused have largely been directed towards renewable energy projects and technologies that mitigate emissions (Thompson, 2022). However, there has been a growing emphasis on promoting impact investing as a way to finance biodiversity conservation in recent years. This emerging area has been recognised as a new thematic focus for investors (Baralon et al., 2021; Huwyler, Käppeli & Tobin, 2016). As such, it is still a relatively new mechanism for financing protected and conserved areas PCAs), but it has attracted a wide variety of investors and other financial actors, encompassing individual and institutional entities. These include fund managers, development finance institutions, diversified financial institutions/banks, private foundations, pension funds and insurance companies, family offices, individual investors, non-governmental organisations (NGOs), religious institutions, governments and corporations (GIIN, 2018).

Common motivations driving investor and partner involvement are listed below:

- Banks, pension funds, financial advisors and wealth managers can offer investment opportunities to individuals and institutions interested in supporting general or specific social and/or environmental causes.
- Institutional and family foundations can harness greater assets to advance their core social and/or environmental objectives while simultaneously preserving or augmenting their overall endowment.
- Government investors and development finance institutions can provide proof of financial feasibility to private-sector investors while targeting specific social and environmental goals.
- NGOs can further support relevant projects financially, for instance, The Nature Conservancy (TNC) has its own impact investing team NatureVest.

Impact investing can be applied to different types of PCAs as there are various types of impacts that can result from investing in these sites, such as avoided carbon emissions, avoided deforestation, species protected, and area of land protected (Mirova Natural Capital, 2019), which prevent further biodiversity loss and mitigate climate change. However, it is more difficult to do so in marine PCAs as there are fewer known investable opportunities compared to those in terrestrial PCAs (Pascal et al., 2021). Ultimately, the approaches to impact measurement deployed by investors will differ based on their objectives and capabilities. The selection of what to measure typically aligns with investor goals and intentions (GIIN, 2018).

Required elements

According to the GIIN (2019), there are four key characteristics that establish the baseline for what can be considered credible impact investing, from the impact investors' side:

- 1. Intentionality: The core essence of impact investing lies in the deliberate and purposeful intention to make measurable contributions to social or environmental well-being. Impact investors strive to address challenges and seize opportunities.
- 2. Utilising evidence and impact data in investment design: Sound investments cannot be based on mere speculation, and impact investing relies on leveraging available evidence and data to drive informed investment design that effectively contributes to social and environmental benefits.
- **3. Managing impact performance:** Impact investing entails a distinct objective, requiring investments to be actively managed to align with that objective. This involves establishing feedback mechanisms and effectively communicating performance information to enable stakeholders throughout the investment chain to direct their efforts towards achieving impacts.
- 4. Fostering industry growth: Investors practising impact investing with credibility adhere to shared industry terminology, standards and indicators when articulating their impact strategies, goals and performance. They also actively share their insights and experiences to facilitate collective learning and enable others to derive lessons on what generates social and environmental benefits.

From the PCA management or governance authorities' perspective, it is essential to understand what the investors require, and establish a clear and transparent vehicle to channel revenues and financing through income-generating activities to meet the impact investors' requirements (Pascal et al., 2018; WWF-NL & Nature/Squared, 2020). Objective monitoring and reporting of outcomes must be conducted and shared with impact investors and donors (Born & Brest, 2013; Pascal et al., 2021). To comprehensively capture the primary social and environmental impacts of PCAs, it is crucial to identify suitable performance indicators in consultation with relevant stakeholders, and these indicators should complement established metrics like the Impact Reporting and Investing Standards developed by GIIN (Pascal et al., 2021).

Success factors and risks

When seeking investments, it is important to consider the following (WWF-NL & Nature^Squared, 2020):

- Establish a clear investment vehicle instead of presenting an abstract or unstructured programme. Investors require a distinct investment vehicle to direct their investments towards. This vehicle can take the form of a company (including farmers' cooperatives) or a special purpose vehicle.
- Assess the bankability of a specific entity, considering factors such as leadership skillsets, track records and credit history, to evaluate the potential success of a project.
- Establish a solid business case by clearly outlining how and to what extent your incomegenerating activities can generate financial returns within the project.
- Begin early and ensure diversification in the project portfolio one aims to develop, as not all projects may successfully pass the screening process.
- Recognise the varying information needs between technical assistance providers and potential investors. The reporting structure provided by technical assistance providers may not always align with the requirements of potential investors. Different reports may be necessary for different audiences.
- Ensure partners and companies exhibit a diverse range of skills, and that leadership skills align with external requirements.

Another important success factor is having safeguards to mitigate potential adverse impacts on environmental and social aspects. Adhering to safeguard policies can enhance stakeholder engagement and elevate the overall quality of project proposals, and create investor confidence in the project. Throughout the project lifecycle, safeguards play a critical role in effectively managing risks and maximising positive outcomes. There are several existing safeguards frameworks that can assist in developing project or programme-specific safeguards. Among impact investors and development finance institutions (DFIs), it is common practice to use the International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability as a foundational framework for safeguard approaches. These standards, developed by the IFC, assist companies in managing and enhancing their environmental and social performance (WWF-NL & Nature/Sguared, 2020).

Lastly, it is crucial to consider impact measurement and management (GIIN, 2018):

- Establishing goals and expectations: Goals should encompass the intended impacts of an investment on people and/or the planet. It is important to strike a balance between investor expectations regarding risk, return, liquidity and impact.
- **Defining strategies:** There are numerous pathways available for achieving impact goals and meeting expectations. Consideration should be given to which pathways align best with individual portfolios, investment expertise or client demand.
- Selecting metrics and setting targets: Investors must identify relevant output, outcome and proxy indicators to set specific targets, monitor performance and manage progress towards success. Impact metrics should ultimately provide valuable information for investment decision-making.
- **Measuring, tracking, utilising data and reporting:** IMM is not just about the data collection, it requires analysing information, considering risks, returns and impact to facilitate learning, adaptation and improved decision-making. This iterative process can enhance portfolio performance and refine investment strategies.

Some of the challenges private investors encounter include scarcity of projects that match the desired scale, insufficient data to accurately gauge the impact of their investments, and complexities in collaborating with government or other public sector investors (Cooper & Trémolet, 2019). They also face uncertainty surrounding the profitability of certain projects and their ability to deliver the expected returns (Thompson, 2022).

Additionally, there are risks and uncertainties with the length of the timeframes involved in realising environmental impacts, such as the growth of trees in PCAs, especially if there are external negative pressures involved. This also includes the possibility of the positive impacts being reversed within the given timeframe of the investment (Thompson, 2022).

There is also the risk that instead of the actual impact being measured, only the activities, outputs or outcomes are being measured; the assessment of conservation impacts relies on comparing results with baselines (i.e. the established condition at a specific point in the past) and counterfactuals (i.e. the change in condition at a nearby non-project control area) (Pressey et al., 2017). These comparisons determine the project's 'added value' by highlighting the difference it makes (Thompson, 2022). This also includes understanding the impact the project has made in a broader sense (Turner, 2021) and how that has affected the site and/or other areas overall.

For marine conservation and PCAs in particular, one of the main challenges in securing upfront impact investment financing is the identification of revenue streams to repay investors (Cooper & Trémolet, 2019). Revenue sources in this context are primarily derived from tourism activities (Pascal et al., 2021). Private investors face barriers when considering investments in marine conservation due to (i) perceived and actual high risk; and (ii) lower returns compared to alternative investment options with similar risk profiles (Huwyler et al., 2014).

In the event that individual investments fail to achieve the anticipated financial returns, there is a risk that financial considerations may take precedence over the intended impact, leading to a situation where the promised impacts are not given the same level of importance as initially claimed (Kish & Fairbairn, 2018).

In a broader context, if such investments do not deliver the expected financial returns and/or environmental impacts, it can have negative effects on the overall credibility of impact investing as a financing approach for conservation (Caseau & Grolleau, 2020; Clark, Reed & Sunderland, 2018).

Case studies

Blue Alliance – Marine Protected Areas (MPAs) – The MPA Blended Finance Facility

The MPA Blended Finance Facility was established to facilitate finance for Blue Alliance's MPA networks. Each MPA network needs an average of US\$ 600,000 per year to implement effective management in regulatory compliance, community development and science and conservation. Blue Alliance builds reef-positive businesses around the MPAs in responsible ecotourism, community-based aquaculture, blue carbon credits, and sustainable fisheries. Each business reduces specific drivers of coral reef ecosystem degradation and contributes financially to the MPA management through dividends and/or revenue sharing.

Blue Alliance funds early-stage investments into the reef-positive businesses associated with their MPAs through their blended finance facility, using catalytic capital to grow enterprises to the point where they can attract private sector investment. Blue Alliance started with a first cohort (2023–2024) of 12 reef-positive businesses (RPBs) for 60 MPAs in Indonesia, Philippines and Zanzibar. Investment totalled US\$ 12 million. Grants were being used for the initial working capital and equipment of the MPAs in the three countries. Grants and refundable grants were being used for the preparation and capital expenditures (CAPEX) of 12 local RPBs. Senior debt is being used for the CAPEX of the RPBs – an impact loan facility is in development. Junior debt has been secured for the CAPEX of the RPBs. Equity from local sponsors is invested directly in the RPBs. Blue Alliance anchor investors include UBS Optimus Foundation and the Global Fund for Coral Reefs. Performance is evaluated through a set of indicators that follow established international standards. By connecting investors, stakeholders and ecosystems, Blue Alliance is pioneering a scalable, replicable approach to the sustainable management and protection of MPAs.

Source: Adapted from Blue Alliance MPA 2023 Impact Report, Blue Alliance MPA (2024).

The Althelia Climate Fund 1: Impact investment initiative

The Althelia Climate Fund 1 (ACF1) was an innovative impact investment initiative created to support sustainable and transferable initiatives for safeguarding vulnerable forests. The fund lasted for nine years, from June 2013 to 2022. It primarily targeted forests that possessed significant carbon content and biodiversity but faced potential threats due to human agricultural expansion and increasing demand for resources such as gold and palm oil. This investment vehicle aimed to fund projects that promoted forest conservation on a large scale and those that could be replicated in various at-risk regions. The €101 million fund was dedicated to supporting more than 10 initiatives across multiple countries, including Peru, Guatemala, Brazil, Kenya, Rwanda and Indonesia. These projects encompassed a range of approaches, such as integrated landscape projects with clustered mosaics, pasture and peatland restoration, and PCA establishment combined with cocoa and coffee agroforestry projects. ACF1 collaborated with an extensive network of partners, including NGOs, small and medium-sized enterprises (SMEs), and Indigenous communities. Since its inception, ACF1 investment has led to several positive impacts such as 1.96 million ha of critical habitat protected, 101,300 ha of avoided deforestation, and 115 threatened species' populations protected (Mirova Natural Capital, 2019; Mironova Natural Capital, 2021).

Trends and future directions

There was a 17% increase in reported impact investing deals worth US\$ 35 billion in 2017 compared to 2016, and by the end of 2018, the impact investing industry was estimated to be valued at around US\$ 502 billion (GIIN, 2019). Investments were primarily concentrated in energy (15%), microfinance (13%) and other financial services (11%). Additionally, while a small portion of impact investments are currently focused on environmental impacts, this segment is experiencing rapid growth (Pascal et al., 2021; Thompson, 2022). In particular, the conservation investment market, a subset of impact investing, has been growing more rapidly than the overall impact market (Huwyler, Käppeli & Tobin, 2016). Thus, it is possible that this will become a more popular form of financing for PCAs in the future.



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SUSTAINABLE FINANCE FACTSHEET

SUSTAINABILITY CERTIFICATION

Mitali Sharma

Practice guidance for protected and conserved area finance

Overview and key characteristics

A sustainability certification scheme refers to a framework for establishing standards and certifying processes for products and services that have a positive impact on sustainable development. This includes the standard, and the regulations and protocols, that dictate its implementation, evaluation, governance, claims and other related aspects (WWF, 2015a).

Sustainability certification schemes are a relatively mature mechanism that use standards for production or trade, along with monitoring, certification and labelling processes, to recognise and incentivise products that meet specific environmental and social criteria (DeFries et al., 2017). Globally, more than 450 certification schemes related to environmental sustainability have been established (EcoLabel Index, 2023), including Certified Wildlife Friendly®, FairWild and the Forest Stewardship Council® (FSC). If structured properly, these can benefit protected and conserved areas (PCAs). United Nations Environment Programme - World Conservation Monitoring Centre (UNEP-WCMC, 2011) examined the biodiversity criteria within 36 environmental standards from eight business sectors (agriculture, biotrade, carbon offset, finance, fisheries, forestry, mining and tourism) to understand how biodiversity is addressed across these sectors. All of the standards assessed acknowledged the importance of protecting habitats, with 94% also addressing concerns related to habitat loss and/or restoration. The majority of the reviewed standards (86%) acknowledged the significance of PCAs, and a few offered specific guidelines on conducting activities in proximity to or within PCAs.

How to plan for and implement sustainability certification

Within sustainable certification schemes, the primary actors responsible for establishing the rules are standard-setting organisations, which are typically composed of corporations, non-governmental organisations (NGOs) or multi-stakeholder organisations (Oberlack et al., 2023).

The basic process for granting certification is as follows:

Table F11.1. Steps to implement a sustainable certification

1	The company or landowner (applicant) submits a certification application to an accredited third-party organisation.
2	The applicant undergoes a thorough audit based on certification standards, which are developed collaboratively by a diverse group of stakeholders.
3	If the audit results align with the certification standards, the applicant is granted certification.

Source: International Paper (2023).

The applicant would typically need to pay to obtain the certification and related administrative processes. Given the cost of engaging in certification, the applicant will need to consider the return on investment. The funding generated from the certification could be used as a sustainable financing mechanism for PCAs, along with the premium or additional payments that accompany certifications if structured properly. Smallholders can directly benefit from

these premiums or indirectly through enhanced capabilities of producer organisations to offer services such as education, healthcare, transportation or processing (Oberlack et al., 2023). Receiving certain certifications can also offer businesses distinct benefits, including an edge over competitors in terms of longevity, market access and the ability to charge premium prices (Amundsen & Osmundsen, 2020).

Required elements

When developing certification programmes, stakeholders need to make critical assumptions about the long-term outcomes and impacts of implementing a standard. One key assumption is the size and structure of the market for certified products. While programmes have focused on delivering certified sustainable products to the market, less consideration has been given to the target consumers, distribution of added costs, and the potential growth of this market (National Academies of Sciences, Engineering and Medicine, 2010).

The principles and criteria of the standard should encompass the following aspects: social and environmental impacts, workers' conditions and rights, community relations, environmental services, biodiversity conservation and effective management practices (WWF, 2015b).

Additionally, the following aspects are also necessary for a credible certification scheme:

- Compliance with relevant local, regional, national and international laws and conventions.
- Development in accordance with international frameworks, such as <u>ISEAL's Code of Good</u> Practice for Setting Social and Environmental Standards.
- Focus on minimising or eliminating significant negative environmental and/or social impacts and creating positive impacts.
- Inclusion of input from scientists and incorporation of the latest scientific findings, indigenous knowledge, evolving legislation and human rights.
- Clear minimum requirements linked to environmental and/or social performance.
- A requirement to define a baseline, identify indicators, and implement monitoring and reporting processes for achieved impacts, performance and compliance.
- Adaptability to national and regional conditions and needs.
- Meaningful and equitable stakeholder participation, including smaller producers and vulnerable groups, aligned with free, prior and informed consent.
- Transparency in decision-making and public reporting of certification.
- Provision of accessible complaint and appeal mechanisms.
- Commitment to continuous improvement (WWF, 2015).

Success factors and risks

Success factors include:

- A collaborative, multi-stakeholder approach to third-party certification may be the most effective method for identifying sustainable outcomes in certification programmes (National Academies of Sciences, Engineering, and Medicine, 2010).
- A well-equipped secretariat with clearly defined staff and roles in areas such as finance, standard development, communication, membership and participant management, quality assurance and handling complaints (WWF, 2015b).
- The preliminary certification standard undergoes a public consultation process (WWF, 2015b).

Risks and challenges include:

- Many certification schemes exist already and it is difficult for consumers and potential applicants to differentiate between them.
- Landowners may be hesitant to assume the added obligations, administration and expenses linked to certifying their property (International Paper, 2023).
- Certification programmes have been criticised for often overlooking the cumulative effects of a certification programme due to their product- or producer-oriented approach. This limited temporal and spatial scale fails to account for long-term and ecosystem-wide effects, making it challenging to measure the programmes' impacts accurately.
- The process of setting standards is not consistently transparent or inclusive.

- Many certification programmes lack sufficient business skills and possess inadequate business models. While these programmes are designed as market-based approaches, they often rely heavily on subsidies, typically provided by NGOs and foundations. There has been insufficient attention given to ensuring long-term cost-effectiveness of these programmes.
- While resources are allocated to develop standards, there is insufficient focus on promoting the acceptance, adoption and implementation of these standards.
- There is a gap between the desire for credible standards grounded in scientific knowledge and the need for flexibility within the standards system to accommodate local interpretation, regional differences and learning processes.
- Certification programmes may not effectively transfer across diverse climatic zones or ecosystems.
- Certification has traditionally been seen as an exclusive process. While programmes may be labelled as 'global', they must be implemented and embraced at the local level. This poses challenges because such overarching standards may not adequately reflect local needs or objectives (National Academies of Sciences, Engineering, and Medicine, 2010).
- Certification must align with the specific type or definition of sustainability being pursued, which further introduces variations in how outcomes are assessed, measured and explained (Vogt, 2019).
- Producers with greater resources may find it easier to engage in production that complies with standards, while poorer producers face challenges, leading to unequal participation (Oberlack et al., 2023).
- There may be limited production volumes due to constraints in pest and disease control options in organic agriculture or insufficient compensation for higher costs of certified production, which can hinder participation (Oya, Schaefer & Skalidou, 2018).
- Challenges in covering costs or investment requirements may surpass the added value of certified produce; thus, the need for a review of the potential return on investment (Oberlack et al., 2023).
- Despite the significant growth in demand, the capacity of markets to absorb certified production remains limited, and supply is outpacing demand (Willer et al., 2022).

Case studies

Eco-labelled shrimp and consumer preferences in Viet Nam

A study examined whether consumers show a preference for eco-certified shrimp over noncertified shrimp, and whether consumers exhibit a preference for specific eco-certification logos over others. The study interviewed 353 consumers in Khanh Hoa province and Ho Chi Minh City, Viet Nam. The results indicate that a majority of consumers assign greater value to eco-certified shrimp compared to conventional shrimp. While there is variation in preference for eco-certified shrimp products, the highest premium is observed for farmed shrimp labelled with the ASC (Aquaculture Stewardship Council) logo, a third-party certification. On the other hand, shrimp labelled with the VietGAP logo, which represents Vietnamese government certification, commands the lowest premium. Consumers who perceive individual actions to be crucial in promoting better aquaculture practices demonstrate a willingness to pay more for eco-certified shrimp (Xuan, 2021).

The effect of the Rainforest Alliance certification on coffee farmers in Honduras

A 2019 study compared 76 Rainforest Alliance Certified[™] coffee farms to non-certified farms in Honduras, assessing the effectiveness of certification in promoting worker welfare and supporting the livelihoods of coffee farmers.

The findings demonstrated that Rainforest Alliance Certified[™] farms outperformed non-certified farms across various indicators related to worker safety and well-being. These indicators included measures such as preventing the employment of minors, paying higher wages, providing personal protective equipment and first-aid kits, safe storage of agrochemicals, and wastewater treatment.



Regarding forest protection, both certified and non-certified farms showed equal diligence in avoiding expansion into forested areas. Moreover, the study revealed that certified farms received significantly higher prices for their coffee (2.03 US\$/kg compared to 1.80 US\$/kg for non-certified coffee). The researchers observed that this price difference enabled farmers to pay their workers considerably higher wages. Additionally, farmers earning higher prices were more inclined to adopt sustainable practices, even if they required additional financial investment. These practices included implementing worker safety measures, wastewater treatment and conserving forested land (Dietz, Grabs & Chong, 2021; Rainforest Alliance, 2020).

Trends and future directions

The consistent rise in certification over the past decade indicates a growing demand from consumers, buyers and producers to tackle shared environmental and social issues (Willer et al., 2022) and the private sector and civil society are increasingly turning to voluntary certification labels as a means to promote sustainability within agricultural supply chains (DeFries et al., 2017). As a result of the growing demand, certain certification programmes are gradually becoming obligatory in practice (Amundsen & Osmundsen, 2020).

The latest edition of the State of Sustainable Markets report (Willer et al., 2022) highlights a pattern of ongoing but decelerated growth, and in some cases, a decline in the certified land area for certain commodities and standards. While the certified area for soybean, oil palm, tea and bananas experienced growth rates of 12.0%, 6.7%, 4.9% and 1.8% respectively, coffee witnessed a decline of –5.6%, cocoa, –5.5%, sugarcane, –8.6%, and cotton, –12.0%. Although the organic certification remains the leading standard in terms of the total certified area, with a total of 74.9 million hectares becoming organic-certified in 2020, which is 1.6% of all agricultural land worldwide, other standards are demonstrating faster growth, such as those from RSPO (Roundtable on Sustainable Palm Oil), Rainforest Alliance and GLOBALG.A.P.

Willer et al. (2022) conclude that sustainability standards will last; thus, they might be a reliable option to support PCAs over the years if structured properly.

Suggested citation

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Clown fish, Bali, Indonesia. © David Meyers

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HUMAN-WILDLIFE CONFLICT INSURANCE

Karla Martinez Toral, Jessica Smith, Olivia Wilson-Holt and Paul Steele Practice guidance for protected and conserved area finance

Overview and key characteristics

Human–wildlife conflicts (HWC) have been defined as "struggles that emerge when the presence or behaviour of wildlife poses an actual or perceived, direct and recurring threat to human interests or needs, leading to disagreements between groups of people and negative impacts on people and/or wildlife" (International Union for Conservation of Nature [IUCN] SSC HWCTF, 2020, p. 1). These are a forefront concern of protected and conserved area (PCA) managers, particularly where there are communities in or adjacent to the PCA.

Human–wildlife interactions increase the risk of conflict over resources such as living space, food and water. For example, when bears kill livestock or elephants destroy crops, humans might retaliate against the species believed to be perpetuating the damage out of anger or with the intention to reduce or eliminate the threat. In addition, it can lead to the erosion of support for conservation. Continuous HWC without compensation is both unjust and reduces the viability of achieving the Kunming-Montreal Global Biodiversity Framework (GBF) Target 3 due to a lack of stakeholder support.

Human–wildlife conflicts are becoming more frequent, serious and widespread because of human population growth, agricultural expansion, infrastructure development, climate change and other drivers of habitat loss (IUCN, 2023) – and may increase further if Target 3 delivery does not take HWC management into the forefront. HWC can be liabilities for PCAs, which require investment in consultation, mitigation and reporting. Good management of HWC represents a means of possible cost-saving to the PCA rather than a new income stream.

Insurance schemes can reduce the impact of HWC once it has occurred, serving as financial mitigation for those who suffered damages. HWC financial-related mitigation efforts can be categorised into three types (Leslie et al., 2019):

- 1. Economic incentives to increase tolerance to wildlife.
- 2. Alternative livelihoods and income diversification to spread or avoid financial risk.
- 3. Payments tied to incidents.

For commercial insurers and reinsurers, there can be a financial product developed to align with the desired incentive structure. For HWC-linked damages, payments come via compensation schemes – through which individuals are reimbursed for a loss without needing their financial input – or insurance-based schemes. Both mechanisms aim to disburse payments tied to incidents and, consequently, to increase the level of community tolerance to wildlife, but the latter is one where private finance can particularly play a role in bringing new financing.

Although similar, compensation and insurance schemes differ on some key points, including the payment of premiums. Figure 1 shows the common components within compensation and insurance schemes. For both, a person will have suffered damages due to a wild animal(s) and will need to report these when they occur. The scheme in place will determine whether that scenario and type of animal causing the damage are covered. After the damage is reported, a verification will take place. Upon valuation of the damage (unless it is an index-based scheme), if the case and species are covered by the scheme, the impacted person will receive payment. Key differences between compensation schemes and insurance schemes include that the former are usually funded by governments or civil society, whereas the latter is more easily linked to private sector insurance. Further, insurance schemes work like a traditional insurance product, requiring a premium to be paid by the claimant for them to receive a payment for a pre-defined loss (IUCN, 2023; Wilson-Holt & Steele, 2019).

Figure 12.1 (Components within	compensation	and insurance	schemes
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Impacted person	This could be the victim/s, or the owner of an asset lost/ damaged	Valuation	The-pre determined or agreed monetary or replacement value of the asset to be compensated
Eligible HWC incident	Pre-determined or agreed incidents that are covered by the scheme	Scheme administration	Could be run by communities, private insurance companies, government or a combination
Covered wildlife species	Only damage/loss from designated species will be covered by the scheme	Scheme funding	The funding source could come from outside the location (e.g. from civil society), government, private sector, or via membership
Reporting	This could be in-person, phone call or SMS	Payment timing	Could be immediately after an incident, or at designated timings throughout the year
Verification agent	These might be rapid response teams, rangers, police, or insurance agents	Payment type	Could be insurance (based on membership) or compensation (based on an agreed scheme or policy)

Source: Leslie et al. (2019).

Insurance schemes are not the sole mechanisms available, and these financial mitigation schemes can be combined with other approaches (notably preventive ones) to improve outcomes (IUCN, 2022). Overall, HWC mitigation efforts include insurance schemes, monitoring, understanding the conflict, policy, prevention and response (Leslie et al., 2019, as shown in Figure 1). Besides providing financial support to individuals who suffer damages, the aim of financial mitigation of HWC is to increase tolerance levels towards wildlife. Both compensation and insurance schemes aim to offset the costs of damage in a fair and equitable manner, which in turn reduces retaliation by those affected by HWC (Morrison, Victurine & Mishra, 2009) and can garner support for PCAs

Few insurance schemes for HWC have been implemented globally, with the majority of them in developed countries (Wilson-Holt & Steele, 2019). These schemes work in a similar way to traditional insurance products, requiring the beneficiary to make regular payments of the premium in the event of a future loss, which are pre-defined under a specific set of conditions (IUCN, 2023). Microinsurance schemes, for instance, aim to insure low-income individuals against specific risks, in exchange for regular premiums that are calculated considering their livelihood and the cost of the risk involved. Premiums are usually lower than other insurance products (and are sometimes funded by government, donor agencies or other parties), but so are the amounts covered by the insurance.

Microinsurance schemes such as the one described above tend to cover specific assets and are index-based rather than indemnity-based. Index-based insurance reimburses the value of an index, as opposed to a measurable loss. Index-based microinsurance is preferred because it allows coverage for an entire region, reducing operational and administrative costs associated with cover and verification for individual plots. On the downside, an index-based approach requires having data available from previous years (e.g. on crop yield) to build up a historical picture against which claims can be verified, which can add complexity to this insurance product (IUCN, 2023).

How to plan for and implement human-wildlife conflict insurance

In 2018, IIED and partners AB Entheos, the Institute of Policy Studies, Seratu Aatai and Actuarial Partners Consulting implemented the LIFE project. Taking the lessons learnt from the LIFE project to facilitate private markets to insure small-scale farmers and pastoralists from wildlife damage in Kenya, Sri Lanka and Malaysia, the partners developed a guide on how to design and introduce an insurance scheme to promote human–wildlife coexistence, with seven clear steps outlined below (IIED et al., 2023):

Table F12.2. Steps to implement human-wildlife conflict insurance

1	Understand private insurance opportunities and challenges
2	Identify and agree on partners
3	Undertake market research and estimate actuarial risks
4	Finance insurance premiums
5	Design the insurance product and market structure
6	Pilot the insurance scheme and monitor effectiveness
7	Roll out the insurance scheme nationally

Source: IIED et al. (2023).

Required elements

Importantly for insurance schemes, IUCN's guidelines highlight that poorly informed HWC mitigation attempts can exacerbate the conflict situation (IUCN, 2023). The IUCN guidelines therefore suggest several key considerations when initiating the process of planning and developing an insurance scheme including:

- Conducting a thorough assessment of the scheme's intended goals, objectives and expected outcomes, while also identifying any potential unintended consequences and underlying assumptions.
- Involving potential claimants in the insurance scheme's development process to ensure it is fair, appropriate and receiving approval of those who may make claims.
- Understanding that insurance schemes may not directly reduce the impacts themselves, but schemes with appropriate incentives may reduce impacts by improving the management of HWC situations.
- Increasing the tolerance, ownership and stewardship of individuals living with wildlife may complement schemes to address the costs.

Insurance schemes must take into consideration that each conflict scenario is different, and so the scheme must be context specific. Beyond those mentioned above, general challenges to the success of such schemes include cost-effective insurance administration; timely and fair insurance payments (which increases social acceptability and tolerance towards wildlife); incentives for damage prevention, and financial sustainability of premium payments (Wilson-Holt & Steele, 2019).

Adding to these, the effectiveness of insurance schemes as mitigation mechanisms in HWC cases could depend on other mechanisms or structures being in place. Such 'enabling' elements include a legal mandate to insure against specific HWC, compatibility of the insurance scheme with the objectives of a given protected area, as well as governance/institutional structures (e.g. having a HWC management plan in place). HWC insurance schemes therefore should be undertaken ideally at the scale of the entire PCA agency, rather than by individual PCAs as far as possible, though piloting in individual PCAs can be fruitful.

Success factors and risks

Success factors of insurance schemes used to mitigate HWC can help determine whether these have achieved their purpose. The purpose of mitigation mechanisms is to provide a buffer (in this case a financial one) to people when damage associated with HWC occurs, and to temper people's responses and maintain tolerance to wildlife. Further, from an evaluation of success viewpoint, schemes can be evaluated against eight criteria (Leslie et al., 2019):

- 1. Quick and accurate verification of the damage.
- 2. Prompt and fair payment.
- 3. Sufficient and sustainable funds.
- 4. Site specificity (i.e. the scheme being planned to fit the local context).
- 5. Communities' clarity of the rules and guidelines.
- 6. Connecting the insurance scheme to prevention mechanisms or behaviour change.
- Stakeholder trust in the scheme (which will largely depend on the success of the points listed above and can be measured by, for example, participation rated on the scheme).
- 8. Ability to measure success of the scheme's objectives.

Case studies

Livelihoods Insurance from Elephants (LIFE): HWC microinsurance scheme

In Kenya, Sri Lanka and Malaysia, progress has been made towards facilitating private markets to insure small-scale farmers for damage caused by HWC, primarily from elephants (IIED, n.d.). Elephants in both Asia and Africa often eat or trample crops, damage property or cause human injuries or deaths. This can lead to retaliatory killings of elephants by affected communities either in defence or as revenge.

Several efforts to address human-elephant conflict have proved unsuccessful, including relocating elephants in Sri Lanka, which led to an intensification of conflict, large monetary costs, and increased elephant mortality (IUCN, 2023).

Improving data availability: Pilot "selfinsurance" scheme in Namibia

Several wild animals have caused damage in regions across Namibia. Damages included livestock depredation, crop raiding, infrastructure damage, and human death. A pilot insurance scheme was intended to cover livestock losses and damage to crops as well as human death or injury (Leslie et al., 2019; Wilson-Holt & Steele, 2019). The scheme does not apply to private land and conditions for payment include the requirement to have preventive mechanisms in

Chobe National Park, Botswana © David Meyers





place to protect livestock and crops. Challenges included data availability (which differed from region to region), as well as relevant stakeholders' perception that the government should bear most of HWC-related costs.

In the region with the most available data and monitoring and evaluation practices (the Zambezi region), communities have improved the preventive measures taken to avoid HWC incidents, as well as made efforts recording where and when incidents have occurred. Communities' engagement facilitated data collection for future improvement of HWC management, and although there are no data regarding the perception (or level of tolerance) of wildlife among the impacted communities, there has been a reduction in cases of HWC.

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Pilanesberg National Park, South Africa © David Meyers

13

SUSTAINABLE FINANCE FACTSHEET

PARAMETRIC INSURANCE

Jessica Smith, Karla Martinez Toral and Rhea Kochar Practice guidance for protected and conserved area finance

Overview and key characteristics

Insurance products are mechanisms to provide coverage for a range of nature-related assets against several risks. These products can be tailored for specific needs, for instance, insuring natural assets to support their restoration after natural disasters have occurred in the area. Parametric insurance differs from traditional indemnity insurance in that it pays out according to predefined parameters and does not require an estimate of the actual losses.

Parametric insurance can be particularly effective in insuring certain natural assets (Favier et al., 2023), and thus protected and conserved areas (PCAs). A parametric insurance mechanism can provide predictable and timely resources to use for the benefit of local communities and PCAs when these are affected by a triggering event (MAR Fund, n.d.). This is largely due to parametric insurance's coverage against a list of predefined potential events that PCAs can be at risk of, such as hurricanes, tropical cyclones or earthquakes, as well as the immediate payouts, which allow for funds to be used for prompt action and restoration.

Parametric insurance consists of (Swiss Re, 2023):

1. A triggering event

This is a predefined event that, if it occurs and meets or exceeds given parameters, will trigger the insurance in place. The parameters are measured objectively and are related to an insured's particular exposure. These could be, for instance, the magnitude of an earthquake or the precipitation in the case of flood risk. Parameters will vary based on the type of predefined events covered by the insurance product.

The key criterion for an insurable trigger is that (a) it is fortuitous and (b) it can be modelled.

2. A pay-out mechanism

If the triggering event meets or exceeds the parameters agreed upon on an insurance instrument, the pay-out will then proceed regardless of the actual physical or economic loss sustained by the event.

Parametric insurance instruments provide coverage based on the probability of a triggering event occurring, as opposed to repaying actual loss incurred after an event as other insurance products do. Since it depends on whether a given event occurs, and not a physical asset itself, parametric insurance is detached from an underlying physical asset. Thus, pay-outs are based on a predefined set of parameters – such as rainfall, wind speeds or flooding – rather than an after-the-fact assessment of damages and loss (Favier et al., 2023). This means they can provide swift access to funds (provided that there was a triggering event that met or exceeded the parameters set) to cover the costs of damage, allowing natural structures such as coral reefs, mangroves and so on to be rapidly repaired.

Many parametric solutions are employed to cover natural catastrophes of weather events, but these are not the sole 'triggering events'. Possible triggers could also be market indices, crop yield or power outages. The resulting financial compensation from the pay-outs can then be used towards a variety of activities. For PCAs, for instance, the compensation could be used to regenerate the ecosystems affected, repair the equipment used for the protected area, and provide support to local communities in case they suffer economic losses.

From a community point of view, parametric insurance instruments can increase financial resilience of local communities and help close the protection gap against catastrophic events. Funds received from the pay-outs can be used to benefit affected communities directly. For instance, a piloted instrument in the Philippines provides coverage for small-scale fishers

who suffer significant income losses when they are unable to work for a prolonged period due to adverse weather conditions (United Nations Environment Programme [UNEP] Finance Initiative, n.d.). It can be a powerful mechanism to build resilience and promote inclusivity and accessibility by providing coverage to low-income populations with limited physical assets or physical inaccessibility, inaccurate asset valuation, and historical insurance barriers, thereby bridging the insurance gap through event-based triggers (University of Pennsylvania, 2022). The combination of relative affordability, simplified, quick and unbiased claims processing, and the potential for third-party public funding make it possible for parametric insurance to extend protection to low-income populations in an efficient manner.

The swift pay-outs from parametric insurance instruments provide financial relief soon after an event, which can be used in the interest of affected ecosystems and communities. One characteristic of this type of insurance is the fast claims payment, as it is not subject to review of physical damages caused. For instance, in the case study of Belize explained below, financial compensation is provided within a few days to support the restoration and protection of the marine protected area (MPA) covered (AXA, 2023). This makes parametric insurance a great mechanism for covering hard-to-insure risks (Swiss Re, 2023).

How to plan for and implement parametric insurance

Based on their experience developing an insurance instrument for the reef and beaches of the Mexican Caribbean (see Case study: Parametric insurance in Mexico: Protecting ecosystems and coastal communities), The Nature Conservancy and its partners involved in the parametric insurance project published a guide describing the phases and steps needed to design insurance for natural assets at risk (Figure 13.1).

FEASIBILITY	DESIGN	
STEP 1. Assess if there is a need for an insurance: Confirm that the natural asset needs to be insured, given that not all valuable natural assets at risk need to be.	STEP 3. Design of the insurance scheme: Define the characteristics of the insurance based on scientific information and assessment of the risk.	STEP 5. Make the transaction: Launch the bidding process, decide on the vendor and sign the contract.
STEP 2. Identify potential buyers: Assess if there is a potential buyer and policy holder for the insurance.	STEP 4. Develop the institutional arrangement: Design and establish the institutional arrangements to purchase an insurance and invest the funds in case of a payout.	STEP 6. Build the capacities to repair the damages: It is essential to have local capacities to invest the insurance payout.

The implementation stage of these instruments can pose diverse challenges. For instance, setting up a parametric insurance programme requires a comprehensive understanding of the local risk landscape and specialised local knowledge. A key challenge to increasing parametric insurance products is that there may be places with insufficient data and modelling capabilities for insurers to quantify risk and structure products – for example, identifying relevant and quantifiable parameters linked to direct loss for parametric products (UNEP FI, 2023). Cases where enough data can be relied upon facilitate the development of parametric insurance, as noted in the example of Belize's insurance for its marine protected area (see Case study: Parametric insurance in Belize: Marine Protected Areas).

Figure 13.1 Process to assess, design and buy insurance. Source: Secaira Fajardo et al. (2019).

Required elements

- Identification of entity or group willing to pay premium.
- Quantified public data available.
- Data analytics to estimate the likelihood of parameters being met.
- An insurance company willing to offer the parametric insurance product.

Success factors and risks

Despite the great potential for parametric insurance products, it is key to consider that payouts may not always be sufficient to cover all losses and damages suffered from a triggering event. Since payments are not made based on the actual physical loss, pay-outs, in some cases, might be less than what is needed for ecosystem restoration and support of affected communities. This emphasises the need for trigger design to be well aligned with the underlying risk exposure (Insurance Journal, 2021). Programmes are also often designed based on specific local risks and contexts, with issues related to risk correlation hindering transferability and ease of replicability.

Following this consideration, four key factors are recommended for the successful design of parametric insurance products (Clyde & Co, 2018):

- 1. Mitigating basis risk through accurate modelling, product design, and careful consideration of alternative scenarios.
- 2. Ensuring accurate and reliable local data to align triggers and calculations with the actual loss experience to build trust in these innovative products and expand insurance coverage is essential.
- 3. Hybrid models that combine parametric and indemnity elements can foster regulatory trust, especially where local laws require eventual loss quantification.
- 4. Comprehensive communication and understanding between all stakeholders including buyers, regulators and insurers is key for parametric products to deliver the promise of global resilience. Localised risk consideration and consultation with local experts for data modelling, as well as partnerships with governments, (re)insurers and local communities are encouraged to combat some of these challenges in implementation and scalability.

Case studies

Parametric insurance in Mexico: Protecting ecosystems and coastal communities

In Mexico, a partnership between The Nature Conservancy, the government of Quintana Roo, the National Commission of Protected Areas and Swiss Re, resulted in the development of a parametric insurance product to protect a coral reef. Coastal tourism businesses, property owners and local municipalities have purchased this parametric catastrophe insurance that protects 160 kilometres of coral reef against storm damage (CISL, 2022; Green Finance Institute, n.d.; Secaira Fajardo et al., 2019; Swiss Re, 2020). This insurance provides positive outcomes for securing global nature, with multiple co-benefits for people (UNDP, SCBD & UNEP - World Conservation Monitoring Centre [UNEP-WCMC], 2021; UNEP FI, 2023).

Under this instrument, insurance pay-outs are released to fund reef recovery and restoration activities conducted by specialist reef brigades in case of storms with wind speeds exceeding specific parameters. These activities minimise storm damage to coastal communities and develop and enhance reef recovery whilst being cost-effective. Estimated costs of these repairs (between US\$ 50,000 and US\$ 150,000) are considerably lower than artificial measures, such as building a seawall, which could also protect the shoreline against waves but would cost about US\$ 1 million per half mile.

Key players from the insurance industry deem parametric insurance products for conservation and climate adaptation a success and have expressed that the parametric insurance in Mexico, which paid out for the first time in 2022, is an example of how (re)insurers can both support nature-positive outcomes and capture opportunities coverage (UNEP FI, 2023).

Parametric insurance in Belize: Marine Protected Areas (MPAs)

Bridging the marine conservation financing gap and promoting financially self-sustainable MPAs is key to achieve the 30x30 biodiversity goal of the Kunming-Montreal Global Biodiversity Framework (GBF), stipulating the conservation of 30% of terrestrial and marine habitat by 2030, as well as to support communities that depend on marine resources. In Belize, cyclonic risks can threaten the financial stability and sustainability of the MPAs, which in turn can set back restoration and protection efforts by years.

To counter this risk, Blue Alliance, Howden and AXA Climate have collaborated to create a parametric insurance for the Marine Reserve of the Turneffe Atoll, which has 132,000 hectares of coral reefs rich in biodiversity (AXA, 2023). For this product, the parameters would be based on meteorological information provided by government agencies. When a triggering event occurs and the parameters are met, the model triggers an insurance within a few days of a cyclone passing within a 50-kilometre radius. The compensation would then be used in efforts to regenerate weakened marine environments, repair the MPA's equipment, and reimburse operating losses (e.g. to artisanal aquaculture).

Designing this insurance instrument required conducting a risk analysis on the loss history of the MPA and satellite data from suppliers. Nicolas Pascal, CEO of Blue Alliance, highlights that for innovative instruments such as this one, high quality project design, reducing risk during execution and maintaining a sustainable conservation strategy that remains rooted in science and communities is needed to succeed.

Trends and future directions

Parametric insurance is gaining traction in complex scenarios to assess risks, such as protecting marine industries and ecosystems. Given the lack of the requirement for assessment of loss or damage that is usually employed in other insurance instruments, fast payment of claims enables early intervention to restore ecosystems which can also help reduce overall losses (Instech, 2023). Examples of places already leveraging parametric insurance for marine environments include the Philippines, Belize, Hawaii and several areas of the Mesoamerican Reef in the Caribbean Sea. However, it remains to be seen whether pay-out mechanisms can be triggered by latent issues such as ocean acidification or increasing marine temperatures.

Beyond the marine space, product innovation and data analytics have played a part in expanding the scope of commercial insurance solutions to offer coverage for a wider range of threats, exposures and perils in recent years (Swiss Re, 2023).

Suggested citation

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Aqaba Marine Reserve Jordan © David Meyers



SUSTAINABLE FINANCE FACTSHEET

CLIMATE FINANCE FOR NATURE

Mitali Sharma

Practice guidance for protected and conserved area finance

Overview and key characteristics

Climate finance for nature encompasses a variety of financial instruments that facilitate naturepositive climate change mitigation and adaptation measures (adapted from TNC, 2021). Private climate finance includes impact investments, environmental bonds and carbon offsets and credits (see Factsheets) that can be bought and sold by investors in carbon markets (TNC, 2021). Interest in voluntary carbon markets has been waxing and waning and compliance markets where they exist tend to be orders of magnitude larger. Various efforts are being made to increase integrity of the voluntary carbon markets through various initiatives such as the Voluntary Carbon Markets Integrity Initiative (VCMI, n.d.). While international carbon trading markets have existed since the 1997 Kyoto Protocols, the emergence of new regional markets has led to a significant increase in investments (CarbonCredits.com, 2023). The State of the voluntary carbon markets report (Forest Trends, 2024) is produced annually and provides quantitative analysis of past and emerging trends and more information can be found on the Ecosystem Marketplace's <u>Global Carbon Markets Hub</u> (Forest Trends & Ecosystem Marketplace, n.d.)

Currently, businesses have the option to voluntarily adopt a climate commitment or be compelled to address climate related risks through government policies, such as 'cap-and-trade' schemes, compliance carbon markets, or carbon taxes (TNC, 2021). In the carbon marketplace, there are two distinct and important markets available for the sale of carbon credits: regulated markets that operate based on mandated regulations established at regional and state levels, and voluntary markets, in which businesses and individuals choose to purchase credits voluntarily to offset their carbon emissions (CarbonCredits.com, 2023). The main driving force behind the voluntary market is the demand from companies seeking to improve their reputation (World Bank, 2023).

Carbon offsetting is the tangible action that leads to the creation of a voluntary carbon credit. It entails implementing a project, such as a reforestation programme, that effectively removes greenhouse gases (GHGs) from the atmosphere or avoids their emission. The resulting carbon credit indicates a quantity of carbon dioxide or other greenhouse gases has been eliminated from the atmosphere (removal) or not emitted (avoidance) through a specific carbon offset project. Each carbon credit represents a one metric tonne of carbon dioxide equivalent (CO2e) (Courtnell, 2023).

The trade of carbon offset credits has become a recognised financial tool for supporting terrestrial protected and conserved areas (PCAs) (Phua et al., 2021), and it is now extending its application to marine PCAs. As a means to increase their revenue, PCAs have been generating credits by quantifying the tonnes of carbon their projects have captured and stored, subsequently selling these credits to global buyers who are seeking to offset their carbon emissions (Davis, 2020). However, many PCAs might not qualify for such funding as they are legally managed for biodiversity conservation and, hence, do not meet the 'additionality' requirements of most carbon crediting standards (Lamba et al., 2023). Additionality reflects a measurable change over what would have happened under a business as usual scenario – showing that the carbon project resulted in a change associated with the number of CO2e tonnes associated with the credits (Thamo & Pannell, 2016). Other effective area-based conservation measures (OECMs) are more likely to meet this requirement than traditional legal protected areas (Moraes, 2019).

How to plan for and implement climate finance for nature

There are many resources available to support PCA managers in the planning and implementation of climate finance projects. The most relevant are those projects that focus on avoiding forest loss called Reducing Emissions from Deforestation and Forest Degradation (REDD+), forest restoration, and blue carbon. Some resources are provided here and below.

- The UN Food and Agriculture Organization provides online information and references on REDD+ (FAO, n.d.).
- The UN Framework Convention on Climate Change (UNFCCC) includes online information on REDD+ (UNFCCC, n.d.).
- The Verra Verified Carbon Standard is the most common standard for voluntary carbon (Verra, n.d.).
- The Blue Carbon Initiative provides resources for blue carbon efforts (The Blue Carbon Initiative, n.d.).

Required elements

- Any corporate carbon offset strategy should be associated with detailed internal scoping and targeted reductions in GHG emissions.
- Most carbon offset standards require demonstration of additionality. For PCAs this is often done in the form of financial additionality demonstrating that legal protection would not have provided the carbon impacts without the additional funding from the credit programme.
- Forest carbon and blue carbon projects should demonstrate a strong measure of permanence of the impacts.
- Any adverse impacts on local communities and ecosystems should be prevented (Courtnell, 2023) and free, prior and informed consent (FPIC) should be guaranteed.
- The projects should be capable of completely storing carbon for a given time period, which is typically 20–100 years (Thamo & Pannell, 2016).

Success factors and risks

Key success factors include

- Establishing robust strategies to ensure the long-term viability and sustainability of offsetting projects.
- Project management efficiency, transparency with local stakeholders, and comprehensive documentation of project components.
- Implementing safeguards and management measures to protect the site and accounting for external factors that may reduce the offset potential, such as tree mortality, fires or deforestation.
- Emphasising the importance of ethical considerations in carbon offset projects and evaluating projects based on social and environmental criteria, including the protection of Indigenous rights, community engagement, and adherence to ethical standards throughout the project's lifecycle (Courtnell, 2023).
- Establishing clear baselines and reliable monitoring and verification mechanisms to showcase the impact of the offsetting activity and improve credibility.

Key risks and challenges for climate finance for nature

- Critics argue that offsetting is a form of greenwashing and offers a convenient way for businesses with environmentally harmful operations to receive praise while avoiding fundamental strategic, structural and behavioural changes necessary to reduce their climate footprint (Courtnell, 2023).
- Investors and prospective buyers are growing more concerned due to prominent media reports that have surfaced that have shed light on potential overstatements regarding the effectiveness of offsets. As a result, investor confidence has been affected, leading to a decrease in trading activities and prices (Eco-Business, 2023).

• There is a track record of poorly designed and implemented projects that lead to damage to nature by planting invasive species, displacing Indigenous peoples and local communities, and low planting success rates (Courtnell, 2023). As well, older forests have significantly more value for carbon storage than newly planted ones due to their complex and large structures (Maxwell et al., 2019) but most carbon standards favour restoration over conservation.

Case studies

Climate Asset Management

In 2020, HSBC Asset Management and the company Pollination partnered to establish <u>'Climate Asset Management'</u> to offer investment solutions that benefit the environment and people – aiming to measurably enhance ecological resilience while generating profitable returns for investors.

As of April 2023, Climate Asset Management has been entrusted to manage an innovative investment fund for Apple – the Apple Restore Fund – by allocating an additional US\$ 200 million towards natural capital projects. This will support a diverse portfolio of nature-based carbon removal projects, scaling up efforts to remove one million metric tonnes of carbon dioxide from the atmosphere annually at its peak.

The new fund, managed by Climate Asset Management, will combine two types of investments:

- The Natural Capital component of the portfolio will involve investments in nature-oriented agricultural projects that derive income from sustainable farming practices. As part of its commitment, Apple will invest in Climate Asset Management's existing Natural Capital Fund, which strives to deliver long-term financial returns alongside improved environmental outcomes through regenerative landscape management in agriculture, forestry and environmental assets.
- The remaining portion of the portfolio, known as Nature-Based Carbon, will be allocated to Nature-based Solutions projects that conserve and restore crucial ecosystems, effectively removing and storing carbon from the atmosphere. The primary focus will be on generating independently verified and certified carbon credits through these initiatives (Climate Asset Management, 2023).

Kasigau Corridor: a REDD+ project

The Kasigau Corridor REDD+ Project, situated in Kenya, is a significant undertaking of Wildlife Works, a company that uses market-based solutions for wildlife conservation. Wildlife Works initiated the Wildlife Works Kasigau Corridor REDD+ project, which obtained validation and verification under the Verified Carbon Standard (VCS) and the Climate, Community and Biodiversity Standards (CCB) in 2011. This project safeguards over 500,000 acres of forest and was the first REDD+ initiative worldwide to receive carbon credit issuance. Over a span of 30 years, it will prevent more than 1.5 million tonnes of CO2-equivalent emissions annually. The revenue generated from the sale of these credits enabled Wildlife Works to expand its operations and employ over 300 local individuals while benefiting more than 116,000 community members through diverse social, educational, health and economic programmes (International Union for Conservation of Nature [IUCN] ESARO, 2020).

Torres del Paine National Park, Patagonia, Chile © David Meyers





Trends and future directions

- Climate finance nearly doubled between 2011 and 2020 globally, with a total commitment of US\$ 4.8 trillion in that timespan, equating to an average of US\$ 480 billion annually. However, this still falls short of the minimum amount of US\$ 4.3 trillion needed in annual financial flows by 2030 to avert the most severe effects of climate change (Climate Policy Initiative, 2022).
- In recent years, the voluntary carbon market has experienced significant expansion, fuelled partially by the increasing number of companies worldwide making net-zero commitments. In 2022, both the issuance and retirement of carbon credits experienced a slight decline compared to 2021, but they still remain significantly higher than the levels observed in previous years (World Bank, 2023).
- The voluntary carbon market needs to grow fifteen times its current size by 2030 to support a 1.5°C pathway, which would enable the funding of up to one gigaton of additional emissions reductions annually by 2030 (Taskforce on Scaling Voluntary Carbon Markets, 2021).
- Private sector investment is on the rise, but not at the scale and pace required; the growth rate of private climate finance (4.8%) lags behind that of the public sector (9.1%) and needs to rapidly accelerate on a substantial scale (Climate Policy Initiative, 2022).

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Flooded forest, Rio Negro, Amazonas, Brazil © David Mevers

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SUSTAINABLE FINANCE FACTSHEET

LOANS AND OTHER TRADITIONAL DEBT

Mitali Sharma

Practice guidance for protected and conserved area finance

Overview and key characteristics

Loans and other traditional debt are well-established and mature financing mechanisms worldwide. Debt, at its core, involves an agreement between a borrower and a lender. The borrower receives a sum of money from the lender, with the understanding that it will be repaid in full, most often with interest. The repayment can occur either gradually over time, such as through regular instalments, or at a later specified date. Interest is accumulated on the debt, and the repayment typically consists of both the borrowed amount and the interest. The interest rate can either remain fixed throughout the loan term or vary based on factors like the interbank rate (European Investment Bank, 2018) or social and environmental impact. Debt can serve different purposes, such as financing long-term investments like land and machinery or funding day-to-day operations.

Debt instruments include leasing, bank loans, notes, and trade finance (Meyers et al., 2020). Leasing allows individuals or companies to acquire assets by paying a regular fee instead of purchasing them outright. Bank loans, typically secured with collateral, are direct debt provided by a bank to individuals or companies and are more suitable for long-term investments (European Investment Bank, 2018; Meyers et al., 2020). For shorter-term needs, overdraft facilities (which provide flexibility and are utilised only as needed) or other forms of short-term debt financing are more commonly used (European Investment Bank, 2018). Notes encompass various formal debt instruments where the borrower commits to repay the lender, typically with interest, as documented in a contract (the 'Note'). Some notes can be traded, while others have restrictions. Bonds are a type of debt note and are increasingly being used as finance mechanisms for nature and climate. Trade finance comprises a range of mechanisms designed to facilitate international trade by enhancing financial liquidity and managing risks. Bank-intermediated trade finance serves two important roles: providing working capital for international trade transactions and reducing payment risk (Bank for International Settlements, 2014). Other types of debt, such as venture debt loans, are also an option, which are used for fast growth (CBInsights, 2020).

Financial institutions in the private sector, including banks and lending agencies, offer loans to individuals and organisations with satisfactory credit ratings. These loans are generally provided at market rates, ranging from short-term overdrafts with higher interest rates to long-term mortgages or other asset backed securities with lower interest rates. Loans are primarily focused on generating interest income for the lender rather than being directly tied to the goods or services offered by the protected and conserved area (PCA). Nonetheless, these loans can support PCAs' investments in training, infrastructure, or other activities that yield long-term returns. This type of funding is available for parastatal and privately managed protected areas (Athanas et al., 2001). Debt instruments can finance national and sub-national governments which can in turn, finance PCAs with the proceeds.

Entities supported by the public sector, such as the International Finance Corporation (IFC) or regional and national development banks, offer loans with interest rates below the market average – concessional debt. The IFC was established to support private sector companies interested in investing in developing countries, but discouraged by the high interest rates prevailing in those nations. It can serve as a valuable financial resource for privately managed PCAs or concessions in developing countries or finance the transition towards sustainability in various sectors – thus decreasing cost drivers for PCAs. IFC or other concessional debt funding can be utilised to complement Global Environment Facility (GEF) grants or other forms of multilateral and bilateral donations as part of blended finance solutions. It is important to note that the funds provided by the IFC or similar public sector lending organisations are in the form of loans, not grants, and still need to be repaid with interest.
There are several reasons why debt financing could be a good option for PCAs (European Investment Bank, 2018):

- Customisable terms to meet specific project requirements
- Straightforward repayments enable easy cash flow planning
- Full ownership and control can be retained compared to equity financing
- Interest payments may be eligible for tax relief
- The most appropriate choice and the cost of financing depend on factors like the purpose and amount of capital being borrowed, as well as the borrower's credit profile.

These debt instruments can be applied to a wide range of PCAs as long as they meet the lenders' requirements, which are described in the next section.

How to plan for and implement loans and other traditional debt

Every type of debt instrument has its own specific steps for implementation and some instruments such as bonds require specialised expertise to structure and issue.

- All debt instruments require some form of revenue or tax collection to repay the lender. Identification of the source of revenue is essential. Government bonds can be repaid through general taxation and as such do not need a linked revenue stream as other debt instruments may require.
- A financial model that reflects cash flows throughout the lifetime of the debt instrument is an excellent first step towards choosing a debt instrument over other options.
- All banks (commercial, public and multilateral) have defined rules and regulations regarding their loan instruments that should be reviewed in detail to determine the appropriateness of engaging with that financial institution.
- For small-scale lending including microfinance various options should be considered including working with non-profit microfinance organisations as well as village savings and loans approaches.
- Seek expert and other professional guidance for the use of any instrument that requires repayment to assure that the terms are compatible with the borrower's capabilities, principles and interests.

Required elements

- To obtain the loan, financial institutions seek evidence that the borrower will be likely to repay the loan within the agreed timeframe; evidence includes having an adequate credit rating (Athanas et al., 2001) and good cash flow.
- The down-payment must be paid for, where applicable (Johnson, 2023).
- Collateral, such as property or equipment, or guarantees from third parties must be provided in cases where the loan is secure, which are typically necessary for larger loan amounts (European Investment Bank, 2018).
- There should be evidence that the loan will be used for the intended purpose stated in the agreement, or the loan will be recalled for the diversion of funds.
- The funds obtained through the loan must be allocated to projects or activities that are capable of generating returns within a timeframe that aligns with the loan's duration (Athanas et al., 2001).
- The loan must be fully repaid, along with the interest, within the given timeframe or the borrower may experience decreased credit ratings, inability to continue borrowing or legal action.

Success factors and risks

Key success factors include

- The borrower having a good track record, expertise and capabilities (South Pole & WWF, 2022).
- A clear and comprehensive plan for how the loan will be used, including financial projections, and an organised loan application (Johnson, 2023).

Key risks and challenges for loans and other traditional debt

- Lender evaluation of credit profile affects loan approval and amount.
- Long-term loans can be less flexible than overdrafts or short-term loans, with charges for unused funds and early repayment penalties.
- Rigid repayment schedules may pose challenges for individuals or organisations with seasonal or unpredictable cash flow.
- Adequate cash flow is essential to ensure regular payments of principal and interest to avoid defaulting payments.
- Operational restrictions may be imposed, such as limitations on the amount of additional debt permitted or on total new investments (European Investment Bank, 2018).

Case study

Community Forest Concessions in the Maya Biosphere Reserve

The Maya Biosphere Reserve, spanning 2.1 million hectares, is the largest protected area in Central America. In 2005, it consisted of 17 community-forest concessions, covering approximately 520,342 hectares (USAID, 2006). The Guatemalan National Council for Protected Areas (CONAP) grants and manages these forest concessions. Enterprises holding concessions are authorised to extract and sell timber and non-timber forest products based on CONAP-approved annual management plans. All concessions must be certified by the Forest Stewardship Council.

The financing for these concessions primarily comes from commercial banks, which provide individual loans ranging from around US\$ 13,000 to larger packaged loans of up to US\$ 1.4 million across multiple concessions. The US Agency for International Development (USAID) has also provided subsidies to support the programme (Junkin, 2007). At times, US subsidies amounting to approximately US\$ 8 million, which accounted for half of the concessions' logging revenues, were provided. In 2005, the concessions paid workers around US\$ 10 per day, which was about twice the average wage of agricultural workers in the region. The concessions generated approximately US\$ 4 million in revenue (Davis, 2005; WWF, 2009).

Trends and future directions

Innovative approaches in sustainable debt financing have been gaining popularity in recent years. This includes the recent development of sustainability linked loans and bonds including green loans and green and blue bonds (Chase, 2021; Thompson, 2022). There is enormous interest in return-based finance mechanisms that also have a positive impact on nature and seek an environmental, social and governance (ESG) investment strategy (Acuity Knowledge Partners, 2021). The use of debt conversion for nature is also rapidly expanding due to favourable current conditions. Sustainability linked loans and bonds can include both instruments that link the use of proceeds to specific sustainable development actions or instruments where the interest rate paid on the loan or bond is reduced if specific sustainability targets are achieved. The use of this type of mechanism is increasing.



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Katydid, Rio Napo, Ecuador © David Meyers

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NON-FUNGIBLE TOKENS (NFTS) AND THE METAVERSE

Marianne Haahr

Practice guidance for protected and conserved area finance

Overview and key characteristics

Introduction

A non-fungible token (hereafter NFTs) arrived in the digital world in 2014 to solve the problem of digital property rights and has emerged as a key feature of Web3 (Creighton, 2022). To put this into context, Web1 was the first version of the Internet as a read-only Internet, which was a digital version of print media used by companies to broadcast content to people. Thereafter came Web2, which is the current dominant Internet, as a 'write and read' Internet, that enables users to write and publish their own content online. Web2 thereby initiated the social era of the Internet, where users interact with one another on large social media platforms via user generated content and associated data is monetised by the platforms as the main business model. Now Web3 is emerging, where users cannot only develop digital content online but also claim ownership of their content on some platforms by tokenising it via NFTs. That also means individuals and organisations can start to build businesses inside large digital platforms, such as for instance in Minecraft, content which they can own and generate revenue from. This includes conservation organisations which can take wildlife and conservation engagement into the digital world of the Metaverse by for instance using data from protected areas to design digital avatars of wildlife to sell as NFTs in Web3 games or universes.

An NFT is a digitally created token. They are digital assets that represent objects such as artworks, music, collectibles, and in-game items and they allow for new ways to consolidate, manage, code, transfer, and store digital materials (Rabaa'i, Zhu & Jayaraman et al., 2022). NFTs, while traded through cryptocurrencies, have some very different characteristics to cryptocurrencies. Cryptocurrencies are primarily currencies, whereas NFTs are intended as pure assets (Dowling, 2022). An NFT is non fungible, which means it is unique, whereas cryptocurrencies, and money in general, are fungible or interchangeable, as one bitcoin is the same as another bitcoin, it does not matter which one you own.

The adoption of NFTs has different maturity levels across industries, with sports, ticketing, luxury, gaming, consumer product goods/retail, and art leading the way in terms of the adoption and development of use cases (WEF, 2023). When it comes to NFTs to innovate financing of protected and conserved areas, the world is at the beginning of the innovation curve, as it is only in the last few years NFT use cases for conservation finance have entered the market. The world's first NFT for conservation was launched in 2021 to finance the protection of 59 endangered magpies indigenous to the Seychelles islands. The magpies were tokenised by creating a digital version (a digital twin) of each magpie in NFT format as collectibles placed on the market to be bought and sold. Since then, more NFT use cases have emerged to channel finance into conservation. However, most of these are defined by a relatively low degree of innovation, mainly replicating existing methods of fundraising just using an NFT instead of a physical item or a card as proof of a symbolic animal adoption.

However, a few more innovative NFT use cases are starting to emerge, such as designing "eco derivatives" by using data about nature to create avatars of animals from protected areas for in-game selling. Including NFTs with utility, such as the Natural Parks NFTs, where the NFT ownership grants access to new types of communities, relations, and experiences. Protected areas are well-positioned to innovate utility of NFTs by offing owners of NFT access to exclusive experiences inside parks, including experiences such Pokémon Go experiences to search for NFTs inside parks, access to outdoor events with other NFT holders also interested in outdoor life and access to online community events.

Function and economic model

NFTs initially sell or release on the website of the issuer or on an exchange as the primary marketplace, where customers can purchase and mint NFTs for a first-time ownership. Minting an NFT means creating a unique token on the blockchain, it is only after minting that an NFT is stored on the blockchain. If an NFT owner no longer wishes to own the NFT, a secondary marketplace can be used to sell an NFT, which has already been minted and pre-owned. There are a number of NFT secondary marketplaces, including Rarible, LooksRare and OpenSea, with OpenSea being the largest secondary NFT trading platform, which aggregates NFTs from multiple blockchains like Ethereum, Solana, and Polygon. The economic model is that the organisation receives the revenue from the NFTs sold and there can be royalty fees for NFTs traded on secondary market platforms, as a long-term value stream for an organisation. However, for conservation organisations that often do not have a technology development team in-house, the NFT design, development, listing and marketing costs will need to be accounted for. Organisations without in-house development and digital design teams will need to find partners and this does mean on average that 55% of funds raised goes to marketing and digital artwork/avatar development, 15% to developers and 30% is left to the conservation organisation (Dellecher, 2022).

Experience with this tool

The global NFT market size was valued at US\$ 20.44 billion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 34.2% from 2023 to 2030 (Grand View Research, 2022). The market experienced a hype in 2021 with large brands, including Coca-Cola and Nike entering the market. However, the environment quickly changed in a matter of months, with Ethereum NFTs transaction volumes plummeting (World Economic Forum [WEF], 2023). It was the end of the hype cycle driven by several factors including the collapse of several cryptocurrency platforms such as FTX, but despite this market downturn from mid-2022 the issuance of NFT use cases to innovate financing for conservation has continued.

How to plan for and implement an NFT

There are several steps in issuing NFTs, which increase its complexity as part of a fundraising strategy, but it is a way for organisations to prepare for the future of fundraising. Step one is to decide on a development platform like Ethereum, Algorand or Cardano. Step two entails creating an NFT by developing the digital twin representing the token's content, e.g. the digital representation of wildlife, in PNG format. Step three is to design the smart contract containing crucial information like ownership right and transaction data. Step four is to deploy the smart contract onto the chosen development platform. Step five is to run experiments to make sure any errors or bugs are addressed before launching the NFTs on an exchange. Step six is to list and sell the NFTs (Juegoadmi, 2022).

Costs vary greatly depending on inhouse development versus use of outsourced services. For conservation organisations the utility functions, such as community management and data collection to create the digital wildlife avatars, can be managed in-house; however, the technology elements will often need a degree of outsourcing, such as for smart contract design, which comes with costs (Boyle, 2022). The potential revenue depends on the utility of the NFT, the scarcity of the collectibles, the marketing efforts and whether it is an in-game avatar or collection to be marketed independently. Revenue can range from a few thousand dollars to millions.

An NFT fundraising model is more complex than a traditional model because it requires development of technical functions. Therefore, a conservation organisation can start by understanding the current use landscape and run a few tests before launching a full NFT project. NFT could be built into a financing strategy based on a stack of value streams, with NFTs as one element.

The NFT financing model should be designed around key objectives of the protected area, whether it is to increase tourism and thereby link NFT ownership to utility such as park experiences and online chat forums with other NFT owners. Or whether the objective is to increase funding and awareness raising of iconic wildlife in new target groups, such as youth, then a strategy can be to build NFT as wildlife avatars into a game in the Metaverse or to work with a celebrity ambassador, like an artist, to issue NFT digital art or music with funds generated donated to the protected area.

The organisation will need to ensure buy-in and regulatory approval to open a crypto-wallet on its webpage. The developer teams need to work closely with the organisation, the marketing teams need to commit to a social media platform marketing strategy, the conservation team needs to deliver data from nature to design the NFTs and to ensure that data is updated, and that utility is delivered to NFT owners. A social media campaign needs to be developed across multiple platforms to ensure engagement of digital native audiences. A third party is needed to facilitate secondary market trading.

Required elements

Some key elements are the following:

- Legal mandate: Unless there is a formal grant of rights, NFT owners do not get rights associated with the underlying piece of nature the NFT digital twin is based upon. That means, unless rights to the intellectual property is specifically transferred to the NFT owner as part of the buying process, the owner cannot monetise it by for instance copying the digital nature representation on merchandise or in digital universes.
- **Tenure Rights:** An NFT can be a digital replica of a piece of nature and the ownership of that NFT is ownership to the unique digital replica and other associated rights such as utility. Communication about the digital ownership not granting real-world real-world asset ownership rights is a key part of the communication with the NFT community.
- **Social acceptability:** For a conservation organisation it is key to be able to demonstrate a low carbon footprint solution for NFTs to be socially acceptable and aligned with the mission of the organisation.
- **Compatibility with objectives of protected area:** Can help to bring knowledge about the importance of wildlife and nature into the digital Web3 worlds and to younger audiences. NFTs can also help to build communities of new types of visitors to the areas and thereby increase revenue streams.
- Basic governance/institutional structures: The main governance mechanism of NFTs is smart contracts. These are rules put into code, which essentially works as "if this happens, then do that", such as for instance if an NFT is sold in in the secondary market a specified percentage of the selling price needs to be sent to the wallet of the conservation organisation. The smart contract also includes other governance rules such as around intellectual property, utility, and the like.
- Strong market dynamics: The NFT market dynamics are changing away from being perceived as a market for speculation as it was in its early days towards a market, which offers digital property rights, utility, and new forms of collaborative communities. This will attract new types of innovators and broaden out the engagement and NFT ownership away from mainly the crypto speculators.

Success factors and risks

- **Institutional:** The organisation needs to adjust to be able to develop new types of partnerships and new ways of building communities with NFT holders. It is not only about sharing information about the protected area, but about shifting to becoming a platform for community building.
- **Financial / Economic:** An NFT strategy needs to be perceived as part of a fundraising strategy and a way to prepare for the future. It is seldom an immediate silver bullet, and it is associated with up-front investment costs.
- **Political:** For NFT fundraising organisations will need to ensure that they can hold crypto assets and be clear on the taxation of these in different jurisdictions.
- Stakeholders: Success is strongly tied to building an engaged and loyal community. Successful NFT projects have shown that promoting a strong, engaged community around the artist and the project both pre- and post-launch is key. Projects that have used traditional spaces like social media or influencers to create a community have outperformed isolated projects (WEF, 2023).
- **Revenue model:** An organisation will need to test out different revenue model designs, whether to issue NFT collections to target a mass market with low NFT prices or whether to go for high-end crypto wealth with fewer exclusive NFTs. The second strategy will lower the option to generate revenue over longer terms via secondary market revenue streams but will generate a potential larger revenue from primary sales. In short, the organisation will need to take an experimental approach to test out the best fit revenue generating model to the needs of conservation.

NFTs have a negative reputation when it comes to climate change, as running the consensus protocols is highly energy inefficient. However, the large blockchains for NFTs, e.g. Ethereum, recently changed from Proof of Work consensus mechanisms to Proof of Stake protocols. An organisation can undertake due diligence to ensure that the blockchain used leverages solar power or other green energy sources to enable mining.

Case studies

National Parks NFTs

An NFT collection, where the artwork collection includes designs from each of the 63 official US national parks, with a higher supply of NFTs with content from the most popular parks. Each NFT is unique and gives access to utility including discounts on outdoor gear, webinars for NFT holders, meta-park experiences, discounts on travel and park experiences and more (NationalParksNFT.io, n.d).



300 Gorillas NFT

The African Conservation Foundation (ACF) have launched an NFT project aimed at raising US\$ 1.2 million to protect the rarest great ape on the planet, the Cross River gorilla. The ACF is working to address this crisis by creating protected areas and corridors and training rangers in monitoring and conservation techniques. The NFTs are divided into three collections of okapi, gorillas, and dogs. NFT ownership is connected to utility via community activities and discounts on experiences and a few win a big prize of visiting the area (African Conservation Foundation, n.d.).



300Gorillas is building the first platform that will save critically endangered species with the help of NFTs. This is achieved by gathering unique artwork, minting them on the blockchain, and leveraging the power of community.

Trends and future directions

The NFT market is going to re-develop into a more value driven market after the crash driven by speculation in its early phases of existence and development. Future focus of the market will be on real utility and new approaches to drive capital into purposeful projects such as for conservation outcomes. Current market infrastructure development will need to further focus on developing carbon neutral technologies to enable the NFT investment community to allocate capital within the limits of net-zero strategies.

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- Andrew Rhodes: Andrew Rhodes has over 20 years working for the conservation and sustainable use of Mexico's natural wealth. He has a deep knowledge of Mexico's socio-environmental challenges, environmental public policy and solid technical and administrative experience. Currently, he serves as Head of Mexico Public Affairs and Policy for Innovaciones Alumbra, and Deputy Chair of the World Commission on Protected Areas of the International Union for Conservation of Nature (IUCN).
- Anthony Waldron: Dr Anthony Waldron is the Director of Working Ant Consultancy Cambridge Ltd (WACC), a specialist consultancy focused on the economic costs and benefits of international biodiversity conservation. WACC and Dr Waldron led the work on the costs and benefits of the 30x30 target going into COP15 of the CBD. Dr Waldron also tracks financial commitments and financing needs for conservation across multiple sectors, including Indigenous financing commitments. Dr Waldron has been a visiting scholar at Cambridge University and a biodiversity researcher at Oxford University, National University of Singapore, Universidade Estadual de Santa Cruz, University of Georgia, University of Illinois and University of British Columbia and was Director of Conservation for Fundación Maquipucuna in Ecuador.
- Augustin Berghöfer: Augustin Berghöfer is a researcher and advisor at science-policy interfaces, based at the Helmholtz Centre for Environmental Research, Leipzig, Germany. With a background in economics and political science, Augustin has worked on biodiversity politics and conservation governance in Europe, Latin America and Central Africa. He co-authored the TEEB (The Economics of Ecosystems and Biodiversity) Report for Local and Regional Policy Makers for UNEP and related scientific syntheses, such as the Naturkapital Deutschland, or the Study on Africa's Protected Natural Assets . He also worked as scientific coordinator in international environmental cooperation, for example setting up an inventory of ecosystem service assessment methods (www.aboutvalues.net). His current research interests focus on better aligning the rationales for biodiversity conservation and the rewetting of drained peatlands, with sustainable land use in cultural landscapes in Germany.

- **Camila Monteiro:** Camila has 20 years of experience in conservation finance. She is the Conservation Trust Fund (CTF) Director at TNC Global Protect team, working with the CTFs involved in debt conversions and project finance for permanence initiatives. Camila led the design of blended finance programme proposals for different CTFs and NGOs and has developed Environmental and Social Management Systems for CTFs. Camila is a Board member of BioGuinea Foundation and SevCCAT.
- **Candice Stevens:** Candice Stevens is the Founder and CEO of the Sustainable Finance Coalition and Co-Chair of the IUCN WCPA Sustainable Finance Specialist Group. In her regional and global roles, she collaborates with industry leaders and diverse stakeholders to bridge Africa's nature finance gap. Her groundbreaking work in innovative finance has garnered prestigious recognition, including the UN Pathfinder Award, EcoLogic Awards, Greening the Future, and Mulago Foundation Fellowship. Candice has extensive experience in protected and conserved area financing, environmental law and policy-making on financial incentives.
- Hari Balasubramanian: Hari Balasubramanian is a proven sustainability expert who is driven by the belief that all types of capital can be deployed to achieve impact. He has worked alongside over 300 projects in five languages and 60+ countries and influenced over US\$5B in sustainability-oriented financing. Hari is the founder of EcoAdvisors and EcoInvestors Capital, which together advise and invest for sustainability at scale. Previously, Hari led impact due diligence, measurement and reporting at Conservation International. He currently serves as a Director for several environmental charities and funds, a mentor to start-ups, and an advisor to investors, corporates and governments on the value of nature and the future of sustainability.
- **Hugo Van Zyl:** Dr Hugo Van Zyl of Independent Economic Researchers has 25 years' experience as a consultant in biodiversity conservation economics and finance, and socioeconomic impact assessment. He has worked extensively on biodiversity and protected area finance planning, ecosystem services assessment and valuation, making the case for investment in conservation, viability assessments and on the design of various finance mechanisms including fee system, offsets and financial provisions. He has conducted several economic and socio-economic appraisals of complex infrastructure, industrial, mixed-use, mining, energy and tourism projects often as part of Environmental and Social Impact Assessment processes. His country experience includes South Africa, Namibia, Ethiopia, Botswana, Mauritius, Cape Verde, Seychelles, Uganda, Comoros, Nigeria, Georgia, Kazakhstan, Russia and Armenia.
- Jessica Smith: Jessica Smith leads the Nature programme at the United Nations Environment Programme Finance Initiative (UNEP FI) since 2020, promoting sustainable finance across banking, insurance and investment sectors. She has been instrumental in establishing initiatives like the Taskforce on Nature-related Financial Disclosures (TNFD) and engaging the finance sector in the Kunming-Montreal Global Biodiversity Framework. Prior to joining UNEP FI, Jessica directed a consultancy firm focused on environmental finance project development and evaluation, and led secretariats for the Equator Principles Association and the Cross-Sector Biodiversity Initiative. She is a PhD researcher in development finance and holds degrees in commerce, development, environmental studies and business.
- John J. Bohorquez: Dr John Bohorquez is an interdisciplinary researcher who specializes in finance for nature and marine conservation. Currently a consultant with the Blue Economy Solutions Lab, he is also a Research Associate with the Institute for Ocean Conservation Science and School of Marine & Atmospheric Sciences at Stony Brook University (New York, USA), as well as an affiliate of the Conservation Finance Alliance.
- **Kiran Mohanan:** Kiran Mohanan has over seven years of working to protect biodiversity and ecosystems through market-based approaches and conservation financing mechanisms. He has experience in designing and managing initiatives that enable nature-positive enterprises, such as sustainable supply chains, carbon projects, and inclusive conservation finance. He holds an MBA from the Institute of Rural Management, Anand, and a Bachelor of Veterinary Sciences from the College of Veterinary Sciences.
- **Kristina Bowers:** Kristina Bowers is leading the biodiversity conservation component under the project Protection and Sustainable Use of Forest Ecosystems and Biodiversity in Laos, which is implemented by German cooperation – Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. She previously held a position as Program Management Officer with the UN Environment Programme in Paris, France and the Secretariat of the Convention on Biological Diversity in Montreal, Canada. Kristina is trained in environmental management and sciences.

- **Kristine Lister:** Kristine Lister is pursuing a Master of Environmental Management from the Nicholas School of the Environment at Duke University, where she is studying project management, monitoring and evaluation and finance to support sustainable financing and effective and equitable management of protected and conserved areas. Previously, Kristine worked as a Research Associate at the World Resources Institute in research for Global Forest Watch and strategy development for the Data Lab.
- Lucía Ruiz: Lucía Ruiz Bustos is the Director of Conservation Areas at WWF US, where she leads efforts to strengthen area-based conservation initiatives. With over 17 years of experience in biodiversity policy and conservation finance, she has worked across public, multilateral and NGO sectors to address global conservation challenges. Before joining WWF US, Lucía led policy and conservation finance efforts at WWF Mexico. Prior to that, she served at Mexico's National Commission for Natural Protected Areas (CONANP), where she directed teams to enhance financial sustainability, engage the private sector, promote sustainable tourism and build inclusive value chains. During her time at CONANP, she led the design of a methodology to assess financial gaps in protected areas, a critical tool for ensuring long-term sustainability. Her career began in the Lacandona Rainforest, implementing Payment for Ecosystem Services programmes. With a degree in Biology and a Master's in Environmental Management, Lucía is an active member of IUCN and supports youth leadership in advancing environmental agendas globally.
- **Lucy Emerton:** Lucy Emerton is Director of Conservation Economics and Finance at the Environment Management Group. She has been working for the last 35 years across more than 75 countries as a technical and policy advisor in conservation finance, ecosystem valuation and the development of nature-positive economic instruments, funding mechanisms and investment approaches for a wide variety of government, bilateral, multilateral, United Nations, non-governmental and private sector organisations.
- **Mariana Bellot-Rojas:** Mariana Bellot is an experienced leader with over 20 years of expertise in biodiversity conservation, sustainable finance, protected areas and nature-based solutions. She has a proven track record in global conservation policy and international negotiations, working on both policy and practice. Mariana holds a Master's degree in Environment and Development Studies from the University of Sussex, UK. Currently, she serves as a Senior Technical Advisor for the Biodiversity Finance Initiative (BIOFIN/UNDP), where she supports countries in mobilising and scaling up biodiversity finance from public, private and international sources.
- Martin Leineweber: Martin has worked for more than a decade on large-scale, crossborder conservation projects in the Southern African region. He has worked for GIZ and KfW Development Bank on developing and promoting innovative conservation finance solutions including supporting the creation of the Legacy Landscapes Fund (LLF) during his secondment to KfW. Currently, he is the GIZ project manager for a regional Herding for Health project financed under the International Climate Initiative (IKI) in Botswana, Madagascar, South Africa and Zambia.
- **Michael McGreevey:** Michael McGreevey has more than 15 years of experience in conservation project design, grant and portfolio management, and conservation finance. As Senior Director at Conservation International and the Blue Nature Alliance, Michael supports the design and establishment of innovative financing mechanisms around the world, including the first fund for Indigenous-led conservation in Brazil and the largest-ever corporate investment in a single protected area in Chile.
- **Ray Victurine:** Ray Victurine has worked on conservation and sustainable development issues in Africa, Asia and Latin America for over 30 years. He is Director of the Business and Conservation Program at WCS and has contributed to the design and development of a variety of conservation finance institutions including several conservation trust funds. He has also designed and developed a variety of sustainable financing mechanisms for protected areas and to create incentives for local communities to engage in conservation actions.
- **Rhona Barr:** Rhona Barr has been focusing on the role of economic instruments in marine conservation and sustainable development and works towards designing programmes that translate into real benefits for stakeholders and the environment. She holds a PhD in Environmental Economics from London School of Economics, an MSc in Environmental Economics and Policy from Imperial College London and a BSc in Zoology from the University of Edinburgh.

- **Sue Snyman:** Dr Sue Snyman is Director of Research at the African Leadership University's School of Wildlife Conservation. Sue has over 20 years' experience in resource and environmental economics, community development in and around conservation areas, sustainable conservation finance, nature-based tourism and biodiversity conservation in Africa.
- **Torsten Thiele:** Torsten Thiele works on ocean governance and sustainable blue finance, drawing on over 20 years' experience in banking. He is founder of Global Ocean Trust, member of IUCN WCPA and Honorary Fellow at Plymouth Marine Laboratory. Torsten advises international bodies on ocean governance and policy, marine biodiversity and innovative blue finance and is a frequent conference speaker on ocean solutions. He holds graduate degrees from the universities of Cambridge, Bonn and Harvard.
- **Tracey Cumming:** Tracey Cumming is a Senior Technical Advisor with the Biodiversity Finance Initiative (BIOFIN/UNDP), overseeing the work in Eastern and Southern Europe, Central Asia and China. Tracey holds a BSc degree majoring in Economics and Environmental Science and an MSc in Environmental Science. Tracey has extensive experience in biodiversity finance and biodiversity policy at national and international level fora. She has led and collaborated on numerous publications on approaches to biodiversity finance and finance mechanisms, with a strong focus on creating transformative change in global and national systems. Tracey was a member of the Expert Group on Resource Mobilisation for the Convention on Biological Diversity in the lead up to the CBD COP15.
- **Ulrike Tröger:** Ulrike Tröger is a researcher and advisor at the Helmholtz Centre for Environmental Research, Leipzig, Germany in the Transformative Governance and Science-Policy-Society Interfaces working group. Trained in landscape ecology she has worked in interdisciplinary teams in international conservation and transformation science. She has worked for government agencies, international conservation organisations and international collaboration before her focus on science. Working in interdisciplinary teams and with strong engagement of local people and institutions, she understands herself as a moderator of interests and needs. Her current research focuses on questions of transformative change potential and the role of science in collaborative settings

PROTECTED AREA AND OECM DEFINITIONS, MANAGEMENT CATEGORIES AND GOVERNANCE TYPES

IUCN defines a protected area as:

A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

The definition is expanded by six management categories (one with a sub-division), summarised below.

Ia Strict nature reserve: Strictly protected for biodiversity and also possibly geological / geomorphological features, where human visitation, use and impacts are controlled and limited to ensure protection of the conservation values.

Ib Wilderness area: Usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, protected and managed to preserve their natural condition.

II National park: Large natural or near-natural areas protecting large-scale ecological processes with characteristic species and ecosystems, which also have environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.

III Natural monument or feature: Areas set aside to protect a specific natural monument, which can be a landform, sea mount, marine cavern, geological feature such as a cave, or a living feature such as an ancient grove.

IV Habitat/species management area: Areas to protect particular species or habitats, where management reflects this priority. Many will need regular, active interventions to meet the needs of particular species or habitats, but this is not a requirement of the category.

V Protected landscape or seascape: Where the interaction of people and nature over time has produced a distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

VI Protected areas with sustainable use of natural resources: Areas which conserve ecosystems, together with associated cultural values and traditional natural resource management systems. Generally large, mainly in a natural condition, with a proportion under sustainable natural resource management and where low-level non-industrial natural resource use compatible with nature conservation is seen as one of the main aims.

The category should be based around the primary management objective(s), which should apply to at least three-quarters of the protected area – the 75 per cent rule.

The management categories are applied with a typology of governance types – a description of who holds authority and responsibility for the protected area. IUCN defines four governance types:

Type A. Governance by government: Federal or national ministry/agency in charge; sub-national ministry or agency in charge (e.g. at regional, provincial, municipal level); government-delegated management (e.g. to NGO).

Type B. Shared governance: Transboundary governance (formal and informal arrangements between two or more countries); collaborative governance (through various ways in which diverse actors and institutions work together); joint governance (pluralist board or other multi-party governing body).

Type C. Private governance: Conserved areas established and run by individual landowners; non-profit organisations (e.g. NGOs, universities) and for-profit organisations (e.g. corporate landowners).

Type D. Governance by Indigenous peoples and local communities: Indigenous peoples' conserved areas and territories – established and run by Indigenous peoples; community conserved areas – established and run by local communities.

The Convention on Biological Diversity defines an "other effective area-based conservation measures" (OECM) as: A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and, where applicable, cultural, spiritual, socioeconomic, and other locally relevant values.

This covers three main cases:

- 1. **Ancillary conservation** areas delivering in-situ conservation as a by-product of management, even though biodiversity conservation is not an objective (e.g. some war grave sites).
- Secondary conservation active conservation of an area where biodiversity outcomes are only a secondary management objective (e.g. some conservation corridors).
- 3. **Primary conservation** areas meeting the IUCN definition of a protected area, but where the governance authority (i.e. community, Indigenous peoples' group, religious group, private landowner or company) does not wish the area to be reported as a protected area.

For more information on the IUCN definition, categories and governance types, see Dudley (2008). *Guidelines for applying protected area management categories*, which can be downloaded at: https://doi.org/10.2305/IUCN.CH.2008.PAPS.2.en

For more on governance types, see Borrini-Feyerabend et al. (2013). *Governance of Protected Areas: From understanding to action*, which can be downloaded at https://portals.iucn.org/library/node/29138.

For more information on OECMs, see Jonas et al. (2023) *Site-level tool for identifying other effective area-based conservation measures (OECMs): first edition*, which can be downloaded at: https://portals.iucn.org/library/node/51296





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