



Empowered lives.  
Resilient nations.

# Moving Mountains

Unlocking Private  
Capital for Biodiversity  
and Ecosystems

The Biodiversity Finance Initiative



Finance for Nature



# Acknowledgements

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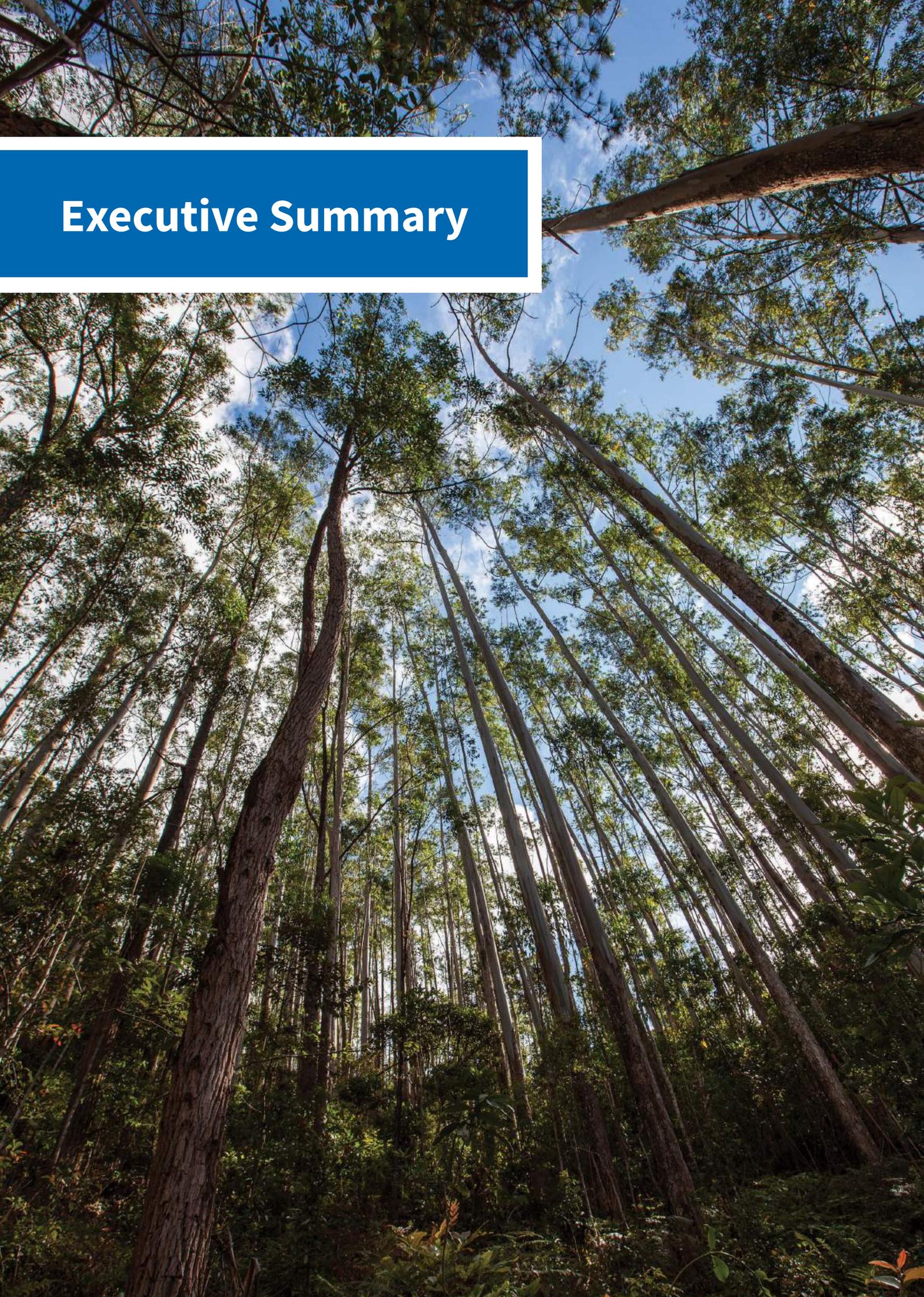
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# Executive Summary

Current and future generations can continue to benefit from the Earth's terrestrial and marine species and natural resources only if this biodiversity is protected. The cost of environmental protection—traditionally borne by governments and non-government organisations—is high. Yet the cost of not protecting our biodiversity is far greater in that we risk losing the means to sustain life. The conservation of our natural environment and the achievement of sustainable ecosystems will require greater private sector involvement, a rapid upscaling of sustainable businesses and green infrastructure, and new financial arrangements.

The global economy depends heavily on functioning ecosystems for food, fuel, fibre, climate regulation, water resources, air quality and many other essential products and services. These vital links—or dependencies on nature—shape economic risks and opportunities. It is well understood that the private sector should be responsible for offsetting its impact on the environment, but it is less understood how the private sector can benefit from biodiversity and ecosystems conservation and restoration. However there is mounting evidence indicating that investing in these areas is not only affordable and beneficial, but can be highly profitable as well; and this evidence is boosting investor confidence. Resilient ecosystems are beginning to play an increasingly significant role in businesses that are willing to embark on a transition to low-carbon sustainable production to avoid climate change and protect biodiversity.

The private sector can also contribute to ecosystem conservation and restoration through social investment and philanthropy, but these are insufficient to shift economies in a more sustainable direction. To prevent, what scientists predict as, the sixth mass extinction of life on Earth and restore degraded ecosystems, systemic change is urgently needed. This requires thinking beyond philanthropy and corporate social responsibility, important as they are, and steering the day-to-day investment decisions of private sector actors and financial institutions towards halting biodiversity loss, restoring and conserving natural resources, and promoting the sustainable use of natural resources.

Private sector actors are already well involved in implementing biodiversity and ecosystems finance solutions e.g. through tax payments, making payments for ecosystem services, as service providers/advisors and increasingly as investors. Many companies have started investing in collaboration with government agencies. They are using tailored (green) financial products, reforming their business practices to be more environmentally responsive, and are delivering projects in sectors such as agriculture, tourism and infrastructure to avoid, mitigate or offset negative impacts from their operations or, increasingly, they are intentionally producing positive impacts on biodiversity and ecosystems.

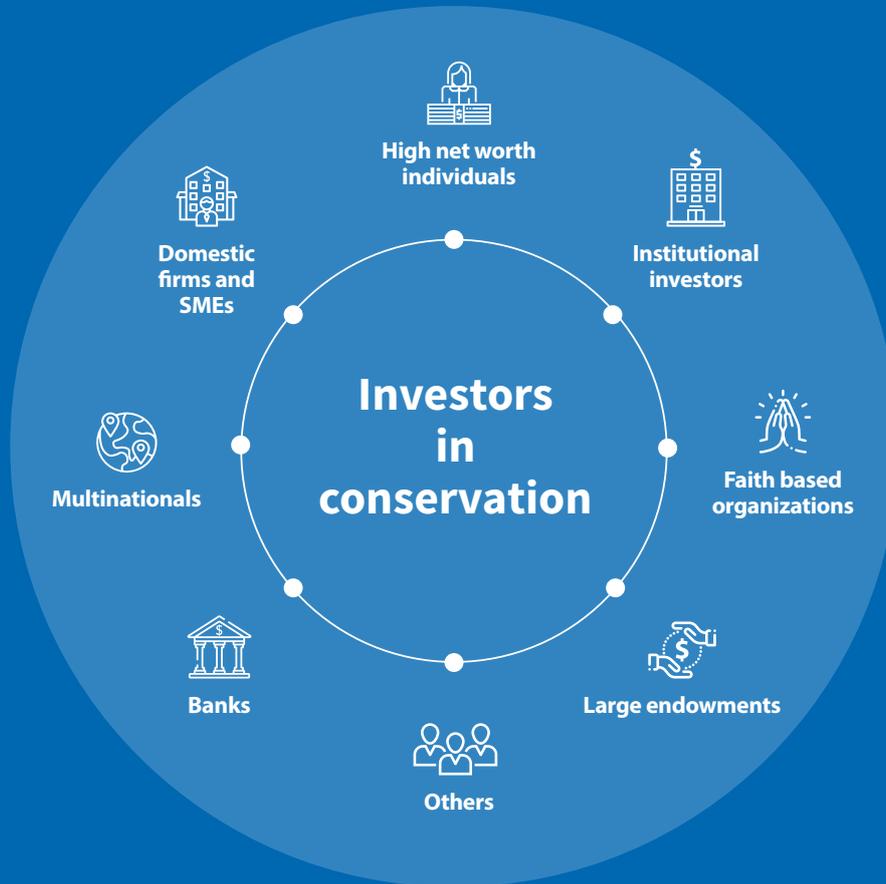
This shift by for-profit investors from mitigating negative impacts to designing positive impacts has been gradual and welcome. These investors understand that impact and economic dependencies on nature are directly linked to financial gains and losses. Gains can be made from the efficient use of natural resources e.g. sustainable practices that produce less pollution or reduce waste management costs or through price competitiveness e.g. nature-based solutions for improving water quality or planting mangroves to protect coastal areas from natural disasters that are cheaper than using fabricated infrastructure. Gains can also be made from improved management of risks particularly reputational risks, regulatory risks, and value chain risks (such as quality of inputs) and from growing new eco-inspired business lines e.g. eco-tourism and top-end natural products.

This supplementary guidance document to the **Biodiversity Finance Initiative (BIOFIN) 2018 Workbook** aims to enhance public and private collaboration to unlock private capital for biodiversity and ecosystems. It is targeted towards biodiversity finance practitioners, financial institutions, conservation agencies, and private sector investors. It is BIOFIN's ambition that it will assist them to find creative and appropriate private sector finance solutions for conserving biodiversity and ecosystems and, in doing, contribute to a growing global movement that is pushing the boundaries of private investment in conservation and monitoring closely the benefits, risks and accountabilities of this.



# Key Information

Unlocking Private Capital for Biodiversity and Ecosystems by engaging a variety of investors



In new impact oriented markets

## Conservation and impact investment

The GIIN 2018 impact investor survey indicates that 3% of impact assets under management (i.e. US\$3.2 billion) is tagged to conservation.

Total Assets Under Management-Conservation



US\$3.152 billion

Begin to assess

11%

Increase

30%



Maintain

59%



Emerging Market share of total

0.3%

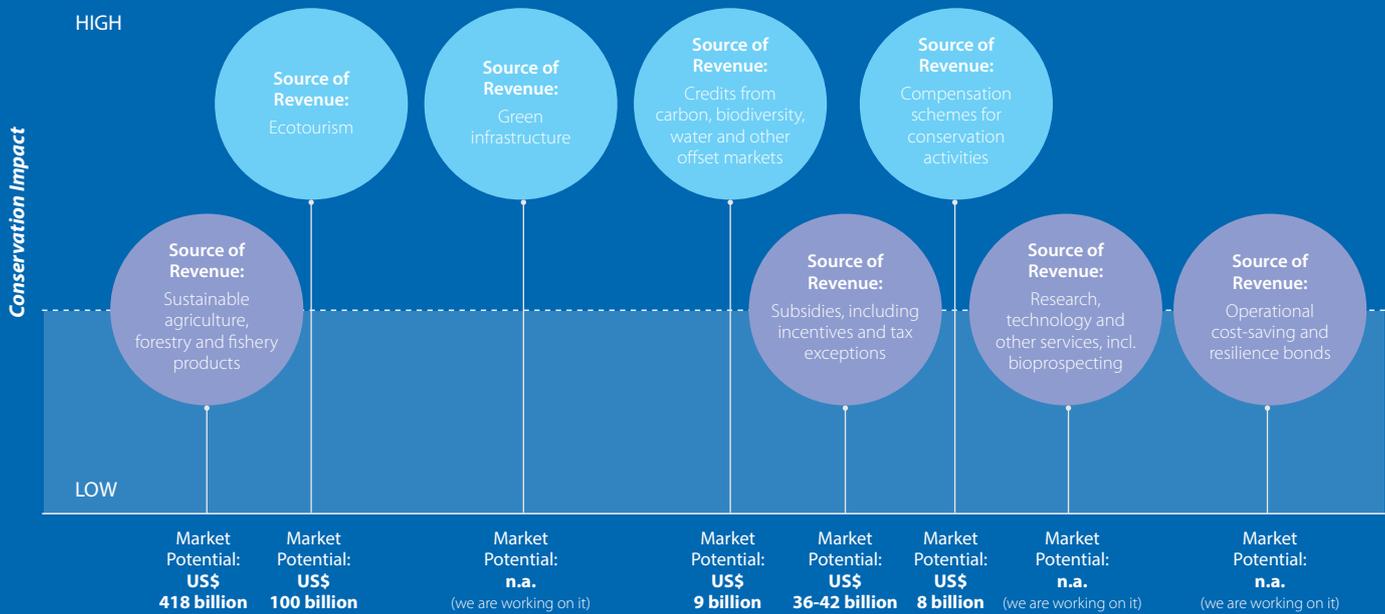
Developed Market share of total

7%

Source: Annual Impact Investor Survey 2018, GIIN

*That value business opportunities in nature*

## Market opportunities



*Resulting in positive impact and conservation of nature*

## Impact on conservation

<p><b>Decrease the threat</b> of species extinction.</p>	<p><b>Halt the loss of</b> terrestrial and marine ecosystems</p>	<p><b>Restore</b> terrestrial and marine ecosystems including wetlands</p>	<p><b>Reduce</b> the threats to live coral reefs</p>	<p><b>End conflicts</b> arising over fossil fuels, water food and land</p>
<p><b>End</b> marine plastic pollution</p>	<p><b>Stop</b> the discharge of untreated wastewater into the environment</p>	<p><b>Lower the risks to</b> worldwide crop production through the loss of crop pollinators</p>	<p><b>Sustainably increase</b> productivity of severely degraded land</p>	<p><b>Diminish</b> the vulnerability of the <b>100-300 million people</b> living in coastal flood zones</p>

Biodiversity and functioning ecosystems provide ample business opportunities. The value of incremental market opportunities up to 2030, provided by forest ecosystem services, is estimated at US\$ 356 billion<sup>1</sup>. Investors active in conservation who were surveyed by Ecosystem Marketplace said they expect (and some have already achieved) rates of return of between 5 and 10 percent, with for-profit respondents looking for 10 percent or more. If entrepreneurship and capital is unlocked and public and private collaboration becomes more effective, a business case for investing in biodiversity and ecosystems can be made.

New and improved financial products are needed to unlock private capital and address bottlenecks. The main constraint in matching the pool of capital with conservation driven entrepreneurs has been the difficulty of developing a sufficient volume of bankable projects i.e. sound business opportunities with acceptable market risk-return profiles. To advance, financial service providers (commercial and non-profit) can help promising nature-based businesses develop the viable business models and sound impact measurement systems needed to become investor-ready.

While there is evidence that private investments in biodiversity and ecosystems have grown (see Chapter 3), there is still vast potential for expanding the types of projects and companies being financed and scaling up the investment pipeline. Most biodiversity-friendly business models and markets are still not sufficiently developed. This is due to a lack of knowledge in businesses, unfavourable market conditions and the high transaction costs involved in converting existing production systems into biodiversity-friendly systems, among other factors. Some challenges are directly linked to nature-based businesses such as sustainable forestry or organic agriculture in that they require long term investments and returns are cashable after several years, while others relate to the country's overall macroeconomic and business environment. These challenges can be addressed through public-private collaboration and partnerships.

Globally, the investment pipeline is still under development; some investments are configured around compelling business models, but others—probably the majority—still rely on unproven profit expectations and depend on regulatory provisions or public subsidies. Some companies (or projects), by design, will only produce cash flows several years post-investment e.g. reforestation and afforestation. Certain environmental benefits, even if theoretically recognized and valued, such as carbon sequestration, are still difficult to monetize or remain under-priced. The above features can be expected from any young market. If the risk-return formula does not graduate a certain investment into a market transaction, there can be a role for public finance to help unlock this capital. Concessional capital or subsidies can be an effective mechanism to produce large impact. Public authorities and conservation organizations need to be capacitated to effectively manage counterparts, execution and risks, and to determine the level and type of support required to unblock private investments.

Despite challenges, many investors are planning to raise more capital for conservation. The number of funds and advisory services dedicated to conservation investments has grown steadily. Moreover, technology and fintech—the application of new technologies in the financial sector—are expected to reduce transaction costs while facilitating impact measurement and monitoring.

The biodiversity finance landscape continues to evolve. Both domestic and international financial flows have grown in numbers and volume. The boundaries between public and private and for-profit and not-for-profit have blurred. The range and number of financing instruments, strategies, investors, providers and delivery mechanisms are greater than ever before.

BIOFIN is investigating finance solutions to unlock and direct private capital toward national and local biodiversity projects and businesses. It supports the implementation of finance solutions that are prioritized through the evidence-based and participatory approach described in the BIOFIN Workbook. Relevant examples are:



#### The promotion of sustainable business practices through:

- Biodiversity business alliances
- Sustainability standards and certification
- Sustainable value chains and sourcing.



#### The development of new investment strategies and products that produce measurable impacts on biodiversity, such as:

- Crowdfunding
- Disaster-risk insurance
- Green and blue bonds and *sukuk* (Indonesian Islamic bonds. See [here](#)).
- Impact investing in conservation.



#### Public-private collaboration to spur innovation and create sustainable markets

- Non-state protected areas and co-management of protected areas
- Incentives for conservation businesses
- Green banks and publicly supported lending facilities.

The following box sets out what BIOFIN can do to support the delivery of these and other finance solutions.

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<sup>1</sup> <http://report.businesscommission.org/report>

# BIOFIN Role

## Private Investment in Conservation



### ***Advises businesses, helping them to develop strategies and align their processes with the Sustainable Development Goals***

- Fosters new business alliances that integrate biodiversity into the design of financial and commercial products
- Promotes the adoption of impact measurement practices by companies and the financial sector



### ***Supports the development of policies, regulatory frameworks, compliance and reporting standards***

- Promotes an enabling framework for private investment in conservation and policy de-risking options<sup>2</sup>
- Introduces policy signals on the role of private investment in conservation in policies, strategies and plans
- Introduces and supports biodiversity-relevant green standards and certification



### ***Works with business incubators and accelerators for SDGs***

- Builds the capacity of conservation organizations to diversify their income through impact investing and the co-management of protected areas among other means
- Builds capacities of nature-based businesses via incubator and accelerator programmes



### ***Develops financial mechanisms that blend private and international finance for the SDGs***

- Supports market assessments and feasibility studies for the prototyping and scaling-up of innovative investment vehicles



### ***Develops thematic bonds (SDGs, Green, impact etc.) frameworks and their monitoring***

- Adapts frameworks developed for the public sector and national sustainable finance strategies to the needs of the private sector
- Builds frameworks for public-private partnerships in relation to fixed income instruments



### ***Establishes data and information management systems that enable tracking of private and public finance towards the SDGs***

- Develops and tests a methodology to account for private sector expenditures in biodiversity

\* These roles are in conjunction with the UNDP Finance Sector Hub as of August 2019

<sup>2</sup> Policy de-risking seeks to remove the underlying barriers that are the root causes of investment risks. These instruments include e.g. support for policy design, institutional capacity building, resource assessments, and skills development. This is different from financial de-risking, which seeks to directly transfer the risks that investors face to public actors. Financial de-risking instruments includes such as loan guarantees and political risk insurance.

Chapter 0

# Investing in Nature





*“Without a sense of purpose, no company, either public or private, can achieve its full potential. It will ultimately lose the license to operate from key stakeholders,”*

**Laurence Douglas Fink**, CEO of BlackRock.

*“There is a great business case for investing in nature. Biodiversity and economic growth can go hand in hand,”*

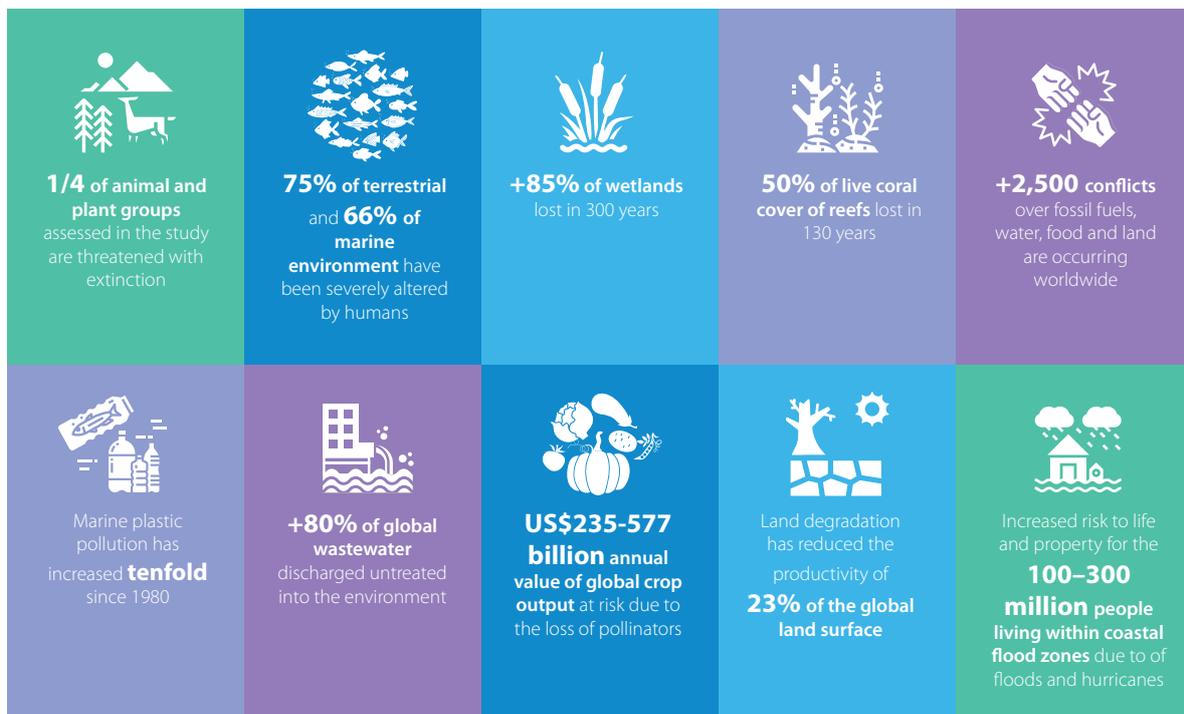
**Jonathan Taylor**, Vice-President, the European Investment Bank.

**Chapter 0** presents key concepts and definitions, contextualising the need for private capital in conservation. It concludes by describing the purpose of this document along with the objectives of the Biodiversity Finance Initiative.

Besides arguments to preserve other species, current and future generations can sustainably benefit from the Earth’s terrestrial and marine species and natural resources by expanding and financing sustainable businesses and green infrastructure. The global economy depends on functioning ecosystems for food, fibre, fuel, climate regulation, water resources, air quality and other essential products and services. These vital links—or dependencies on nature—shape economic risks and opportunities. Evidence is mounting that investing in

biodiversity and ecosystems is not only affordable but also profitable. This gives confidence to investors that private investment in nature is possible and necessary.<sup>3</sup> Resilient ecosystems will play an increasingly significant role in businesses willing to embark on a low-carbon and ‘just transition’ to sustainable production to avoid climate change and protect biodiversity being mindful of the rights and livelihoods of workers.

**Figure 0.1:** Biodiversity and Ecosystem are at risk: An Assessment by IPBES<sup>4</sup>



<sup>3</sup> CPIC, accessed at <http://cpicfinance.com/resources/related-reports/>, provides a list of resources highlighting the potential of private investment in conservation.

<sup>4</sup> Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, 6 May 2019 version.

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) 2019 assessment signalled the concerning speed and volume of the planet's biodiversity loss and ecosystems degradation. The rapidly increasing rate of extinction of species points to the inevitability of Earth's sixth mass extinction.<sup>5</sup> Nurturing a global green economy built on

the commitment to safeguard the environment and on the entrepreneurial savviness and wealth of new public-private partnerships and investors is critical to halt biodiversity loss and achieve SDG 14 (Life below water) and 15 (Life on land). All economic sectors need to contribute to conserving biodiversity and ecosystems and their sustainable management.

### Box 0.1: Biodiversity and ecosystems explained to business



Biological diversity, or biodiversity refers to the variety of life on Earth including plants, animals, fungi and micro-organisms and the interaction and interdependencies between them. At least 40 percent of the world's economy and 80 percent of the needs of the poor are derived from nature.<sup>6</sup> A rich diversity of life provides opportunities for medical discoveries, economic development, and adaptive responses to emerging challenges such as climate change. A depleted biodiversity conversely limits these opportunities, threatening the survival of all lifeforms.

Human survival depends on natural resources such as fuel, clean water, wood, fruit, crops and fish which are, in turn, dependent on the ecosystems in which they function.

This unmeasured wealth is at risk. Biodiversity is in critical decline due to a combination of conflicting private and public interests, ineffective policy and governance, and insufficient or ineffective financing. The drivers of change with the largest global impact are, in order:

- ① Changes in land and sea use
- ② Direct exploitation of organisms
- ③ Climate change
- ④ Pollution; and
- ⑤ Invasion of alien species.<sup>7</sup>

This is the time for the private sector to act cohesively, working in collaboration with Government and civil society.

The starting point for business leaders and investors is appreciating the monetary value of biodiversity and ecosystems. Natural capital is a bridging concept connecting the language of science and nature with business values. Measuring natural capital—the stock of renewable and non-renewable natural resources (e.g. plants, animals, air and water) that bring benefits to people—and the economic value of the related ecosystem services, allows the proper valuation of biodiversity and ecosystems.

Biodiversity provides a wealth of goods and services to the economy and human society. A wide range of biological resources is used in industry to provide agriculture, drugs, and fabrics. Pollinator dependent crops contribute to 35 per cent of global crop volume with an annual market value of US\$235-577 billion (in 2015) worldwide.<sup>8</sup> Coral reef tourism is estimated at US\$36 billion per year.<sup>9</sup>

Companies and investors are often confronted with choices related to conserving natural capital and benefiting from natural ecosystems. New York City, for example, had to make a decision to either build an expensive water treatment plant or conserve a major watershed area, opting for the latter after undertaking a comprehensive cost-benefit analysis.<sup>10</sup> This example of New York selecting the nature-based option as being more cost-effective highlights how nature-based solutions can be financially viable alternatives.<sup>11</sup>

<sup>6</sup> <https://www.conservation.org/blog/why-is-biodiversity-important>

<sup>7</sup> IPBES Assessment Reports, 2019 accessed at <https://www.ipbes.net/assessment-reports>

<sup>8</sup> [www.fao.org/news/story/en/item/384726/icode](http://www.fao.org/news/story/en/item/384726/icode)

<sup>9</sup> Mapping the global value and distribution of coral reef tourism, [www.sciencedirect.com/science/article/pii/S0308597X17300635](http://www.sciencedirect.com/science/article/pii/S0308597X17300635)

<sup>10</sup> The case of New York City was profiled in numerous publications and case studies. For example: Jeffrey W. Hanlon, Watershed Protection to Secure Ecosystem Services The New York City Watershed Governance Arrangement.

<sup>11</sup> Nature-based solutions are defined by IUCN as "actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits".

Investing in biodiversity and ecosystems can be done through new financial products and business practices, and by companies or infrastructure projects that either: a) mitigate

negative impacts (they 'do no/less harm'); or b) produce positive impacts. BOX 0.2 describes sustainable investment strategies being used by the market.

#### Box 0.2: Key definitions—investment strategies



The definition of private investment in biodiversity and ecosystems is: 'for-profit investments aiming to result (intent) in a measurable positive impact on biodiversity and ecosystems'. The achievement of a conservation impact must be intended to occur at the time of making the investment along with a commitment to measure that achievement and any other results. This definition is consistent with similar definitions by the Global Impact Investing Network (GIIN)<sup>12</sup> for impact investing and Forest Trends for investments in conservation.<sup>13</sup>

The terms 'biodiversity', 'ecosystems' and 'conservation' are converging in meaning and are being used interchangeably in this document when attached to financial terms.

The following investment strategies are commonly referred to as 'sustainable' or 'responsible' investing. This categorization is relevant to conservation even if, in most cases, these strategies are not available or cannot be applied due to a lack of market infrastructure and transaction volume. The lack of consensus on boundaries or legal definitions has led to them becoming used interchangeably.

This list of sustainable investment strategies is derived from the Global Sustainable Investment Alliance.

- ① **Negative screening** excludes certain companies from an investment e.g. building a deforestation-free or palm-oil-free portfolio
- ② **Best-in-class (or positive) screening** selects companies based on their performance, highlighting positive examples of biodiversity friendly products and socially responsible practices
- ③ **Norms-based screening** excludes companies from an investment if they fail to meet internationally accepted norms such as the UN Declaration of Human Rights
- ④ **Environmental, Social and Governance (ESG) integration** focuses on the assessment of the structural integration of ESG factors into investment decision-making
- ⑤ **Sustainability themed investing** has a broad meaning and includes financial products such as green and blue bonds and sukuk and, more recently, sustainability bonds
- ⑥ **Impact investing** includes an explicit intention to produce a positive impact, and that requires it to be measured and reported against the intended targets
- ⑦ **Corporate engagement and shareholder action** aims to push corporations to address environmental and social issues by exercising shareholder rights.

Can people and companies embrace impact beyond profit by investing to become more efficient and do less harm? Will investors value good companies and adopt sustainable financing strategies? Answering yes to these questions has spurred research and pilot projects that have shed light on the intricate relationship between for-profit business, investment strategies and the wellbeing of the planet. Sustainable business models, technologies, and aligned capital markets can shift the current trajectory. A new generation of consumers, business leaders and investors are taking on this responsibility. Conserving nature is being regarded not only as a moral imperative, but a business opportunity for companies and investors alike. Four factors appear to be driving the uptake

of biodiversity and ecosystems considerations by the private sector:<sup>14</sup>

1. A willingness to mitigate business risks relating to disruptions of operations, supplies or reputational damage
2. The necessity to adhere to norms of transparency, traceability, environmental responsibility and other standards
3. The desire to obtain a winning share in new markets and establish a position with future customers; and
4. Openness to engage and build goodwill with stakeholders.

<sup>12</sup> <https://thegiin.org/impact-investing/>

<sup>13</sup> State of Private Investment in Conservation 2016 - Forest Trends.

<sup>14</sup> The World Economic Forum and Tufts Fletcher School accessed at [www.weforum.org/agenda/2015/09/4-reasons-companies-should-invest-in-sustainable-development](http://www.weforum.org/agenda/2015/09/4-reasons-companies-should-invest-in-sustainable-development)

The business case for private investments in conservation is becoming more evident. Markets for goods produced in a manner beneficial to biodiversity have grown rapidly, mostly in connection with organic food and certified timber value chains. As markets for ethical products have expanded, the sourcing strategies of traditional retailers are being challenged and they are responding positively. The financial sector has responded too by pricing sustainability. Companies in the top quintile of the ESG rating exhibited higher average returns on capital compared to those in the bottom quintile. Companies with higher ESG ratings were then valued at a premium over their top-performing peers with lower ratings.<sup>15</sup>

Despite compelling arguments, this transformation has not taken place at the speed required to conserve biodiversity critical ecosystems. What is preventing substantial investments that mitigate impact on biodiversity and ecosystems? What is preventing investors taking biodiversity into consideration when pricing products and valuating financial risks? What is preventing investment into nature-based businesses? Answering these questions requires a broader shift in the way in which private companies and investors view investment opportunities in biodiversity and ecosystems and in the way public and philanthropic actors act to correct market failures<sup>16</sup> and catalyse private capital.

Despite its promise, private investment alone is not a panacea or a substitute for public financing, philanthropy or Official Development Assistance (ODA). Concessional public financing, grants and donations remain essential contributors to the financing of biodiversity as not all conservation activities are investable opportunities. Effective collaboration between public and private actors is the answer. Policy and regulatory provisions will be required to generate sufficient financial returns, including by phasing out harmful subsidies (e.g. chemical fertilizers), establishing regulated markets (e.g. carbon and habitat banking), compensation schemes (e.g. payments for ecosystem services) and designing smart public incentives.

Only cohesive actions by both the private and public sector can bring results at the speed required. Private investors—spanning from socially oriented start-up companies, ultra-net worth individuals, up to pension funds and institutional investors—can contribute a share of the US\$200-300 billion needed each year needed to conserve the world's most important ecosystems—and not as cost but as an investment. This is only a small fraction of the world's wealth and of what is recorded sustainable finance i.e. US\$31 trillion in assets under management.<sup>17</sup>



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<sup>15</sup> MSCI, Foundations of ESG Investing – Part 1: How ESG Affects Equity Valuation, Risk and Performance, 2017 accessed at [www.msci.com/www/research-paper/foundations-of-esg-investing/0795306949](http://www.msci.com/www/research-paper/foundations-of-esg-investing/0795306949). There is limited evidence on the causality.

<sup>16</sup> Situation in which the allocation of goods and services by a free market leads to a net loss of economic value.

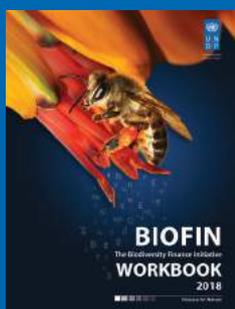
<sup>17</sup> 2018 Global Sustainable Investment Review accessed at [www.gsi-alliance.org/wp-content/uploads/2019/06/GSIR\\_Review2018F.pdf](http://www.gsi-alliance.org/wp-content/uploads/2019/06/GSIR_Review2018F.pdf)

# Biodiversity Finance Initiative (BIOFIN)

## What is the purpose of this supplement to the BIOFIN Workbook?

This supplementary guidance document to the **Biodiversity Finance Initiative (BIOFIN) 2018 Workbook** aims to enhance public and private collaboration to unlock private capital for biodiversity and ecosystems. It is targeted towards biodiversity finance practitioners, financial institutions, conservation agencies, and private sector investors. It is BIOFIN's ambition that it will assist them to find creative and appropriate private sector finance solutions for conserving biodiversity and ecosystems and, in doing, contribute to a growing global movement that is pushing the boundaries of private investment in conservation and monitoring closely the benefits, risks and accountabilities of this.

## The Biodiversity Finance Initiative and Workbook



The BIOFIN Workbook (2018 edition) emerged from experiences and lessons learned from implementing BIOFIN in 35 countries between 2013-18. BIOFIN uses detailed country-level assessments to develop a biodiversity finance plan, drawing on qualitative and quantitative data, innovative methodologies and expert input. It provides an innovative, stepwise and adaptable approach that enables countries to:

- Assess the **policy, institutional and economic context** for biodiversity finance and map existing finance solutions
- Measure and analyse **biodiversity expenditures** from the public and private sectors, donors and non-governmental organizations (NGOs)
- Make a reliable **estimate of the finance needed** to achieve a country's biodiversity goals, and compare this to biodiversity expenditures and other resources available; and
- Develop a **biodiversity finance plan** that identifies and mobilizes the resources and policies required to implement the most suitable finance solutions.

**The Policy and Institutional Review (PIR)** identifies sectors and companies that can influence biodiversity financing. The Seychelles PIR observed 60 percent of the economy depends on fisheries and tourism. These industries are strongly connected to natural capital assets such as coral reefs, fish stocks and marine biodiversity yet are only partially contributing to the sustainable management of the biodiversity that is sustaining their operations. In this case the Government (through a dedicated newly established Biodiversity Finance Unit) is working with these industries to identify and address impacts and opportunities to invest in biodiversity for which they receive financial and social returns generated from increasingly sustainable biodiversity and ecosystems.

**In the Biodiversity Expenditure Review (BER)**, the BIOFIN team engaged private sector partners in the collection and analysis of biodiversity finance data, firstly defining biodiversity expenditure for the private sector and how private companies can benefit from increased investment on the same. In Costa Rica the team partnered with the Chamber of Commerce and Industry to compile a questionnaire on biodiversity expenditures in the manufacturing sector. In other countries such as Seychelles, workshops with tourism operators brainstormed solutions to finance biodiversity using their corporate social responsibility (CSR) programmes.

**The Biodiversity Finance Plan (BFP)** concludes the analyses done by BIOFIN in countries to identify key opportunities to finance biodiversity and related national targets. Most countries BFP's establish that benefits are greater when governments collaborate with the private sector in framing and creating opportunities to invest in biodiversity. The BFP contains details of finance solutions that can be implemented by the private sector directly or through Public Private Partnerships (PPP) and other collaborations. Selected finance solutions can also be built on creating public incentives for the private sector to invest in biodiversity.



## DRIVERS OF BIODIVERSITY CHANGE

### Negative

Unsustainable policies and practices in the public and private sector leading to:

- Habitat conversion
- Degradation and fragmentation on land and in the oceans
- Climate change
- Invasive non-native species
- Pollution
- Nutrient overload

### Positive

Policies and practices of conservation, investment and sustainable use in the public and private sector



## FINANCE CHALLENGES

### Insufficient finance allocated towards biodiversity goals

#### Planning

- Limited financial solutions known and used
- Lack of shared vision in country
- Lack of comprehensive finance tools/methods/strategies
- Limited implementation of NBSAPs and protected area management plans

#### Institutions

- Limited biodiversity finance capacity and coordination
- Knowledge fragmentation and lack of awareness
- Insufficient engagement

#### Baseline data

- Expenditure data unknown
- Finance needs not measured

### Finance allocated towards biodiversity negative practises

- Unsustainable sectoral policies and practices

### Harmful subsidies



## THE BIOFIN PROCESS

INSTITUTIONS

POLICY

FINANCE DATA

NATIONAL FINANCE VISION/POLICY

FINANCE SOLUTIONS

Finance Solutions Identified



# APPROACH



Empowered lives.  
Resilient nations.



## RESULTS

### Outputs

#### TECHNICAL

##### Biodiversity Finance Policy and Institutional Review (PIR)

- Analysis of existing drivers and challenges
- Analysis of policy environment
- Existing finance solutions understood
  - Fiscal policy options
  - Harmful subsidies
  - Barriers to implementation

##### Biodiversity Expenditure Review (BER)

- Biodiversity expenditure measured and analysed

##### Financial Needs Assessment (FNA)

- Financial needs for nature better understood

##### Biodiversity Finance Plan (BFP)

- Comprehensive finance plan developed and adopted
  - Shared vision
  - Investment case
  - Action plan

#### CROSS-CUTTING

- Knowledge sharing mechanisms in place
- Knowledge products developed
- Improved and new partnerships
- Gender mainstreaming
- Stakeholder and media engagement
- Capacities developed among key players
- Biodiversity finance champions engaged and nurtured
- High-level engagement of government officials

#### Implementation

- Finance solutions implemented
- Policies, plans and legislation improved
- Integration of biodiversity in national and subnational budgets enhanced

### Outcomes

- ✓ Strong national capacities to analyse, design and implement finance solutions
- ✓ Institutional framework conducive for biodiversity finance objectives
- ✓ Conservation recognized as investment priority for the private sector
- ✓ Revenue generated
- ✓ Resources realigned
- ✓ Resources spent more efficiently
- ✓ Costs prevented

### Impact

- Negative drivers of biodiversity loss reduced/removed
- Positive drivers of sustainable biodiversity management enhanced
- Unmet finance needs reduced
- Achievement of national biodiversity targets
- Sustainable development enhanced and supported
- Overall increase in health and extent of ecosystems and biodiversity conservation

Chapter 1

# Dependencies, Impacts, Returns and Risks





*“When it comes to biodiversity conservation, it was always thought of as a government’s job. Even if private entities want to look at financing something, they look at corporate social responsibility or philanthropy; nobody has yet thought about developing a sustainable finance model for biodiversity conservation. This is where the gap lies,”*

**Rakesh Shejwal**, Vice president of Yes Bank

*“The bigger the company’s footprint, the bigger the opportunity for the company to reduce its impact by changing its behavior,”*

**Mark R. Tercek**, Former CEO of the Nature Conservancy

**Chapter 1** describes the rationale for private businesses and investors to invest further in biodiversity and ecosystems. It discusses dependencies on nature and what constitutes positive impact in conservation. The chapter reviews the sources of returns from investing in nature and concludes by highlighting the critical role of public and public collaboration and blended finance.

## Dependencies on nature: a risk management framework

The private sector has a role to play in halting biodiversity loss. To perform this role, companies and their projects first need to understand the impact their commercial and financial activities have on biodiversity and ecosystems and the extent of their dependencies on nature. These relationships can be framed and managed as financial and operational risks.

Exemplifying this concept is an almond producing company depending on pollination for its harvest. Deforestation led to a decline in wild pollinators resulting in lower agricultural yields for almond producers. Farmers are now forced to buy commercial pollinating services. The dependency is the provision of wild pollination services. It is evident that when those services are not provided by nature, companies incur additional costs. In the USA, almond farmers pay US\$655 million a year<sup>18</sup> for commercial pollination services due to decreasing wild pollination. In this instance the remedy is conservation actions to bring back pollinators e.g. by protecting the foraging habitat of bees.

Business owners and investors should ask themselves: How is our business dependent on nature? How are investment decisions impacting on nature? How can returns be derived from running this business sustainably?

Inaction by the almond industry led to additional production costs and probably lower returns and higher prices for buyers and consumers. Inaction by any other industry in addressing biodiversity loss and ecosystems degradation can place the local and even the global economy at risk. It has been estimated that, unless far-reaching changes are made in the food and agriculture system, the cost of biodiversity and ecosystem loss could reach 18 percent of GDP by 2050, up from around US\$2 trillion.<sup>19</sup> This challenge has prompted financial regulators to request companies to disclose data on risks related to the loss of biodiversity and ecosystems to major prospective investors. In the same way a Task Force on Climate-related Financial Disclosures was established to account for climate change related risks, a Task Force could develop voluntary biodiversity and ecosystems-related financial risk disclosures by companies.

<sup>18</sup> USDA/National Agricultural Statistics Service at [https://www.ers.usda.gov/webdocs/publications/37059/49131\\_special-article-september\\_-pollinator-service-market-4-.pdf?v=0](https://www.ers.usda.gov/webdocs/publications/37059/49131_special-article-september_-pollinator-service-market-4-.pdf?v=0)

<sup>19</sup> Forest Trends, Consumer Goods and Deforestation, 2014.

## Moving Mountains

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Table 1.1 lists **legal, operational, market, reputational and societal risks and opportunities** related to biodiversity and ecosystems. It shows that deforestation, for example, which is a major threat to biodiversity, can create reputational and societal risks for companies (and countries), and opportunities to attract new consumers and enter into new markets. Multinational companies have made public commitments to tackle these risks and make their value chains sustainable e.g. Nestlé plans to end deforestation in its supply chain by 2020.<sup>20</sup> Participants in the Consumer Goods Forum i.e. manufacturers and retailers with a turnover of over US\$3.5 trillion, also committed to eliminate deforestation from their supply chains.<sup>21</sup>

For the financial sector this should imply a commitment to manage deforestation-free portfolios where only companies adopting a policy of strictly sourcing timber from certified forests could be financed. Examples are ample. ACTIAM is a responsible impact investor with over US\$50 billion in assets under management. After it realised exposure to climate, water and land risks were negatively influencing its financial performance, it committed to a zero-deforestation financial portfolio by 2030.<sup>22</sup> The Deforestation Free Funds<sup>23</sup> platform was created to inform investors if a traded investment fund contained unsustainable palm oil.



<sup>20</sup> See [www.nestle.com/asset-library/documents/library/documents/suppliers/nestle-responsible-sourcing-standard-english.pdf](http://www.nestle.com/asset-library/documents/library/documents/suppliers/nestle-responsible-sourcing-standard-english.pdf)

<sup>21</sup> WWF, *Slow Road to Sustainability* The sourcing of soft commodities by Consumer Goods Forum members, 2016.

<sup>22</sup> Case study adapted from the Natural Capital Finance Alliance portal, <https://naturalcapital.finance/actiam-case-study/>

<sup>23</sup> <https://deforestationfreefunds.org/>

Table 1.1: Categories of risks and opportunities

Category	Risk	Opportunity
<b>Operational</b> Relating to the activities, expenditure and processes of entities	<ul style="list-style-type: none"> <li>Reduced income caused by lower crops and livestock yields.</li> <li>Increased costs for ecosystem services (e.g. higher costs for groundwater extraction and artificial pollination).</li> <li>Increased insurance claims resulting from changes in rainfall and floods.</li> </ul> <p><b>Example:</b> In the US alone, almond farmers pay over US\$290 million a year for commercial pollination services due to decreasing natural pollination.</p>	<ul style="list-style-type: none"> <li>Mutual funds invest in companies that offer innovative solutions to natural capital problems e.g. waste bio-refineries and biodiversity conservation banks.</li> <li>Increased issuance of bonds for green infrastructure projects e.g. natural flood management solutions.</li> </ul> <p><b>Example:</b> DC Water issued its inaugural green bond to finance the Clean Rivers Project. Proceeds from the US\$350 million bond were invested in improving water quality, flood mitigation and waterfront restoration.<sup>24</sup></p> <p><b>Example:</b> AXA Investment Managers invested in Althelia Ecosphere, an impact fund for conservation.<sup>25</sup></p>
<b>Legal and regulatory</b> Relating to laws, policies, and regulations that affect the activities of financial institutions and entities	<ul style="list-style-type: none"> <li>Higher business costs because of changes in water treatment and disposal requirements.</li> <li>Premature write-offs of assets because of delays in obtaining project permits and licenses.</li> <li>Downward revaluation of assets due to the high risk of litigation relating to activities that damage the natural environment or compromise livelihoods.</li> <li>Risk of asset stranding i.e. of land-use change limitations, constraints on pesticide use, and waste generation.</li> </ul>	<ul style="list-style-type: none"> <li>Increased sales of liability and other insurance to cover natural capital-related legal risks.</li> <li>Reduced risk of asset stranding by ensuring that the regulatory risks associated with natural capital are explicitly considered in investment decision making.</li> <li>More timely preparation for investors to comply with current and potentially stricter future regulations regarding fiduciary duty.</li> </ul> <p><b>Example:</b> The EU is supporting the transition to a low-carbon, more resource-efficient and sustainable economy and it has been at the forefront of efforts to build a financial system that supports sustainable growth.<sup>26</sup></p>
<b>Markets</b> Relating to the flow and provision of financial services	<ul style="list-style-type: none"> <li>Inability to attract investors due to uncertain risks related to natural capital.</li> <li>Loss of investment value due to customer boycotts of entities producing products that are seen to have negative environmental impacts.</li> <li>Loss of clients due to a fund's poor environmental performance e.g. if a fund has suffered natural capital related write-downs.</li> </ul>	<ul style="list-style-type: none"> <li>Increased demand for funds that invest in companies that have positive environmental credentials.</li> <li>Enhanced financial performance of investee companies as they can access new markets and develop new products to meet green consumer demand.</li> <li>The development of new revenue streams from emerging environmental markets and products e.g. habitat credits.</li> </ul> <p><b>Example:</b> habitat banking was established in Colombia after the success of the US model, which has reached a worth of over US\$ 3 billion in transactions.</p>
<b>Reputational</b> Relating to trust and relationships between stakeholders	<ul style="list-style-type: none"> <li>Negative press coverage about company activities that adversely impact on natural capital e.g. deforestation or overfishing.</li> <li>Loss of clients who perceive that the financial institution does not adequately account for natural capital in its decision making.</li> </ul>	<ul style="list-style-type: none"> <li>Improved reputation because of supporting activities that enhance natural capital e.g. ecosystem remediation or rehabilitation.</li> <li>Positive media coverage for supporting innovative activities.</li> <li>Improved ratings by sustainability/ESG analysts.</li> </ul>
<b>Societal</b> Relating to the relationship between, and consequence for, wider society beyond the institution and entities	<ul style="list-style-type: none"> <li>Damage to a local market as a consequence of local community protests about the impacts of a project on their ability to access natural capital or related ecosystem services (e.g. pollution of aquifers because of the operation of a chemical plant).</li> </ul>	<ul style="list-style-type: none"> <li>Upward revaluation of assets through ensuring that local communities benefit from activities being supported by the finance sector e.g. improved recreational access to wetlands, improved water quality from a managed water catchment.</li> </ul>

Source: Adapted from *Connecting Finance with Natural Capital: A Supplement to the Natural Capital Protocol*. Examples have been added by UNDP.

<sup>24</sup> <https://www.dewater.com/whats-going-on/news/dc-water-announces-successful-sale-350-million-green-century-bonds>

<sup>25</sup> <https://althelia.com/2015/10/13/axa-im-impact-investing/>

<sup>26</sup> For more information: [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en)

Screening procedures required by banks before releasing funds are important in measuring dependencies and impacts on nature. Screening procedures are based on safeguard policies and performance standards. Performance Standard 6 of the International Finance Corporation (IFC)<sup>27</sup> ensures investments conserve biodiversity, maintain ecosystem services and sustainably manage natural resources. Performance Standard 6 was a frontrunner that influenced voluntary standards of the private sector. The Equator Principles, which is a risk management framework and a voluntary standard, were adopted by financial institutions for determining, assessing and managing environmental and social risks in project financing.<sup>28</sup>

The adoption of environmental and social risk management frameworks has increasingly become compulsory. Voluntary commitments have started to spur and inform regulatory provisions in areas such as Environmental Impact Assessments (EIA). The Equator Principles, EIA provisions and the IFC all follow the so-called mitigation hierarchy, a best practice for managing

biodiversity-related risks. According to the hierarchy, efforts should be made to first prevent or avoid impacts to biodiversity, then minimize and reduce them, and then repair or restore adverse effects. Any significant residual effects should then be addressed via a biodiversity offset in order to achieve 'no net loss' of biodiversity.<sup>29</sup>

The understanding of dependencies and impacts on biodiversity and ecosystems are directly linked to the identification of potential gains and losses, including from efficiency gains (e.g. sustainable practices that produce less pollution while reducing waste management costs), price competitiveness (e.g. nature based solutions for quality of water or mangroves to protect from natural disasters that are less expensive than manmade infrastructure), improved risk management (e.g. reputational, regulatory, and value chain risks such as quality of inputs), and growth of new business lines (e.g. eco-tourism and natural products).

## Positive impact in conservation



Investing in conservation is not simply 'doing-no-harm'. While this minimum safeguard standard has lessened the pressure of economic activities on biodiversity and ecosystems, there is now a positive agenda where investments are made with the intention of producing measurable positive conservation outcomes. Positive impacts include land and soil regeneration, the preservation of endangered species and restoring depleted fish stocks. Restoring biodiversity and ecosystems in agriculture can be achieved by banning land clearance and deforestation, creating corridors between farmed and forested areas, and by complying with sustainability certification, among other things. These standards, initially used only by impact investors, are now being adopted by mainstream finance sector service providers.

Determining what constitutes a positive impact on biodiversity and ecosystems is a challenge. The lack of standards, common approaches and a definition are matched with emerging practices led by companies (see BOX 1.1) along with attempts by international organizations and research institutions to define what constitutes biodiversity impact matrices for private investing.

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<sup>27</sup> IFC, Biodiversity Conservation and Sustainable Management of Living Natural Resources (2012), accessible at [https://www.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/sustainability-at-ifc/policies-standards/performance-standards/ps6](https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards/ps6)

<sup>28</sup> For more information: <https://equator-principles.com/>

<sup>29</sup> BBOP, Biodiversity offsets and the mitigation hierarchy: a review of current application in the banking sector accessed at [https://www.unepfi.org/fileadmin/documents/biodiversity\\_offsets.pdf](https://www.unepfi.org/fileadmin/documents/biodiversity_offsets.pdf)

**Box 1.1:** Measuring impact in conservation: an example

The impact of the activities of Althelia Ecosphere is summarized below.

	2021 target	2016 progress
 <b>Ecosystems</b>	 <b>2.2 million hectares</b> under improved management	<b>2.12 million hectares</b>
 <b>Species</b>	 <b>1.92 million hectares</b> of critical habitat for high conservation value species protected	<b>1.95 million hectares</b>
 <b>Livelihoods</b>	 <b>1,279 jobs</b> created or supported	<b>1,407 jobs</b>
 <b>Inclusivity</b>	 <b>29 percent</b> of jobs supported held by women	<b>26 percent</b>
 <b>Fair economic return</b>	 <b>€112 million</b> spent on and generated by local communities	<b>€16 million</b>

Examples of conservation investment from the Althelia Climate Fund portfolio:

- ① **Cooperativa Agraria Industrial Naranjillo (Peru)** is a cacao and coffee cooperative in the Peruvian rainforest around the Cordillera Azul National Park. The cooperative of approximately 5,000 members can process and add value to 9,000 tons of cacao and 3,500 tons of coffee. Althelia's investment supports improved operations and business performance. It has increased productivity at the farm level through the introduction of sustainable agricultural practices and organic certification.
- ② **Fundacion para el Ecodesarrollo y la Conservacion in Izabal (Guatemala)** benefited from an investment of US\$11.1 million to conserve 110,000 hectares of natural forest. The investment aims to avoid 8 million tonnes of CO<sub>2</sub> emissions through avoided deforestation. It will also enable the restoration of over 1,000 hectares of degraded lands in buffer zones to enable the cultivation of cardamom, pepper, rambutan, lychee, cinnamon and other products. The project will facilitate a transition towards sustainable land use in partnership with local communities and an eco-tourism network.
- ③ **Merang Peatland Project (Indonesia)** aims to rehabilitate more than 22,000 hectares of peatland forest in Merang, one of the largest peat swamps in South Sumatra and the home of endangered species including the Sumatran Tiger. The project is supported with a €5.1 million investment. The project will, over its 25-year license period, generate 30 million tons of Verified Emissions Reductions, which will recover costs and provide a source of long-term finance.

Source: The Role of Private Capital in Conservation, Althelia, Mirova and Ecosphere+ and Althelia website accessed June 2019.

The Natural Capital Protocol, the Natural Capital Finance Alliance and initiatives such as ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure),<sup>30</sup> the Business and Biodiversity Offset Programme, the Water Risk Valuation Tool<sup>31</sup> and other approaches have helped companies visualize how their operations depend on and affect nature. The Species

Threat Abatement and Restoration (STAR) metric<sup>32</sup> by IUCN, for example, measures the contribution of investments into reducing the risk of species extinction<sup>33</sup> Several more options (see BOX 1.2) are being explored and tested, often connecting natural accounting practices with impact measurement.

### Box 1.2: Natural Capital Approaches to Measuring Impact



Natural capital accounting approaches provide companies and investors with practical means to understand and measure their impacts and dependencies on nature. This information can be used to assess risks and opportunities and formulate remedies and response actions.<sup>34</sup> The Natural Capital Protocol provides a framework for businesses to identify, measure and value these impacts and dependencies. The 'Connecting Finance and Natural Capital: A Supplement to the Natural Capital Protocol' provides additional guidance that is specific for financial institutions with a focus on banking, investment and insurance services.

While the Protocol provides a framework, many assessment and measurement practices coexist. Ten approaches that connect natural accounting practices with impact measurement are described below. It is acknowledged that they adhere to different definitions, strategies, objectives and clients. While there are attempts to consolidate existing practices, further research is required to shed light on the intersection between natural capital valuation, risk management and impact measurement.

#### 1 The Global Biodiversity Score (Caisse des Dépôts et Consignations - CDC Biodiversité)

This score attempts to propose a biodiversity equivalent of the CO2 emission reduction indicator in climate finance. The score provides a synthesis of the biodiversity footprint of an economic activity. The footprint is estimated first by quantifying pressures caused by economic activities using the Exiobase input-output model and direct data, when available. Second, the impacts of pressures on ecosystems are estimated using the GLOBIO model.

#### 2 Biodiversity Impact Metric (Cambridge Institute for Sustainability Leadership)

A quantifiable measure to assess and track the impact of a company's land use activities on biodiversity in a given area. The biodiversity impact relates to the impact of using land that was once natural habitat for commodity production. It combines data on the land area required to supply raw material with a series of coefficients that quantify the impact on biodiversity.

#### 3 Biodiversity Indicator for Extractive Companies (UNEP- World Conservation Monitoring Centre)

Attempt to create effective indicators on corporate biodiversity performance in the extractive sector. Phase 1 of the project resulted in recommendations for the methodological development of both a single composite indicator and a framework approach. This work is on-going. Stages and processes along with indicators are being suggested and validated.

<sup>30</sup> ENCORE is an online platform that enables companies to visualize how the economy depends on nature and how environmental change creates risks for businesses. Starting from a business sector, ecosystem service, or natural capital asset, ENCORE can be used to explore natural capital risks and dependencies. ENCORE also helps to better frame location-specific risks by accessing maps featuring natural capital assets. See <https://encore.naturalcapital.finance/en/about>

<sup>31</sup> See [https://www.bbhub.io/sustainability/sites/6/2015/09/Bloomberg\\_WRVT\\_09162015\\_WEB.pdf](https://www.bbhub.io/sustainability/sites/6/2015/09/Bloomberg_WRVT_09162015_WEB.pdf)

<sup>32</sup> <https://www.iucn.org/regions/washington-dc-office/our-work/biodiversity-return-investment-metric>

<sup>33</sup> The Red List Index (RLI), based on the IUCN Red List of Threatened Species, is an indicator of the changing state of global biodiversity. It defines the conservation status of major species groups, and measures trends in extinction risk over time.

<sup>34</sup> WAVES, World Bank accessed at <https://www.wavespartnership.org>

#### 4 **Product Biodiversity Footprint (I Care & Consult and Sayari)**

This tool relies on sectoral and local biodiversity studies and company data to quantify the impacts of a product on biodiversity across the product's life cycle. Early results from its application and case studies are available from [www.productbiodiversityfootprint.com](http://www.productbiodiversityfootprint.com).

#### 5 **Biodiversity Footprint approach (ASN Bank)**

ASN produced a biodiversity footprint of its balance sheet for the years 2014-2016. The methodology entails both quantitative and qualitative assessments. ASN is working with CDC *Biodiversité* and others to establish a common ground for measuring the biodiversity footprint of financial institutions.

#### 6 **The Species Threat Abatement and Restoration metric (STAR), previously the Biodiversity Return on Investment Metric (International Union for Conservation of Nature-IUCN)**

This metric measures the change in risk of species extinction attributable to investment. Testing and piloting is ongoing. It is based on the IUCN Red List of Threatened Species, a global standard for documenting the conservation status of species.

#### 7 **The Agrobiodiversity Index (Bioversity International)**

The Index measures agrobiodiversity and identifies actions to achieve sustainable food systems. It is built on three pillars: diets and markets, production systems and genetic resources. The index prototype is available at [www.bioversityinternational.org/abd-index/](http://www.bioversityinternational.org/abd-index/).

#### 8 **The Biodiversity Footprint Calculator (PLANSUP) <http://biodiversity-footprint.herokuapp.com/#/calculator>**

The calculator assesses the current and future (or alternative) biodiversity footprint of a company's product at the landscape level. Companies assess the impact of pressures on biodiversity that are linked to supply or production chains. The assessment focuses on terrestrial pressures (land use, greenhouse gas emissions and water use) and the emissions of nitrogen and phosphorus in (inland) water (aquatic pressure).

#### 9 **The LIFE Impact Index and Positive Scoring (LIFE INSTITUTE)**

This tool guides and recognizes businesses that promote natural capital conservation actions and contribute to the maintenance of biodiversity and ecosystem services. The methodology entails an environmental management system (LIFE Key Software) and is a third-party certification scheme operational in Latin America.

#### 10 **Bioscope (Platform BEE)**

BioScope provides businesses with a simple indication of the most important impacts on biodiversity arising from their supply chain. This helps formulate actions to further assess and reduce negative impacts on biodiversity across the supply chain.

Sources: The Natural Capital Protocol and Natural Capital Finance Alliance websites, accessed May 2019; EU Business and Biodiversity Platform, Assessment of biodiversity accounting approaches for businesses and financial institutions.

## Financial returns from nature

The rationale for investing in conservation is not only reflected in companies' and investors' socially responsible business practices. Biodiversity and functioning ecosystems have their own markets, generating substantial investment opportunities. The value of incremental market opportunities of up to 2030

provided by forest ecosystem services alone is estimated at US\$365 billion.<sup>35</sup> Investors who are active in conservation surveyed by the Ecosystem Marketplace expect (and some have already achieved) rates of return between 5 and 10 percent, with for-profit respondents looking for 10 percent or more.<sup>36</sup>

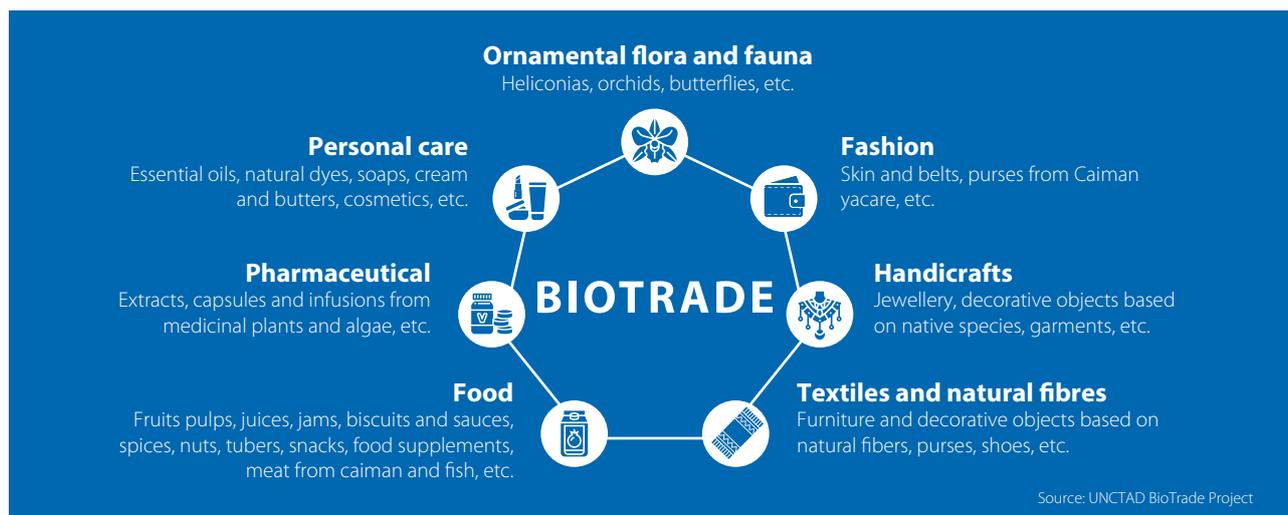


Table 1.2 lists different sources of income ranging from sustainable agriculture and fishing to participation in regulated markets such as carbon, along with revenue drivers, market estimates and success factors. The information should be treated with caution as the revenue sources listed are not equal in terms of the impact they have on biodiversity and

ecosystems. The turnover from sustainable products—such as personal care products, food, phyto-pharma, fashion, and ornamental flora and fauna—and ecotourism constitute the largest sources of revenue.<sup>37</sup> Despite the lack of consolidated numbers, emerging opportunities include green infrastructure, particularly within green city initiatives.

Table 1.2: Potential sources of income

Source of Revenue	Drivers of Revenue	Market estimates or potential	Conservation impact	Success factors
<b>Sustainable agriculture, forestry and fisheries products</b>	<ul style="list-style-type: none"> <li>Increased yields and/or premium pricing</li> <li>Reduced costs of inputs</li> </ul>	<ul style="list-style-type: none"> <li>US\$228 billion (certified forest products);</li> <li>US\$190 billion (certified agricultural products)</li> </ul>	<ul style="list-style-type: none"> <li>Non-timber forest products: high</li> <li>Timber: low-medium; high if restoration</li> <li>Agriculture/livestock: low; high if restoration</li> </ul> <p><b>Examples:</b> increase in marine biomass stocks or area of protected forests</p>	<ul style="list-style-type: none"> <li>Enabling logistics and value chains</li> <li>Ability to sell products at premium prices</li> <li>Impact on conservation at specific locations</li> </ul>

<sup>35</sup> BSDC. Better Business, Better World: The report of the Business & Sustainable Development Commission, 2017. Accessed at [http://report.businesscommission.org/uploads/BetterBiz-BetterWorld\\_170215\\_012417.pdf](http://report.businesscommission.org/uploads/BetterBiz-BetterWorld_170215_012417.pdf)

<sup>36</sup> Forest Trends, State of Private Investment in Conservation 2016, 2017.

<sup>37</sup> Mitchell, 1997.

Source of Revenue	Drivers of Revenue	Market estimates or potential	Conservation impact	Success factors
<b>Ecotourism</b>	<ul style="list-style-type: none"> <li>Premium pricing</li> <li>Unique locations and attractions</li> <li>Reduced costs of inputs</li> </ul>	US\$100 billion	High <b>Examples:</b> re-introduction of endangered endemic species; increased pressure on reducing poaching	<ul style="list-style-type: none"> <li>Tourism and transport infrastructure</li> <li>Ability to sell services at a premium price</li> </ul>
<b>Green infrastructure</b>	Revenues from public-private partnerships models (e.g. contracting and tolls)	Not applicable City of Manchester (2.7 million ha urban area) estimated £470 million the gross value added from green infrastructure	High <b>Examples:</b> conservation actions in watersheds, mangrove planting and restoration	<ul style="list-style-type: none"> <li>Regulations</li> <li>Capacity of municipalities to manage tenders and contracts</li> </ul>
<b>Credits generated for carbon, biodiversity, water and other offset markets</b>	Public and private off-takers	US\$9 billion	High <b>Examples:</b> combination of conservation activities (e.g. set-aside) with sustainable businesses	<ul style="list-style-type: none"> <li>Regulatory markets and provisions</li> <li>Voluntary international markets</li> </ul>
<b>Compensation schemes for conservation activities</b>	Performance-based payment for the preservation of upstream ecosystems	US\$36-42 billion	High	<ul style="list-style-type: none"> <li>Committed off-takers</li> <li>Regulatory markets and provisions</li> </ul>
<b>Subsidies, including incentives and tax exceptions</b>	Agriculture, forestry, fishery policy priorities	US\$8 billion	Low to high, depending on the subsidy scheme	<ul style="list-style-type: none"> <li>Quality of regulatory provisions</li> <li>Efficiency and delivery</li> <li>Greening subsidies reform</li> <li>International trade and investment agreements</li> </ul>
<b>Service contracts for-profit research, technology and other services, including bioprospecting</b>	Product and services for technology and supporting services	Not applicable	Low to high, depending on the subsidy scheme	<ul style="list-style-type: none"> <li>Applicability of services</li> <li>Implementation of Nagoya protocol</li> </ul>
<b>Operational cost-saving and resilience bonds</b>	Investment in nature-based solutions that outweigh manmade infrastructure	Not applicable	Low to high, depending on the business or infrastructure <b>Examples:</b> protection of large watersheds	Technology and process advancements

Source: The structure of the table was adapted by UNDP from Kois Invest, Financing Sustainable Land Use Change, 2018.

## Moving Mountains

Financing for agriculture, livestock and related commodities is a well-known asset class. Mainstream financial institutions investing in agriculture and their investees have been, for the most part, disconnected from the ecosystems that enable these sectors to function. Similarly, investments in tourism are often misaligned from the conservation of natural assets such as beaches, coral reefs,<sup>38</sup> wildlife and pristine forests that allow tourism to prosper. This can be exacerbated by policy failures e.g. government providing or subsidising environmentally harmful products such as chemical fertilizers or pesticides to farmers.

Investment opportunities are not solely dependent on markets; policy signals, regulations, regulated markets and public incentives play important roles. Market mechanisms such as carbon finance, mitigation banking, and nutrient trading have created a critical backbone to support private investment in conservation. A carbon price of US\$40 per ton by 2030<sup>39</sup> could open vast opportunities for investment in sustainable

forest services, such as climate change mitigation, watershed services and biodiversity conservation. In 2016, carbon credits from forestry and land were sold at an average price of US\$5.1 per ton.<sup>40</sup>

Improving the risk-return profiles of private investment in conservation and structuring new financial products can unlock private capital. However, bottlenecks persist. The main constraint in matching a theoretically infinite pool of capital with conservation-driven ventures is creating bankable projects. Investors blame the lack of sound business opportunities with sound risk-return profiles as the number one challenge. To address the challenge, international organizations, foundations and investors are looking into graduating business models and generating positive track records to reduce uncertainties and risk premiums. The Coalition for Private Investment in Conservation (CPIIC) has developed investment blueprints (see BOX 1.3) to showcase potential transactions.



<sup>38</sup> For more information on coral reefs see The Coral Reef Economy at [https://wedocs.unep.org/bitstream/handle/20.500.11822/26694/Coral\\_Reef\\_Economy.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/26694/Coral_Reef_Economy.pdf)

<sup>39</sup> For example, EDF's estimate at <https://www.edf.org/true-cost-carbon-pollution>

<sup>40</sup> Forest Trends, Unlocking the potential: State of the Voluntary Carbon Markets 2017 accessed at <https://www.cbd.int/financial/2017docs/carbonmarket2017.pdf>

**Box 1.3:** Coalition for Private Investment in Conservation

The Coalition for Private Investment in Conservation (CPIC) is a group of civil society organizations, private and public sector financial institutions and academia working to increase private and return-seeking investment in conservation. CPIC has created working groups to delve into promising sub-sectors: coastal resilience, forest landscape conservation and restoration, green infrastructure for watershed management, sustainable agriculture intensification and sustainable coastal fisheries. The coalition has prioritized the development of blueprints to present risk-adjusted returns linked to specific types of investment. These are working documents produced to facilitate the execution of investable financial transactions. The following blueprints are available:

## 1 Public-Private Partnership in Marine Protected Areas

This business model features a co-management agreement (Public-Private Partnership) for Marine Protected Areas (MPAs). A special vehicle or company is responsible for the management of the MPA. The company mobilizes funds primarily to finance up-front capital expenditures. Based on a real case-implementation (Blue Finance in Dominican Republic) an annual revenue of US\$1-2 million is required, or approximately 100-150,000 visitors a year. Debt financing is sought for up-front capital expenditures in the range of US\$2.5 million per site.

## 2 Impact bonds<sup>41</sup> for green infrastructure

DC Water (USA) Environmental Impact Bond issued co-finance for the Clean Rivers Project. The utility planned for green infrastructure to replace pipes for stormwater collection around Rock Creek, a national park. The 'bond' was bought by Goldman Sachs and Calvert Foundation. The contractual arrangements included unique provisions to prize environmental performance i.e. discounted interest rates. The Environmental Defense Fund established a 'resilience bond' to fund wetland restoration in coastal Louisiana (USA). Forest resilience bonds have funded ecological restoration activities aimed at reducing fire risk and related damages. Using an adapted infrastructure project financing model, the repayment relies on contracted cashflows to monetize ecological and social outcomes associated with forest restoration.

## 3 Sustainable forestry funds

The blueprint features a sustainable forest fund architecture based on the experience of Lyme Timber, a private timberland investment manager focused on the acquisition and sustainable management of timberlands in the US. The model seeks market rate risk adjusted returns in the 1-3 percent range. The structure also benefits from the conservation easement legislation in the US.

## 4 Sustainable production and land restoration

This blueprint presents a business model for sustainable cocoa production in West Africa to invest in the replacement of aging trees (renovation) and in the improvement of existing tree stocks (rehabilitation). Biodiversity gains are related to intensification strategies versus extension of plantations. These products are expected to be certified.

CPIC will continue to work on producing more blueprints. The website also maintains:

- a list of resources on conservation finance: [cpicfinance.com/resources/related-reports/](https://cpicfinance.com/resources/related-reports/) and
- a list of business accelerators at: [cpicfinance.com/resources/accelerator-selection-tool/](https://cpicfinance.com/resources/accelerator-selection-tool/)

Source: CPIC website ([cpicfinance.com/](https://cpicfinance.com/)) accessed June 2019.

<sup>41</sup> Payment for success schemes. For additional information consult: [www.sdfinance.undp.org/content/sdfinance/en/home/solutions/social-development-impact-bonds.html](https://www.sdfinance.undp.org/content/sdfinance/en/home/solutions/social-development-impact-bonds.html)

The key challenge is often found in transforming a conservation project with commercial potential into a bankable venture that can attract commercial investors. In search of solutions, investors have partnered with entrepreneurs and project sponsors to explore, combine and diversify income streams in conservation. For example, Althelia Ecosphere investments benefit from multiple revenue streams, including from the sale of sustainable products, carbon credits and ODA in its projects.

Some investments have yields that are easier to monetize, such as sales from sustainable agricultural goods, fish and timber. Gauging yields from activities that are more difficult to commercialize, such as selling carbon credits or operating profitably a private protected area, still requires longer term investing and public support. Public-private collaboration can play an essential support role in upscaling private investment in conservation.

## Public-private collaboration

Public and private collaboration is critical to make private investment work for biodiversity and ecosystems. This collaboration requires a good understanding of the roles each stakeholder can play, the risks connected to those roles and the objectives pursued. Typical roles include:

- **Public entities:** governance of regulatory frameworks (including for offset markets), investment co-financing (market terms), subsidies (direct transfers, concessional capital, guarantees, feasibility, inputs and capacity development etc.)
- **Private sector:** management of impact-driven conservation companies; management of sustainability and biodiversity related units/projects in private companies
- **Financial sector (private):** management of conservation investment vehicles; management of sustainability and biodiversity related units, projects and facilities
- **Private sector associations (chambers of commerce, financial sector and employer associations):** provision of services to members including research, feasibility and capacity development
- **Development finance institutions, development partners, and international organizations:** investment co-

financing (market terms), concessional financing (concessional capital, guarantees) grants (feasibility, inputs and capacity development), standard setting, and advocacy and awareness raising

- **Conservation-driven organization (not-for-profits):** grants (feasibility, inputs and capacity development), development of standards, independent monitoring and assessments and advocacy and awareness raising

The risk and profit-sharing formula ultimately defines a financial transaction and the roles played by different partners. Roles can then be connected to risks and opportunities. With increased sophistication in financial markets and access to de-risking instruments provided by international financial institutions, development partners and governments, the boundaries between private and public transactions have become more blurred. The term 'blended finance' describes "... the strategic use of development finance for the mobilization of additional finance towards sustainable development in developing countries."<sup>42</sup> Financial de-risking instruments include guarantees, concessional debt and equity, technical assistance and grants. The natural capital facility of the European Investment Bank (BOX 1.4) is as an example.

### Box 1.4: The Natural Capital Facility of the European Investment Bank



The Natural Capital Financing Facility offers funding to projects that promote the conservation, restoration, management and enhancement of natural capital for biodiversity and adaptation benefits, including ecosystem-based solutions to challenges related to land, soil, forestry, agriculture, water and waste.

The facility consists of:

- A finance facility providing financing of a between €2-15 million;
- A technical assistance facility providing a grant of up to €1 million for preparation, implementation and monitoring.

The first loan was signed in April 2017. Examples of the projects financed are:

- **Rewilding Europe Capital.** The €6 million loan will support over 30 nature-focused businesses across Europe. The comeback of iconic and threatened European wildlife species such as the European bison, brown bear, black vultures as well as pelicans and white-tailed eagles of the Danube and Oder Delta could be catalysed by these investments.
- **The Silva Fund.** A specialized fund focusing on sustainable forestry. The strategy of the fund is to acquire semi-mature plantations and to transition these forests to 'Continuous Cover Forestry' or 'Close to Nature' management, an alternative to the widely-used single-species clear fell-replant system.

Source: EIB website accessed at <https://www.eib.org/en/products/blending/ncff/index.htm> (July 2019)

<sup>42</sup> OECD definition.

Public–private collaboration and the expansion of blended finance schemes demands parties to be aware of the possible risks in for these schemes so that they can be allocated effectively. Financial and operational risks typical to private investing (e.g. liquidity, currency and political risks) apply equally to conservation investments. Investment risks relate to the type of financial instruments used (e.g. debt, equity and real estate), the context (e.g. currency risk and political risks) and the counterparts involved (i.e. commercial risks). Some investments are a good fit for certain investors, but not for others. Certain projects may only

generate revenues in local currency and thus require investors prepared to work with local currency financing.

Unique considerations are rooted in the lack of a common and shared understanding of what constitutes a conservation investment and the lack of recorded transactions, compared to other sectors. Political and social considerations on what constitutes a legitimate activity may also vary according to local culture and traditions. Risks related to the development and expansion of private investing in conservation are:

### Over-financialization<sup>43</sup>

Financialization without sound regulatory provisions may perpetuate market failures and lead to incorrect pricing, with the risk of transforming priceless ecosystems into cheap commodities with prices based only on what the market is prepared to pay for them.

### Scaling up too quickly in immature markets

A mismatch between investors and investees' expectations over financial and non-financial performance may be exacerbated as conservation finance attracts larger market players that cannot find investible deals. Lack of absorptive capacity for large investments remains an issue. Investment readiness (availability of good projects) remains a key challenge in developing countries beyond impact investment and conservation.

### The lack of an enabling market infrastructure

Market infrastructure is intended as services to enterprises—the lack of which can inflate the investment costs of nature-based programmes. A lack of intermediation services can raise transaction and investment costs. Networks are underdeveloped, and, with no widely accepted and reliable social metrics, the trade-off between financial and social returns is difficult to assess.

### Distortion of philanthropic giving and ODA flows

Private investments in conservation that require public subsidies can divert capital away from philanthropy and decreasing much-needed aid to social and environmental challenges.

### Greenwashing

Greenwashing can damage the appeal of the impact investment market and ultimately the trust of investors. For example, unscrupulous asset managers could fraudulently label and sell traditional investment products as 'conservation finance'.

### Social risks

The economic rights of local communities may be threatened as a result of a conservation investment particularly where land tenure is unclear. Restrictions placed on the use of or access to customary-owned natural resources (e.g. marine and forestry resources) may deprive people of their livelihoods.

The profiling of investors to identify the best fit for a conservation investment is critical to then determine the characteristics of a blended finance scheme and any form of public support. The investment pipeline is still under development: some businesses are configured around compelling business models, but others—probably the majority—still rely on unproven profit expectations and public subsidies. Some companies (or projects) by design will only produce cash flows several years post-investment, for example in reforestation and afforestation. Some environmental

benefits, even if theoretically recognized and valued, such as carbon sequestration, are still difficult to monetize or severely underpriced. The above features are what is expected from a young market. If the risk-return formula does not graduate a certain investment for a market transaction, concessional capital or subsidies can have a large impact. Public authorities and conservation organizations need to be capacitated to effectively manage negotiations with private counterparts, execute and monitor risks and determine what level and type of support is required to unlock private investment.

<sup>43</sup> Financialization refers to the increase in size and importance of a country's financial sector relative to its economy. While there is evidence that capital markets are an engine of growth, their expansion beyond certain thresholds can be considered a risk factor.

Chapter 2

# The Market





*“Conservation investors are hungry for investments that fit their interests. But they feel there aren’t enough that make the grade,”*

**Anna Field**, Forbes

*“The appetite is there, but the deal pipeline is not. We need to create suitable vehicles around meaningful projects to bridge the gap for investors,”*

**Leigh Madeira**, Blue Forest Conservation

**Chapter 2** describes private investment in conservation markets and presents their sectoral and geographic connotations, emerging players and the pro and cons of the financial instruments used. This chapter concludes with challenges and opportunities to scale up the private sector solutions.

Despite attempts to measure private investment in conservation, statistics are only available to gauge the impact investment segment of the market—where investors openly declare their intent to achieve a conservation outcome. Beyond this, investments in conservation are not tracked systematically, even those that are publicly announced. Royal Caribbean Cruises, for example, has agreed to work with the World Wildlife Fund to preserve oceans.<sup>44</sup> They have set sustainability targets, including to source 90 percent of wild-caught seafood from certified fisheries and to adopt emissions reduction technologies, but the amount invested was not made public. BIOFIN has started investigating how to collect information from private companies and investors, including through interviews and surveys. Preliminary data produced by Colombia, Kazakhstan, India and the Seychelles is under review.

Impact investing in conservation is still small in scale but has grown considerably in recent years. The total committed private capital climbed 62 percent in just two years from US\$5.1 billion

to US\$8.2 billion according to Forest Trends. This is about US\$1.6 billion worth of investment a year in 2014 and 2015. Sustainable food and fibre value chains account for the lion’s share i.e. US\$6.5 billion over a decade. Investments in habitat conservation were reported at US\$1.3 billion, while investments in improving water quality or quantity totalled US\$400 million. Sustainable forestry and agriculture are considered as mature markets, while water and watershed green infrastructure markets along with sustainable fishing are at earlier stages of development.<sup>45</sup>

The more recent GIIN 2018 impact investor survey<sup>46</sup> indicates 3 percent of impact assets under management (i.e. US\$3.2 billion) are tagged to conservation. Investments in conservation were made by 16 percent of surveyed respondents, with a third indicating the intention to increase their investment. The survey also highlighted a market concentration whereby the top 10 investors account for two thirds of the committed capital, but also the constant entry of new investors.

**Figure 2.1: Conservation and Impact Investment**



Source: Annual Impact Investor Survey 2018, GIIN

<sup>44</sup> WWF at [www.worldwildlife.org/press-releases/royal-caribbean-cruises-ltd-and-world-wildlife-fund-wwf-announce-global-partnership-to-support-ocean-conservation](http://www.worldwildlife.org/press-releases/royal-caribbean-cruises-ltd-and-world-wildlife-fund-wwf-announce-global-partnership-to-support-ocean-conservation)  
<sup>45</sup> Ecosystem Marketplace by Forest Trends, State of Private Investment in Conservation 2016, December 2016.  
<sup>46</sup> Annual Impact Investor Survey 2018, GIIN, June 6, 2018 <https://thegiin.org/research/publication/annualsurvey2018>. Please note that these amounts are not directly comparable to the data of Forest Trends.

# The market by geography and economic sectors

Geographically, impact investing in conservation has concentrated in USA and Europe, only recently reaching developing countries. Investments in habitat and water conservation remain concentrated in North America and Australia, probably due to the existence of favourable payments for ecosystem services schemes, water markets and mitigation

banking programmes. Differently, financing for sustainable food and fibre production is evenly dispersed across all regions. Annex I lists impact investment funds and fund managers active in conservation and with a portfolio in developing countries. Examples (by sector) of impact ventures, financing deals and pipeline development are listed in BOX 2.1.

### Box 2.1: Examples impact ventures and financing by sector



#### Conservation solutions for water services

Competing claims on freshwater systems—from cities, industry, agriculture and energy—impact the provisioning of water quantity and quality and may result in stresses on watersheds and water-related ecosystems. Different water management strategies can be adopted to access and regulate water systems to meet all of these competing needs. The market for water and wastewater projects was around US\$300 billion in 2010. Featured examples:

- **Pipeline development.** In the 1990s, New York was considering an investment of US\$6 billion for a new water-treatment facility with an estimated US\$250 million annual maintenance bill. Instead, the city administration decided to allocate around US\$1.5 billion to protect the watersheds constituting its reservoirs. Through payments for ecological services the natural filtering reduced the need for artificial water treatment. The city saved billions of dollars and helped to conserve over 25,000 acres of land.



#### Sustainable agriculture

Cultivated land and pastures cover roughly 40 percent of the planet's land surface, while agriculture and food processing are leading polluters and avid consumers of water resources. Sustainable agriculture is about meeting social and economic needs for food, textile and other agricultural raw materials in the present without compromising the ability of ecosystems and biodiversity to meet future needs. Sustainable production practices include activities that promote soil health, minimize water use, lower pollution levels and waste, and preserve on-farm and nearby ecosystems. Sustainable agriculture aims to enhance environmental quality and the natural resource assets on which agriculture depends, along with social progress and human and labour rights. Sustainable agriculture markets have grown in the past decade, with several labels—from organic agriculture to deforestation free—certifying the reduced or positive impact. Moreover, the sector has been pushing innovations (e.g. the use of drones and sensors) for measuring and preserving biodiversity with help from ODA and philanthropy. Examples of innovations are supported, for instance, by the Climate-KIC agricultural programme. Featured examples:

- **Pipeline development.** The Northern Rangelands Trust in Kenya has created a for-profit subsidiary to run a livestock to markets initiative. The company supports local cattle herding communities who agree to observe improved grazing practices. These communities become responsible for managing the land over which they graze livestock, creating a local conservancy solution. NatureVest invested US\$3.5 million to increase the company's buying capacity with the objective of introducing better management and rejuvenation practices in over 1.25 million acres of nutrient-rich grasslands.
- **Financing.** The UNEP supported Tropical Landscape Financing Facility supports deforestation-free supply chains through applying strict lending criteria. It aims to mobilize international capital at scale to incentivize sustainable agriculture and renewable energy in Indonesia. ADM Capital is the manager while BNP Paribas arranges long-term commercially priced, long-tenor debt for individual projects.



## Sustainable forestry

Sustainable forestry balances the needs of the environment, wildlife and forest communities—supporting decent incomes while conserving forests for future generations. Approximately 70 percent of terrestrial animals and plants make their homes in forests, while more than 25 percent of the world's population rely on forest resources for their livelihoods. There are many steps and practices that the private sector can endorse to protect forests while managing profitable sales of timber and non-timber forest products such as nuts and oils. Some of these sustainable practices can be certified. The recognition of sustainability by producers and pressure from consumers have helped to grow the number of certified forests and related products. Over 190 million hectares of forest in more than 80 countries are Forest Stewardship Council (FSC) certified.<sup>47</sup> Featured examples:

- **Pipeline development.** In 2009, Ejido Verde was established as a pilot project by the Mexican pine chemical industry to overcome the 60-year decline of raw materials resulting from deforestation. It has since created a unique industrial supply chain where indigenous communities get 90 percent of the revenue from a renewable resource. It will help with poverty reduction while also producing market rate profits to investors of an estimated 13 percent internal rate of return. In the 3,000 hectares under cultivation there is evidence of the return of coyotes and deer and improved groundwater quality.
- **Pipeline development.** Amata is a Brazilian forestry company and certified B-corporation that produces certified wood to reduce the pressure of illegal deforestation. It also monetizes existing assets that are produced by the forest, such as environmental and non-wood products.
- **Financing.** Lyme Timber is a private timberlands investment manager focusing on the acquisition and sustainable management of timberlands in the US, seeking market rate risk-adjusted returns in the US market and benefitting from conservation easement legislation (see also BOX 1.3).



## Sustainable fisheries and aquaculture

Each year, overfishing and unsustainable practices generate economic losses valued at about US\$83 billion, coastal hypoxia causes losses of US\$200 billion to US\$800 billion, damage from invasive aquatic species is valued at US\$100 billion and damage from ocean plastics is valued at US\$13 billion. Sustainably managed fisheries can play a significant role in regenerating marine biomass with a market potential estimated at between US\$26-72 billion. The global aquaculture market, valued at US\$169 billion in 2015, is expected to grow to US\$242 billion by 2022, but with no credible estimates of the sustainable share of the market. Featured examples:

- **Pipeline development.** In the Yucatan Peninsula of Mexico, a series of reforms were implemented to address the decline in number of spiny lobsters harvested. In response, six cooperatives set up a for-profit company called Integradora to promote responsible commercialization of local sustainable seafood, primarily lobster. The company initially benefited from a 1 year, 12 percent interest working capital loan from Verde Ventures, backed by a loan guarantee from UNDP and grant funding from Razonatura and others for technical assistance.
- **Pipeline development.** Sustainable Fishery Trade (Chile and Peru), a winner of the Fish 2.0 competition in 2017, is a social enterprise working with artisanal fishers to provide high-quality, traceable seafood direct to restaurants.
- **Company commitments.** Cargill Aqua Nutrition is a leader in aquaculture feed production. The company has expanded the coverage of its sustainability reporting and has committed to source all marine ingredients from IFFO RS certified factories by 2020 and, by 2025, to only source MSC certified marine ingredients.



## Sustainable tourism and eco-tourism

Tourism is one of the world's largest industries, contributing trillions of dollars to the economy and providing jobs to one in ten people worldwide. Seventy million trips each year can be geographically linked to coral reefs, generating an estimated US\$19 billion annual turnover from 'on-reef' tourism activities such as diving, snorkelling, glass-bottom boating and wildlife watching. The number and volume of sustainable tourism enterprises have grown steadily such

<sup>47</sup> Text adapted from at [www.rainforest-alliance.org/articles/what-is-sustainable-forestry](http://www.rainforest-alliance.org/articles/what-is-sustainable-forestry)

that the estimated global annual turnover from ecotourism is estimated to have surpassed US\$100 billion. Ecotourism creates value for natural landscapes that need to remain pristine and unaltered and directly and indirectly supports conservation efforts e.g. by contributing to the reintroduction of endangered endemic species, pest control, and the reduction of poaching. Featured examples:

- **Pipeline development.** Nature, landscapes and flora and fauna attracted 51 percent of overseas tourists visiting Chile in 2015, so the Invest Tourism initiative was launched to diversify the tourism offer. An opportunity map outlines 27 'investable' destinations where sustainable projects can be implemented. Financing needed from the private sector ranges from US\$70,000 to US\$5 million for each project with a total target of US\$32 million.
- **Financing.** Triodos Bank provides loans to sustainable tourism businesses that invest in property purchase and development, on-site renewables and green tourism accreditation. It only lends to businesses that have been or are in the process of being certified. It offers a 1 percent interest rate discount for businesses working towards gold certification.



### Green infrastructure and cities

Green infrastructure entails a strategically planned network of natural and semi-natural areas with other environmental features managed to deliver a wide range of ecosystem services in rural and urban settings.<sup>48</sup> Investing in green infrastructure gives investors an opportunity to drive a low carbon transition and produce positive outcomes for biodiversity and ecosystems. Most developing countries have approved or are planning ambitious infrastructure development, particularly for cities. Cities are among the most voracious consumers of natural resources. As the urbanization rate grows to 66 percent, the growth in material consumption will only intensify environmental problems.<sup>49</sup> Green infrastructure can ease these pressures and be more cost effective as nature-based solutions have proved in many instances to be cheaper options. The private sector and private capital will play important roles in realizing these opportunities as partners, managers and investors. Featured examples:

- **Pipeline development.** The City of Manchester conducted a feasibility study for a green infrastructure framework for the Greater Manchester City Region and later released a strategy on green and blue infrastructure. The Municipality of Athens mobilized funding from multiple sources to invest in green and blue infrastructure with an approach featuring early engagement of companies in solving the city's complex challenges. The concept of Urban Green Infrastructure is embedded in Singapore's laws.
- **Financing.** Large municipalities such as Johannesburg and Mexico City have issued green bonds to fund their green infrastructure projects. Utilities e.g. DC Water<sup>50</sup> have similarly mobilized resources from capital markets to fund their watershed restoration and management projects.

## A new generation of investors

Participation in the market by a wider range of investors is a positive signal along with evidence that 70 percent of commitments in conservation are managed by for-profit ventures. Among these new actors are ultra-net worth individuals, institutional investors, faith-based organizations and endowment foundations (BOX 2.2). Mainstream investors would instead need to shift their perspective and investment practices to enter the market. The promoters of conservation investments

and their sponsors need to change too. Their focus has been largely geared towards meeting conservation objectives rather than aligning to the needs of investors. Investment templates and records, which are required to reduce the gap between mainstream investors and promoters of conservation investments, are only slowly being developed. However, an increased attention to financial returns and structuring should not lead to less attention paid to impact measurement.

<sup>48</sup> European Commission, 2013, Green Infrastructure-Enhancing Europe's Natural Capital, COM(2013) 149.

<sup>49</sup> UNEP, <https://www.unenvironment.org/news-and-stories/story/weight-cities>

<sup>50</sup> <https://www.dewater.com/green-bonds>



### Box 2.2: A closer look at new investors in conservation



#### Wealthy individuals

There is growing evidence that along with profits, ultra-net worth individuals are interested in investing in companies that can generate positive impact. They want their financial portfolios—in addition to their philanthropic giving—to reflect what they believe in. Environment and climate activists have started to invest in companies producing sustainable products. The Leonardo DiCaprio Foundation is committed to preserving wild habitats and ensuring “clean air, water, and liveable climate” for all humans. Along with donations, the movie star has invested in Runa, an organic tea business, in sustainable fish producer LoveTheWild and in an eco-resort in Belize. Similarly, Impossible Foods was backed by investors including Bill Gates and Asia’s third-richest man, Li Ka-shing, helping the plant-based burger company to raise US\$183 million in two initial investment rounds and additional funds subsequently. Reduction of meat consumption can help mitigate the impact of livestock on natural habitats.



#### Institutional investors

AXA Investment Managers and Credit Suisse Group are among the few institutional investors that have explored the conservation market. Paris-based AXA Impact Fund, whose investors include 14 insurance companies and Credit Suisse, on behalf of institutional and high-net-worth clients, invested in Althelia Ecosphere, a forerunner in mobilizing institutional investors for conservation. Althelia Ecosphere later merged with Mirova, the impact investment subsidiary of Natixis, one of the largest global wealth management firms. Institutional investors will also be able to use their fixed income arms once green or SDG bonds featuring biodiversity become available. The most recent issuances of sovereign emissions allowing the allocation of proceeds to biodiversity—i.e. Fiji and Indonesia (*sukuk*)—were largely oversubscribed.



#### Faith based organizations

Faith-based organizations own about 10 percent of global wealth, including financial portfolios and real estate assets. The Church of Sweden has decided to invest a small percentage of its portfolio in impact ventures, including conservation investments. It has already invested €10 million in the inaugural offer of Althelia Ecosphere. The Zug ‘Guidelines for Faith Consistent Investing’ highlight the rationale and application of impact investment principles by faith-based organizations.



#### Endowment funds (of foundations)

In 2016 the MacArthur Foundation committed to allocating US\$500 million of its endowment to impact investment. The Ford Foundation announced it will allocate US\$1 billion from its US\$12 billion endowment to support mission-related investments, making the headlines in 2017. The value of endowments made by foundations globally is estimated at around US\$750 billion. The expectation is that a larger share of those endowments will be invested in: a) mission related investments (with an expectation of obtaining a market, or close to market, return); and b) programme related investments (with a lower than market expectation). Given conservation is an objective of many foundations, an alignment of their investment practices of their endowments to conservation could be sought. The vast majority of impact investing made by foundations is still allocated to industrialised economies due to higher political and commercial risks elsewhere. An example of endowments being invested is the Packard Foundation in the US, which invested US\$10 million in The Nature Conservancy Conservation Notes which pay up to 2 percent a year for a five-year term.

Sources: [www.institutionalinvestor.com/article/b14z9pqxb78rhq/for-conservation-finance-investors-returns-trump-impact](http://www.institutionalinvestor.com/article/b14z9pqxb78rhq/for-conservation-finance-investors-returns-trump-impact), Zug Guidelines for Faith Consistent Investing, and MacArthur Foundation Packard Foundation websites (accessed July 2019).

## The financial instruments

Table 2.1 presents a review of financial instruments used by investors in conservation. These can be grouped as impact investing instruments, green lending, and green fixed-income products including green and blue bonds. Investors can now also buy financial products from capital markets, such as listed green bonds. With green bonds, the allocation of proceeds to biodiversity and ecosystems is dominated by sovereign issuances bought by a variety of investors. The Indonesian green *sukuk*<sup>51</sup> and the Fiji green bond are among the few examples of green bonds where proceeds can be allocated to biodiversity conservation. However, even in cases such as in Indonesia and Fiji, the allocation of proceeds is mostly, if not exclusively, concentrated on climate mitigation and adaptation. Other institutions, such as The Nature Conservancy, have

also tested Conservation Notes, an alternative fixed income product.<sup>52</sup> The proceeds from the Notes were used as bridge capital for land acquisitions in the USA.

Financial institutions have started to establish SDG-themed lending facilities, some of which are dedicated to natural capital. This latter example was guided by development banks pilots, including the Natural Capital Financing Facility of the European Investment Bank, which supports projects delivering on biodiversity through loans and investments backed by a European Union guarantee (BOX 1.4). Green microfinance and impact investing vehicles—often supported by blended finance interventions—complete the landscape along with more innovative instruments such as resilience bonds.

**Table 2.1:** Financial Instruments: a comparison

Impact Investing	Lending	Fixed income
Private equity	Microcredit	Green and blue bonds
Private debt and notes	Bank lending	Green and blue sukuk
Quasi-equity/Equity-like debt	Downscaling schemes <sup>53</sup>	Conservation notes
Resilience bonds		Exchange-traded fund

### Comparing direct debt and equity financing

#### DIRECT FINANCING

	Description	Pros	Cons
<b>Debt</b>	<ul style="list-style-type: none"> <li>Loans from a bank or other financial institution (e.g. a mortgage or car loan)</li> <li>Repayments consists of (i) interest (variable or fixed) and (ii) principal</li> <li>Interest margin, decided by the bank, depends on the project's risk profile, tenor (length of loan) and potential security collateral) e.g. property or equipment)</li> </ul>	<ul style="list-style-type: none"> <li>Predictable repayments (interest and principal) which can be included in forecasts and budgets</li> <li>No transfer of ownership meaning owners keep control of the company (except if defaulting)</li> <li>Tax deductible interest expenses</li> </ul>	<ul style="list-style-type: none"> <li>Need enough cash-flow for regular principal and interest payments</li> <li>Security may be required (e.g. on property or equipment) or a third-party guarantee</li> <li>Operational restrictions (e.g. on the amount of additional debt allowed)</li> </ul>

<sup>51</sup> The green frameworks can be downloaded from [www.djppr.kemenkeu.go.id/uploads/files/dmodata/in/6Publikasi/Offering%20Circular/ROI%20Green%20Bond%20and%20Green%20Sukuk%20Framework.pdf](http://www.djppr.kemenkeu.go.id/uploads/files/dmodata/in/6Publikasi/Offering%20Circular/ROI%20Green%20Bond%20and%20Green%20Sukuk%20Framework.pdf) (Indonesia) and <https://rbf.gov.fj/getattachment/b19a81cf-4179-49c7-8667-579b7c7bf166/Fiji-s-Green-Bond-Framework-October-2017.pdf?lang=en-US> (Fiji).

<sup>52</sup> Conservation notes were an investment-grade retail product structured as a general obligation debt of the Nature Conservancy. The Notes received Aa2 rating from Moody's.

<sup>53</sup> Terminology originated in the microfinance sector where development banks provide lend to microfinance institutions and local banks.

### Comparing direct debt and equity financing

#### DIRECT FINANCING

	Description	Pros	Cons
<b>Equity</b>	<ul style="list-style-type: none"> <li>Capital injection from investors in return for an ownership share (based on a due diligence process and assessment of growth potential)</li> <li>No gradual repayments and investors receive capital gain/loss at sale (possibly a regular dividend for mature companies)</li> <li>Risk of performance sits until sale (can lose money and are ranking below debt providers. It is referred to as a 'patient form of capital')</li> </ul>	<ul style="list-style-type: none"> <li>Improves credit profile generally (e.g. strengthens the debt/equity ratio) and does not require security</li> <li>Limited cash flow requirements (unlike debt, no interest cost or debt repayments) as part of normal operations</li> <li>Strategic input and expertise complementing the management team can come from an external investor network</li> </ul>	<ul style="list-style-type: none"> <li>Reduced control and autonomy in decision-making as investors will want a say in the operation of the business to drive growth</li> <li>Generally, takes longer to raise equity (thorough due diligence process) and more management reporting required</li> <li>Divergent views between management and investors on direction of the venture or firm</li> </ul>
<b>Hybrids</b>	<ul style="list-style-type: none"> <li>Financing that combine debt and equity features</li> <li>Mezzanine financing, as an example, gives the lender the ability to convert to equity at a later stage (pre-defined criteria, typically at default)</li> </ul>	<ul style="list-style-type: none"> <li>Mezzanine tends not to require security which is good if available collateral has already been offered to other lenders</li> <li>Mezzanine is potentially treated as equity on a borrower's balance sheet (depending on definition, can improve debt/equity ratio)</li> </ul>	<ul style="list-style-type: none"> <li>Mezzanine is costlier and still requires regular interest, generally higher interest margin than other senior debt (subordinated = higher risk)</li> <li>Mezzanine means more monitoring than normal debt given equity features of the structure</li> </ul>

#### INTERMEDIATED

<b>Indirect Debt</b>	<ul style="list-style-type: none"> <li>'On-lending' to end borrower by a local bank or other intermediary of finance that was originally provided (long-term) by a different financial institution</li> <li>Lending decisions and financial risks remain with the intermediary institutions</li> <li>Contractual relationship only between end-borrower and intermediary (albeit gets informed about on-lending structure)</li> </ul>	<ul style="list-style-type: none"> <li>Better access to finance and support for high-impact segments through the network of local banks and intermediaries</li> <li>Smaller loans tend to be possible allowing small business owners to obtain necessary financing</li> <li>Lower transaction costs with straightforward legal and contractual agreements (typically national standards)</li> </ul>	<ul style="list-style-type: none"> <li>Potential lack of resources at local bank or intermediary to develop project pipeline in target impact sector</li> <li>No direct access to network of large financial institutions for the final beneficiaries</li> </ul>
<b>Equity Funds</b>	<ul style="list-style-type: none"> <li>A portfolio structure whereby a fund manager raises capital from investors and/or financial institutions that are subsequently invested in projects</li> <li>A fund manager is responsible for pipeline development and due diligence</li> <li>Strategy and return expectations are determined with investors ahead of the capital commitment</li> </ul>	<ul style="list-style-type: none"> <li>Diversification benefits due to the portfolio approach (i.e. underperformers can be compensated by high-performing assets)</li> <li>Funds provide access to investors for private equity transactions (who may not have the mandate/resources to invest directly)</li> <li>The expertise of fund managers in specific sectors can improve the ability to identify projects and create value</li> </ul>	<ul style="list-style-type: none"> <li>Potential restrictions are agreed with investors at inception re asset type, geography, sector etc. which could limit flexibility of pipeline development</li> <li>Potential high return expectations of investors for overall fund performance</li> <li>Management and performance fees payable to fund managers increase pressure for a return on underlying assets</li> </ul>

Source: Investing in Nature: Financing Conservation and Nature-based Solutions by the European Investment Bank

## Scaling up the investment pipeline

While investments in biodiversity and ecosystems have grown, there is still a vast potential for expanding the type of projects and companies being financed and scaling up the investment pipeline. Most biodiversity-friendly business models and markets are still insufficiently developed. This is due in part to a lack of knowledge by businesses of e.g. the market, opportunities, risks and intermediaries, as well as unfavourable market conditions and high transaction costs involved in converting existing production systems into biodiversity-friendly systems. Investors point to a lack of deals with the right mix of risk and returns as the most significant obstacle. The low average deal size is another commonly cited challenge.

Some challenges are directly linked to nature-based businesses, while others relate to the country's overall macroeconomic and business environment. The first challenge is the timing before nature-based projects and companies can start producing a positive cash flow. Second is the difficulty of monetising conservation benefits, even in the presence of regulated

markets. The third is the measurement of impact in relation to biodiversity. Even with sophisticated scientific knowledge and adequate technology, it can be difficult to predict a conservation impact. These challenges can be addressed through public-private collaboration and partnerships.

Despite challenges, investors are planning to raise or reallocate more capital to conservation. The number of funds and fund advisors dedicated to conservation investment have grown steadily. Moreover, technology and fintech—the application of new technologies in the financial sector—are expected to reduce the transaction and impact measurement and monitoring costs. The next chapter describes how BIOFIN can support the growth of this market. Annex I lists the impact investment funds and fund managers that are active in developing countries. Annex II lists incubators and accelerators that help impact enterprises in conservation to co-create sound business models.



Chapter 3

# Delivering finance solutions for nature





*“It is not just the responsibility of the public sector; producers, consumers and also the private sector who directly or indirectly benefit from biodiversity should consider investment in protecting and restoring biodiversity resources,”*

**Her Royal Highness Princess Sirindhorn of Thailand**

As part of her Royal Speech during the opening ceremony of the 2017 BIOFIN Day Thailand

**Chapter 3** describes finance solutions that can help channel private capital in nature to halt biodiversity loss and ecosystem degradation. It profiles best practices and examples highlighting the role of UNDP and BIOFIN in supporting the market.

The biodiversity finance landscape is changing. Domestic and international financial flows have grown in number and volume. The boundaries between public and private, and for-profit and not-for-profit, have become blurred. The range of financing instruments, strategies, investors, and delivery mechanisms has expanded. The instruments including debt, equity, fiscal instruments, grants, regulated markets, policy and policy signals, and risk management strategies are often used in combination.

BIOFIN has adopted the term ‘finance solution’ to investigate this universe of possibilities. Finance solutions provide strategies and means to effectively unlock and direct multiple sources of finance toward national and local biodiversity plans, projects and businesses. Public revenues, short- and long-term private investment, or any combination of the two can provide funding which is in turn delivered through various public agencies, civil society and private enterprises or blended finance schemes. In this evolving landscape, solutions can be categorized by four non-exclusive financial results they aim to achieve, namely:

- **Generate revenues:** mechanisms and instruments that can generate or leverage additional financial resources for biodiversity conservation or restoration..

- **Realign current expenditures:** measures that can re-orient existing financial flows and investment towards biodiversity or simply away from harmful activities.
- **Avoid the need for future expenditures:** any measure that can prevent or reduce future investment needs by reducing or amending counter-productive policies, expenditures and behaviours.
- **Deliver biodiversity management effort more effectively:** measures or strategies that can enhance cost-effectiveness/efficiency, mitigate risks and achieve synergies in nature-based investment.

Private sector actors play multiple roles in the implementation of finance solutions, either as payers (e.g. of taxes and payments for ecosystem services), service providers (e.g. of result-based subsidies), funders (e.g. through philanthropy), investors (e.g. in impact investments) and implementers (e.g. by mitigating negative impacts). Several solutions may be deployed by both private and public actors interchangeably (e.g. green bonds) and many offer opportunities for collaboration or joint implementation. To help practitioners navigate this universe, UNDP, BIOFIN and our partners have developed platforms and tools to guide practitioners (BOX 3.1).



### Box 3.1: Resources to Navigate across Finance Solutions



The **BIOFIN catalogue**, a continuously updated 'living document', features over 150 finance solutions that are applicable to biodiversity. Each catalogue entry includes a brief description and links to guidance material and a few case studies. It can be accessed at: <http://biodiversityfinance.net/index.php/finance-solutions>.

The **Financing Solutions for Sustainable Development** online platform provides a technical review of finance solutions, namely, their potential, advantages, disadvantages, risks and characteristics. It aims to expand knowledge over the breadth of finance solutions available to implement sustainable development financing strategies. It can be accessed at: [www.sdfinance.undp.org](http://www.sdfinance.undp.org).

The **Conservation Finance Alliance Guide** will be updated to provide step-by-step guidance on a sub-set of finance solutions. The older version of the guide is available at <http://conservationfinance.info/>.



Emerging features of BIOFIN engagement at the country level are summarized below, ranging from the provisioning of policy signals, the building of an enabling environment, capacitating market institutions for piloting and scaling up of a new generation of public-private collaboration and the exploration

of innovative finance solutions. BIOFIN engagement is aligned with the 'UN Secretary General Strategy for Financing the 2030 Agenda'<sup>54</sup> and with the strategy of the newly established Finance Sector Hub of UNDP.

<sup>54</sup> <https://www.un.org/sustainabledevelopment/sg-finance-strategy/>

# BIOFIN Role

## Private Investment in Conservation



### ***Advises businesses, helping them to develop strategies and align their processes with the Sustainable Development Goals***

- Fosters new business alliances that integrate biodiversity into the design of financial and commercial products
- Promotes the adoption of impact measurement practices by companies and the financial sector



### ***Supports the development of policies, regulatory frameworks, compliance and reporting standards***

- Promotes an enabling framework for private investment in conservation and policy de-risking options<sup>55</sup>
- Introduces policy signals on the role of private investment in conservation in policies, strategies and plans
- Introduces and supports biodiversity-relevant green standards and certification



### ***Works with business incubators and accelerators for SDGs***

- Builds the capacity of conservation organizations to diversify their income through impact investing and the co-management of protected areas among other means
- Builds capacities of nature-based businesses via incubator and accelerator programmes



### ***Develops financial mechanisms that blend private and international finance for the SDGs***

- Supports market assessments and feasibility studies for the prototyping and scaling-up of innovative investment vehicles



### ***Develops thematic bonds (SDGs, Green, impact etc.) frameworks and their monitoring***

- Adapts frameworks developed for the public sector and national sustainable finance strategies to the needs of the private sector
- Builds frameworks for public-private partnerships in relation to fixed income instruments



### ***Establishes data and information management systems that enable tracking of private and public finance towards the SDGs***

- Develops and tests a methodology to account for private sector expenditures in biodiversity

\* These roles are in conjunction with the UNDP Finance Sector Hub as of August 2019

<sup>55</sup> Policy de-risking seeks to remove the underlying barriers that are the root causes of investment risks. These instruments include e.g. support for policy design, institutional capacity building, resource assessments, and skills development. This is different from financial de-risking, which seeks to directly transfer the risks that investors face to public actors. Financial de-risking instruments includes such as loan guarantees and political risk insurance.

BIOFIN supports the implementation of finance solutions prioritized through an all-encompassing evidence-based and participatory approach, which is described throughout the **Workbook**. Selected solutions aimed at attracting private capital in conservation are featured below. They are grouped for presentation purposes, accordingly:

- ① Promotion of sustainable business practices
- ② Investment strategies and products that produce measurable impacts on biodiversity

- ③ Public-private collaboration to spur innovation and create sustainable markets.

The list is not comprehensive but offers concrete examples of challenges that have been faced by companies and investors and where they have taken advantage of new opportunities. Selected best practices and early examples of BIOFIN interventions are also featured.

## 1. Promotion of sustainable business practices

A major challenge in halting biodiversity loss is finding ways to address the impact of the economic sectors that exert the toughest pressures on biodiversity such as agriculture, forestry and fisheries.<sup>56</sup> The introduction and financing of sustainable practices that can reduce biodiversity loss or generate positive impact need to be promoted. There is evidence of increased awareness and willingness within the private sector to advance

the biodiversity agenda. For example, in the context of the launch of the Mexican Partnership for Business and Biodiversity, Mexican companies committed to preserving biodiversity as part of their business operations in collaboration with civil society and international cooperation. The following solutions may be considered:



### Featured example

#### Danone – B Corp certified

Nine subsidiaries of the multinational food-products corporation Danone have been certified B Corporations<sup>57</sup> i.e. they have been verified by the non-profit B Lab as meeting the highest standards of social and environmental performance, transparency and accountability. In 2017, Danone announced its focus on regenerative agriculture across three pillars: protecting soil, empowering farmers, and promoting animal welfare. The Danone Ecosystem Fund and the Livelihoods Funds have provided financial and technical support to over 100,000 farmers worldwide. In Madagascar the Livelihoods Fund will work with 3,000 vanilla farms to improve the quality of their products and agroforestry techniques, with the aim of converting 6,000 ha to sustainable farming.

Source: [www.danone.com/impact/planet/regenerative-agriculture.html](http://www.danone.com/impact/planet/regenerative-agriculture.html) accessed April 2019.



<sup>56</sup> Karlsson-Vinkhuyzena, Sylvia, Marcel T.J. Kok, Ingrid J. Visseren-Hamakers, Catrien J.A.M. Termeera; Mainstreaming biodiversity in economic sectors: An analytical framework, *Biological Conservation Journal* 210 (2017) 145–156.

<sup>57</sup> Certified B Corporations are businesses that meet the highest standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose. B Corp Certification evaluates products and services and assesses the overall positive impact of the company. Read further here: <https://bcorporation.net/about-b-corps>

## Biodiversity business alliances (Avoid, Deliver, Realign)

The integration of sustainable practices in business operations helps companies live up to their responsibilities as global citizens and local neighbours and can significantly strengthen business resilience and profitability. Effective corporate sustainability can offer clear business benefits for operations, reputation, new products and markets, and finance and can significantly reduce business risks. ESG integration, investment

in technology upgrades and supply chain strategies are also entry points. Partnerships among private enterprises can lead to innovative ways of collaborating, mobilizing expertise and pooling resources for levelling the playing field and demonstrating shared accountability. Examples include the European Business and Biodiversity Campaign and the Indian Business and Biodiversity Initiative.t



### Featured example

#### Act4Nature

Act4Nature aims to mobilize French companies to protect, enhance and restore biodiversity. More than 50 companies have joined the group and committed to integrating biodiversity concerns into their global development strategies. The signatory enterprises have committed to:

- Integrate biodiversity into their business strategy based on available scientific knowledge.
- Communicate with all stakeholders on expectations, impacts, actions and progress.
- Evaluate the different components of biodiversity with indicators of direct and indirect impacts, risks and progress and, when it is relevant for decision-making, economically evaluate impacts and dependence on proper functioning ecosystems.
- Promote the gradual integration of biodiversity into decisions throughout value chains, from the production of natural raw materials to the end of life of products after use by consumers.
- Avoid, reduce and offset impacts, targeting on a case-by-case basis at least a lack of net loss or a net gain in biodiversity, in activities and geographic areas of influence, and consider the adaptation needs of ecosystems to climate change.
- Develop nature-based solutions as a priority, ensuring that their implementation is conducted in a scientifically sound and beneficial way for biodiversity, including promoting a variety of these solutions.
- Integrate biodiversity into dialogue with public authorities, to support the consideration of this issue in public policies and, when invited, contribute to national biodiversity strategies in the countries in which they operate.
- Raise awareness and train employees about biodiversity and its relationship with their professions; promote and encourage their initiatives for nature and give recognition to these actions and practices.
- Mobilize resources and establish appropriate partnerships to support and monitor actions.
- Publicly report on the implementation of these commitments and individual commitments.

Source: Act4Nature, *Les entreprises pour la biodiversité* accessed at [www.act4nature.com](http://www.act4nature.com)



### Possible actions:

- Foster new business alliances that promote the adoption of sustainability measures and behaviours and the sharing of best practices, from advocacy to awareness raising
- Support the integration of policy signals in public policies, strategies and plans to promote sustainable and green finance markets
- Through existing or newly established bodies, support companies to adopt biodiversity relevant green standards, certification and impact measurement practices through learning networks, peer-to-peer support and selected incentives.



In the **Philippines**, BIOFIN partnered with GCash and WWF to both drive sustainable customer behaviours and support reforestation in the country. GCash is a company offering fintech services, including mobile payments and transactions. The customers using the app can earn points from doing green activities e.g. buying sustainable products or switching to paperless services. Once a customer earns enough points, they can choose a native tree to adopt. The tree is a real tree that will be planted. A similar model was pioneered in China where Ant Financial helped to plant over 100 million trees.

 **Sector** : Financial sector

 **Solution** : Nudging, Corporate Social Responsibility



In **Chile**, BIOFIN and the Sustainability Agency for Climate Change are working on improving green production practices of the private sector through the addition of biodiversity criteria to Clean Production Agreements (CPA). A CPA is an agreement between a company and public agencies seeking to implement cleaner production through specific targets and actions. It is a voluntary agreement negotiated and signed by the representative of the industrial organization in a productive sector and a public administration sector. CPAs have had high economic and social impacts with average investments of US\$32 million. However, they do not yet include biodiversity considerations. The adoption of Best Available Techniques in biodiversity in the implementation of CPA would contribute to a significant advance for biodiversity finance and sustainable management in the agriculture sector.

 **Sector** : Agriculture

 **Solution** : Sustainability standards and certification (voluntary)

## Sustainability standards and certification (Avoid, Deliver, Realign)

These are voluntary, usually third party-assessed, norms and standards relating to environmental, social, ethical and food safety issues, adopted by companies to demonstrate the performance, or the sourcing, of their products. They include eco-labels, organic and fair-trade certificationst.

### Detailed Review - Financing Solutions for Sustainable Development

Voluntary standards (finance)

[www.sdfinance.undp.org/content/sdfinance/en/home/solutions/voluntary-standards-finance.html](http://www.sdfinance.undp.org/content/sdfinance/en/home/solutions/voluntary-standards-finance.html)



### Featured example

#### Rainforest Alliance Certification

The Rainforest Alliance Certification seal features a frog. Its purpose is to signal to consumers that a farm, forest, or tourism enterprise has been audited and meets published standards. In undertaking an audit, the verifiers check the performance of the company against relevant standards and principles of the 2017 Sustainable Agriculture Standard. Principle 2, about biodiversity conservation, aims to prevent deforestation and protect biodiversity, natural ecosystems, and high conservation value areas in and around certified farms. Through implementing the criteria set out in this Principle, farmers protect on-farm natural ecosystems and do not contribute to deforestation. In addition, diverse native shade canopies required for shade-tolerant crops (such as coffee and cocoa) help conserve biodiversity and increase farm resilience.

Source: [www.rainforest-alliance.org/faqs/what-does-rainforest-alliance-certified-mean](http://www.rainforest-alliance.org/faqs/what-does-rainforest-alliance-certified-mean) accessed April 2019.

 **Possible actions:**

- Introduce biodiversity relevant standards, safeguards and certification in the financial sector; this may include the inclusion of biodiversity considerations in sustainable finance roadmaps and strategies
- Support the introduction of biodiversity relevant standards and certification in the real economy, particularly in agriculture, fisheries and forestry
- Partner with regulatory agencies of the financial market and stock exchanges to introduce mandatory or voluntary requirements, including on information disclosure.



In **Sri Lanka**, BIOFIN, in collaboration with the Central Bank of Sri Lanka, is supporting the banking system to improve green finance practices. Within the mandate of the Central Bank Road Map, BIOFIN is working with partners to design a business case for green financing products. This work is expected to produce an increase in the size and number of business loans connected to the sustainable use of biodiversity and natural resources to Small and Medium Enterprises (SMEs). Initial steps will involve increasing awareness of biodiversity conservation and sustainable use in the financial and production sectors.

 **Sector** : Financial sector

 **Solution** : Sustainability standards and certification (voluntary); Green lending



In **Thailand** and **Zambia**, BIOFIN has initiated discussions with each country's Stock Exchange to promote sustainable finance products, companies, roadmaps and standards.

## Sustainable value chains and sourcing (Avoid, Deliver, Realign)

A company can set and enforce procurement and sourcing policies and systems that favour or require socially and environmentally responsible products such as efficient lighting, certified paper products and certified palm oil to be purchased or the application of certain environmental and social standards in its value chain. Large companies have a significant impact on the market and can contribute to the shaping of more

sustainable global and regional value chains. The push for change can come both from the top—large multinationals can input into value chains designs that are sustainable and biodiversity-aware—and from the bottom, at the country and local levels with the promotion of sustainable commodities platforms and programs.



### Featured example **Kering**

Kering—an international luxury group of companies based in Paris—is working to reduce the environmental impact of its products, particularly from the sourcing of raw materials. The group has committed to reducing its global environmental impact, as measured by its Environmental Profit and Loss account across its supply chain by 40 percent by 2025. Kering aims for 100 percent of its supply chain to be certified as transparent and responsible. This is chiefly about improving traceability and progressively increasing the use of raw materials sourced from responsible and well-managed suppliers. A further goal is to see 100 percent of Kering's suppliers meet the standards set by the group for environmental stewardship, traceability, animal welfare, the use of chemical products, and working conditions.

Source: [www.kering.com/en/sustainability/our-strategy/care/](http://www.kering.com/en/sustainability/our-strategy/care/) accessed April 2019.

### Possible actions:

- Introduce biodiversity considerations and safeguards, possibly supported by independent certification or verification, in companies' procurement and sourcing practices
- Promote and facilitate companies' investments in green procurement and sustainable sourcing, including through the extended value chain and providers' networks
- Facilitate the participation of farmers and farmers' groups into global value chains, supporting platforms and deal making involving national and multinational purchasers.

## 2. Investment strategies and products that produce measurable impacts on biodiversity

Positive investment strategies make the most of what is labelled by many organisations as 'investment in conservation'. Chapter 2 has provided a birds' eye view of recent developments

and prospects in the market. The following solutions may be considered:

### Crowdfunding (Avoid, Deliver, Realign)

This is the practice of securing funding for a project or business venture from a dispersed group of unrelated people or entities (a 'crowd'). It takes place via online platforms that connect the crowd of investors/donors with the project owner directly i.e. without the intermediation of a financial organization. Different platforms coexist: reward-based, where individuals support campaigns and receive a reward in return; donation-based, where there is no expectation to receive a tangible benefit; equity-based, where individuals invest and receive equity-like shares in return; and lending-based, where individuals lend money and expect the repayment of the principal with or without interest. Crowd-investing platforms (i.e. equity/debt) are managed by private companies and can

also feature investments in conservation. Records of crowd investing in conservation are scattered. The World Economic Forum recorded 577 conservation-oriented projects (from 72 crowdfunding platforms) that had raised around US\$4.8 million in donations between 2009–2018. A few crowdfunding platforms looked expressly into funding green projects, such as greencrowd, but they achieved mixed results.

#### **Detailed Review - Financing Solutions for Sustainable Development**

Crowdfunding

[www.sdfinance.undp.org/content/sdfinance/en/home/solutions/template-fiche12.html](http://www.sdfinance.undp.org/content/sdfinance/en/home/solutions/template-fiche12.html)



#### Featured example

### **Saving Orange-bellied parrots**

The goal of Operation PKO was simple— to ensure that as many orange-bellied parrots as possible were bred in wild nests in the 2016/2017 season. Orange-bellied parrots breed in the southwest Wilderness World Heritage Area in Tasmania, Australia. The need was critical as there were only 14 wild orange-bellied parrots remaining. Operation PKO put out the call, "This is the last chance to save them." The project was well oversubscribed, collecting donations of more than US\$100,000 from a target of US\$60,000 within days.<sup>58</sup>

<sup>58</sup> [https://www.abc.net.au/news/2016-11-28/orange-bellied-parrot-crowd-funding-campaign-raises-over-\\$120k/8061586](https://www.abc.net.au/news/2016-11-28/orange-bellied-parrot-crowd-funding-campaign-raises-over-$120k/8061586)

### Possible actions:

- Conduct one or two exemplary biodiversity focused crowdfunding campaigns for training and replication
- Conduct training for NGOs/CSOs and social enterprises on crowdfunding
- Enter into agreements with existing crowdfunding platforms to feature biodiversity related projects or create special biodiversity related funding windows within these platforms
- Explore partnerships with crowd-investing platforms (equity or loans) to help them measure impact and apply safeguards.

## Disaster-risk insurance (Avoid)

Insurance schemes can cover financial losses due to extreme weather and natural and man-made disasters such as earthquakes, floods, and pollution leakages. In these events the insurer will refund a percentage of the loss. Insurance is widely used to increase the resilience of households, enterprises and communities to shocks. Forests, coral reefs and possibly other natural assets can and should be insured when economically viable.

### Detailed Review - Financing Solutions for Sustainable Development

Disaster-risk insurance

[www.sdfinance.undp.org/content/sdfinance/en/home/solutions/disaster-risk-insurance.html](http://www.sdfinance.undp.org/content/sdfinance/en/home/solutions/disaster-risk-insurance.html)



### Featured example Insuring coral reefs

Half the world's population lives within 60 km of the coast. With rising sea levels, ever-more-frequent and severe storms and cyclones, and increased coastal flooding, all coastal communities and businesses face increased risks. Research has shown that nature is a risk mitigating infrastructure since mangroves, reefs, floodplains and saltwater marshes can become buffer coastlines, absorb wave energy, and reduce erosion. Moreover, reefs are of value to the tourism sector—estimated at nearly US\$36 billion. Yet, this critical defence mechanism is under pressure and needs to be maintained.

Damage can be reduced by clean ups and restoration, but those actions cost money. Insurance can offer a solution. A dedicated insurance solution to cover the restoration cost for the reef is an essential step if the full protective value of the reef is to be reinstated. A new fund—the Coastal Zone Management Trust—was designed in partnership with The Nature Conservancy and is to be funded by municipal governments and the tourism industry on the Mexican Caribbean coast. It will be a source of funding for reef maintenance projects before and after storm surges. At this stage the scheme covers just one coastline. Given more than 150,000 km of shoreline in 100 countries are protected by reefs, UNDP with The Nature Conservancy are looking at what is needed to scale up the concept.

Source: UNDP at [www.undp.org/content/undp/en/home/blog/2018/Reefs-for-resilience-Insuring-our-shared-natural-capital.html](http://www.undp.org/content/undp/en/home/blog/2018/Reefs-for-resilience-Insuring-our-shared-natural-capital.html)

### Possible actions:

- Support the design of insurance products to protect natural capital (e.g. forests and coral reefs)
- Design subsidies and engage public agencies for the uptake of insurance schemes that benefit biodiversity and nature, when necessary and required
- Promote research and awareness raising on adapting insurance products to protect natural capital assets.

### Green and blue bonds and *sukuk* (Generate)

Green bonds can mobilize resources from domestic and international capital markets for climate change adaptation, renewables and other environment friendly projects. They are no different from conventional bonds; their only unique characteristic being the specified use of proceeds which are invested in projects that generate environmental benefits. In its simplest form, a bond issuer (public or private) will raise a fixed amount of capital, repaying the capital and accrued interests over a set period. Once the market has grown sufficiently, more advanced capital solutions such as biodiversity equity and bond indexes, and exchange trade funds can be explored.

*Sukuk* are often referred to as Islamic bonds as they comply with Islamic principles that do not permit interest earning but try to replicate the financial characteristics of fixed-income instruments.

#### Detailed Review - Financing Solutions for Sustainable Development

Green Bonds

[www.sdfinance.undp.org/content/sdfinance/en/home/solutions/green-bonds.html](http://www.sdfinance.undp.org/content/sdfinance/en/home/solutions/green-bonds.html)



#### Featured example

### BNP Paribas Sustainability Bond for the Tropical Landscapes Finance Facility in Indonesia

BNP Paribas led the issuance of a US\$95 million Sustainability Bond to fund the Tropical Landscapes Finance Facility. The multi-tranche senior secured fixed rate bond will fund PT Royal Lestari Utama, an Indonesian joint venture between France's Michelin and Indonesia's Barito Pacific Group, for climate-smart, wildlife friendly and socially inclusive production of natural rubber on heavily degraded land in Indonesia's Jambi (Sumatra) and East Kalimantan provinces. Occupying some 88,000 ha of land, the project has the potential to meet up to 10 percent of Michelin's global natural rubber demand when it is operational. The commitment is to set aside 45,000 hectares for livelihoods development and biodiversity protection. The funds from this transaction will be invested into a project with positive impact on local communities and the environment. The deal is supported by a loan partially guaranteed by the United States Agency for International Development (USAID). The project finance features the responsible management of a rubber tree plantation, the conservation of a biodiversity area, and provisions to improve the livelihoods of local populations.

Sovereign bonds and forest bonds are being issued to finance biodiversity-related activities, often under the category of land use (i.e. forestry and agriculture). While growth in land use sovereign issuances is a reality, the potential for the private sector issuances remains largely unexplored. Sustainability bonds issued by Starbucks can be considered as forerunners as can sustainability bonds arranged by BNP Paribas to support the goals of the Tropical Landscapes Finance Facility in Indonesia.

On the other side, private investors constitute the main buyers of sovereign green bonds. A blue bond market is also slowly emerging. The Seychelles issued the first blue bond in 2018, while in 2019 the Nordic Investment Bank for the first time issued a blue bond, with proceeds earmarked to reducing pollution and protecting the marine environment in the Baltic Sea. Other countries, including Indonesia and in the Caribbean islands, are exploring options for issuing blue bonds.

#### Possible actions:

- Assist companies in the development of a green/blue bonds framework or in complying with existing biodiversity-aware frameworks
- Help financial institutions and corporates to assess progress and impact of the allocation of proceeds from green bonds
- Scope for opportunities and support the design of public-private partnerships in relation to green/blue bonds issuances
- Develop business models for companies to become recipients of the proceeds of bonds.



**Costa Rica** is often regarded as a pioneer in biodiversity conservation. The Government of Costa Rica asked BIOFIN to find solutions to the challenge of better managing liabilities acquired due to land acquisition programmes for protected areas. After detailed financial analysis and high-level consultations, the proposal of a green bond was submitted. Backed by a securitization agreement over tourism fees collected by the Costa Rica park system, a bond will be issued to refund the land acquisition programme. BIOFIN will also support enhancement of the protected area fee system, which will partly constitute the income-generating assets of the securitization.

 **Sector** : Protected areas (land acquisition for protected areas)

 **Solution** : Green bond



**Indonesia** issued green *sukuk* in 2018 and 2019 and is considering the development of a blue *sukuk*. The green *sukuk*/bond framework includes the sustainable management of natural resources as an eligible sector. Habitat and biodiversity conservation are a sub-category comprising the sustainable management of land use change, agriculture, fisheries and forestry, and the protection of coastal and marine environments. In addition to labelled *sukuk* the country also allocated to biodiversity the proceeds from a non-green (but ordinary) *sukuk*. These proceeds funded the upgrade of infrastructure in five national parks across the country. UNDP has supported the Government of Indonesia with the design of the impact framework, the strengthening of Ministry of Finance and line ministries' capacity to monitor impact, and with advocacy. BIOFIN will further support the development of a pipeline of biodiversity related projects. These sovereign transactions are expected to help local banks and companies to enter the green bond and *sukuk* market.

 **Sector** : Protected areas (asset management in protected areas)

 **Solution** : Green bond



### Impact investing in conservation (Generate, Deliver)

These are investments made into companies, organizations and funds to generate measurable social and environmental impacts alongside a financial return. Impact investors invest in socially oriented but commercially viable businesses in sectors such as sustainable agriculture, affordable housing, affordable

and accessible healthcare, clean technology, and financial services for the poor. Previous sections of this report have identified revenue streams and business opportunities linked to impact-driven nature businesses.



#### Featured example

#### Conservation Capital

Conservation Capital is a boutique advisory firm that supports conservation enterprises and projects. It has helped raise and structure over US\$250 million in 25 countries and grow over 100 conservation enterprises covering an area greater than two million acres in 2019. Examples from its portfolio include a US\$2 million investment in Asilia, a nature travel business operating 14 camps and lodges in Tanzania, Zanzibar and Kenya made using a pioneering rebate mechanism that enables Asilia to reduce the effective cost of capital by up to 2 percent based on the development of new conservation areas and/or the introduction of incremental tourism bed-nights into underutilized conservation landscapes. The Rungwe Avocado Company is an investee impact enterprise operating around the high-value conservation and watershed of the Rungwe Forest, Kitulo National Park and the Mt Livingstone Forest Reserve in Tanzania. The company manages a scalable avocado production project (US\$1.25 million in revenue, 2016) providing more than 3,200 community based 'outgrowers' with an economic alternative to the unsustainable exploitation of local natural resources.

Source: [www.conservation-capital.com](http://www.conservation-capital.com) accessed April 2019.

#### Possible actions:

- Assist impact investors and companies in the development and management of impact frameworks
- Develop (biodiversity) sector guidelines for impact management and measurement
- Produce intelligence reports on impact investment (investors and investees) in conservation
- Facilitate the matching of investors and investees by supporting the impact ecosystem, including impact hub, accelerator programs and awards mechanisms
- Develop and manage technical assistance facilities attached to impact funds
- Support (in partnerships) the feasibility and design of blended impact vehicles
- Support the design of financial de-risking options from guarantees, first loss, up to equity participation
- Test blended finance schemes combining different instruments according to the stage and maturity of the business/market supported.



In **Mexico**, the downscaling trend in donating money is threatening the work of conservation organizations. This trend along with increased competition has led to the exploration of alternative financing models. The organizations however lack expertise in navigating private capital markets, including understanding what projects and activities can generate sizable returns. SVX Mexico, an impact investment advisory firm, together with BIOFIN and the Mexican Fund for the Conservation of Nature established the Regenerative Investment Consortium to facilitate investment flows and build capacity in conservation organizations and investees. The investment portfolio will feature companies operating sustainably in the fisheries, agriculture, forestry, tourism, water, ranching, landscape management and green infrastructure sectors.

 **Sector** : Fishery, agriculture, forestry, tourism, water, ranching, green infrastructure

 **Solution** : Impact investment



In **Indonesia**, BIOFIN organized the Bio-Economy Business Expo. The event fostered collaboration among researchers, business groups and nature-based start-ups. Options to transform this event into a platform to facilitate investment in nature-based businesses are being considered. Over 30 nature-based businesses exhibited at the event, with selected ones also participating in a hackathon on business development organized with a local angel investor association.

**Sector** : Fishery, agriculture, forestry, tourism

**Solution** : Impact investment

### 3. Public-private collaboration to spur innovation and create sustainable markets

Cooperation among stakeholders is vital to scale up conservation investments. To achieve this, the promotion and financing of biodiversity-friendly businesses needs to rely on enhanced collaboration between public authorities and the

private sector. Considering the characteristics of the market, it is to be expected that initial collaborations will be co-financed by public authorities and ODA. The following solutions may be considered:

#### Non-state protected areas and co-management of protected areas (Deliver, Avoid)

Protected areas can be governed (and in many cases owned and managed) by a non-state entity such as Indigenous Peoples and/or local communities, private individuals or companies, or a combination of these. In several instances and encompassing a variety of agreements, public-private partnership models can be established. Non-state protected areas can attract private capital for conservation as they offer well known

revenue models such as entry fees and ecotourism. Non-state protected areas allow for the state to forego costs of land purchase to establish a protected area, and this often results in the management costs of the protected area being shared between the state and the non-state entity or carried entirely by the non-state entity.



#### Featured example

#### Blue Finance in Dominican Republic

The *Arrecifes del Sureste* Marine Protected Area (MPA) in the Dominican Republic supports biodiversity and ecosystems spanning over 100 km of coast. The area is considered a primary tourism destination attracting more than four million visitors annually. Partnering with the government and local organizations, Blue Finance designed a 10-year agreement to co-manage the MPA. The company responsible for managing the area is expected to become financially sustainable and generate its own incomes from statutory user fees and an innovative edutainment visitor centre. Blue finance has secured debt financing from the Sustainable Ocean Fund to fund capital investment and has combined it with donations. The secured resources are invested in human resources and equipment. A Management and Marine Spatial Plan is being developed. Environmental, social and financial key performance indicators will be regularly audited.

Source: Blue Finance.

### Possible actions:

- Assist government agencies in designing the governance framework (e.g. legal structure and incentive schemes) and collaborative management for protected areas that are attractive to private investment
- Partner with project sponsors, investors and development partners in supporting the uptake of private investment and public-private collaboration for the management or co-management of protected areas.



In **South Africa**, stewardship programmes are contributing significantly to national conservation targets. Biodiversity stewardship is an approach to securing land in biodiversity priority areas. Agreements are entered into between conservation authorities and private and communal landowners, often with the support of conservation NGOs. Landowners maintain ownership of their land, receive guidance and management assistance, and are supported to diversify their income with compatible sustainable livelihoods, all the while protecting the biodiversity. BIOFIN is working to consolidate and adequately finance biodiversity stewardship programmes, including by a revision of the tax benefits provided to landowners. Further plans include the development of revolving land trusts to support the impact of the programme as they allow the purchasing of conservation-worthy land.

 **Sector** : Real estate (land management and acquisition for conservation)

 **Solution** : Non-State Protected Areas



## Incentives for conservation businesses (Deliver, Avoid)

Direct and indirect incentives can lead to faster adoption of sustainable business practices as well as producing positive impacts on biodiversity. Explicit subsidies comprise direct monetary transfers including income support, market price support, export subsidies, public procurement above the market price, reduced taxation (e.g. tax breaks, tax rebates, accelerated depreciation of assets), in-kind provision of inputs

and services (e.g. seeds), including extension services, in-kind provision of infrastructure (e.g. irrigation) and provision of capital at below market rates. Sector-based incentives are common e.g. in sustainable tourism, sustainable agriculture, non-timber forest products, reduced impact forestry and fisheries. Subsidies for organic agriculture and ecotourism are often featured as examples.

### Possible actions:

- Assist Government agencies in designing smart incentives for conservation investment in dialogue with the private sector and relevant stakeholders
- Develop capacities of public authorities and business associations in managing and upgrading incentive frameworks for investments in conservation.



In **Guatemala**, BIOFIN is promoting sustainable tourism and sport fishing. Tourism related to fishing in Guatemala is an untapped opportunity. To scale private operations, it is crucial to advance an enabling regulatory environment. In this direction, the National Commission of Sailfish approved a plan to regulate and monitor the registration of sport fishing vessels and payments of fishing quotas along with voluntary contributions from tourists and companies. It is estimated that these mechanisms will generate approximately US\$250,000 per year to invest in conservation. The funds will be channelled to sailfish conservation and monitoring of the sailfish stock.

 **Sector** : Tourism

 **Solution** : Promotion of sustainable tourism



In **Seychelles**, BIOFIN aims at increasing direct investment for biodiversity conservation from the tourism sector and promote sustainable tourism practices by developing the appropriate policy, investment and fiscal framework. There is a strong business case for tourism operators to invest in conservation given their dependency on the preservation of pristine environments for attracting tourists. The work is geared towards the creation of an enabling fiscal framework for the private sector to invest more and better in biodiversity, including through the introduction of tax deductions for expenditures incurred to obtain certifications, wages of biodiversity employees and other expenditure related to biodiversity conservation.

 **Sector** : Tourism

 **Solution** : Promotion of sustainable tourism



### Green banks and publicly supported lending facilities (Generate)

Public agencies and donor-sponsored entities can partner or invest along with the private sector in green businesses that are underserved by commercial finance. With the backing from a government (or donor) guarantee, a specialized financial institution i.e. a green bank, can catalyse private investments. While the emphasis has traditionally been on renewable energy, the focus of green banks can extend to other environmental areas including conservation and biodiversity. Similar to green bonds, this solution has only been marginally explored for conservation. The first green bank, which was established in the

UK in 2012, was privatized in 2017 and became a specialized financial institution renamed as the Green Investment Group. The creation of an independent financial institution may not be necessary since lending facilities and downscaling schemes can be managed by development banks and even central banks as per the example of the Central Bank of Bangladesh. Different options for private sector engagement are possible, including becoming shareholders of the green bank or as partners in downscaling schemes and other financial architectures.



#### Featured example **Project CAMBio**

The Central American Markets for Biodiversity (CAMBio) project was implemented in five Central American countries between 2007 and 2013. It provided farmers, cooperatives and companies with a combination of microcredits, technical assistance and results-based premiums (or compensation) to support the uptake of sustainable agriculture and forestry practices. The project was designed to remove barriers to green entrepreneurship, expand the uptake of sustainable practices and foster biodiversity conservation and ecological connectivity in the region. The downscaling lending facility was managed by the Central American Bank for Economic Integration (CABEI), which provided access to funding for about 30 microfinance institutions in the region. This is an example of a publicly supported green lending facility which, in this case, was managed by a development bank. The premium or Bio-Award consisted of a 20 percent cash reimbursement of the capital of a loan provided by the intermediary financial institution to the individuals/companies demonstrating a positive biodiversity impact. The project technical assistance facility was financed by the Global Environment Facility, through UNDP.

#### Possible actions:

- Assist government agencies in the design of green finance institutions, in dialogue with the private sector and other relevant stakeholders
- Assist government agencies in the design of lending facilities to the private sector, in dialogue with the private sector and other relevant stakeholders.



## Annex 1

### List of Impact Investment Funds and Fund Managers Active in Developing Countries

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#### **Aqua-Spark** ([www.aqua-spark.nl](http://www.aqua-spark.nl))

 **Assets Under Management:** US\$51–\$99 million

 **Products/instruments:** Private Equity

 **Geography:** World

An investment fund based in the Netherlands and dedicated to sustainable aquaculture i.e. building an ecosystem of sustainable aquaculture SMEs. The firm's goal is to invest in 60-80 sustainable aquaculture companies in 10 years, including alternative feed solutions, farming, technology, disease treatments and market access.

Source: ImpactAssets 50

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#### **&Green Fund** ([www.andgreen.fund](http://www.andgreen.fund))

 **Assets Under Management:** US\$>125 million (fund capitalization)

 **Products/instruments:** Private Debt; Guarantees

 **Geography:** World

&Green aims to prove that financing inclusive, sustainable and deforestation-free commodity production can be commercially viable and replicable, thus strengthening the case for a rural development paradigm that protects valuable forests and peatlands and supports high-productivity agriculture. &Green invests in financially viable companies along the value chain of commodity production. It provides loan or guarantee instruments, with long-term (5-15 years) tenors. &Green aims for an average investment of US\$10–\$15 million in projects in which it participates.

Source: [www.andgreen.fund](http://www.andgreen.fund)

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#### **Conservation Capital** ([www.conservation-capital.com](http://www.conservation-capital.com))

 **Assets Under Management:** US\$220 million (capital raised and structured)

 **Products/instruments:** Private Debt; Notes; Private Equity

 **Geography:** World

Commercial venture that generates economic and social benefits in ways that actively support meaningful conservation outcomes. Conservation Capital works with commercial businesses in or around high-value conservation landscapes that have the potential to achieve one or more of the following outcomes: Generate Conservation Finance; Build Conservation Incentives; Optimize Environmental Sustainability; Mitigate Habitat Conversion; Stimulate Conservation Engagement. It manages African Wildlife Capital and Rewilding Europe Capital.

Source: [www.conservation-capital.com](http://www.conservation-capital.com)

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**Eco.Business Fund** ([www.ecobusiness.fund](http://www.ecobusiness.fund))**Assets Under Management:** US\$170.4 million**Products/instruments:** Private Debt; Notes; Letters of credit; Guarantees**Geography:** Latin America and Caribbean

The eco.business Fund is a joint initiative of investors intent on supporting the promotion of business and consumption practices that contribute to biodiversity conservation, the sustainable use of natural resources, climate change mitigation and adaptation to its impacts.

Source: [www.finance-in-motion.com/our-mandates/ecobusiness-fund/](http://www.finance-in-motion.com/our-mandates/ecobusiness-fund/)

**EcoEnterprises Fund** ([www.ecoenterprisesfund.com](http://www.ecoenterprisesfund.com))**Assets Under Management:** US\$26–\$50 million**Products/instruments:** Private Debt, Notes, Public Equity**Geography:** Latin America and Caribbean

EcoEnterprises Fund has worked with innovative, community- and nature-based businesses for two decades. The Fund identifies, nurtures and finances the scaling of sustainable business models that contribute to the conservation of critical natural resources systems and biodiversity, the mitigation of climate risks, and the building of long-term sustainable income opportunities for suppliers and workers. It has financed 35 companies in Latin America and achieved the creation of 6,700 jobs, stable demand for over 32,500 smallholder suppliers, additional benefits for 186,000 local people and the conservation of 10.5 million acres of land.

Source: ImpactAssets 50

**Encourage Capital** (<http://encouragecapital.com>)**Assets Under Management:** > US\$250 million**Products/instruments:** Commodities, Private Equity**Geography:** World

Research-driven asset management firm based in New York City but with a presence and extensive experience in India, Chile and Kenya. A partnership of investors and creative problem-solvers, the firm works with major asset owners to deploy investment capital to solve problems like global fisheries decline, climate change and bringing financial services to the world's poor.

Source: ImpactAssets 50

**Iroquois Valley Farmland** ([www.iroquoisvalleyfarms.com](http://www.iroquoisvalleyfarms.com))**Assets Under Management:** US\$26–\$50 million**Products/instruments:** Private Debt, Notes, Real Estate, Commodities, Private Equity**Geography:** Americas and East Asia

Restorative farmland finance company that provides leasing and mortgage funding with a focus on organic farmers. Public Benefit Corporation working on enabling healthy food production, soil restoration and water quality improvement through the establishment of secure and sustainable farmland access tenures. The company actively manages the capitalization structure and operating expenses of the business. All real assets owned by the company are leased to farmers.

Source: ImpactAssets 50

### Land Degradation Neutrality Fund

 **Assets Under Management:** US\$300 million (target)

 **Products/instruments:** Commodities, Private Debt

 **Geography:** World

The LDN Fund will invest in bankable projects on land rehabilitation and sustainable land management, including sustainable agriculture, sustainable livestock management, agroforestry, sustainable forestry, renewable energy, infrastructure development, and eco-tourism. The Global Mechanism of the UNCCD spearheaded its design and launch. Mirova, an affiliate of Natixis, was selected to manage the Fund.

Source: <https://www.unccd.int/actions/impact-investment-fund-land-degradation-neutrality>

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### Mirova-Althelia ([www.althelia.com](http://www.althelia.com))

 **Total Assets Under Management:** US\$100–\$249 million

 **Products/instruments:** Private Equity

 **Geography:** Global

An impact investment manager that delivers financial returns that are aligned with the conservation of nature and sustainable development. Mirova-Althelia, the merged entity of Althelia Ecosphere and Natixis Global Asset Management's affiliate Mirova, aims to allocate more than US\$1 billion to natural capital investing in five years.

Source: ImpactAssets 50

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### Moringa Fund ([www.moringapartnership.com/moringa](http://www.moringapartnership.com/moringa))

 **Total Assets Under Management:** US\$100 million

 **Products/instruments:** Private Equity; Quasi-equity

 **Geography:** Latin America and Sub-Saharan Africa

Moringa's vision is to provide financial returns for its investors and for local communities while contributing to building environmental and social resilience of land-use. Moringa targets profitable large-scale agroforestry projects with high environmental and social impacts located in Latin America and Sub-Saharan Africa. The fund makes equity and quasi-equity investments in the range of €4-10 million.

Source: [www.moringapartnership.com/moringa](http://www.moringapartnership.com/moringa)

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### MOV (<http://movinvestimentos.com.br/en>)

 **Total Assets Under Management:** US\$13 million

 **Products/instruments:** Private Equity

 **Geography:** Brazil

Founded in 2012, MOV is a Brazilian impact investing fund manager. Its mission is to invest in and co-create innovative companies that generate opportunities for vulnerable populations and/or promote the sustainable use of natural resources.

Source: <http://movinvestimentos.com.br/en>

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### New Forests - New Forests Tropical Asia Forest Fund (<http://newforests.com.au/>)

 **Total Assets Under Management:** US\$170 million (New Forests Tropical Asia Forest Fund)

 **Products/instruments:** Private Equity

 **Geography:** South Asia

Founded in 2005, New Forests offers institutional investors in the Asia-Pacific region and the United States opportunities in sustainable timber plantations, rural land and conservation investments related to ecosystem restoration and protection. Assets under management globally (including Australia, New Zealand and USA) have reached A\$4.5 billion.t

Source: <http://newforests.com.au/>

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### Root Capital ([www.rootcapital.org](http://www.rootcapital.org))

 **Assets Under Management:** US\$51–\$99 million

 **Products/instruments:** Private Debt, Notes

 **Geography:** World

Root Capital is a non-profit organisation with the mission to serve agricultural businesses and connect smallholder farmers to world markets. Over 17 years, Root Capital has cumulatively channelled more than US\$1.2 billion to 665 grassroots businesses reaching more than one million farm families. As a result, it contributed to generate more than US\$6 billion in clients' revenue, 80 percent of which was by smallholder farmers.

Source: ImpactAssets 50

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### NatureVest - Nature Conservancy ([www.naturevesttnc.org](http://www.naturevesttnc.org))

 **Assets Under Management:** US\$100–\$249 million

 **Products/instruments:** Private Debt, Notes, Public Equity, Commodities

 **Geography:** World

With a Moody's rating of Aa2 and an endowment of US\$6 billion, The Nature Conservancy is a USA non-profit corporation. NatureVest is its investing unit, responsible for creating and executing investable deals in a wide variety of sectors around the world that deliver conservation results and financial returns for investors.

Source: ImpactAssets 50

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### TriLinc Global ([www.trilincglobal.com](http://www.trilincglobal.com))

 **Assets Under Management:** >US\$250 million

 **Products/instruments:** Private Debt, Notes

 **Geography:** World

Founded in 2008, TriLinc aims to harness the power of private sector capital for good and has developed a systematic approach to impact investment packaging, registration and distribution. TriLinc funds to date have been designed to provide growth stage loans and trade financing to established SMEs in developing economies where it is possible to achieve market-rate, risk-adjusted returns.

Source: ImpactAssets 50

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## Annex 2

### List of Impact Accelerators

Accelerator	Focus	Stage	Capital
<b>Conservation Investment Accelerator</b> ( <a href="http://www.naturevesttnc.org/accelerator">www.naturevesttnc.org/accelerator</a> )	Conservation	All stages	Grant (prizes) US\$50,000-\$250,000
<b>Techstars Sustainability Program</b> ( <a href="http://www.techstars.com/programs/sustainability-program">www.techstars.com/programs/sustainability-program</a> )	Technology-driven Food; water	Early-stage	
<b>WWF Impact Ventures</b> ( <a href="http://wwf-impact.ventures">http://wwf-impact.ventures</a> )	Conservation	Early-stage	
<b>Conservation International Ventures</b> ( <a href="http://civentures.org">civentures.org</a> )	Conservation	Early-stage; Mid-stage	Debt and quasi-equity \$30,000-\$500,000
<b>Convergence</b> ( <a href="https://convergence.finance/design-funding/open-window">https://convergence.finance/design-funding/open-window</a> )	None	Feasibility study; proof of concept	Grant US\$50,000- US\$200,000 (feasibility) US\$200,000-\$750,000 (proof of concept)
<b>ECOSTAR</b> ( <a href="http://www.ecostarhub.com/nature-accelerator">www.ecostarhub.com/nature-accelerator</a> )	Agriculture; forestry; natural resources; ecotourism	Early-stage	Grant (prize) €15,000
<b>Plug to Play</b> ( <a href="http://plugandplaytechcenter.com">http://plugandplaytechcenter.com</a> )	None	All stages	
<b>Blue Natural Capital Financing Facility</b> ( <a href="https://bluenaturalcapital.org/wp">https://bluenaturalcapital.org/wp</a> )	Marine Conservation	All stages	Grant
<b>Hatch</b> ( <a href="http://www.hatch.blue">www.hatch.blue</a> )	Aquaculture	Early-stage	Grant (prize) €25,000; equity €25,000
<b>Fish2.0</b> ( <a href="http://www.fish20.org">www.fish20.org</a> )	Seafood	All stages	Grant (prizes)
<b>Katapult Accelerator</b> ( <a href="http://katapultaccelerator.com/">http://katapultaccelerator.com/</a> )	Oceans	Early-stage	Investment US\$150,000
<b>Seed</b> ( <a href="http://www.seed.uno">www.seed.uno</a> )	None	All stages	Grant (prize) €40,000

Sources: Adapted from CPIC (2018). All sources as per versions of July 2018.



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