

# Investing in biodiversity: a path to resilient ecosystems and sustainable returns

# Introduction

Biodiversity loss is one of the most urgent environmental crises of our time, undermining the health of ecosystems that sustain both human and animal life. As habitats shrink and species vanish, the world is losing its natural capital – resources essential for food security, clean water, and climate stability. This article delves into how CFC can help counteract these losses by investing in biodiversity, while creating a pathway to ecological and economic resilience at the grassroots of commodity value chains.

With the potential to improve rural livelihoods, enhance ecosystem services, and generate sustainable returns for investors, biodiversity investment offers a compelling opportunity for financial institutions. Organizations such as the Common Fund for Commodities (CFC) are uniquely positioned to drive this transformation by supporting agribusinesses that promote biodiversity through agroforestry and regenerative practices. Such initiatives not only strengthen climate resilience for smallholder farmers¹ but also contribute to more sustainable agricultural value chains.

<sup>&</sup>lt;sup>1</sup> Smallholdings or small farms are defined as those of less than two hectares of land. Research in 2021 concluded there are more than 608 million farms globally, with small farms accounting for 84% of all farms and producing roughly 35% of the world's food. https://www.sciencedirect.com/science/article/pii/S0305750X2100067X?via%3Dihub



As the financial case for biodiversity-focused investments grows, agricultural small and medium enterprises (agri-SMEs) and investors can play a key role in assessing biodiversity-related risks and opportunities. By integrating biodiversity into investment strategies, financial institutions and agri-SMEs can drive measurable poverty reduction as well as environmental and social impact while addressing one of the most critical challenges of our time.

#### Enhancing biodiversity through ACT Fund

Biodiversity investments are often held back by challenges such as underdeveloped markets for secondary products, perceived high short-term costs, additional labour requirements, and limited data on the tangible impacts of biodiversity-enhancing measures. Yet, forward-looking impact investors and innovative agri-SMEs are actively breaking down these barriers, revealing the untapped potential of biodiversity to deliver sustainable growth for smallholder farmers.

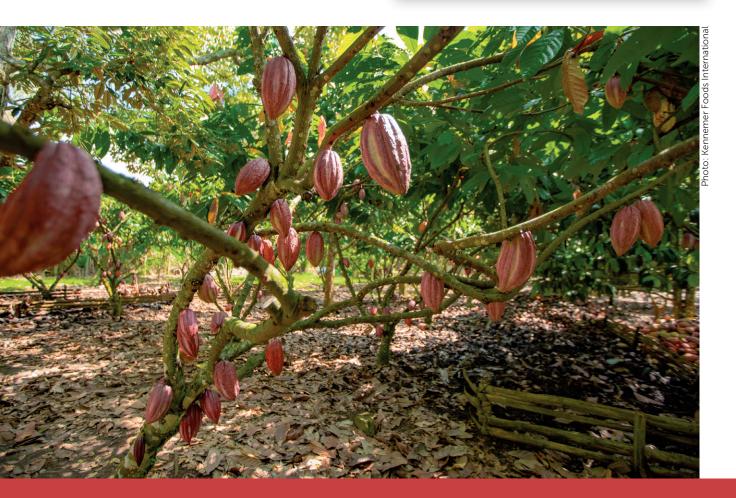
The paragraph 'Blended finance for biodiversity investments' highlights the transformative potential of the Common Fund for Commodities' (CFC) Agricultural Commodity Transformation (ACT) Fund. This fund is designed to accelerate the adoption of regenerative agriculture practices among smallholder farmers across Africa, Asia, and Latin America. By focusing on agribusi-

nesses dedicated to making a positive social, economic, and environmental impact, ACT Fund works to enhance biodiversity, strengthen climate resilience, and increase incomes for the world's most vulnerable farmers. Through targeted financing and technical assistance, ACT Fund aims to create lasting, scalable change, empowering smallholders to thrive within regenerative ecosystems that sustain both people and planet.

In addition, we explore how Colcocoa, a Colombian processor and exporter of cocoa beans in the CFC's portfolio, encourages and supports biodiversity throughout its network of growers.

# What is biodiversity?

Article 2 of The Convention on Biological Diversity defines biodiversity as: 'The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.'



# A crucial moment for biodiversity

Biodiversity provides essential natural services such as pollination, climate regulation, and nutrient cycling. It also plays a vital role in human well-being, from food security to medicine discovery. For a number of reasons now is a critical time for biodiversity and the people who depend on it:

Significant loss – Since 1970 there has been a 69% decrease in the global populations of various species, according to a 2019 IPBES report and WWF's Living Planet Report (2022).

Systemic risk - The WWF has estimated that inaction on biodiversity could result in cumulative costs of USD 10 trillion up to 2050 through changes in agricultural yields, extreme weather events, and the loss of potential medicines (Johnson et. al., 2022). 2.3 For example, it's calculated that losing pollinators at a global scale would result in a loss of 5-8% of all global crop production (Khalifa, et. al. 2021).

Uncertain tipping points – It is difficult to predict the moment an ecosystem will stop functioning, which is why it is important to take a precautionary approach now before it's too late.4

Valuable natural capital – The economic value of everything that comes from air, soil and water is now estimated to be USD 125-140 trillion, or 1.5 times global GDP.5 Approaching nature as a capital resource may reverse its exploitation and halt depletion (Dasgupta, 2021).

## Driving change through investment

Unlocking investment in biodiversity has a key role to play in addressing the drivers of biodiversity loss such as agriculture. The concept of financing biodiversity emerged alongside the economics of biodiversity during the 70s (Dasgupta, 2021).

They led to new asset classes and a shift in how organizations measure economic success to include protecting the environment. This progress is evident in several ways:

- International agreements, such as the UN Convention on Biological Diversity (CBD), signed by 196 nations and solidified by the 2022 Kunming-Montreal Global Biodiversity Framework (GBF).6
- The 2020 launch of the Finance for Biodiversity (FfB) Foundation which has brought together 170 financial institutions, representing more than EUR 22 trillion in assets.7

- Agribusinesses increasingly adopting sustainable practices such as regenerative agriculture and agroforestry, driven by compliance, differentiation, and profitability (Dasgupta, 2021).
- Smallholders increasingly engaging in biodiversity-friendly practices because of improved farm economics, standards compliance, land tenure, and access to markets (Torquebiau, ed., 2024).

### Harnessing biodiversity to improve smallholders' livelihoods

The interdependencies between nature and agriculture are still being understood, but there is growing evidence that biodiversity can directly improve smallholder livelihoods (Torquebiau, ed., 2024).

To unlock these benefits, donor-funded programmes, financial institutions, and agri-value chain actors must integrate biodiversity, climate resilience, and smallholder empowerment, aligning their efforts with the Sustainable Development Goals (SDGs), the United Nations Framework Convention on Climate Change (UNFCCC), GBF, and other global sustainability frameworks (WWF, 2022). The CFC looks to integrate relevant biodiversity measures in its operations.

Effective biodiversity projects address multiple goals simultaneously. They support diversified farming systems that enhance ecosystem health, climate resilience, and smallholder incomes through products such as honey and medicinal plants, while recognizing the essential role of indigenous and local communities in ecosystem conservation.

Financial institutions are beginning to recognize the importance of these synergies. The CFC's ACT Fund is one such example, financing agri-SMEs committed to expanding regenerative practices within their networks. The Fund benefits from the CFC's decades of experience supporting agri-SMEs that deliver positive economic and environmental outcomes, such as Kennemer Foods International<sup>8</sup>. The Philippine-based grower and trader of cacao beans works with smallholders to implement sustainable farming practices and increase incomes, while running initiatives such as a reforestation programme.

<sup>&</sup>lt;sup>8</sup> https://common-fund.org/cocoa-carbon-credits-kennemers-innovative-vision-shared-success



<sup>&</sup>lt;sup>2</sup> https://www.thejakartapost.com/academia/2020/06/30/biodiversity-in-the-balance.html

<sup>&</sup>lt;sup>3</sup> https://www.dnb.nl/media/4c3fqawd/indebted-to-nature.pdf

<sup>4</sup> https://www.oecd.org/env/resources/biodiversity/biodiversity-finance-and-the-economic-and-business-case-for-action.htm

<sup>&</sup>lt;sup>5</sup> https://www.oecd.org/env/resources/biodiversity/biodiversity-finance-and-the-economic-and-business-case-for-action.htm

<sup>&</sup>lt;sup>6</sup> https://www.unep.org/news-and-stories/story/cop15-ends-landmark-biodiversity-agreement

<sup>7</sup> https://www.financeforbiodiversity.org/

#### An increased focus on biodiversity in agriculture

Food production is the largest driver of biodiversity loss and agriculture poses a threat to 86% of species at risk of extinction. This has intensified efforts to enable agricultural activities that support biodiversity.

In response, several targets have been designed to reshape the global food system:<sup>10</sup>

- Target 3: Conserve and manage at least 30% of land, inland water areas, marine and coastal areas, including where it is used for agriculture, by 2030.
- Target 18: Cut incentives harmful to biodiversity on the remaining 70% of land by USD 500 billion annually, while increasing positive incentives.
- Target 10: Ensure sustainable management of agriculture, aquaculture, fisheries, and forestry, to preserve ecosystem services.
- Target 15: Businesses and financial institutions to assess, disclose, and reduce their biodiversity-related risks and impacts.
- Target 19: Raise at least USD 200 billion annually for biodiversity, using private finance and innovative solutions such as payments for ecosystem services.

For meaningful progress on biodiversity, public and private sectors must work together. Financial institutions often prioritize sustainable practices in agri-SMEs, while public bodies focus on protecting natural areas. This lack of coordination limits what's possible and wastes potential.

Where collaboration does occur, the results speak for themselves. In Uganda, ECOTRUST's restoration of ecological corridors evolved from a conservation project into a profitable model by attracting agribusiness investment and creating carbon and biodiversity credits.<sup>11</sup>

Better alignment among public bodies, investors, and agri-SMEs will unify efforts toward shared biodiversity goals, empowering smallholders to protect and sustain their land.

# Unlocking the biodiversity investment opportunity

# The role of biodiversity standards and guidance

A recent survey of 557 investors found that 46% are primarily focused on the risks posed by nature across their portfolios, while 37% are focused on opportunities arising from nature such as direct investments in nature improvements, markets or solutions). Only 18% were considering both (Pollination, 2023b).

However, formalized standards are emerging that may help to tilt the balance towards biodiversity investment opportunities by providing a greater level of certainty for investors, including:

- Nature Target Setting Framework (FfB Foundation)<sup>12</sup>:
   Guides asset managers in setting goals and tracking biodiversity loss drivers, such as pollution, resource use, and land/water changes.
- Taskforce on Nature-related Financial Disclosures (TNFD):
   Offers tools to assess nature's state and risks, promoting advanced biodiversity footprinting for financial institutions (TNFD, 2023).
- Global Reporting Initiative (GRI): Provides standards for biodiversity reporting, including the new GRI Biodiversity Standard 2024.<sup>13</sup>
- Partnership for Biodiversity Accounting Financials (PBAF):
   Supports 60 financial institutions in assessing biodiversity impacts, aligning with TNFD's LEAP approach and aiding GRI and CSRD reporting.<sup>14</sup>

Initiatives such as TNFD are making nature-related guidance accessible to organizations of all sizes worldwide. Its LEAP framework<sup>15</sup> empowers teams to identify nature interfaces, evaluate dependencies and impacts, assess risks and opportunities, and prepare for effective reporting on nature issues.

By integrating these assessments into their financial models, institutions like the CFC can proactively address nature-related risks, such as:

- · Production disruptions from declining ecosystem services.
- Investment defaults affecting credit stability (The Sustainable Finance Platform, 2020).
- Financial risks from biodiversity losses impacting markets, regulations, and reputation (The Sustainable Finance Platform, 2020).

 $<sup>^9\</sup> https://www.unep.org/news-and-stories/press-release/our-global-food-system-primary-driver-biodiversity-loss$ 

<sup>10</sup> https://www.cbd.int/gbf/targets

<sup>&</sup>lt;sup>11</sup> See ECOTRUST's description of the Mobilizing More for Climate programme https://ecotrust.or.ug/kra-2/mobilizing-more-for-climate/ and an article on its bio-credits programme https://carbon-pulse.com/206290/

 $<sup>{}^{12}</sup> https://connect.financeforbiodiversity.org/hubfs/Docs/FFB\_Guidance\_on\_nature\_target\_setting\_Framework\_for\_Asset\_Managers\_and\_Asset\_Owners.pdf$ 

<sup>&</sup>lt;sup>13</sup> https://www.globalreporting.org/standards/standards-development/topic-standard-project-for-biodiversity/

<sup>14</sup> https://www.pbafglobal.com/standard

<sup>15</sup> https://tnfd.global/wp-content/uploads/2023/08/Guidance\_on\_the\_identification\_and\_assessment\_of\_nature-related\_lssues\_The\_TNFD\_LEAP\_approach\_V1.1\_ October2023.pdf?v=1698403116



# Risks and opportunities for agri-SMEs and small farmers

There is an element of risk with all forms of agriculture including those that support biodiversity. Agribusinesses should assess biodiversity impacts as a key component of natural capital to mitigate financial and environmental risks for them and the farmers they work with<sup>16</sup>. These could include:

- Higher costs and lower yields: For example, some pineapple agroforestry systems established in Mexico three centuries ago are maintaining up to 88% of the natural forest cover and about 70 species of woody plants, but only deliver 10% of the production volumes of modern systems (Torquebiau, ed., 2024).<sup>17</sup>
- Delayed returns in multi-crop systems: These systems require significant upfront investment, long maturation times, and market demand for multiple products.
- Off-farm restoration costs: Investing in off-farm biodiversity, such as ecological corridors, adds complexity and potential risk.
- Climate change pressures: By 2050, climate change may reduce the viability of crops such as coffee at lower altitudes, causing land-use conflicts as cultivation shifts upwards into areas of natural forest.<sup>18</sup>

However, if these risks are addressed effectively, investment by financial institutions and agri-SMEs in biodiversity can unlock significant opportunities (UNEP, 2023). These include:

- Regulatory compliance: Ensuring investees avoid harming biodiversity, deforestation, or marine ecosystems reduces legal and regulatory risks.
- Ecosystem insurance and sovereign lending: Examples include Barbados' debt-for-nature swap fund to finance long-term marine conservation.<sup>19</sup>
- Biodiversity credits and innovative finance: Tools such as sustainability-linked bonds and conservation loans support regenerative agriculture, benefiting biodiversity and smallholder livelihoods (UNEP, 2023).<sup>20</sup>
- Strengthening of the missing middle: Expanding affordable funding for agri-SMEs that struggle to access finance, known as the 'missing middle', enhances biodiversity and smallholder resilience.
- Brand value through consumer demand: UEBT's 2022
  Biodiversity Barometer shows 54% of consumers prioritize
  biodiversity information on product packaging.<sup>21</sup>
- Higher yields: In Honduras, maize intercropped with beans and inga trees on degraded land yielded 350 kg more maize per hectare than monocultures, while boosting biodiversity (Torquebiau, ed., 2024).<sup>22</sup>
- New revenue streams: In Bolivia, a dynamic agroforestry system introduced by cocoa farmers in 1997 unexpectedly created strong market demand for fruits such as copoazú and asaí, significantly enhancing family incomes (Torquebiau, ed., 2024).<sup>23</sup>

<sup>&</sup>lt;sup>22</sup> By systemically pruning the companion trees an increase in mean cocoa yield was achieved, from 138 to 590 kilograms dry beans per hectare (625 cocoa trees per hectare). Yields of companion crops also increased.



<sup>16</sup> https://capitalscoalition.org/guide\_supplement/biodiversity-4/

<sup>&</sup>lt;sup>17</sup>The agroforestry system produces around 20 diverse products – such as avocados, bananas, coffee, and wood – bolstering food sovereignty and self-sufficiency. Since 2012, six million native trees have been planted across nearly 6,000 hectares.

<sup>&</sup>lt;sup>18</sup> https://www.sustaincoffee.org/assets/resources/CountryProfile\_Climate\_Coffee\_ALL.pdf

<sup>&</sup>lt;sup>19</sup> https://www.iadb.org/en/news/barbados-places-climate-financing-firmly-agenda-idb-nature-conservancy-support

<sup>&</sup>lt;sup>20</sup>https://www.biofin.org/index.php/news-and-media/ensuring-nature-positive-insurance

<sup>&</sup>lt;sup>21</sup>The Biodiversity Barometer is a large survey of 1,000 people in each target country: Brazil, China, France, Germany, UK, USA. https://static1.squarespace.com/static/577e0feae4fcb502316dc547/t/6409db549975dd4b6aa32da1/1678367585952/UEBT+Biodiversity+Barometer+2022.pdf

<sup>&</sup>lt;sup>22</sup>The Inga Foundation promotes the 'inga agroforestry model' which supports the first investments in trainings and nurseries, and provides key inputs.

# Pushing the boundaries of biodiversity investment

Innovative approaches to investing in biodiversity are evolving to amplify the benefits noted above.

# **Biodiversity credits**

Biodiversity credits are tradable financial tools that reward positive biodiversity outcomes by funding measurable benefits for specific land or ocean areas.<sup>24</sup> Part of the expanding environmental market, they complement carbon credits and nature-based solutions (Pollination, 2023b).

Current biodiversity credit initiatives include 26 private sector-led, five government-led, and several independent projects (Pollination, 2023a). To grow this market, the British and French governments launched the International Advisory Committee on Biodiversity Credits<sup>25</sup> in 2023 to mobilize investment and establish standards, particularly for marine and freshwater ecosystems.

#### Blended finance for biodiversity investments

Achieving ambitious biodiversity targets requires innovative funding, risk-sharing partnerships, and the CFC is working to develop new models of blended finance.

The CFC's Agricultural Commodity Transformation (ACT) Fund exemplifies this approach. With a goal to invest USD 100 million in agri-SMEs across Africa, Asia, and Latin America, it promotes inclusive regenerative agriculture to enhance biodiversity and boost smallholder incomes. ACT Fund aims to expand regenerative farming and forest-preservation to 275,000 hectares, providing USD 10 million in technical assistance to implement climate-smart practices such as multi-cropping, minimal tilling, cover crops, and agroforestry.

This is strengthened by ACT Fund's partnership with the Vision for Adapted Crops and Soils (VACS), an initiative launched by the United States government, the Food and Agriculture Organization (FAO) of the United Nations and the African Union.



 $<sup>^{24}</sup> https://www.mirova.com/fr/idees/position-paper-instruments-de-marches-environnementaux \\$ 

<sup>25</sup> https://iapbiocredits.org/

 $<sup>^{26}</sup> https://www.common-fund.org/ACT-Fund \\$ 

It aims to build a resilient food system grounded in diverse, nutritious and climate adapted crops grown in healthy, fertile soils. The CFC's contribution is its strong pipeline of proposals; it will identify viable VACS-aligned investment opportunities that are suitable for ACT Fund financing and technical assistance from VACS.<sup>27</sup>

Development Impact Bonds (DIBs) offer another promising model for mobilizing blended finance. DIBs combine private, public, and philanthropic funds to achieve specific environmental outcomes, with investor returns linked to verified results. The Asháninka Impact Bond in Peru, led by the CFC, illustrates this model by funding sustainable cocoa and coffee production to reduce deforestation and enhance ecosystem health, benefiting local communities and biodiversity.<sup>28,29</sup>

# Colcocoa – strengthening biodiversity and livelihoods30

Colcocoa is an example of biodiversity investment in action. The Colombian cocoa trading company, founded in 2012 and supported by the CFC, partners with nearly 2,000 families in 12 cooperatives to advance sustainable cocoa farming, improve livelihoods, and protect biodiversity. Through its Echar Pa'lante programme, Colcocoa drives positive impact based on economic, social, and environmental metrics, focusing on healthier soils and increased biodiversity to create productive cocoa plantations.

In addition, the company's PlanT initiative promotes reforestation and carbon capture through a marketplace for carbon credits that is verified by global institutions and rewards small farms for environmental contributions. To date, PlanT has planted more than 47,000 trees, sequestering 2,400 metric tons of  $\rm CO_2$  on 71 hectares, and is now expanding to biodiversity conservation.

These activities align with the GBF by supporting agroforestry and regenerative practices, while enabling their assessment. They also ensure compliance with critical standards such as the EU Deforestation Regulation (EUDR).

Gabriela Alvarez, Colcocoa's co-founder, says the company is guided by GBF goals: "We're working to 'translate' these goals into agronomic, economic, and social levers on the ground."

However, Colcocoa faces challenges in aligning financial market expectations with the lengthy timescales of biodiversity efforts. While metrics such as hectares under restoration and  $\rm CO_2$  sequestration show clear environmental gains, financial systems must recognize biodiversity's long-term value for Colcocoa's work to be fully integrated into its programme and Theory of Change. All parties should also be careful not to place too great an implementation and reporting burden on producers with few resources.

The company's proactive measures are helping to address these concerns and meet investor expectations. And by positively impacting nature and local communities, Colcocoa is creating a business case for biodiversity. In Gabriela's words: "Investing in biodiversity is fundamental, as the alternative has dire consequences."

### Conclusion

This paper demonstrates just the tip of the powerful potential of investing in biodiversity and outlines key actions that could drive momentum. Increasing private investment in biodiversity-positive strategies has a critical role to play in closing the biodiversity finance gap, while expanding pilot projects will strengthen best practices for agri-SMEs and bolster the business case for financial institutions.

Investors can build on existing successes to streamline biodiversity integration and maximize synergies between climate and biodiversity efforts (UNEP, 2023). While governments can support this shift by redesigning or eliminating subsidies that harm biodiversity and adopting proactive policies that drive positive outcomes (Deutz et al., 2023).

Financial institutions also need to deepen their understanding of biodiversity-related risks and opportunities. Developing meaningful metrics and performance indicators is essential to support financial products that benefit biodiversity (Deutz et al., 2023).

Today, many biodiversity investments are driven by forward-thinking agri-SMEs and investors. However, recent regulations and accessible tools are mobilizing broader participation, moving the sector closer to a sustainable, long-term alignment with nature.

<sup>&</sup>lt;sup>30</sup>Colcocoa and its initiative (sister company) PlanT were also covered in the 2022 article 'Promoting the role of smallholder farmers in the mitigation of climate change' https://www.common-fund.org/sites/default/files/Publications/CFC\_AR\_21\_brochure.pdf



 $<sup>{\</sup>it 27} \, https://www.common-fund.org/cfc-collaborates-us-department-state-vision-adapted-crops-and-soils-vacs-unlock-private-sector and the contract of the$ 

<sup>&</sup>lt;sup>28</sup>https://common-fund.org/completed-project-sustainable-cocoa-and-coffee-production

 $<sup>^{29}</sup> https://golab.bsg.ox.ac.uk/knowledge-bank/case-studies/ash\%C3\%A1ninka-dib/ash.bsg.ox.ac.uk/knowledge-bank/case-studies/ash%C3\%A1ninka-dib/ash.bsg.ox.ac.uk/knowledge-bank/case-studies/ash%C3%A1ninka-dib/ash.bsg.ox.ac.uk/knowledge-bank/case-studies/ash%C3%A1ninka-dib/ash.bsg.ox.ac.uk/knowledge-bank/case-studies/ash%C3%A1ninka-dib/ash.bsg.ox.ac.uk/knowledge-bank/case-studies/ash%C3%A1ninka-dib/ash.bsg.ox.ac.uk/knowledge-bank/case-studies/ash%C3%A1ninka-dib/ash.bsg.ox.ac.uk/knowledge-bank/case-studies/ash.b$ 

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