



Amazon Biodiversity Fund
Impact Report 2023

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Editorial



We are delighted to present the Amazon Biodiversity Fund's annual Impact Report 2023.

It showcases the strides we've made in safeguarding the Amazon's rich biodiversity and supporting the communities that depend on it.

The collective journey has not been without its challenges. Deforestation rates, although decreasing, remain high, whilst the climate and biodiversity crisis hit vulnerable populations and some economic activities hard. The international context did not help in enabling further global cooperation, and the weaknesses of the voluntary carbon markets have been exposed, slowing down much needed funding and action on the ground.

However, at their own modest scale, the Amazon Biodiversity Fund and Impact Earth have achieved remarkable milestones:

- The fund reached final closing (aggregating BRL 250M cumulative commitments at the time of writing) with investments from the Alliance of Biodiversity International & CIAT / USAID, the Brazilian National Economic and Social Development Bank (BNDES), the Soros Economic Development Fund (SEDF), ASN Impact Investors, and the L'Oreal Fund for Nature Regeneration.
- Impact Earth celebrated the launch of its partnership with the Restoration Seed Capital Facility (RSCF), implemented by the United Nations Environment Programme (UNEP) and the Frankfurt School of Finance and Management, to facilitate our pipeline development efforts.
- New team members were contracted by Impact Earth, with growing local presence in Brazil and in the Amazon.
- The depth of opportunities also increased, and the fund is now accelerating on its deployment journey.

That said, this Impact Report is first and foremost about the impact journey of all projects and companies supported by the fund. Impact, especially on biodiversity, will take time to materialise. For those projects where it is relevant, improvement of biophysical conditions and species presence will take time to be verified. Progress will however be reported annually where possible, and innovative tools (e.g. Environmental DNA measurement from our partner Terrabio) will be used to independently verify any claim made on this front.

In this pivotal moment for environmental conservation, we believe the Amazon Biodiversity Fund stands at the forefront of efforts to promote biodiversity and the communities that depend on it, reporting green shoots of impact and showcasing blueprints of Amazonian projects and companies that are ready to scale.

Thank you for being part of this journey.

Selected 2023 highlights

January

New Brazilian government takes office

February

Andrea Resende joins Impact Earth team

April

Impact Earth team begins a series of visits to new opportunities in the Amazon

May

Belém (capital of Pará) is confirmed as the host of COP-30

September

Brazil holds the first Amazon Summit, bringing the presidents of 8 Amazonian countries together

August

ABF portfolio begins to attract strategic investors, including an investment in Manioca by a multinational F&B company

July

a 22% reduction in Amazon deforestation is reported between August 2022 and July 2023

September

Impact Earth launches its partnership with the Restoration Seed Capital Facility

October

Belterra investment approval by the Investment Committee

November

The Soros Economic Development Fund & BNDES invest in ABF, and ASN Impact Investors increases their commitment, with the fund size reaching BRL 250M

December

Cacau Amazônia+ and Amazon Indigenous REDD+ investment approval by the Investment Committee

Fund profile

One of a kind fund targeting transformational impact in the Brazilian Amazon


The Amazon Biodiversity Fund (ABF) invests in sustainable enterprises and projects that have a transformational, positive impact in the Legal Amazon of Brazil, utilizing innovative financing structures.


It provides tailor-made financing solutions with de-risking mechanisms from profit-sharing loans to mezzanine debt and equity.

It invests in early stage yet scalable projects and companies across 4 investment pillars:

 **Pillar 1:** Conservation, reforestation and community livelihoods

 **Pillar 2:** Smallholder value chains

 **Pillar 3:** Sustainable agriculture

 **Pillar 4:** Innovation in technology, access to finance and services

Promoting a just forest-standing economy

ABF aims to conserve biodiversity, address deforestation and climate risks, and create positive socio-economic and well-being outcomes for local communities in the Legal Amazon.

ABF will achieve these objectives by providing catalytic finance to biodiversity-positive businesses. It aims to strengthen the autonomy of forest-dependent communities, companies, and entrepreneurs, creating opportunities to restore degraded lands and reduce biodiversity threats to standing forest, by replacing illegal, unsustainable practices with legal, sustainable options.

In order to measure the fund's contribution to these outcomes, the ABF has defined 7 Impact Themes with a set of pre-defined Key Performance Indicators.

Fund size

BRL 250M

Fund Term

2030 (with 2 years of optional extension)

Geography

Legal Amazon, Brazil

6 Main SDG Targets



Other SDGs targeted



Impact Themes



1. Climate:

Net positive impact on climate change

2. Ecosystems:

Restoring degraded land, protecting and enhancing ecosystems

3. Species:

Improve the presence of native species and the conservation status of threatened and endangered species

4. Livelihoods:

Create jobs, support livelihoods and provide sustained family income

5. Sustainable Enterprises:

Build capacity of enterprises and organisations towards environmental, social and economic sustainability.

6. Wellbeing & Inclusion:

Support improvement in overall community, wellbeing and inclusion.

7. Investment Returns to Local Stakeholders

Fair returns for the fund whilst maximising returns for local stakeholders in the long run.

Approach to Impact & ESG

Outcomes and additionality are the core principles underlying the fund's approach to impact. To ensure these principles are embedded in management activities and negative externalities managed, we work in close partnership with the investee to construct and dynamically manage throughout the investment horizon the Environmental and Social Action Plans (ESAPs) and Impact Management Plans (IMPs).

These plans are not static in the early years of the investment lifecycle, when the potential for sharp changes in scope is greatest. IMPs may continue to evolve until the end of the investment period, whilst ESAPs are reviewed regularly throughout the entire investment lifecycle.

At each periodic review, the bar is raised, bringing investees to ever greater standards of ESG and impact management. This helps to deliver the common long-term IESG outcomes, whilst in parallel, creating value in the company's balance sheet.

Starting from this basis, during 2023, the approach to impacts and ESG evolved in five important ways.

Embedding impact in investment decision making

To guide decision-making during the investment process, new tools and steps were employed in 2023, with the goal of ensuring the alignment of new opportunities with the fund's impact objectives, scrutinizing the scale of the opportunity, the depth of impact, the alignment of interests and the additionality of the ABF investment.

Impact Earth first analyses a new opportunity's contribution to the impact themes of the fund, referred to as the scope of impact. This is measured using the fund's impact KPIs, if available; if not, it is performed using a qualitative assessment.

Impact Earth then scrutinizes the intentionality of the investment: analysing the counterparty's alignment of interest with the fund's impact goals. This ensures a clear alignment of interests between the investee, the fund and all stakeholders, ensuring no party gains at the expense of others, and no trade-offs between impact and commercial performance.

The additionality is also evaluated: the financial additionality of ABF's investment compared to other commercially available funding sources, and the impact additionality of ABF's investment, considering the unique impact contribution

of this investment compared to the rest of the portfolio.

In a final step, Impact Earth assesses the marginal contribution of a new deal to the fund's impact objectives. This analysis is performed alongside the marginal contribution to the financial risk and return of the portfolio. The result is a holistic appraisal of the new deal's contribution to the portfolio, an analysis of the potential complementarities, trade-offs and, importantly, providing guide rails for new deal origination.

Creating a new generation of IMPs

A new generation of IMPs was built for all deals in 2023. The deals each have a well-defined theory of change, clarity on KPI selection, methodologies used and 2030 targets. Whilst this is a necessary first step in bringing all deals to the same standard, it does not result in a homogenous set of IMPs. Each IMP may have slightly different approaches to methodologies, and consequently slightly different interpretations of results.

Furthermore, where previously investees may have been focused on KPI achievement, they are now engaged on overall impact outcomes. KPIs are used to measure impact, but their achievement does not represent impact in and of itself. Impact is evaluated as performance against the intended outcomes, with KPIs used as proxies to measure quantitative performance where possible.

Iterative IMPs & target setting

Previously, IMPs would be fixed after a certain timeframe following the investment, for example, one year post closing. This may result in sub-optimal outcomes for the fund and investees. Early learnings across the portfolio can't be used to make adjustments, new tools & methodologies can't be incorporated, and targets can't evolve as the project evolves.

That said, at the other extreme, an ever-changing IMP would result in constantly changing goalposts and greater risk of future misalignment of interests. The optimal outcome is to be found in the middle. As of 2023, the fund has the flexibility to adjust the IMPs until the end of the Investment Period; thereafter, the clock starts, and performance is measured against the IMP that was fixed at the end of the Investment Period.

Incorporating ESG into portfolio management

Previously, Impact Earth followed a market standard approach of concentrating ESG risk assessments and development of Environmental & Social Action Plans (ESAPs) in dedicated teams or in the investment approval process.

However, to successfully manage ESG risks over the full project lifecycle, ESG risks must be analysed & managed by the front office team, more closely integrated into the portfolio management processes, and the spirit of engagement must move from reporting to engagement. The front office team is supported by a broad network of independent experts to achieve this mission.

As of 2023, ESAPs are considered more than a static checklist – they are engagement tools. The ESAP is used to manage ESG risks and perform periodic updates of risks mitigations, such as a Farmer Engagement Policy, based on new legislation, evolving ESG standards and learnings from project implementation.

Validating biodiversity claims

ABF intends to utilize third party tools to validate biodiversity-related impact claims. For example, to validate a claim that a specific number of hectares using a given agroforestry system resulted in improved biophysical conditions.

The validation tool being applied - in progressive stages - to the portfolio is called Terrabio, a tool developed by the Alliance of Biodiversity International & CIAT. More information is provided in this report. The baseline analyses have been performed on most projects and initial results have started to be collected in 2023.



Portfolio Snapshot



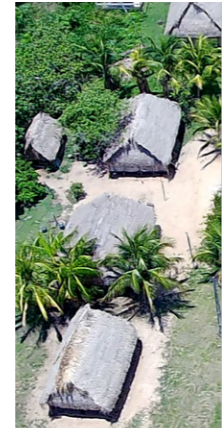
Amazonia Agroflorestal
 Apuí, Amazonas
Activity
 Coffee Agroforestry & Conservation
Pillar
 Smallholder Value Chains
Type
 Venture Stage



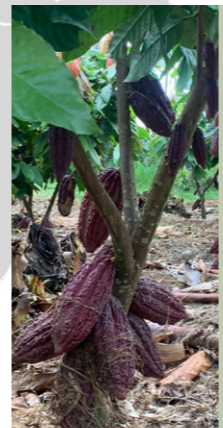
ReforesTerra
 Porto Velho, Rondônia
Activity
 Reforestation of Degraded Areas
Pillar
 Conservation, Reforestation & Community Livelihoods
Type
 Project Finance



Cacau Amazônia+
 Central Rondônia
Activity
 Cacao Agroforestry and Reforestation of Riparian Areas
Pillar
 Smallholder Value Chains
Type
 Venture Stage



AIR+
 North East Rondônia
Activity
 Indigenous Territory Conservation
Pillar
 Conservation, Reforestation & Community Livelihoods
Type
 Project Finance



Belterra
 Mato Grosso and Pará
Activity
 Cacao Agroforestry
Pillar
 Sustainable Agriculture
Type
 Project Finance



Inocas Amazônia
 Bragança, Pará
Activity
 Macaúba Agroforestry
Pillar
 Sustainable Agriculture
Type
 Venture Stage



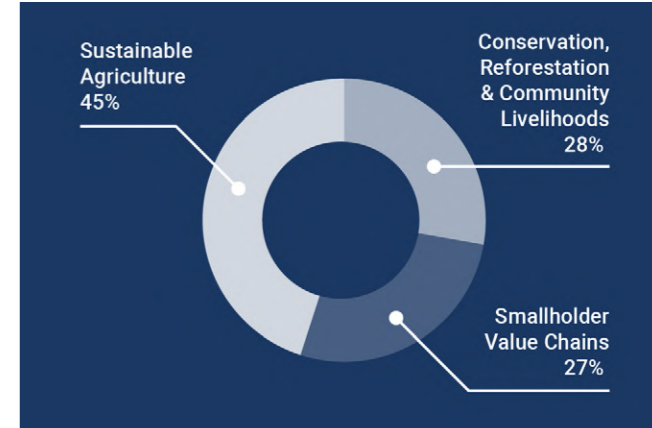
Manioca
 Belém, Pará
Activity
 Supplier of Amazonian F&B Products
Pillar
 Smallholder Value Chains
Type
 Venture Stage



Horta da Terra
 Belém, Pará
Activity
 Supplier of Amazonian PANCS
Pillar
 Sustainable Agriculture
Type
 Venture Stage

These investments have been approved in 2023 and implemented early 2024.

Portfolio Allocation by Pillar



Portfolio Results 2023

Key Highlights:

An estimated
264k tons
of CO2 equivalent avoided
or sequestered since ABF
investments occurred.



135 jobs



at the year-end 2023 directly
created or supported, of which
74.5% are in the municipalities
where the projects are located
and 30% are held by women.

**7.8k hectares
of land**



with high biodiversity value directly
conserved due to project activities.

**A total of 12 community
organizations are engaged
in the projects funded by
ABF since the fund began
investing, with 6 new
enterprises created or
supported.**



336

beneficiaries from the
municipalities where the projects
are implemented participating in
projects funded by ABF through
formal agreements.



284 hectares



have been directly managed by
investees on degraded areas with the
aim to improve biophysical conditions
since the fund began investing.

Manioca

Manioca was launched in 2014 and is a business that creates and sells food products using the biodiversity of the Amazon as the basis for their recipes.

The business combines innovative product development with traditional knowledge from local communities. The purpose of the business is to popularize and produce natural foods using products such as cassava and cupuaçu, and to transform these products into Amazonian culinary ingredients to create spices, sauces, jams, granolas, flours, and farofas.

The products are sourced from local communities committed to sustainable practices and artisanal production.

As part of Manioca's commitment to adding value to the regional supply chain, the company started a partnership with GIZ in 2023, to establish an organic cassava planting project in the communities of Boa Vista/Acará and Vila Conceição do Mirindeua/Moju.

These two communities were included in the project due to their potential for partnership and the need for improvement in cassava cultivation practices. Sustainable practices in the region are rarely encouraged in this supply chain. As such, this partnership brings material additionality.

The project involved 11 producers who received 10 training sessions conducted by agronomic consultants on various topics, including organic certification, soil management, agricultural technologies, and organic fertilization. To support the project's advancement, the communities received assistance from SEDAP (State Department of Agricultural Development and Fisheries), which provided 27,000 cassava seedlings to be distributed among the two communities. Manioca can therefore assist small producers to generate more income, provide professional training, and protect their territories, as well as the forest in which they live.

During 2023, the company established guaranteed and fair purchase contracts with 41 families committed to sustainable production. Manioca purchased 11 products from cooperatives, associations, institutes, and individual families. It also sold 7 different products in the market, including: granola, chilli sauce, tucupi, butter beans, tapioca flour, and jelly.

This year was crucial for Manioca in terms of governance and management, as the company underwent a significant restructuring phase to streamline its administrative operations. The company also established a strategic partnership with Ajinomoto do Brasil, part of a multinational F&B group, in November to support Manioca's growth.

The ESAP and 2030 targets are being revised and will be revamped by the end of 2024. Some objectives will continue to grow in relevance, such as the strengthening of farms and job creation.



Headquarters
Belém, Pará

Activity
Supplier of Amazonian F&B Products

Investment Pillar
Smallholder Value Chains

Type of Deal
Venture

Investment Structure
Convertible Note

Investment Year
2021



2030 target
Jobs created or supported

2023 Milestone
16
jobs created at Manioca as of December 2023

2030 target
Products of Amazonian origin for which market has been created

2023 Milestone
21
products commercialised

2030 target
Community organisations that are engaged in the project

2023 Milestone
6
organisations engaged

2030 target
Jobs created that are held by people from the municipality

2023 Milestone
100%
of jobs created that are held by people from the municipality

2030 target
Beneficiaries participating in the project through formal agreements

2023 Milestone
144
beneficiaries in 48 households benefiting through formal agreements

Horta da Terra

Horta da Terra is a company specializing in organic powdered freeze-dried Amazonian ingredients.

Founded in 2016, its purpose is to promote biodiversity by providing consumers with access to the nutritional, functional, and medicinal properties of Amazonian plants. Its product portfolio includes Non-Conventional Food Plants (PANCs), including jambu, taioba, roselle, Amazonian chicory, ora-pro-nobis, cariru, and açai.

The company also adopts regenerative production systems and syntropic agricultural practices to restore ecosystem health. Through these systems, the company aims to promote the biodiversity of life and create more resilient ecosystems in the face of climate challenges.

In 2023, Horta da Terra supported one of its main partners, Campo Limpo, a 75 member Cooperative, by providing a consultant to assist in the formalization during the transition from Association to Cooperative. Strengthening this partnership is strategic for Horta, as it increases ties with suppliers who share the same vision as the company, thus expanding sustainable agriculture practices. The support also included technical visits to Horta's farm and on-site training in the syntropic methodology.

During the year, there was an improvement in Horta's syntropic farm, resulting in increased productivity and greater volume of biomass. Within the same area as 2022, there was a productivity of 18,640 kilograms of in natura products in 2023, which was processed into 3,600kg of freeze-dried powders, an increase of 30% in raw produce and 100% of freeze-dried powders.

Horta's farm, which is surrounded by two large producers of palm oil and coconut cultivated in monoculture systems, confirmed the presence of IUCN red list species by the field team, where signs of a jaguar were found.

The vision for the coming years is to establish Horta da Terra as a flagship syntropic farm in the region, serving as an inspiration for surrounding communities to develop similar systems. To support this, the business is revising its 2030 targets and setting ambitious impact goals, with a particular focus on developing Amazonian products that are produced and sourced from syntropic farms, and spreading its knowledge of the sustainable production practices of PANCs.

Horta da Terra's Environmental and Social Action Plan is being restructured and revamped, with a new version to be delivered by the end of 2024. In 2023, the company focussed its efforts on validating the product-market fit, whilst in parallel key ESAP activities continued progressing, including improving its syntropic system and engaging with stakeholders.



Headquarters
Belém, Pará

Activity
Supplier of Amazonian PANCs

Investment Pillar
Sustainable Agriculture

Type of Deal
Venture

Investment Structure
Revenue Based Loan

Investment Year
2021



2030 target
Jobs created or supported

2023 Milestone
17 people working at Horta as of December 2023

2030 target
Products of Amazonian origin for which market has been created

2023 Milestone
7 products on track to be commercialised in 2024-2025; 5 to be launched during 2025

2030 target
Community organisations that are engaged by the project

2023 Milestone
1 cooperative engaged in the project

2030 target
Jobs created that are held by women

2023 Milestone
35% of jobs held by women

2030 target
Farms benefiting from participation through formal agreements

2023 Milestone
16 beneficiaries in 4 households benefiting through formal agreements

Inocas Amazônia

Inocas is positioning Macaúba, a Brazilian endemic palm tree, as an alternative source of vegetable oil that can bring positive environmental and social impacts.

Oil extracted from Macaúba fruit is now suitable for applications in the food, cosmetics, chemical, fuels and other markets. It is seen as an alternative to palm oil and has received growing attention as a potential new generation renewable and sustainable biofuel, especially for the hard-to-abate aviation industry.

Inocas has implemented a pilot project in the state of Minas Gerais, and is now expanding its footprint in the Amazon, targeting North-eastern Pará, where deforestation for palm oil plantations is becoming increasingly common.

The objective is to plant and commercialize Macaúba on a scale that does not exist in Brazil today, with zero deforestation production systems using sustainable models, fair trade and working with smallholders via an out-grower model. The company is aiming to plant 5,000 hectares of Macaúba in the Amazon region through agroforestry and sustainable silvo-pastoral models on degraded lands.

During 2023, the company planted 88 ha of Macauba (partially intercropped with cassava), while continuing to generate traction for the Amazon region operations. It was a period of consolidating the team and local knowledge transfer, adapting the practices developed in Minas Gerais to the Amazonian biome, and building the infrastructure needed to scale. As a result, at the end of the year, the nursery was up and running with full capacity and a strong pipeline of farmers identified, laying strong foundations for the expansion in 2024 of 1,000 ha.

With the operations of INOCAS Amazonia becoming more consolidated, the company increased the team, generating 21 direct jobs. 2023 was also a key year for advancing the carbon project development, which can potentially generate BRL 25M revenue for local stakeholders by 2030. For the coming years, the social and environmental impact will be strengthened, with an acceleration of the inclusion of smallholders via rural partnerships and an improved SAF design, respectively.

The Environmental and Social Action Plan (ESAP) was fully revised for INOCAS Amazonia, strengthening the criteria for land selection and smallholders partnerships, and acceptable land clearance on project areas. Another area of focus was the use of pesticides, and together with the company, a plan for more sustainable pest and disease management was developed, including a third party specialist consultation to explore the alternatives for the Amazon region, focusing on gradual improvements.



Headquarters
Bragança, Pará

Activity
Macaúba Agroforestry

Investment Pillar
Sustainable Agriculture

Type of Deal
Venture

Investment Structure
Preferred Equity & Revenue Based Debt

Investment Year
2021



2030 target
5,000 ha
with improved biophysical conditions

2023 Milestone
88 ha
under restoration

2030 target
230.000
tons of CO2 equivalent avoided or sequestered

2023 Milestone
Carbon project
under validation with VERRA

2030 target
Improvement in the number and relative abundance of species

2023 Milestone
Baseline eDNA and geospatial mapping done

2030 target
30
jobs directly created or supported

2023 Milestone
21
direct jobs created

2030 target
BRL 25M
value received from the sale of environmental assets by local stakeholders

2023 Milestone
New contract model developed for smallholders

Amazônia Agroflorestal

Amazônia Agroflorestal (AA) is a new company, launched in 2019, that is implementing a coffee agroforestry and conservation programme in the municipality of Apuí, Amazonas state, primarily with smallholders.

The mission of AA is to tackle deforestation and poverty in the region by offering farmers access to a combined agroforestry and conservation programme. AA provides farmers with TA, inputs, coffee certification and off-take for coffee agroforestry systems. To qualify for the programme, farmers must also commit to no further deforestation, and in return, they receive payments for conservation via a VERRA & CCB certified REDD+ project. The project works in partnership with the NGO IDESAM.

The desired outcome of these activities is to reduce the deforestation of standing forest, improve the biophysical conditions of coffee production areas, strengthen local supply chains, and improve the livelihoods of local smallholder farmers.

As of 2023, the business started to realize initial performance in the impact themes of Ecosystems, Species, Livelihoods & Sustainable Enterprises. The business has so far implemented around one quarter of its 2030 target for agroforestry systems and areas under conservation: 181 ha with improved biophysical conditions; and 7.8k ha of conserved forest of high biodiversity value or with the presence of IUCN red list species.

The business has reached half of its 2030 target for job creation and smallholders engaged, with 37 jobs created and 116 smallholder farmers reached. It has also engaged 5 community organisations – cooperatives or associations – in the project.

Using desk-based research, the business confirmed the presence of IUCN red list species in the target conservation areas. It also set out a plan for household surveys starting in 2024. The surveys will underscore the analysis of performance of the impact theme of Wellbeing and Inclusion, as well as strengthen analysis of the households' increase in income.

The business revised its targets for 2030 and set ambitious impact goals. In particular, the business aims to have 78% of the total value of the environmental assets created by the project retained by the local stakeholders by 2030.

All the current ESAP items are completed. In 2023, the contract with the farmers was revised and is now in use. It sets out the ESG obligations of each farmer, including their obligations for the management of agroforestry and forest areas, and stipulates clearly the benefit sharing mechanism.



Headquarters
Apuí, Amazonas

Activity
Coffee Agroforestry & Conservation

Investment Pillar
Smallholder Value Chains

Type of Deal
Venture

Investment Structure
Carbon Backed Note

Investment Year
2022

2030 target
640 ha
with improved biophysical conditions

2023 Milestone
181 ha
implemented

2030 target
238
smallholder farmers benefiting from the project

2023 Milestone
116
smallholders benefiting

2030 target
15
cooperatives and associations engaged in the project

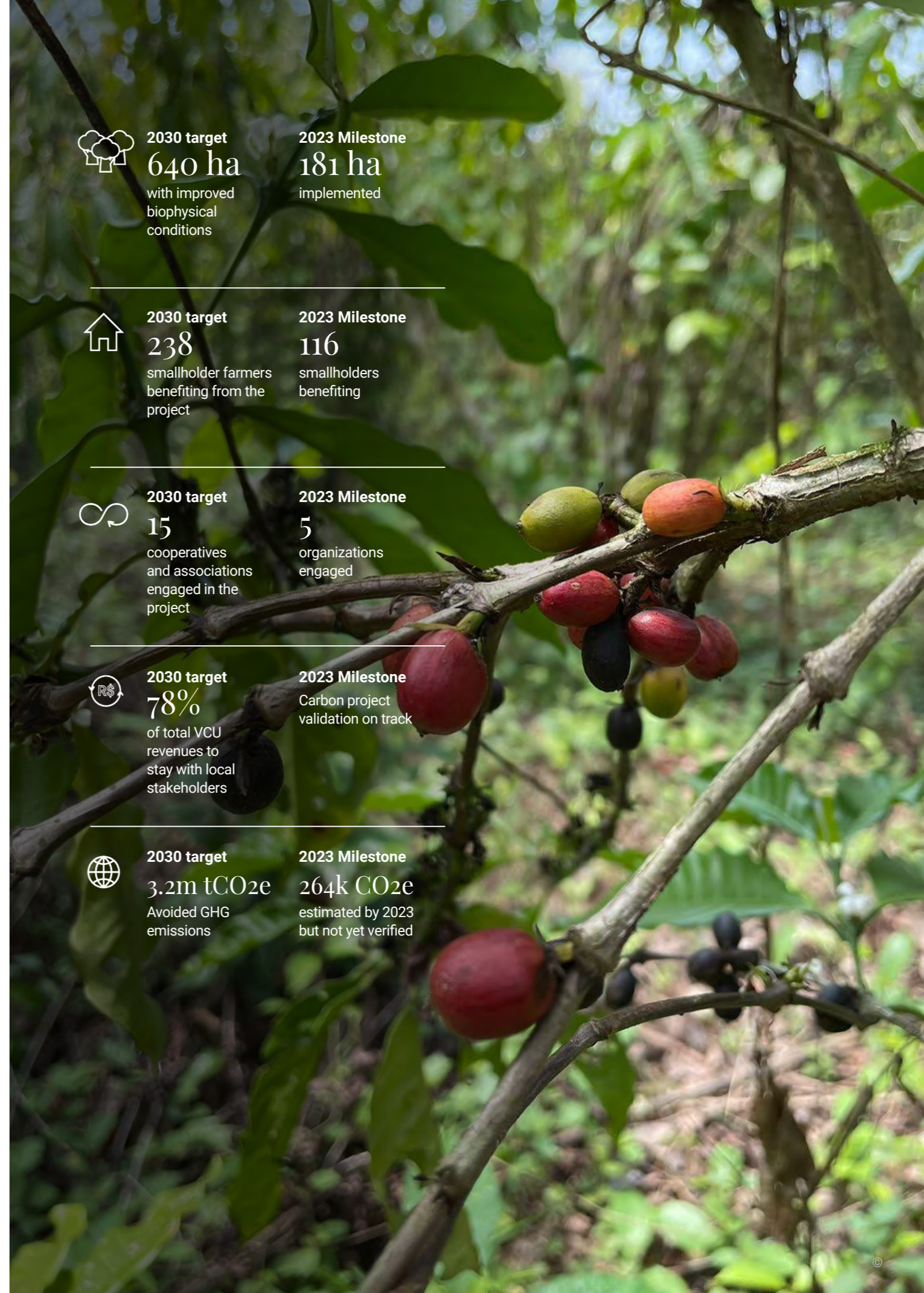
2023 Milestone
5
organizations engaged

2030 target
78%
of total VCU revenues to stay with local stakeholders

2023 Milestone
Carbon project validation on track

2030 target
3.2m tCO₂e
Avoided GHG emissions

2023 Milestone
264k CO₂e
estimated by 2023 but not yet verified



ReforesTerra ARR Project

The Reforesterra ARR project aims to recover 2,000 hectares of degraded lands in the Baixo Rio Jamari Watershed in the State of Rondônia, where only 40.5% of the native forest cover is left.

The project aims to engage hundreds of farmers in the reforestation of riparian forests (Areas of Permanent Protection - APPs) and Legal Reserves¹, using more than 50 different native tree species. The farmers will receive the inputs necessary to restore the selected areas, technical assistance, payment for ecosystem services for maintaining the forests and significant benefits associated with bringing their properties into compliance with the Forest Code.

They will be helped in this endeavour by the Centro de Estudos (CES) Rioterra, a local NGO with a 20-year track-record of reforestation; and ReforestAction, a reforestation company based in France.

The project ambition is well aligned with the fund's theory of change as it enables reforestation activities on previously degraded riparian areas in biologically important areas, strengthens vulnerable populations, and generates fair revenues and social benefits from environmentally sustainable income sources.

ReforesTerra faced initial delays in recruiting smallholder farmers. However, the activism of CES Rioterra on the ground and the increased support from local authorities and institutions led to a very different dynamic by late 2023, and the project is now back on track to achieve its 2,000 hectares target. Although the number of hectares under active restoration still remained limited at the end of the year (13 hectares), more than 100 additional hectares were effectively contracted at the end of 2023, with a new intermediate objective to reach 300 hectares under management by the end of 2024.

There were no ESG incidents to be reported during the year and 5 of the 6 Environmental and Social Action Plan items were already implemented. Amongst others, a comprehensive Health Security and Environmental risk assessment was completed in 2023 with no material findings.

Whilst it is too early to demonstrate any biodiversity, livelihoods, inclusion or climate outcomes, our partner Terrabio already performed the first biodiversity measurements on existing operations. It already provides very useful information and sets important reference points.

Biodiversity monitoring was carried out using environmental DNA, using the presence of arthropod species communities in the soil as a proxy for biodiversity richness. Although there is a large variability across sites linked, amongst others, to the proximity to water sources, first intervention sites showed a relatively low number of species (12) aligned with counterfactuals. This is expected – as the year of measurement was the same year of planting. Beyond the number of species, we will look in the future at their composition as well as the water availability, which will be improved over time through project intervention and support more diverse species communities.



Headquarters
Porto Velho, Rondônia

Activity
Reforestation of Degraded Areas

Investment Pillar
Conservation, Reforestation and Community Livelihoods

Type of Deal
Project Finance

Investment Structure
Carbon Backed Note

Investment Year
2022

2030 target
2,000 ha
with improved biophysical conditions

2023 Milestone
13 ha
under restoration

2030 target
Improvement in the number and relative abundance of species

2023 Milestone
Baseline eDNA and geospatial mapping done

2030 target
100,000
tons of CO2 equivalent sequestered

2023 Milestone
Carbon Project under registration with VERRA

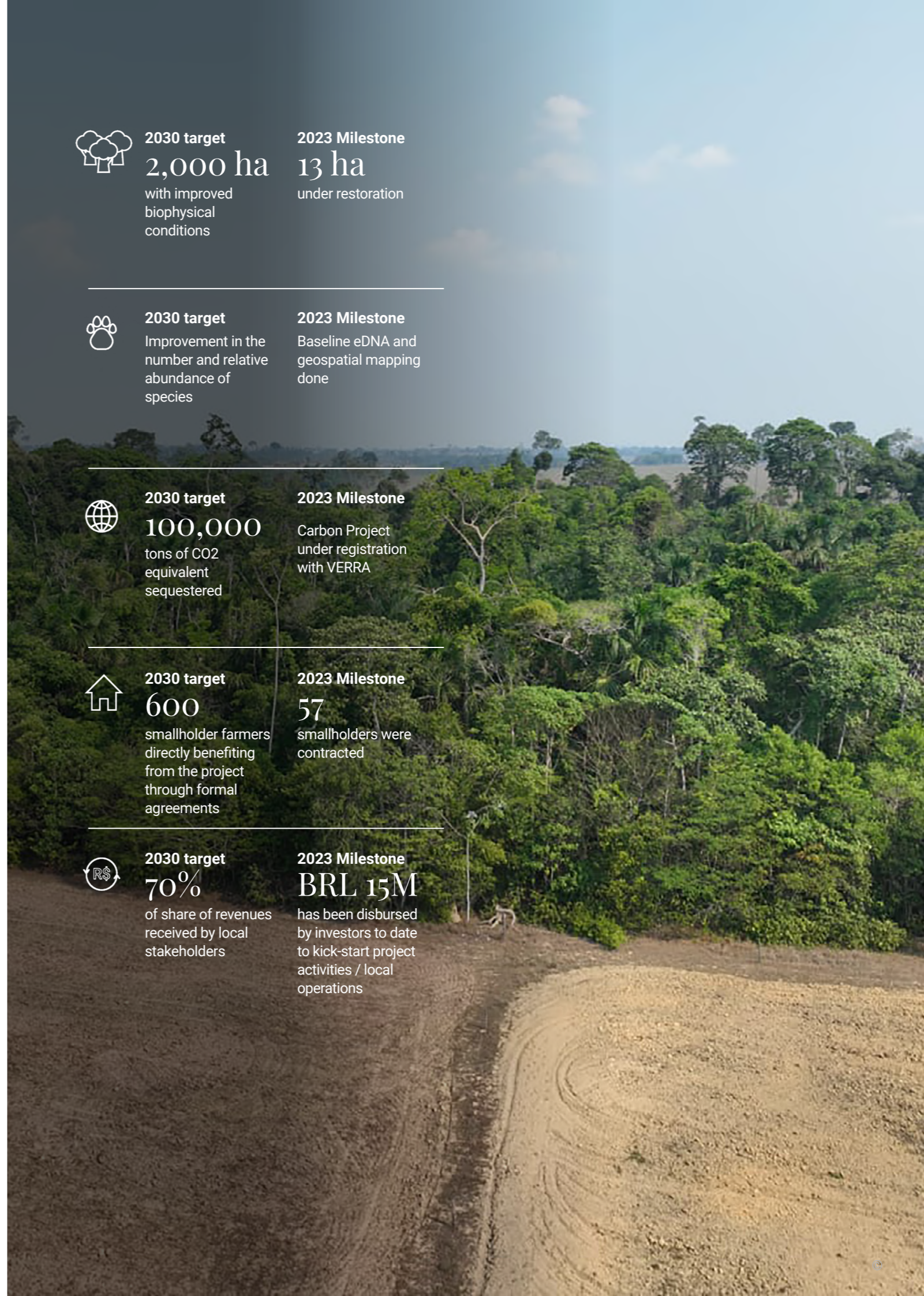
2030 target
600
smallholder farmers directly benefiting from the project through formal agreements

2023 Milestone
57
smallholders were contracted

2030 target
70%
of share of revenues received by local stakeholders

2023 Milestone
BRL 15M
has been disbursed by investors to date to kick-start project activities / local operations

¹ Legal Reserves are portions of land that must be set aside in native habitat, depending on property size and location, according to the Brazilian Forest Code.





Cacau Amazônia+

The business will support the development of a regenerative cacao value chain in Rondônia state, implementing 200ha of agroforestry systems alongside 600ha of ecological restoration, with 200 smallholder farmers. It is a partnership with CES Rioterapia.

ABF's investment will provide farmers already producing low quality cacao, with the tools, knowledge, and equipment to transition to SAF systems with high quality cacao, securing better terms of sale, income, and livelihoods. ABF's investment will also be used for reforestation of degraded riparian areas, with benefit share and payments for reforestation through an ARR carbon project and a landscape approach to land management.



Belterra

Belterra is a pioneer in developing large scale agroforestry systems in Brazil. The business model is to lease or enter into rural partnerships on degraded pasture areas, restore the land, install scalable agroforestry systems, and monetize the commodities produced. The current expansion phase aims to restore 4,000 hectares in the Amazon, in Mato Grosso and Pará, by 2025 in partnership with small and medium scale farmers.

The project aims to restore degraded pasture lands via the development of cacao-based agroforestry systems and the sale of fermented cacao and other short-term crops, such as banana and cassava. A carbon project is also going to be developed. The project is expected to generate local green jobs and benefit smallholders directly, with an expected increase in revenues when compared to the traditional low productivity cattle raising system.



AIR+

AIR+ is a conservation project focused on a group of Indigenous Territories. The project aims to drastically reduce deforestation risk in and around these areas, protecting local biodiversity, whilst offering local communities support to manage their lands, protect their forest, and offering a better quality of life and sustainable income for local population. The initial project includes 3 Indigenous Territories in Rondônia State and Mato Grosso, over 680,000 hectares. The project will be led by local communities who will be empowered as main project proponent. They will be helped in this endeavour by our partner and project implementer CES Rioterapia.

ABF's investment will be used to finance the conservation project activities and benefits for the Indigenous Territories for the first 2 years, prior to the first Payment for Ecosystem Services revenues. These advanced benefits will strengthen the indigenous-focused governance, immediate engagement and adherence to the project's objectives.



ESG Engagement

ESAP Actions Undertaken

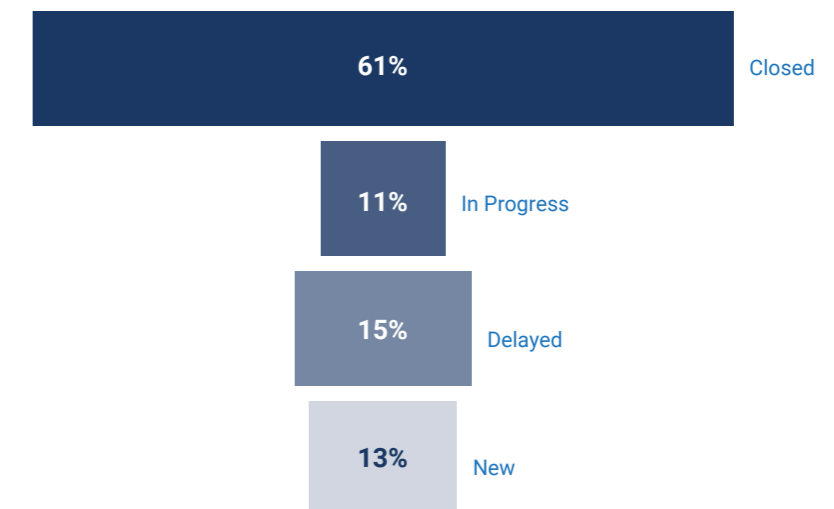
Impact Earth revamped its approach to Environmental and Social Action Plans in 2023. Whilst the former ESAPs were principally focusing on adoption of policies and progressive convergence to the IFC Performance Standards, the new versions tend to be more operational and integrated with day-to-day project implementation, to dynamically manage Social and Environmental risks and avoid any potential negative externalities.

The first ESAP to be fully revamped was Inocas Amazonia. The key areas of change in the ESAP, focussing on day-to-day project implementation, included:

- The enhancement over time of a more sustainable pest and disease management plan & use of pesticides, where independent specialised consultants are focussing on what can be done locally in the Amazon with a stepwise approach.
- Setting dynamic minimum eligibility criteria for smallholder partnerships & land selection, and acceptable clearance of fallow vegetation or invasive species on project areas.

At the end of the year there were 46 ESAP items listed for the ABF investees. 28 ESAP actions were already closed (61%). The key pending items relate to Horta's ESAP, being revised in 2024 following the repositioning of the company's strategy.

ESAP Actions



Source: Impact Earth as of 31/12/2023

TerraBio

What is it?

ABF was established to achieve the goal of conserving biodiversity, protecting natural ecosystems and supporting the communities that depend on them in the Brazilian Amazon. To ensure its success, as the fund was designed, an innovative, practical and science-based approach was needed to measure its environmental effectiveness. This meant an approach that could generate robust evidence in a standardized manner, across landscapes, value chains, and business models. This led to the inception of TerraBio.

Supported by USAID Brazil, TerraBio is a tool that brings together different environmental research approaches and analyses, to assess the impacts of sustainable interventions made possible through ABF financing. Accurate measurement of investment outcomes on natural areas and biodiversity impacts is becoming more valuable. Those ahead in this process stand to gain from this information in many ways, be it reputational, financial or otherwise. Businesses that recognize the risks of biodiversity loss and ecosystem degradation on their success are becoming agents of innovation.

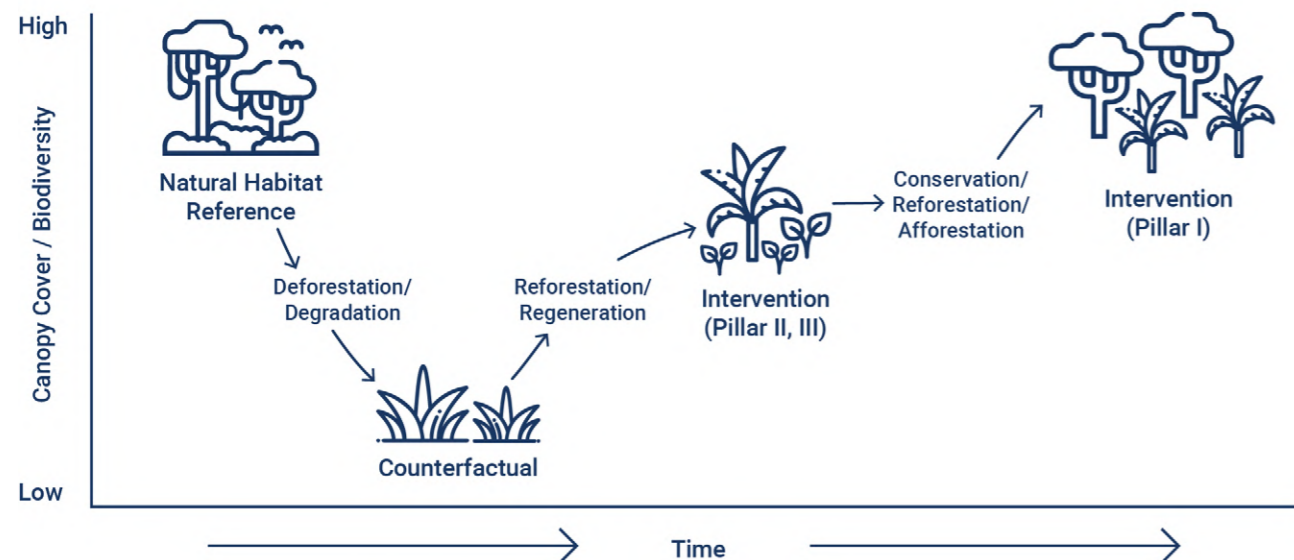
By monitoring the implementation of activities on the ground, and by evaluating their effects on biodiversity and ecosystems, TerraBio provides accountability on activities that commercialize sustainable agriculture and forest products, and assurance to investors interested in validating positive social & environmental impacts in addition to financial returns.

How it works?

Traditional forests and biodiversity monitoring methods tend to be expensive, time consuming, and difficult to compare under different contexts. By integrating state of the art land use mapping technologies with innovative biodiversity data collection, TerraBio monitors and estimates the environmental impacts associated with the implementation of sustainable production practices. While the fund makes an investment on the basis that a given sustainable business model helps conserve biodiversity, TerraBio verifies if this is being achieved once the given sustainable business model is being implemented, and to what extent these improvements compare to Business as Usual (BAU) conditions.

For compliance, TerraBio compares environmental indicators to a baseline. To assess impact however, TerraBio compares the same indicators to a counterfactual and a reference area (i.e. natural land cover system). By applying a semi-experimental design approach, observed differences are presumed to be attributed to the implementation of sustainable practices.

Fig. 1. Conceptual schematic depicting agriculture-driven land cover change in the Brazilian Amazon. Natural habitat is commonly deforested/degraded to be converted into unsustainable agricultural production systems (i.e. grazing pastures), which could be restored through the implementation of impact investment funded sustainable interventions.



TerraBio measures changes in seven environmental indicators by integrating state-of-the-art mapping technologies with innovative biodiversity monitoring (Table 1). TerraBio has two types of indicators, those generated using environmental DNA (eDNA) of the taxonomic groups of arthropods and those derived from remote sensing. Together they provide information to assess the potential contributions of management practices to land-based economic activities. TerraBio's coupled approach represents an improvement over approaches that rely only on spatial variables (e.g., forest extent), helping overcome some of the challenges of traditional biodiversity and environmental assessments (Dyson et al. 2024).

Table 1. List of TerraBio Indicators and their mapping to ABF thematic area

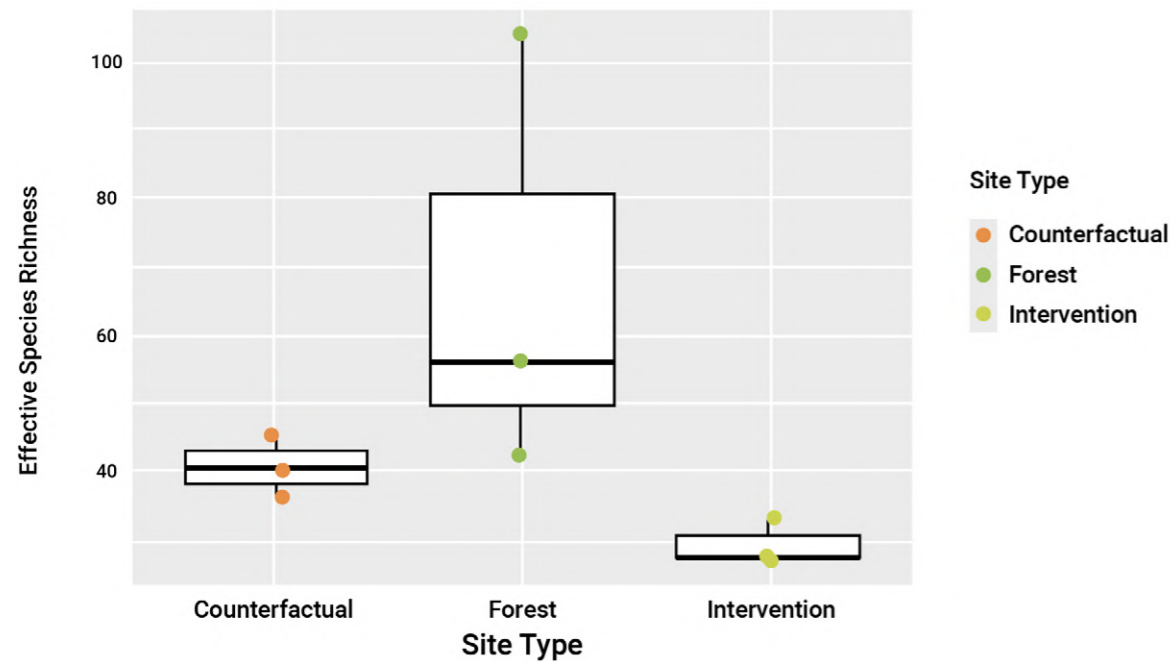
ABF Theme	TerraBio Metric
Species: Improve the presence of native species and the conservation status of threatened and endangered species	Effective Species Richness (No. of Spp)
	Paired-site Species Composition Comparison
	Description of Species Assemblage (0-1)
	Change in Patch Connectivity Function (No., ha)
Ecosystems: Restoring degraded land, protecting and enhancing ecosystems.	Regenerated/Restored Area (ha) within intervention sites
	Conserved Forest Area (ha) (by monitoring forest disturbance within the farm boundary)
Climate: Net positive impact on climate change	Carbon Storage & Reductions

TerraBio in Action: a case study of INOCAS

The application of TerraBio at INOCAS was co-designed to monitor three distinct land cover/land use types: (i) Forest Reference area, (ii) Macaúba Planting plots implemented in 2023, and (iii) conventional grazing pastures as a Counterfactual. The Macaúba planting system is the intervention carried out by INOCAS and monitored by TerraBio. The Forest Reference area is a natural environment, and the counterfactual plot is a low intensity pasture area.

The Forest Reference sites showed the largest average number of species (68), followed by the Counterfactual (41) and the Macaúba plots (Intervention) (29) (Fig. 2). The presence of species is indicative of suitable environmental conditions. According to the results, the Forest Reference areas had a much higher number of species compared to the Counterfactual or Intervention sites. In contrast, the Intervention sites had the lowest values. This is due to the recent disturbances at the site while preparing the areas for the planting of the Macaúba seedlings (the year of measurement was the same year of planting). Over time as biodiversity is improved, it would be expected that the Intervention area would increase above the Counterfactual.

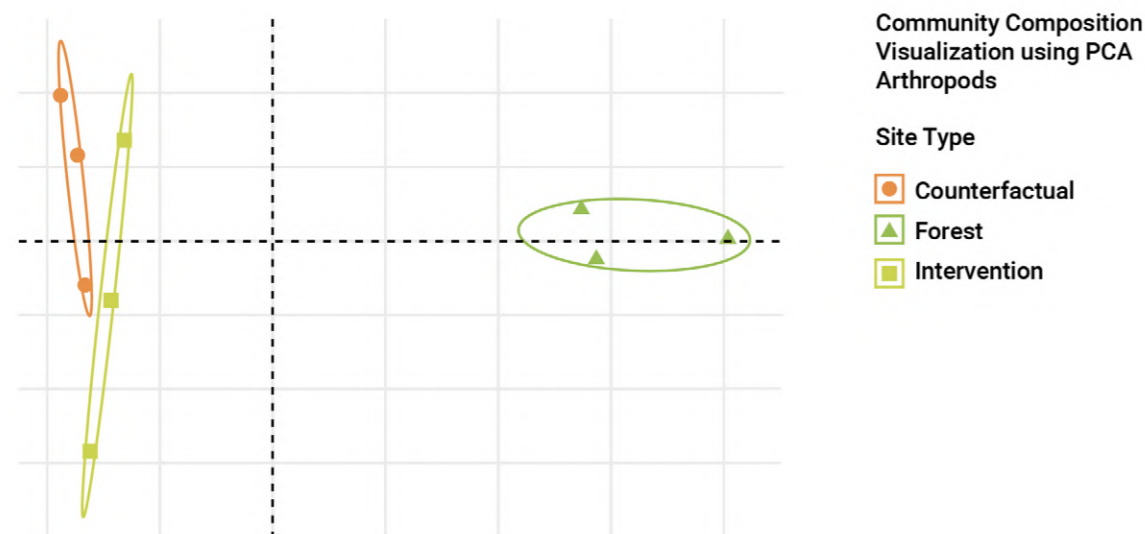
Fig. 2. Effective species richness comparison between land use sites at the INOCAS farms in 2023. The absolute values can be compared directly as a proxy of the number of species found at each site.



Visualizing the assemblage of species across sites through a Principal Component Analysis (PCA) helps understand how the different communities of species relate to one another. The results can be interpreted in this way: sites with greater similarity of species compositions will appear closer to one another compared to sites with lower similarity of species compositions. Ellipses are used to encapsulate the eDNA samples analyzed for each site. When the ellipses are small in area, the species detected in each individual sample are similar. When the ellipses are large in area, each individual sample detected a different community of species.

At INOCAS, it is clear from the eDNA results that the community of species present in the Forest Reference area is significantly different to that of the counterfactual, and even more from the Macaúba systems (Fig. 3). As the year of measurement is the same year in which the Macaúba was planted, this is expected. Over time as biodiversity is improved, the Intervention system would be expected to increase in area, move further away from the Counterfactual and closer to the Forest Reference.

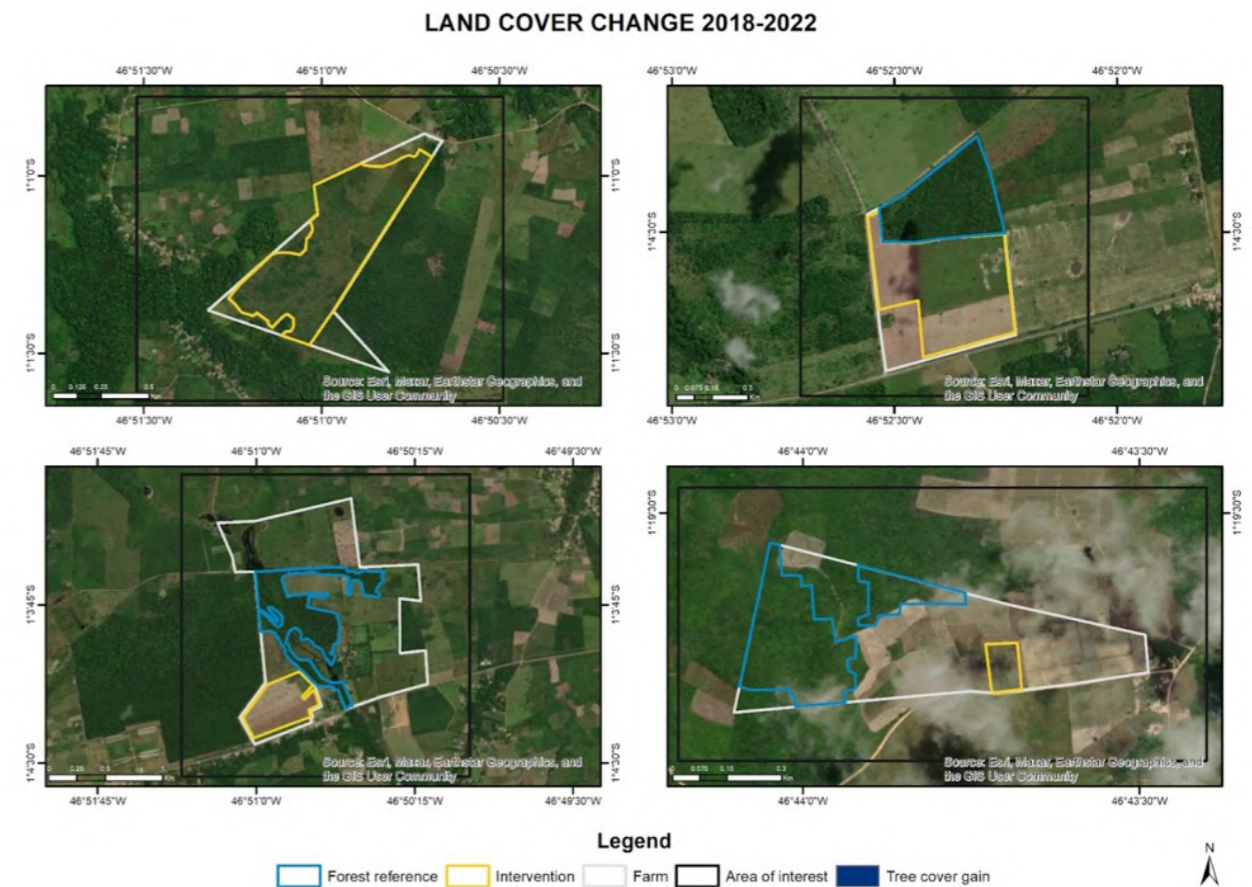
Fig. 3. Visual representation of all land cover/land use sites assessed using eDNA to compare the communities of insect species present at each site.



Using geospatial analysis, the implementation of sustainable activities in ABF-funded projects is also monitored by measuring the areas that show improved biophysical conditions through an increase in canopy cover. TerraBio uses the concept of canopy cover, rather than just forest cover, to include the estimation of both trees and/or palms cover in areas that increase the vegetation in the landscape. An increase in canopy cover could imply a conversion into a regenerative forest, a plantation, or an agroforestry system. TerraBio uses satellite imagery to detect canopy cover gains before and after the implementation of the intervention.

At the INOCAS associated farms, differences in canopy cover within the targeted intervention areas were analyzed over 5 years between 2018 and 2022. This period was chosen to serve as a historical baseline against which to compare subsequent years of TerraBio implementation. Observed improvements in biophysical conditions are expressed as the number of hectares detected following an increase in the canopy cover within the intervention site(s). As per the 2023 results at INOCAS, no canopy cover gains were detected (Fig. 4). Since the seedlings were planted in 2023, this is expected. Over time, it would be expected to observe a gain in canopy cover.

Fig. 4. Canopy cover gains were not detected at the intervention sites at INOCAS' farms in 2023.



Interpretation of results

As expected from baseline values in 2023, the contributions of the Macaúba systems to biodiversity conservation in the same year of planting are very low. The planting of the palms creates a disturbance in the system, and the Macaúba palms are still too young to create a canopy. As a result, they have not yet modified the structural and microclimatic conditions that would make these systems potential contributors to the ecological connectivity of the landscape, and the potential hosts of native wildlife.

The TerraBio analysis is a time series analysis of land cover/use extent, condition and function. At the same time, it also provides a snapshot assessment of species' presence and composition in each year of measurement. Over time, as the project with INOCAS progresses, biodiversity would be expected to diverge from the landscape's dominant pasture areas, and TerraBio will validate this expectation, monitoring the changes and evaluating the impact of the Macaúba systems as a habitat for biodiversity.

Concluding Remarks

This report concludes the fund's second cycle of impact and ESG annual reporting. The fund is still in its early years and as a result, impact results are tempered in 2023. Nevertheless, some initial results have been achieved in the portfolio. Since the fund began investing, some key highlights from 2023 include:

- Increasing the number of beneficiaries to 336 farmers and families in the Amazon, with 100% of those being located in the municipalities where the projects are implemented;
- Doubling the size of degraded areas under the management of investees to 284 hectares with the aim of improving biophysical conditions;
- A ramp up in contracted areas under conservation management, to 7.8k ha, with an estimated 264k tCO2e in avoided deforestation on those areas;
- Increasing the number of community organizations engaged to 12.

In 2023 the fund took strides to raise the bar of impact and ESG management processes, and investees have more robust impact management plans and ESG strategies, central to all their commercial activities. This is a positive dynamic upon which the investees, ABF & Impact Earth can add greater value to the portfolio, both on the balance sheet and off.

As the journey has just begun, ambition and opportunities lie ahead. Most investee are reaching tipping points where early demonstration of success will enable further growth. The new deals added to the portfolio between 2023 and 2024 will also bring an additional dimension to the impact of the portfolio. ABF is now embarking on the pathway to achieve impact at scale. The larger scale of the newer projects, both in land covered and communities benefiting, brings greater environmental and social impact.

In the coming year 2024, we will continue to integrate impact and ESG further into portfolio management. For the investees, we will continue to raise the bar of impact ambition and bring impact & ESG closer to their core activities.

We also expect to further develop the validation tools for impact claims. This will include a more systematic utilization of tools such as TerraBio, the interpretation of results and, most importantly, using the results to enhance engagement with investees on their impact and ESG strategies.

We hope you have enjoyed reading the 2023 report and look forward to the exciting year ahead.



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Appendix I - Impact KPIs

Impact Thematic Area	KPI #	KPI outcomes	Methodology
Climate Net positive impact on climate change	KPI-1	CO ₂ e reduction	This is defined as the tons of CO ₂ equivalent avoided or sequestered.
Ecosystems Restoring degraded land, protecting and enhancing ecosystems	KPI-2	Improved biophysical conditions	This is defined as the # hectares with improved biophysical conditions. Improved biophysical conditions may be achieved through reforestation and restoration, or sustainable agroforestry and agriculture on degraded land.
	KPI-3	Landscape conservation	Landscape conservation is defined by the estimated # hectares of land with high biodiversity value directly conserved due to project activities (ha).
Species Improve the presence of native species and the conservation status of threatened and endangered species	KPI-4	Improved species presence	Improved species presence is defined as the % change in the number and (relative) abundance of priority species selected for monitoring.
	KPI-5	Habitat protection	Habitat protection is defined by the # hectares conserved, directly or indirectly, within which IUCN red list or other priority species are located.
	KPI-6	Conservation of important species	Conservation of important species is defined by performance (%) against a plan to contribute to species conservation in the landscape(s) the business is operating in.
Livelihoods Create jobs, support livelihoods and provide sustained family income	KPI-7	Job creation	Job creation means the # jobs directly created or supported through ABF's investment in the company.
	KPI-8	Livelihoods support	Livelihoods support means the # smallholders, farmers, or others directly benefiting from participation in the project through formal agreements.
	KPI-9	Economic empowerment	Economic empowerment is defined as the # households benefiting from an income and/or reporting an increase in household income over time as a result of participation in the project.

Sustainable Enterprises Build capacity of enterprises and organisations towards environmental, social and economic sustainability	KPI-10	Enterprise creation or support	Enterprises creation or support is defined as the # new enterprises created or existing ones supported by the project.
	KPI-11	Progress towards enterprise viability	Progress towards enterprise viability means the % of enterprises within the project making progress towards commercial viability.
	KPI-12	Community organisations	This is defined as the # community organisations, such as cooperatives and associations, that are created, engaged and/or supported by the projects in order to meet their goals.
	KPI-13	Sustainable value chains	This is defined as the # products of Amazonian origin, or sustainably produced in the Legal Amazon, for which a market has been created or supported and for which the value chain has been enhanced.
Wellbeing & Inclusion Support improvement in overall community, wellbeing and inclusion	KPI-14, 15 & 16	Diversity and Inclusion	This is defined as the # and % of jobs, leadership positions and livelihoods created and beneficiaries that are held by Women, Black, Indigenous and Quilombola peoples (IQPs), or other traditional peoples and groups, and people from the project municipalities.
	KPI-17	Community Wellbeing	Community wellbeing is defined as the perceived change in wellbeing of communities affected by the project.
	KPI-18	Inclusion via Forest Code compliance	# smallholders supported to increase/strengthen compliance with the Brazil Forest Code through engagement with the project, resulting in greater access to basic state services, funding and inclusion.
Investment Returns to local stakeholders	KPI-19	Value from Environmental Assets	Value from Environmental Asset means the \$ value and % share of revenue received from the sale of carbon credits, results-based payments and/or other payments for ecosystem services, by local stakeholders.
	KPI-20	Value from Physical Assets	Value from Physical Asset means the \$ value of revenue received by project target groups/communities from the sale of other goods and services by local stakeholders.



