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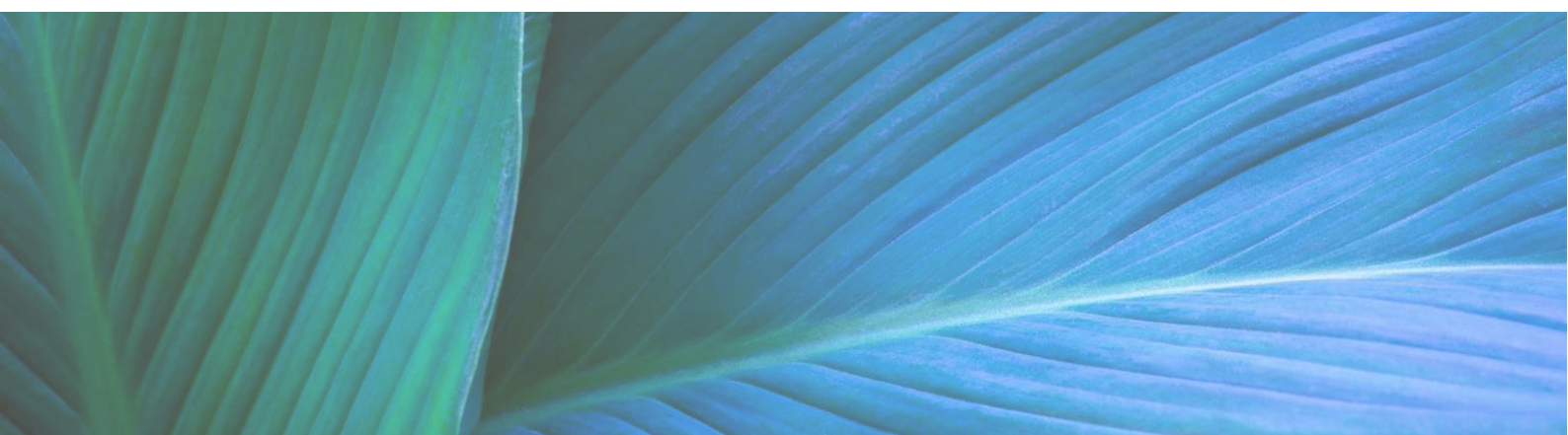
LatAm Climate Turnaround Fund

White Paper 2024



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1. Executive Summary

Climate change is the most significant challenge of our time, and the impacts of greenhouse gas (GHG) emissions represent a risk to global production chains. Over the last 25 years, losses from these emissions have totalled USD 1.8 trillion. Reducing emissions is, therefore, imperative for organisations and the future of the planet. While investors, consumers, and society in general are demanding that companies adopt sustainable practices, most business models are still based on highly GHG-emitting activities. **In Latin America, and especially in Brazil, this situation is particularly alarming, as many of these large businesses are connected to biodiversity loss and deforestation of important biomes - such as the Amazon rainforest - with global repercussions.**

Companies with a high emissions profile are more exposed to financial losses related to climate litigation, regulation, brand equity, and restricted market access due to climate policies. On the other hand, evidence suggests that companies promoting decarbonization strategies are better positioned to mitigate relevant risks and benefit from upcoming opportunities[1].

However, without proper incentives, legal certainty, and accountability, companies often fail to adopt the necessary and viable decarbonization measures at the required pace, in line with scientific recommendations and the UN Paris Agreement.

Currently, the financial market focuses primarily on the portfolio's direct emissions, in an attempt to reach their Net Zero commitments. However, this overlooks the real problem, which lies within the value chain. Excluding 'brown' assets from portfolios may perpetuate the issue, as investments in polluting companies would continue without responsible practices, increasing the chances that the investee's GHG emissions will rise.

We need engagement rather than divestment.

This is particularly crucial in emerging economies, which need a **just transition** to a low-carbon economy.

Furthermore, climate change mitigation discussions globally have focused more on fossil fuels and energy transition. While in many emerging economies the most significant emitters are in the energy sector, in Latin America AFOLU (Agriculture, Forestry, and Other Land Use)

[1] A Kearney Consulting study found that European steel, chemical, cement, and energy companies with high-quality carbon reduction plans have an average valuation premium of 62% over peers lagging on the climate agenda. In the rest of the world, this premium is 25%.
A study published by Lazard at the end of 2021, which analysed 16,000 global companies between 2016 and 2020, concluded that European companies in the industrial sector saw an 18% discount in their multiples for every 10% increase in GHG emissions.

emissions are much more relevant. In Brazil, agricultural activities, and land use account for 74% of the emissions. As Brazil is the 7th largest historical GHG emitter in the world, these emissions matter in the global community's challenge to overcome the climate crisis. **The companies associated with AFOLU emissions are among Latin America's "carbon majors".**

However, since foreign investors have been more focused on energy transition, and local investors have little commitment to climate change, **there is an enormous gap in climate-focused stewardship in the region to promote decarbonisation and biodiversity conservation.**

The LatAm Climate Turnaround Fund was created in response to this context.

The LatAm Climate Turnaround Fund is a stewardship-focused investment fund designed to promote the decarbonization of major carbon emitters in Latin America through engagement and the best available science, decarbonising the real economy and creating economic value for companies while seeking financial returns for investors.

The Fund will initially focus on Brazil, the largest GHG emitter in the region, and may subsequently invest in listed companies that are major emitters in Mexico, Colombia, Chile, and Peru.

The LatAm Climate Turnaround Fund relies on the extensive experience and reputation of fama re.capital, which has been dedicated to responsible investments for over 30 years. It has developed unique expertise in engaging with listed companies in Brazil and is recognised as the most vocal asset manager in Latin America on responsible investment and climate issues. It is the only Latin American asset management company co-founder of the Net Zero Asset Managers (NZAM) initiative, a global case study by The Investor Agenda, and a finalist in the PRI Awards due to its substantial climate action.

The Fund's team is multidisciplinary, comprising scientists, lawyers, financiers, climate finance experts, sector-specific consultants, and Amazonian-born advisors, ensuring gender balance and local knowledge. The scientific guidance of renowned Earth scientist Professor Carlos Nobre further enhances the team's capabilities.

The LatAm Climate Turnaround Fund will invest in companies that meet the following criteria:

1. **High quality businesses,** with competitive advantages, high returns on invested capital, and well-managed with good governance standards.
2. **Large emitters** of greenhouse gases – over 1-million-ton CO2eq/year – **including scope 1, 2, and 3 emissions** - capable of furthering their decarbonization and that of their value chains.

3. Companies for which the Fund can find **economically viable decarbonisation pathways**.
4. Companies **are open to receiving advice** from the LatAm Climate Turnaround Fund.

The Fund's investment thesis is that mitigating environmental and climate risks of investee companies maximises their financial return. This occurs through: 1) a reduction in future costs and expenses due to efficiency measures and risk reductions; 2) a reduction in the cost of capital because of a perceived reduction in the company's risks, leading to an increased valuation; 3) an increase in revenue streams resulting from the expansion and diversification of the business model; and 4) improved perception from investors leading to higher multiples and/or exiting from exclusion lists.

The Fund's dual purpose is to: 1st) Promote financial return for investors; and 2nd) Drive positive climate impact and economic value creation for the company.

The LatAm Climate Turnaround Fund will be remunerated through an **impact-based performance fee**. This fee is applicable only if the Fund's portfolio, in addition to outperforming its financial benchmark, contributes to a measurable annual reduction in temperature toward alignment with the Paris Agreement's goal of limiting the global temperature increase to 1.5°C, as assessed using the WWF/CDP 'Temperature Rating' tool and duly validated by investors at a shareholder's meeting.

To achieve its goals, the Fund's engagement approach starts at the pre-investment phase. The Investment Team seeks to establish a partnership with the company, fostering mutual trust to provide effective advice and recommendations for viable improvements in emissions reductions, climate adaptation, governance, and transparency, among others. The Investment Team will quantify climate litigation, physical and transition risks, and market opportunities, based on its framework that will only consider solutions of the highest environmental and social integrity. The advice and recommendations will strike a balance between the best available science and alternatives that have operational and financial feasibility.

Once the investment decision is made, the Fund, in collaboration with the investee, will create a Climate Turnaround Action Plan based on the preliminary recommendations. Escalation methods may be triggered if objectives are not met within set timeframes, involving dialogue with the company's executives, collaborative engagement, public statements, and media strategies, among others.

In summary, the LatAm Climate Turnaround Fund aims to:

- Help companies navigate decarbonization pathways effectively, with efficiency, science, governance, and transparency, while

preventing greenwashing and climate litigation, creating economic value as a result
- Prevent biodiversity loss and promote the decarbonisation in value chains, yielding global positive impacts
- Deliver financial returns for investors
- Promote education around the importance of climate stewardship among investors and other relevant stakeholders, and, when appropriate, engage with policymakers to support better climate and biodiversity protection laws in the region.

LatAm Climate Turnaround Fund is a much-needed and long-awaited step toward consolidating climate and nature nature-responsible investment in the region.

LatAm Climate Turnaround Fund's Team

2. Context

2.1. Key Facts about Climate Change and Latin America

Economies, human activities, and life on Earth can only thrive in suitable and stable climate conditions. However, these same human activities are a major cause of the Earth's rapid warming, a consensus of the scientific community based on the work of the Intergovernmental Panel on Climate Change (IPCC), a United Nations initiative that comprises thousands of scientists and conducts periodic reviews on climate change-related scientific research all over the world.

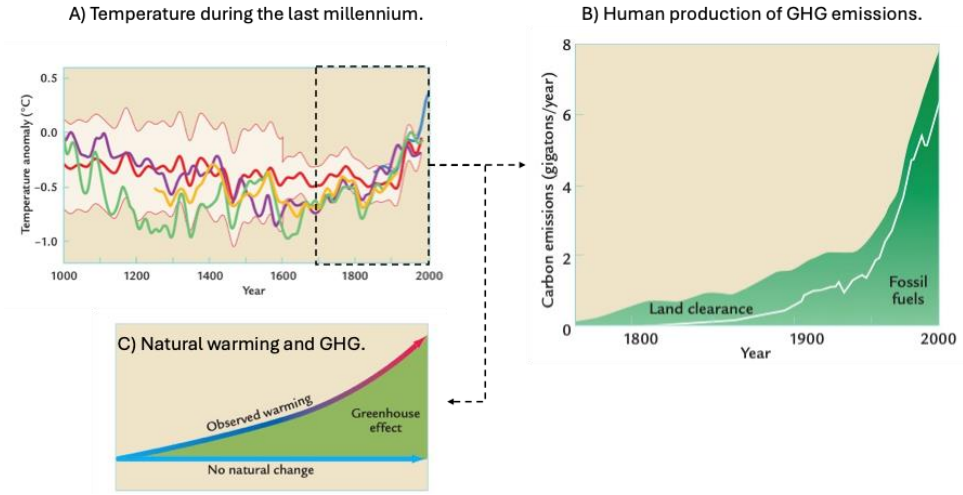
Although climate changes are usual in the geological history timeframe, they usually occur in long-term periods, such as many centuries or even thousands of years. What is distinctive about observed changes in the climate recently is the speed of temperature increase and its causal relation with the rapid concentration of CO_2 in the atmosphere that is not related to natural processes (see figure below). Indeed, the 1°Celsius increase in global temperature over the last 200 years cannot be explained by natural forcing[2], nor is it the result of short-term natural forces such as volcanic explosions or *El Niño*[3] events.

[2] Natural forcing refers to external factors, such as changes in solar radiation and volcanic eruptions, that can lead to variations in the Earth's climate. See this link with the government climate agency (NOAA) straightforward explanation of this.

[3] El Niño is a climate phenomenon characterized by the warming of sea surface temperatures in the central and eastern tropical Pacific Ocean, which can have widespread impacts on weather patterns around the world. It is part of the El Niño-Southern Oscillation (ENSO) cycle, which also includes its counterpart, La Niña. El Niño events can lead to extreme weather conditions such as heavy rainfall, droughts, and temperature fluctuations in various regions. For references, see NOAA's explanation on El Niño, and the paper of Adamson (2022).

Two factors account for the increase in atmospheric CO_2 caused by human activities in the last 200 years: (1) the deforestation to farmland expansion and (2) the burning of fossil fuels, i.e. coal, oil, and gas. Current paleoclimate science also associates other past local historical climate anomalies to intense human activity with an impact on the decline of agriculture in Asia and Central America[4]. However, the current warming coupled with climate change is happening on a global scale, and the mechanisms are connected to GHG emissions.

Exhibit 1



Temperature variation in the last millennium, and human production of GHG. Adapted from Ruddiman (2008)[5].

International cooperation is fundamental to address this issue, and in 2015, 196 countries adopted the Paris Agreement, an international treaty under the United Nations Framework Convention on Climate Change (UNFCCC), which aims to limit global temperature increase to well below 2 degrees Celsius above pre-industrial levels, with efforts to limit the temperature increase to 1.5 degrees Celsius. To that end, the Paris Agreement proposes a roadmap that requires countries to peak their emissions as soon as possible, and then make rapid and sharp reductions, to achieve net zero GHG emissions by the year 2050. Furthermore, the Paris Agreement aims to make financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

To address the climate change impacts on economic decisions, the IPCC has developed the Shared Socioeconomic Pathways (SSPs) scenarios, which explore future climate change based on the challenges of mitigation and adaptation. The Shared Socioeconomic Pathways (SSPs) are particularly relevant to the financial sector as they provide a framework for understanding and planning for future climate change impacts on the economy. These scenarios provide

[4] See: Kerr (2008), 'Chinese caves speak of a fickle sun bringing down ancient dynasties'; and Luterbacher et al (2016), 'European summer temperature since Roman times'.
[5] Ruddiman, W. F. (2009). Earth's Climate: past and future. Macmillan [book].

narratives describing alternative socio-economic developments related to economic growth, trade, energy, and agricultural systems. Despite the adverse impacts of climate change, the IPCC states[6] that climate risks can be reduced through carefully designed public and market policies, and the world has enough capital to tackle the climate crisis. Action is less costly than inaction, but finance to developing countries must be ramped up. Moreover, the decades before 2050 are critical to limit warming as much as possible.

2.1.1. Climate change key mechanisms and impacts on economic activities in Latin America

Climate impacts are more severe in tropical regions where rising temperatures and extreme weather events have significantly reduced agricultural productivity, such as the increasing frequency and intensity of El Niño[7]. Globally, the impact of increasing temperatures is estimated at trillions of dollars, and 56% of countries experienced significant decreases in economic growth due to El Niño events[8]. Most of the losses related to El Niño occur in Latin American countries, due to its proximity to the El Nino oscillation, and their importance to the global supply of agricultural commodities. Recent studies show a shortened rainy season in the Amazon[9], and the impacts of increased temperature on the agricultural productivity in the Cerrado biome[10], which is the fastest-growing agricultural region in the world[11] with 4 million hectares of soy crops. Therefore, anticipating and mitigating the impact of climate scenarios becomes crucial for the economic sustainability and financial stability of Latin American countries.

The insurance and agriculture sectors are at the forefront of climate change impacts. Agricultural production is particularly relevant in Latin America because they are major grain producers in the world. Meanwhile, this sector is a primary source of greenhouse gas emissions in these countries. For instance, Brazil is the largest producer of soybeans in the world, followed by Argentina in third place, and together they account for 47% of global production, according to the FAO.

Still, in contrast to other regions, 40% of Latin America's emissions come from the Agriculture, Forestry, and Other Land Use (AFOLU) sector - almost twice the global average, with deforestation and land use change being the main contributors. In Brazil, 74% of the emissions come from the AFOLU sector.

Its large territory, coupled with relevant agricultural production and biodiversity concentration, makes Latin America an important provider of both food and ecosystem

[6] Pörtner et al. (2022). Climate Change 2022: Impacts, Adaptation and Vulnerability Summary for Policymakers. The Working Group II contribution to the IPCC Sixth Assessment Report: the impacts of climate change on ecosystems, biodiversity, and human communities at global and regional levels. Available at: https://www.ipcc.ch/report/ar6/wg2/
[7] Liu et al (2023), Non-linear El Niño impacts on the global economy under Climate Change.
[8] The Washington Post, "El Niño is getting stronger. That could cost the global economy trillions."
[9] Leite-Filho et al (2021), Deforestation reduces rainfall and agricultural revenues in the Brazilian Amazon.
[10] Silva et al (2023), Temperature effect on Brazilian soybean yields, and farmers' responses.
[11] Graesser et al (2015), Cropland/pastureland dynamics and the slowdown of deforestation in Latin America.

services worldwide, even though many of them are yet to be priced. Furthermore, according to the Intergovernmental Panel on Climate Change (IPCC), forests and other natural solutions offer 37% of the climate solution,[12] including forest conservation, reforestation, and innovative agricultural practices to recover degraded lands acting as natural carbon sinks to a low-carbon economy transition. However, the challenges to transitioning land use activities include governance (e.g. property rights in regions of farmland expansion and monitoring informal and indirect suppliers) as well as incentives for agricultural intensification.

On the other hand, the energy sector (including generation, distribution, and use in industrial processes) represents 43% of the emissions in the region, which is significantly lower than the global average of 74%.[13] The remaining 17% of emissions in the region come from industrial processes and waste. Although renewable energy resources represent 33% of its total energy supply (and nearly 60% of electricity generation), almost three times more than the global average of 13%, the region still has a lot of work to do in phasing out environmentally harmful subsidies that keep it too reliant on fossil fuels. By 2020, 66% of its energy mix came from oil (30%), natural gas (31%), and coal (5%), all of them representing a huge risk of becoming stranded assets[14] as the region's climate policies progress. Despite this, many Latin American countries continue to plan the development of new oil and gas projects that, if successful, could result in a 150% increase in the cumulative emissions related to the existing power plants[15]. While transitioning to renewable energy has the potential to mitigate CO2 emissions, the region faces challenges during periods of low renewable energy production, which lead to the activation of fossil fuel-powered thermoelectric to meet energy demand.

2.1.2. Climate and biodiversity: entanglements and relevance in Latin America

The connections between climate change and biodiversity loss are widely recognized as a threat to the long-term resilience of socio-environmental systems, especially in the expected scenario of increased demand for food and ecosystem services, such as water supply[16]. Biodiversity loss is associated with a reduction in ecosystem functionality, as different species play unique roles in ecological processes and contribute to nutrient cycling, pollination, pest control, or other services. When biodiversity decreases, the ecosystem becomes less resilient and less capable of providing essential services, i.e. it is more vulnerable to disturbances of weather extreme events and less supportive of human needs. Biodiversity loss combined with climate change can lead to an estimated $44 trillion of economic losses globally, depending

[12] The Nature Conservancy (2017), How nature can get us 37 percent of the way to the Paris climate target.
[13] Cárdenas & Orozco (2022), Climate mitigation in Latin America and the Caribbean: A primer on transition costs, risks, and financing. Center on Global Energy Policy at Columbia University SIPA.
[14] A stranded asset is an investment or economic resource that becomes less valuable or converted to liabilities, often due to changes associated with the transition to a low-carbon economy. This often happens due to changes in technology, market conditions, or regulations, leaving the asset "stranded" and potentially causing financial losses for those who invested in or depended on it. This concept has gained attention in the context of climate change and the shift to a more sustainable, low-carbon economy (click here to see the explanation from the London School of Economics).
[15] OECD, Latin American Economic Outlook 2022: Towards a Green and Just Transition.
[16] See the papers: Coe et al (2011), The effects of deforestation and climate variability on the streamflow of the Araguaia River, Brazil; and, Latrubesse et al (2019), Fostering water resource governance and conservation in the Brazilian Cerrado biome.

on the ecosystem services[17]. Hence, managing biodiversity risks is essential for companies that are dependent on natural assets. The overall recommendations of The Economics of Ecosystems and Biodiversity (TEEB) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) are integrating nature-related risks and opportunities into loan pricing, investment portfolios, and risk management strategies is crucial for long-term resilience and sustainability.

Since the 1970s, approximately 30% of the abundance of terrestrial species has been lost in the world, including 94% of overall species abundance only in South America[18], as well as several ecosystem services have been degraded or used unsustainably[19]. Latin America and the Caribbean host half of the world's biodiversity and a third of the planet's freshwater,[20] with globally important biomes in terms of ecosystem services, such as the Amazon Rainforest, the Atlantic Forest, the Lacandon Forest, the Patagonia, the Chaco, and the Cerrado, among others. For example, the Amazon Rainforest contains nearly a third of all the tropical rainforest left on Earth and about 123 billion tons of CO2 up and below the surface (approximately one-quarter of the total budget).[21] It also contributes to the humidity and rainfall in other regions through its "aerial rivers" (masses of vapour transported by air), crucial for agricultural patterns and water supply across regions. Nevertheless, deforestation in the Amazon is causing a reduction in rainfall levels in nearby biomes[22] and affecting the so-called "aerial rivers". Therefore, Latin America is an exceptional case for investments in biodiversity while tackling climate change because it is one of the most important conservation hotspots in the world as well as the world's primary exporter of agricultural commodities being affected by extreme weather events due to climate change.

[17] See the World Economic Forum's article "The compelling reason why the financial sector must invest in boosting earth's biodiversity", 2023.
[18] World Wildlife Fund (2022), https://livingplanet.panda.org/
[19] Millenium Ecosystem Assessment (2005), Ecosystems and human well-being.
[20] OECD, Latin American Economic Outlook 2022: Towards a Green and Just Transition.
[21] Centro Clima COPPE/UFRJ (2022), As Emissões de Gases de efeito estufa do Brasil em um Cenário de Continuidade até 2030.
[22] Leite-Filho et al (2021), Deforestation reduces rainfall and agricultural revenues in the Brazilian Amazon.

Exhibit 2

Biomes and biogeographic regions in Latin America.
Adapted from USGS, and The Nature Conservancy.

In short, it is imperative to drive the flow of capital towards more resilient economic systems, including sustainable production processes with lower carbon emissions, and solutions that sustainably manage or restore natural capital. It is estimated that for every USD1 invested in resilient economies and infrastructure, four times this value is avoided in impact costs[23]. Moreover, evidence is that the transition to a low-carbon economy presents significant economic opportunities for Latin America, while also helping deliver global climate stability.

[23] OECD, Latin American Economic Outlook 2022: Towards a Green and Just Transition.

2.2. Climate-related risks and economic opportunities in climate transition in Latin America

In 2015, the Financial Stability Board (FSB) - a body created in 2009 as an arm of the G20 - set up a task force to develop guidelines for voluntary and consistent disclosure of organisations' financial information on climate change-related risks and opportunities, to enable investors, financial institutions, and insurance companies to make conscious investment decisions.

The Task Force on Climate-Related Financial Disclosures ("TCFD") launched guidelines for the preparation of these reports on climate risks and opportunities by organisations and categorised such risks either as **physical risks** or **transition risks**. Physical risks are those related to the actual physical impacts of climate change, i.e. the company's exposure to losses directly related to the physical negative impacts caused by climate change, such as droughts, rainfall, extreme weather events, rising sea levels in coastal regions, etc.

Transition risks are those related to the costs and losses involved due to policies, regulations, and market conditions that would require the company to enter decarbonisation pathways. Transition risks include policy and legal risks (related to evolving policies, laws, and regulations, as well as climate litigation), technology risks (due to innovation that displaces old systems), market risks (related to changes in supply and demand patterns and competition) and reputational risks (due to the public's changing perception about companies that contribute to climate change).

In 2021, a similar initiative looking to address biodiversity loss and nature impact-related risks was launched: the Taskforce on Nature-related Financial Disclosures (TNFD). The TNFD builds upon the TCFD and the global policy goals in the Kunming-Montreal Global Biodiversity Framework, which was designed under the UN Convention on Biological Diversity (CBD).

Recognising that climate change and biodiversity loss are real and pose serious risks to global financial stability, market actors have become increasingly active in designing strategies to address such risks and make financial flows adapted to a necessary transition to a low-carbon economy, including financial institutions, central banks, financial and prudential regulators, investors, and asset managers, among others.

The overwhelming scientific evidence around climate change causes and impacts coupled with strong global political convergence over the need to address the climate crisis have also led to 196 countries signing the UN Paris Agreement in 2015, committing to limit global warming to 1.5oC degrees increase above pre-industrial levels and to make financial flows consistent with a low carbon pathway. This international treaty has been gradually incorporated into domestic laws focused, among other things, on establishing a carbon

budget and even putting a price on carbon. Where governments and companies have not responded to this climate emergency, climate litigation has been proliferating all around the world, including in the Global South. Furthermore, the increase and scale of extreme weather events, temperature record increases, heat waves, and fires have made climate change losses and damages even more real and scary.

In view of this, there seems to be no question that capital needs to be increasingly channelled toward a decarbonized and climate-safe economy. This will be either to some extent mandated or nudged by governmental policies, alongside other drivers such as climate litigation, and/or led by voluntary action and demand by market actors, which brings about opportunities for market actors to create value through efficiency, innovation, and new businesses.

One fundamental step to that end is to put a price on carbon. Companies can apply internal carbon pricing strategies, which can either consider internal costs for emissions abatement or existing carbon prices. Such prices vary greatly in voluntary carbon markets and may be affected by the existence of domestic government-regulated markets such as emissions trading systems. In fact, it is certainly easier for companies to design a decarbonisation plan based on compliance with obligations explicitly provided in domestic law than one based on fragmented voluntary international standards.

Latin American countries are starting to develop their carbon market regulations, which will provide a clear carbon price with effects across all economies. In Brazil, a bill of law to establish an emissions trading system is currently in Congress (see section 2.3 for more information). In 2017, Colombia implemented a hybrid system, whereby a carbon tax was applied to certain sectors, including transportation, industry, and energy, which is calculated based on the carbon content of fossil fuels consumed by these sectors. The programme created an offset mechanism as a compliance alternative, allowing the use of carbon credits generated by projects certified under certain voluntary carbon standards to offset a portion of the tax obligation. In 2020, Mexico established its pilot emissions trading system, while Chile (2014) and Argentina (2018) have designed carbon taxes, respectively for thermal power generators and liquid fuels.

Many believe there should be a global carbon price. The IMF has proposed an International Carbon Price Floor ("ICPF") to be set at USD 75/ton CO2eq[24] and has recently defended that countries can generate revenue to decrease their debt burden through carbon pricing[25]. Among existing domestic markets, the European Union Emissions Trading Scheme ("EU-ETS") also provides a good parameter, with an average auction price of EUR 78.91/ton CO2eq in 2022[26]. In 2023, the Network for Greening the Financial System – an initiative led by 134

[24] Parry, Ian W. H et al (2021). Proposal for an International Carbon Price Floor Among Large Emitters.
[25] Dabla-Norris, Era et al (2023). Countries Must Contain Global Warming While Keeping Debt in Check.
[26] International Carbon Action Partnership. Eu Emissions Trading System (EU ETS).

Central Banks and Supervisors on 5 continents – considered shadow carbon price scenarios with models that suggest that a carbon price of around USD 200/ton CO2eq would be needed in the next decade to incentivize a transition towards net zero by 2050[27].

Not only companies in high carbon-intensive sectors in many developed nations are already subject to regulation, carbon taxes, or emissions trading schemes that put a price on carbon, but recent trends in extraterritorial carbon taxes will affect commercial partner companies in developing countries. The European Union has introduced legislation to apply a Carbon Border Adjustment Mechanism (CBAM) to tax certain imported products of carbon-intensive sectors from nations that are not subject to the same robust carbon pricing domestic policies (for more information, see section 2.3).

Consequently, although carbon pricing policies are incipient in Latin America, advancements in global regulation and extraterritorial regulation that introduce trade barriers, particularly from Europe, can leave Latin American companies directly or indirectly exposed to external carbon prices.

While domestic governments in Latin America do not properly address this issue and introduce carbon pricing schemes, companies that come forward and start addressing the costs of these emissions have a competitive advantage.

Piloting new technologies to cut emissions can reduce long-term production costs and bring about profitable, innovative products and services in the market.

Integration of cost and carbon reduction can occur in a variety of ways, from improvements in energy efficiency to waste reduction, and more efficient product designing.

Furthermore, demand for "net-zero products" is surging, and new business opportunities should arise, as a result. According to McKinsey, in sectors like steel, cement, and chemicals, the supply-demand gap for net-zero products could reach up to 60%[28]. Global shipping company, Maersk, for instance, has initiated the process to create supply and demand for green fuels by investing to build a green ammonia facility and to co-invest in setting up a green methanol company. The strategy is likely to position the company to acquire relevant market share in a nascent industry.

Overperformance may also be rewarded in the context of emissions trading schemes and voluntary carbon markets, where "carbon negative" companies can reap additional profits from the sale of carbon allowances.

[27] NGFS (2023). NGFS Scenarios for central banks and supervisors.
[28] McKinsey & Company (2023). Decarbonize and create value: How incumbents can tackle the steep challenge.

However, there are still many challenges for companies to establish decarbonization strategies and report them in a manner that is adequate and consistent with the best science, as well as that does not promote greenwashing. A lack of regulation and clear and comprehensive guidelines can cause companies to refrain from engaging in such practices.

The Science-Based Targets initiative (SBTi) has been improving its guidelines and validation process to support and enable organizations to set science-based emissions reduction targets. However, there are still many areas where it has been unable to provide specific recommendations, and views have been diverging on some of its proposals.

One such blurry area is on whether and to what extent companies can use carbon credits to offset their emissions. SBTi´s recommendations require companies to make significant emissions cuts, followed by the neutralization of residual emissions until the point of net zero. In SBTi's proposal, residual emissions that cannot be abated in a company's emissions reduction effort must be neutralised by the proposed date for achieving the net zero target by "permanently removing and storing carbon from the atmosphere". Carbon credits from "reducing GHG emissions" can be considered within a "beyond value chain mitigation" approach, i.e. where the company takes measures or makes investments in initiatives or projects outside its value chains to mitigate GHG emissions, but this approach does not lead to an offset capable of neutralising GHG emissions. For SBTi, offsetting is defined as "actions a company takes to offer mitigation outside its value chain as a substitute for rapid reduction of value chain emissions", and companies cannot achieve their science-based targets through offsetting. Although offsets do not allow companies to claim carbon neutrality, the value of such offsetting practices is still being studied. The Oxford Offsetting Principles also had already proposed a shift from offsetting towards options that directly remove carbon from the atmosphere and towards long-lived storage, which removes carbon from the atmosphere permanently or almost permanently. More recently, the European Parliament has approved a Green Claims Directive, which sets detailed rules on substantiating and communicating explicit environmental claims about products in business-to-consumer commercial practices, including by banning claims that a product has a neutral, reduced, or positive impact on the environment because of carbon offsetting schemes.

However challenging, it is possible to create credible net zero plans in a manner that does not leave the atmosphere worse off and that may even provide a positive impact beyond offsetting. Like carbon offsets, biodiversity credits are also emerging as a new potential tool to track and measure conservation actions and outcomes, improving transparency in a company’s biodiversity commitment.

But most importantly, there are huge opportunities for direct and supply chain decarbonization efforts in Brazil and Latin America. As mentioned before, the region plays a significant role as a producer of agricultural and mineral commodities, with their activities intricately linked to land use. Additionally, the industrial sector comprises an extensive value

chain, often susceptible to the primary sector, which is directly tied to land use and consequently results in high emissions.

Consequently, a diverse array of opportunities for decarbonization emerges across various economic sectors in Latin America. This includes direct emitters, such as agriculture, livestock, timber, oil, natural gas, and coal-fired power plants, as well as indirect emitters, such as banks, food retail, and industries. All these activities receive capital from the financial sector (from both public and private entities), which, as seen before, is increasingly aware of its responsibility over its carbon-intensive portfolio.

Climate change may be looked at from a glass-half-full perspective of a new beginning that enables opportunities for new businesses, products, and services to emerge.

2.3. Regulatory and Climate Litigation Risks

2.3.1. Climate Change Policy and Legislation in Brazil

Brazil's National Climate Change Policy Law (Federal Law 12.180/2009, Política Nacional de Mudanças Climáticas - "PNMC") was enacted in 2009 as an overarching framework comprising many instruments to address mitigation and adaptation, including via the establishment of sectoral plans. The PNMC does not establish any specific carbon pricing instruments[29]. However, it provides for the possibility that future economic instruments may be established to promote mitigation and adaptation, as well as tax incentives and financial facilities by public and private financial institutions.

Following Brazil's ratification of the Paris Agreement in 2016, the Ministry of Economy entered into a cooperative agreement with the World Bank to study carbon pricing alternatives in Brazil under the "Partnership for Market Readiness Program" ("PMR"). The recommendation included the establishment of an emissions trading system very similar to the European Union Emissions Trading Scheme (EU-ETS), covering emissions from industrial combustion sources, with a pilot phase and allowances being allocated freely based on grandfathering in the first phase. A summary report of the study's recommendations is available on Brazil's Ministry of Economy website[30].

In 2020, the Brazilian Government submitted an updated Nationally Determined Contribution (NDC) under the Paris Agreement, by which it committed to pursue 43% emissions reductions

[29] It did create an "Emissions Reductions Brazilian Market" ("MBRE", Mercado Brasileiro de Redução de Emissões), a marketplace for the trade of units that are representative of certified avoided GHG emissions. However, this was not aimed at creating the basis for a mandatory emissions trading system, but at creating an infrastructure to strengthen the carbon offsets supply side in Brazil to meet the international demand for offsets in the context of the Kyoto Protocol's Clean Development Mechanism.
[30] GOV BR (2023). Partnerships for Market Readiness Report.

based on the country's 2005 emission levels. In 2022, Brazil submitted a revised NDC to a seemingly more ambitious level of emissions reductions (50% based on the 2005 levels). However, both contributions had issues with the adjustment in the baseline, and analyses showed[31] that the updated targets were a drawback from the one submitted in 2016 and may result in higher levels of GHG emissions than before, which would breach obligations under the Paris Agreement that require countries to submit subsequently progressive and more ambitious contributions[32].

Since 2021, several bills of law have been proposed to create a compliant carbon market in Brazil, both in the Senate and in the House of Representatives. In mid-2023, the Senate's bill of law – which was widely recognized as a very well-drafted text and with a balanced compromise between all involved actors - was approved in the Senate. The bill launches the Brazilian Emissions Trading System (*Sistema Brasileiro de Comércio de Emissões*, "SBCE"), which brings together both an emissions trading system that establishes an emissions cap for specific regulated sectors to be further defined, and rules regarding carbon offsets that can be used to meet the obligations of such compliance system.

However, as it was passed on to the House of Representatives for approval, the Senate bill was bundled with other ongoing similar bills under the House and was voted as it was a House-originated bill of law, in December 2023. Furthermore, the Senate bill was substantially changed by the House, with many confusing new concepts added related to offsets, voluntary carbon markets, and nature-based activities under REDD+. The resulting approved bill is now going to be returned to the Senate, and then back to the House for final approval. As we are writing this, prospects are still very unclear due to the political tensions, including between the Senate and the House of Representatives.

In addition to carbon markets, the Brazilian government has recently engaged in many new climate policy enhancements including: an *Ecological Transformation Plan* – a green new deal package that includes sustainable finance, technological development, bioeconomy, energy transition, circular economy, and infrastructure and adaptation to climate change [33]; as well as the development of a green taxonomy; a new Amazon deforestation prevention and combat plan; the issuance of the first Brazilian sovereign green bond; bills of laws and regulations on green hydrogen, offshore wind and carbon capture and storage, and working groups to review the PNMC and draft the long-awaited country's Climate Action Plan. As a sign of its renewed commitment to the climate agenda, Brazil also submitted a revised NDC in 2023[34], with a view to correct the ill-based previous NDCs: now 48,4% based on 2005 levels until 2025 and 53,1% until 2030, but based on a different baseline, which amounts to less

[31] Tanaloa Institute (2022). NDC do Brasil: Avaliação da atualização submetida à UNFCCC em 2022.
[32] This is because the new NDC considered an updated GHG inventory with an adjusted baseline, which amounts to more GHG emissions in absolute terms than what was submitted in the previous NDC. The Government reacted bluntly to this criticism, stating that everything it did was consistent with the rules of the Paris Agreement.
[33] GOV BR. Plano para a Transformação Ecológica.
[34] UNFCCC (2023). Federative Republic of Brazil Nationally Determined Contribution (NDC) to the Paris Agreement under the UNFCCC.

GHG emitted in absolute terms than the previous NDCs – a total of 1.32GtCO2e and 1.20GtCO2e. The NDC also comprises a long-term objective to achieve climate neutrality by 2050.

2.3.2. Sectoral Regulation in Brazil

Financial and prudential regulators in Brazil have been active in the climate change agenda in the last three years.

The Brazilian Securities and Exchange Commission (CVM) published CVM Resolution Nr. 59, of December 22, 2021, requiring companies to provide information on social, environmental, and now specifically on climate risk factors, as well as to inform, under a comply-or-explain approach, whether it has a GHG inventory in place, the scope of emissions covered, and the role of management bodies in the assessment, management, and supervision of climate-related risks and opportunities. The resolution entered into force in 2023.

In October 2023, CVM also enacted Resolution 193, establishing the obligation for publicly traded companies to prepare and disclose financial information related to sustainability, based on the ISSB standards, from the fiscal years beginning on or after 1 January 2026. Companies can also voluntarily disclose such information starting from January 2024.

Similarly, the Central Bank of Brazil enacted a package of rules that strengthen the norms for managing social, environmental, and climate risks[35]. It amended the requirement for financial institutions to establish a Social and Environmental Responsibility Policy, which now also needs to cover a "climate responsibility" dimension ("Environmental, Social, and Climate Responsibility Policy - "PRSAC") and required them to carry out climate stress tests in their portfolio. The Central Bank's set of rules expressly considers both physical and transition climate risks and, in addition to a purely prudential perspective, incorporates the positive impacts and opportunities related to climate change.

As for the insurance sector, which is a major risk taker and resource allocator, the Superintendence of Private Insurance (SUSEP) published Circular No. 666/2022, aimed at regulating the management of climate risks and other environmental and social risks for insurers, reinsurers, capitalisation companies, and private pension companies. The norm determines that insurers must consider climate risks in their operations, which have been divided into physical, transition, and litigation risks.

[35] Banco Central do Brasil (2021). BC publica relatório e regras sobre política de responsabilidade e gerenciamento de riscos sociais, ambientais e climáticos.

2.3.3. International and cross-border legislation affecting Latin American companies

International and extraterritorial climate change legislation may also impact Brazilian and Latin American companies.

The European Union has recently introduced a Carbon Border Adjustment Mechanism (CBAM), which applies a tax on goods imported into the European Union from high-carbon emission industries, initially covering the iron, steel, cement, fertiliser, aluminium, electricity, and hydrogen sectors. The CBAM is a tool for establishing a fair price for the carbon emitted during the production of carbon-intensive goods entering the EU. The aim is to incentivise cleaner industrial production in countries outside the EU, but also to protect the competitiveness of European industries, which are subject to strict carbon pricing. Precisely for this reason, the gradual introduction of CBAM is aligned with the phasing out of the allocation of free allowances from the EU Emissions Trading System in certain sectors that were more sensitive to international competitiveness. These sectors received free allowances to rebalance their loss of competitiveness. The idea is that over time this situation of loss of competitiveness will no longer need to be rebalanced and they will start paying for their own carbon allowances.

Operators subject to the CBAM need to buy certificates that are priced according to the EU-ETS allowances. If the importer can prove that a price has been paid for the embodied carbon emissions generated in the production of these imported goods, the amount paid will be deducted from the CBAM amount. The purpose is to ensure that the carbon price of imports is equivalent to the carbon price of domestic production in the EU. There will be a transition period from 1 October 2023 to 1 January 2026, in which importers need only to report the carbon emissions of imported products.

Studies estimate that the CBAM will impact trade levels and GDP in many developing economies, but the countries identified as most vulnerable to the CBAM are low-income countries where the capacity for emissions measurement and certification is likely to be weakest. Therefore, by improving MRV and carbon pricing systems, Brazil and Latin American countries can cope with this new commercial barrier.

Also under the EU Green Deal package, a new regulation on Deforestation-free products in the European Union entered into force in June 2023[36]. This law provides that companies wishing to sell the following products in the EU market will have to undergo a rigorous environmental audit: palm oil, cattle, soybeans, coffee, cocoa, timber, and rubber, as well as derivative products (such as beef, furniture, or chocolate). These are commodities identified as major drivers of deforestation due to agricultural expansion. Operators and traders will have 18 months to implement the new rules, while small businesses will enjoy a more flexible adaptation period.

[36] European Commission, Environment. Regulation on Deforestation-free products.

Furthermore, in December 2023, a new delegated regulation on the disclosure of socio-environmental and climate risk information by listed companies operating in the European Union was published. The new rules, known as the European Sustainability Reporting Standards (ESRS), enter into force in January 2024 for large companies, and in 2026 for small companies. The ESRS is a development and detailing of the rules already introduced by the Corporate Sustainability Reporting Directive (CSRD) (EU Directive 2022/2464), which makes it compulsory for companies listed on stock exchanges in the European Union to report information on (i) social and environmental risks and opportunities; (ii) the impacts of the company's activities on its stakeholders and the environment; and (iii) the way in which activities affect the evolution, performance and position of the company.

The standard stipulates that companies that have not identified any relevant impact, risk, or opportunity in relation to climate change must provide a detailed justification for this conclusion by analysing the immateriality of the issue for the company. On the other hand, if the company recognises climate impacts related to its business, it must report on (i) its climate mitigation transition plans; and (ii) the policies and targets it has adopted to promote climate mitigation and adaptation. They should also discuss (iii) how the business affects climate change in terms of actual and potential positive and negative material impacts; (iv) the company's past, current, and future mitigation efforts, in accordance with the Paris Agreement and compatible with limiting global warming to 1.5°C; and (v) the company's plans and capacity to adapt its strategy and business model in accordance with the transition to a sustainable economy and to contribute to limiting global warming to 1.5°C.

The improvement of climate disclosures and traceability requirements in the European Union not only is expected to cascade into more stringent commercial requirements to Brazilian producers and suppliers, as also to cause Brazil and other Latin American countries to enact rigid laws and regulations to address these risks.

In terms of international law, as mentioned before, Brazil is a party to the United Nations Paris Agreement of 2015, and as such, it has committed to having in place an emissions reduction target which it must progressively revise every five years (the NDC – Nationally Determined Contribution). Brazil ratified the Paris Agreement in September 2016 and revised its NDC four times but has done very little in the last almost 10 years in terms of climate change public policies to implement its targets.

However, as the Paris Agreement reaches an implementation phase, it is expected that countries will need to further enact climate strategies, laws, and policies or enhance existing ones, to be able to fulfil their climate targets and their other obligations under the Paris Agreement. In this sense, it should be noted that Parties must submit their first transparency report on the achievement of their NDCs in 2024.

Moreover, decisions in the improvement and implementation of the Paris Agreement under the Conference of the Parties (COPs) are becoming increasingly more tangible and sector-specific, as well as closely followed and participated by market actors, thereby requiring countries to quickly adapt to meaningful political contexts, risks, and opportunities. In the last COP 28, governments agreed to "transition away from fossil fuels", a decision with enormous impacts on Latin American oil and gas producing and exporting countries.

In 2025, Brazil will host COP 30 in Belem do Para, and this may nudge the government into expediting work to fill its climate policy gap and prove that it can lead by example too. Such policy work may consider existing and new options in terms of command-and-control, carbon taxes, or economic instruments directed to certain sectors, as well as public finance and regulatory changes aimed at creating better conditions for green finance in the private sector, thus creating both risks and opportunities for companies and investors. At the same time, COP 30 will provide a great opportunity for Latin American companies to showcase their climate actions and attract investments towards decarbonization, biodiversity conservation, and climate adaptation in the region.

Furthermore, the UN Framework Convention on Climate Change and the Paris Agreement provide legal standards that may translate into legal duties also for private actors, depending on the domestic laws to which they are bound to. Such standards include principles, objectives and guidelines, such as the (a) precautionary principle – which requires taking precautionary measures to anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects, and that where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures –; (b) the principle of intragenerational equity – which requires consideration of the specific needs and special circumstances of those that are particularly vulnerable to the adverse effects of climate change, and that would have to bear a disproportionate or abnormal burden in the transition to a stable climate -; (c) and the principle of intergenerational equity – which requires the protection of the climate system for the benefit of present and future generations of humankind, on the basis of equity. The Paris Agreement also further recognizes the human rights dimensions of climate change and the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity.

In addition, the UN Convention on the Rights of the Child (UNCRC), and the UN Human Rights Council Resolution 48/13 - followed by UN General Assembly Resolution 76/300 - recognise the right to a safe, clean, healthy, and sustainable environment as a human right. General Comment 26 of the United Nations Committee on the Rights of the Child particularly addresses children's rights in connection with climate change, and interprets corporate responsibilities corresponding to such rights, recognising that "business activity is a source of significant environmental damage, contributing to child rights abuses", and "contribute

significantly to greenhouse gas emissions, which adversely affect children's rights, and to short- and long-term infringements of their rights linked to the consequences of climate change". The recommendation includes the development of due diligence procedures that integrate children's rights impact assessments into their operations, and of marketing standards that ensure that businesses do not mislead consumers, in particular children, through practices of greenwashing.

All these legal principles and rights are incorporated in Brazilian Law under the Federal Constitution, the Climate Change National Policy, the Environmental National Policy, the Children's Act and other laws and ratification of international treaties, and may be deemed to create a duty of care for companies to take adequate measures to prevent climate change.

This may also translate into a fiduciary duty for officers and directors of a corporation to "*adequately govern for climate-related risks – in the same way as they could for a failure to adequately govern other material risks to their corporation*."[37]

2.3.4. Climate litigation in the world and in Latin America

Climate litigation is not a recent trend but has been evolving fast in the last five years. Data from June 2023 shows there are 2,341 cases globally, 190 of which were in the last 12 months. There is a wide variety of types of claims and actors, with most cases still targeting governments but a growing trend of cases being filed against corporations[38].

Corporate Regulation

In terms of cases targeting corporations, one such category is "corporate regulation" cases, **which challenge corporate decarbonisation policies and strategies and seek to change the behaviour and decision-making process of companies that are high emitters**. One famous example is the case where a Dutch Court ruled that Shell violated a duty of care and human rights obligations by failing to take adequate action to curb contributions to climate change.[39] The Court ordered the company to cut its GHG emissions by 45% by 2030 compared to 2010 levels and to zero by 2050, in line with the Paris Climate Agreement.

Another relevant case concerns whether a Polish utility's resolution to build a coal-fired power plant breaches the board members' fiduciary duties of due diligence and to act in the best interests of the company and its shareholders, in the context of given

[37] Commonwealth Climate and Law Initiative, 2021 - https://commonwealthclimatelaw.org/wp-content/uploads/2022/05/CCLI-Fiduciary-duties-and-climate-change-in-the-United-States.pdf

[38] Setzer J and Higham C (2023) Global Trends in Climate Change Litigation: 2023 Snapshot. London: Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science.

[39] Milieudefensie et al. v. Royal Dutch Shell plc (2019). Climate Case Chart.

climate-related financial risks.[40] A Court in Poland found the company resolution authorising the power plant construction to be legally invalid.[41]

In Brazil, a lawsuit was filed against the Brazilian development bank (BNDES) and its private investment arm (BNDESPAR) claiming that they should align their investments with the goals of the Paris Agreement.[42]

Finally, under this category, there are also cases seeking to change corporate practices in the supply chain due to their climate change impacts. The case filed by a group of NGOs against French supermarket chain Casino claims the company is involved in cattle-industry activities that caused deforestation in Brazil and Colombia and thereby violated their duty of vigilance under French law. The claimants request the French Court to order Casino to 1) establish, implement, and publish a detailed compliance vigilance plan identifying risks caused by the activities of the group, and 2) compensate Brazilian Indigenous groups for the loss of opportunity and moral damage.[43]

Climate-washing

Another related category is "climate-washing" cases, **which seek to hold private actors liable for making false or misleading claims about actions or products intended to promote climate mitigation, misleading society, consumers, and investors**. This includes a landmark climate advertisement case filed against KLM for its advertising claims on CO2 compensation and alternative fuels.[44]

The case was first trialled by the Advertisement Code Commission, which ruled that KLM's "Fly Responsibly" campaign violated the Advertisement Code by misleading consumers in their absolute claims of compensation for the company's emissions, since there are doubts amongst experts that the emission reduction certificates purchased by KLM result in the full and permanent compensation of personal flight footprints. Following this decision, environmental organisations FossielVrij NL, Reclame Fossielvrij and ClientEarth filed a claim against the Dutch airline in the Amsterdam District Court to order the company to stop using the advertisement, send rectifying letters to customers and publish a rectifying advertisement reading "'Airplanes consume fossil fuel and contribute to climate change".

Such "climate-washing" cases also encompass climate **disclosure** issues. In Australia, a pension fund member filed a lawsuit against the Retail Employees Superannuation Trust (REST), claiming it failed to disclose information on climate business risks and its strategies to address these risks, which violates the Australian Corporations Act

[40] ClientEarth v Enea (2018). Climate Case Chart.
[41] Other relevant cases: Kaiser, et al. v. Volkswagen AG and Notre Affaire à Tous and Others v. Total
[42] Conectas Direitos Humanos v. BNDES and BNDESPAR (2022). Climate Case Chart.
[43] Envol Vert et al. v. Casino (2021). Climate Case Chart.
[44] FossielVrij NL v. KLM (2022). Climate Case Chart.

2001.[45] The case was settled before going to trial. In the settlement, REST agreed to acknowledge that "climate change is a material, direct and current financial risk to the superannuation fund across many risk categories, including investment, market, reputational, strategic, governance and third-party risks", and agreed to address this risk, by implementing a strategy for achieving net-zero by 2050, and agreed to measure, monitor, report the progress and disclose the information to investors in line with the guidelines of the TCFD.

Personal Liability

A more extreme category concerns "personal liability" cases **aimed at holding individuals or groups of individuals responsible for failing in their functional or legal duty to manage climate risks.** This is the case of actions brought against Boards of Directors, such as the one filed by Client Earth to hold the Board of Directors of Shell Liable under the UK Companies Act s.172 and 174, arguing that the board has not implemented a climate strategy that is consistent with the Paris Agreement goal.[46] The lawsuit is a very specific type in UK law, called a "derivative action", which can be filed by a shareholder due to breaches of the Board in acting in the best interest of the company. The objective of this lawsuit was to compel the Board to strengthen Shell's climate plans. ClientEarth's lawsuit received the support of institutional investors with more than 12 million shares in the company, and more than half a trillion US dollars (£450 billion) in total assets under management. All these investors said the lawsuit was in their best interests as shareholders[47]. The claim was denied by the UK Court of Appeal, but Client Earth stated it disagreed with the Court's "misguided" interpretation of the Law and investors such as the Church of England divested ever since due to the company's fallback in its climate transition plans.

Compensation for Climate Loss and Damage

A growing field is also in cases concerning "compensation for climate loss and damage," which seek **compensation for damages suffered by people or communities due to climate change, brought against identifiable greenhouse gas emitters based on climate attribution science**. It may include actions for monetary damages against GHG emitters, which, by specific illegal conduct such as deforestation, have caused associated greenhouse gas emissions. This is an incipient category due to challenges in proving a causal link between the damages and the emitters' contribution to the damages. However, climate attribution science[48] - which examines the causal links between human activities, global climate change, and the impacts of climate change - is fast evolving and may become a game changer.

[45] McVeigh v. Retail Employees Superannuation Trust (2018). Climate Case Chart.
[46] ClientEarth v Board of Directors of Shell (2022). Climate Case Chart.
[47] ClientEarth (2023). Court fails to engage with key climate risk arguments in Shell directors case dismissal.
[48] Burger, M., Wentz, J., & Horton, R. (2020). The Law and Science of Climate Change Attribution. Columbia Journal of Environmental Law, 45(1). https://doi.org/10.7916/cjel.v45i1.4730

Famous cases include the one filed by a Peruvian farmer against a German energy utility - a major greenhouse gas emitter - for harms suffered due to the melting of the Andes glaciers;[49] and the one filed by Indonesian islanders against Swiss-based major buildings materials company Holcim, accusing the company to be partially responsible for the increased flooding and extensive damage to houses, streets and local businesses, and portions of the island which are likely to be submerged under water over the next few decades.[50] Research by the Climate Accountability Institute suggests that the company emitted more than 7bn tonnes of CO2 between 1950 and 2021 and has contributed about 0.42% of all historical global industrial emissions. The University of Massachusetts Amherst's 2021 greenhouse polluters index ranks it 47 out of the Top 100 emitters.

In 2022, a case was brought against fossil fuel companies in the US claiming compensation for losses resulting from storms during the 2017 hurricane season and ongoing economic losses since 2017.[51]

In Brazil, climate loss and damage cases have dealt mostly with ecological losses related to deforestation, such as in the lawsuit filed by the Federal Prosecutor's Office of the Amazonas State against a Brazilian farmer for causing illegal deforestation in the Amazon region. The Prosecutors claimed compensation for the forest degradation of 2,488 hectares between 2011 and 2018, in the amount of USD17 million in monetary damages (calculated using the carbon pricing applied to the Amazon Fund results-based payment mechanism as a reference). The Court granted the preliminary injunction to suspend the farmer´s legal permits and order the removal of the cattle herd from his farms.[52] More recently, in 2023, Brazil's federal environmental agency filed a claim against a cattle raiser who was fined multiple times for illegal deforestation to compensate for the related climate damage, charging €60 per ton of CO2eq emitted as a result, which totals the amount of R$292 million (equivalent to USD 60 million) per 5,600 hectares of illegal deforestation in the Amazon region[53]. This precedent could lead to systematic climate litigation in relation to millions of other environmental fines for illegal deforestation in Brazil.

Climate change risks in environmental assessment and permitting projects

Other relevant lawsuits include those related to the integration of climate change in the scope of environmental assessment and permitting projects with high climate change impacts. There are a few successful cases in Brazil, whereby the Court nullified

[49] Luciano Lliuya v. RWE AG (2015). Climate Case Chart.
[50] Four Islanders of Pari v. Holcim (2022). Climate Case Chart.
[51] Municipalities of Puerto Rico v. Exxon Mobil Corp (2022). Climate Case Chart.
[52] Ministério Público Federal v. de Rezende (2021). Climate Case Chart.
[53] IBAMA vs. Dirceu Kruger (2023). Climate Case Chart.

the licensing process of an open-pit coal project that had been conducted without the participation of indigenous communities and considerations of GHG emissions.[54]

In Italy, an ongoing procedure before the National Contact Point within the OECD proceedings is challenging the compatibility of the practice of intensive livestock farming due to the large quantities of various greenhouse gases generated in the process.[55]

Violation of human rights

Finally, there are cases specifically seeking recognition of violations of human rights from major emitters and projects. This includes alleged violations of human rights related to pollution, waste, and effects on climate change resulting from the operation of a few Chinese-supported coal-fired plants operating in Bosnia Herzegovina[56] and a report by the Commission on Human Rights of the Philippines (CHR) which concluded an investigation into 47 investor-owned corporations for human rights harms that result from their actions triggering climate change.[57]

Climate litigation prospects in Brazil and Latin America

Global South climate litigation cases are growing and bringing innovative arguments based on human and constitutional rights, including on the right to a healthy environment, mostly in Latin America. Brazil is the 5th jurisdiction with the highest number of documented climate cases, following the US, Australia, the European Union Court of Justice, and Germany[58].

According to the Brazilian Climate Litigation Bulletin 2023[59], the number of climate lawsuits in the country jumped from 14 in 2018 to 70 by September 2023.

Climate litigations in Brazil can apply in a wide spectrum with many possible avenues: either based on human rights, environmental or tort law, or violation of general legal, regulatory or corporate obligations, depending on the parties involved and need to consider a case-by-case analysis that includes legal standing, ability to produce evidence and the adequacy of types and nature of the claims based on the Brazilian procedural law.

[54] Arayara Association of Education and Culture and others v. FUNAI, Copelmi Mineração Ltda. and FEPAM (Mina Guaíba Project and affected indigenous communities) (2019). Climate Case Chart.
[55] Rete Legalità per il Clima (Legality for Climate Network) v. Intensive livestock farming multinational companies operating in Italy. Climate Case Chart.
[56] Violations of human rights by to Federation of Bosnia Herzegovina (BiH) and China due to coal fired plants in BiH. Climate Case Chart.
[57] In re Greenpeace Southeast Asia and Others (2015). Climate Case Chart.
[58] Setzer J and Higham C (2023) Global Trends in Climate Change Litigation: 2023 Snapshot. London: Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science.
[59] MOREIRA, Danielle et al. Brazilian Climate Litigation Bulletin 2023. Rio de Janeiro, Brazil: JUMA/PUC-Rio.

A landmark case ruled by the Federal Supreme Court (STF) in 2022 may provide robust legal grounds for future cases by connecting climate change with human rights arguments. In 2020, four political parties filed a Direct Action of Unconstitutional Omission to the Federal Supreme Court to compel the Ministry of the Environment to resume the activities of the Climate Fund. The STF ruled that the executive branch of the Brazilian Government has a constitutional duty to execute and allocate the funds of the Climate Fund to mitigate climate change, based on both the separation of powers and the constitutional right to a healthy environment. The Supreme Court also clarified that **environmental law treaties constitute a particular type of human rights treaty,** which enjoys "supranational" status. This means that they are above "regular" laws in the legal hierarchy. Accordingly, any Brazilian law or decree that contradicts the Paris Agreement may be invalidated, and any action or omission contrary to this protection is a direct violation of the Constitution and human rights.[60]

2.4. The Power of Active Ownership

2.4.1. Stewardship as a tool to promote decarbonisation

Active ownership is the use of rights and positions of ownership by investors to influence the activities or behaviour of investee companies. **Stewardship** is the responsible management of investments to create long-term value that leads to sustainable benefits for the whole society[61].

Engagement is a key component of stewardship and is based on proactive dialogue with issuers, through its management, boards, controlling shareholders and staff of investee companies, aimed at accomplishing a defined set of objectives and promoting desired behaviours. [62]

Engagement can be a powerful tool to maintain or increase the value of assets and influence companies' practices and is among the best practices recommended in the UK Stewardship Code 2020, Japan's Stewardship Code 2020 and the Kenyan Stewardship Code of 2017[63].

To that end, stewardship can also be a powerful tool to drive positive climate change impacts in investees. Evidence suggests that companies reduced their greenhouse gas emissions when stock ownership by green funds increased and did not alter their emissions when changed to brown funds; and that divestment in polluting companies may be counterproductive, "making brown firms more brown without making green firms more green" and leading to greater

[60] PSB et al. v. Brazil (on Climate Fund) (2020). Climate Case Chart.
[61] UK Stewardship Code 2020.
[62] The UK Financial Reporting Council considers engagement to be proactive interactions with issuers aimed at accomplishing a defined set of objectives.
[63] PRI (2023) How policymakers can implement reforms for a sustainable financial system.

emissions.[64] [65] Furthermore, successful engagement in US companies in 1999-2009 resulted in[66].

However, engagement focused solely on decarbonizing portfolios and their direct emissions does not help to decarbonise the economy across the board. Effective stewardship should address decarbonization across the entire value chain.

Hypothetically, if responsible investors decarbonize their portfolios by divesting from polluting companies, these companies may end up being acquired by investors who are less committed to addressing climate change and may increase their emissions. Therefore, paradoxically, net-zero goals in portfolios could exacerbate the climate problem rather than mitigate it.

2.4.2. Stewardship potential in Latin America

According to UNCTAD, the annual investment gap for developing countries to deliver the United Nations Sustainable Development Goals ("UNSDGs") is $4 trillion[67]. However, international investors often exclude and reduce asset allocation towards emerging markets due to perceived risks related to ESG standards and are reluctant to conduct bottom-up due diligence to map and address such issues. The result is a barrier to mobilising flows to companies most needing engagement to bring about improved sustainability practices. This presents a paradox: financial flows are needed to boost sustainable development practices; yet a lack of sustainable development constraints flows. Furthermore, screening against emergent market issuers on ESG grounds forgoes the efficiency gains that are unlocked by the adoption of sustainable business practices.

Typical topics to be addressed in the context of climate-focused engagement include:

- Companies in sectors that are particularly exposed to high carbon and biodiversity risks.
- Companies that have not established SBTi targets.
- Companies that do not perform scenario analysis and do not assess potential climate impact on the financials.
- Companies that do not have an internal carbon pricing strategy.
- Companies with poor CDP ratings.
- Companies that have not disclosed emissions (scope 1, 2 and 3).
- Companies with no TCFD alignment.

[64] Divestment and Engagement: The Effect of Green Investors on Corporate Carbon Emissions Matthew E. Kahn, John Matsusaka, and Chong Shu. NBER Working Paper No. 31791, October 2023, JEL No. G11,G12,Q54.
[65] Hartzmark, Samuel M. and Shue, Kelly, Counterproductive Sustainable Investing: The Impact Elasticity of Brown and Green Firms (November 1, 2022). Available at SSRN: https://ssrn.com/abstract=4359282 or http://dx.doi.org/10.2139/ssrn.4359282
[66] Dimson E, Karakaş O, Li X. Active ownership. *Rev Financ Stud*, 2015;28(12):3225-3268. doi: 10.2139/ssrn.2154724
[67] UNCTAD/WIR/2023.

- Companies that are in breach of ESG global norms[68] or involved in controversies.

However, when it comes to companies in **emerging economies**, there may be additional barriers to engagement, including:

- Lack of regulatory framework or local sector standards, reducing investor confidence.
- Culture and language barriers: engagements need to be culturally sensitive.
- Sustainability data shortages in relation to the issuers.
- Difficulty in assessing biodiversity risk in portfolios.
- Associated costs from gathering, analysing, and monitoring data.
- Poor quality of available information.
- Headline risk (reputational risk) attached to investing in laggards.
- Need to find on-the-ground resources to undertake the level of DD required.

Particularly in the case of Brazil and Latin America, most listed companies in the region have a defined controlling shareholder, with little room for traditional shareholder activism. Furthermore, because of a history of disregard for minority shareholders, shareholder engagements are usually very limited and restricted to topics such as governance, and very rarely about environmental issues,

Therefore, a tailor-made approach is required to ensure investors engagement in the region is effective, which may include[69]:

- Engagement via local partners and investors who can support navigating the local cultural, political, and regulatory context.
- Advocacy and collaboration with the local governments to enhance environmental and climate change domestic policy.
- Consideration of just transition approaches by factoring in equity and socioeconomic issues that affect the company's ability to grow sustainably.
- Promotion of transition pathways and plans that provide ambitious benchmarks but that are realistic based on the national circumstances and domestic laws.
- Focus on engagement through dialogue, knowledge-sharing, capacity-building and transfer of resources rather than confrontational approaches.

[68] The UN Global Compact (UNGC), the UN General Principles of Business and Human Rights (UNGP) and the International Labour Organization (ILO) Conventions (both Core and Broad conventions).

[69] Relevant frameworks for engagement with emerging economies include benchmarks such as the Church of England's draft principles for engagement with emerging markets (https://www.churchofengland.org/media-and-news/press-releases/emerging-markets-just-transition-investment-initiative-guiding), and the "Emerging Markets Transition Investment (EMTI)" project, supported by the Net Zero Asset Owner Alliance (NZAOA) Nature and Climate Finance under the World Economic Forum (NCF), and the EU-ASEAN Business Council (EU-ABC), and its "5 Guiding Principles for Responsible and Effective Engagement in Emerging Markets": https://www.eu-asean.eu/wp-content/uploads/2023/03/Code-Red-EMTI-Paper-2_March-23.pdf

2.4.3. Natural capital: the neglected risk

Nature-related risks are closely linked to climate-related risks in several ways, and they must be considered together. When assessing the financial risks associated with climate change, the role of loss of nature in climate feedback loops and tipping points must also be considered.

Nevertheless, a report by the CDP in 2022 found that 70% of companies disclosing data through CDP did not assess the impact of their value chain on biodiversity[70]. There are still many challenges for companies and investors to assess and account for the nature-related risks and opportunities in their strategies and decisions, and new tools are being developed to support organizations in that aim, including by initiatives such as the Taskforce on Nature-related Financial Disclosures (TNFD).

New international commitments[71] and legislation in developed markets seeking to mitigate biodiversity loss and deforestation within supply chains may also change this scenario[72]. Such regulatory drivers should cause international investors to further engage with companies on scope 3 disclosures, as a great deal of indirect emissions can be traced back to importing commodities such as beef, palm oil, soy, wood, cocoa, and coffee from developing countries. This creates an opportunity for substantial investor engagement in Latin American companies.

3. The LatAm Climate Turnaround Fund

3.1. Strategy

As seen above, data shows how relevant Latin America and Brazil are in terms of historic and projected GHG emissions and climate change-related economic impacts, especially due to their AFOLU emissions. While the world is more concerned with energy-related emissions, agriculture and land use play a critical role in addressing the climate crisis.

Companies in Latin America play a fundamental role in the fight against climate change, and they are already bearing legal obligations in this regard, as well as the fulfilment of these

[70] CDP (2023). Scoping Out: Tracking Nature Across the Supply Chain. Global Supply Chain Report 2022. https://cdn.cdp.net/cdp-production/cms/reports/documents/000/006/918/original/CDP-Supply-Chain-Report-2022.pdf?1678870769

[71] In December 2022, almost 200 governments committed to ambitious goals and targets under the Kunming-Montreal Global Biodiversity Framework (GBF) under the UN Convention on Biological Diversity (1992), with a view to halting and reversing nature loss by 2030. Specifically Target 15 calls for businesses to monitor, assess and disclose their risks, dependencies and impacts on biodiversity, to ensure business, society and nature exist in harmony.

[72] Notably the European Union Corporate Sustainability Reporting Directive (CSRD) and its following delegated regulation European Sustainability Reporting Standards (ESRS).

duties is increasingly being scrutinised by the judiciary, together with the associated loss and damage. Furthermore, companies still have a lot to improve in terms of climate management, and often their climate strategies tend to mislead the market or omit relevant information, leading to greenwashing. As companies adopt these solid strategies, economic opportunities arise.

While there is a track record of climate stewardship in the world, the experience in Latin America is limited, as emerging markets may require different approaches that consider extensive engagement strategies. Moreover, stewardship should tackle the entire value chain, rather than focus on companies' direct emissions.

This is the context in which the LatAm Climate Turnaround Fund was created: to address a relevant source of the climate crisis, helping transformation towards decarbonization among companies in Latin America, through strong stewardship and engagement.

3.1.1. Decarbonising Latin America's "Carbon Majors", starting with Brazil

In 2013, the ***Carbon Majors project***[73] coined the term ***"carbon majors"***, aimed at quantifying and tracing historic and cumulative emissions of carbon dioxide and methane of fossil fuel and cement producers, from 1854 to 2010. This led the CDP to produce the report CDP Carbon Majors Report in 2017[74].

Building upon this report, in December 2017, the ClimateAction100+[75] launched an initiative to promote global investor engagement initiative on climate change in relation to the major greenhouse gas emitters – which are now more than 100 companies that are the largest historic emitters of greenhouse gases on Earth.

The initiative goes beyond the fossil fuels and cement companies. These are large, solid companies that provide products and services that are often essential, as well as generating great amounts of public revenue and opportunities for employment and income distribution for the population. Most of these businesses will not cease to exist, but they will take the planet to levels of warming that pose existential risks to humankind in the next 10 years[76] if they continue to operate at the same level of GHG emissions.

[73] The project was the first attempt at aggregating historic data by carbon producing entities. At the time, the list of 90 companies included 50 investor-owned firms – mainly oil companies such as Chevron, Exxon, BP, and Royal Dutch Shell, and coal producers such as British Coal Corp, Peabody Energy and BHP Billiton. Some 31 of the companies were state-owned, such as Saudi Arabia's Saudi Aramco, Russia's Gazprom and Norway's Statoil; and 9 were government run industries, producing mainly coal in countries such as China, the former Soviet Union, North Korea and Poland. https://climateaccountability.org/wp-content/uploads/2020/12/MRR-9.1-Apr14R.pdf

[74] CDP (2017). The Carbon Majors Database Report. f

[75] Climate Action 100.

[76] See the findings of the 6th Assessment Report of the IPCC.

This includes companies that produce oil, cement, and steel, companies in the mining and energy industries, as well as those associated with agricultural commodities and livestock production, and the financial institutions that sponsor these businesses.

Latin America & Caribbean countries are responsible for 7% of the world's historical GHG emissions, **with Brazil being the 7th largest historical emitter of GHGs in the world**[77]. The AFOLU sector functions as a net sink in OECD countries but is responsible for 20% of net emissions in LatAm.[78] In Brazil, AFOLU accounts for 74% of the GHG emissions. Therefore, many of the region's **"carbon majors"** are the local corporations and producers who, directly or indirectly, caused deforestation, land degradation or agricultural practices that generate GHG emissions, some of those who are listed companies. These are Latin America's carbon majors, and they urgently need to align to a decarbonization pathway.

The Fund will focus initially on Brazil, since it is the largest historical GHG emitter in the region, and most of the team and the fund's management come from Brazil, and thus has a stronger network and knowledge about the local language, culture and legal frameworks. Familiarity with local language and culture is important for stewardship strategies in Latin America, which are more based on engagement than on confrontational approaches. Nonetheless, the Fund may subsequently invest in listed companies that are carbon majors in Mexico, Colombia, Chile and Peru.

The Investment Team will identify and acquire shares in listed companies that are among the largest GHG emitters in the country, with a view to promoting a **"climate turnaround"** from within the company. The Fund will invest only in companies that have high greenhouse gas emissions (scopes 1, 2, or 3), set at the minimum threshold of 1 million tons of CO2eq annually (across all three scopes). This is not a rigid number, but it gives a perception of where the Fund aims to invest, as it will not consider investing in companies that have emissions significantly below this threshold.

3.1.2. Value creation side-by-side with decarbonization

The LatAm Climate Turnaround Fund will invest in carbon majors in Latin America and, as a shareholder, present concrete solutions for decarbonisation and at the same time value creation, based on scientific evidence.

The fund's investment thesis is that even good and high-quality companies that are major polluters are traded on the market at a discount to their multiples because of the financial risks they present – which also often leads them to be on the exclusion list of various

[77] Emissions Database for Global Atmospheric Research.
[78] OECD (2023).

responsible global investors. The market tends to reward companies committed to reducing their greenhouse gas emissions with better multiples. Over time, companies will be rewarded for being less polluting.

Therefore, mitigating environmental and climate risks of investee companies also means maximising their financial return. This happens in three ways: 1) a reduction in future costs and expenses (either by avoiding fines, costs with consultants, lawyers, litigation and other legal risks; or by saving on the use of resources and raw materials or guaranteeing sustainability in the supply of renewable raw materials, among other possible expenses for adapting to climate transition risks); 2) a reduction in the cost of capital as a result of a perceived reduction in the company's risks, which leads to an increase in the company's valuation; and 3) an increase in revenue streams as a result of the expansion and diversification of the business model. The combination of these three factors should provide the investor with a significant financial return.

We believe it is possible to create value from better use of current assets and still benefit from intangible issues such as brand equity improvement, consumer enchantment, talent attraction, or opening new addressable markets. Still, they will also be able to obtain financial returns through economic opportunities in this area, whether by being paid for environmental services, generating carbon or biodiversity credits, addressing solutions in the transition energy, venturing into new innovative products and services that provide solutions in the new low carbon economy, among other sources.

This climate value creation agenda can either be at the forefront of mitigating relevant risks and/or building opportunities, leading not only to an effective contribution to the climate issue but also to increasing the company’s value and improving investor perception, translating into investment appreciation.

3.1.3. Science-based approach

Science is the cornerstone of the global framework for addressing the climate crisis, as explicitly recognized in the United Nations Paris Agreement (2015). Science is what guides the LatAm Climate Turnaround Fund every step of the way.

The LatAm Climate Turnaround Fund will provide analysis and recommendations always based on the best available science, either by looking for state-of-the-art technologies and methodologies to approach decarbonization in investees, or by grounding all its recommendations in strong data and scientific evidence.

The Fund will introduce into each of the invested company’s strategy unique frameworks, to be designed using deep science and a combination of best practices from various systems,

and relevant benchmarks, while many gaps will need to be overcome with creative thinking based on the extensive experience of our team and partners. The Investment Team will pivot a framework for addressing economic opportunities in the low carbon economy, considering the context of carbon markets, by adopting conservative baselines and additional criteria more stringent than best practices, creating buffers, and promoting cancellation of offsets; and engaging with lawmakers and regulators to create better rules that can provide more integrity and legal certainty to this system, where necessary.

The Fund's science-based solutions will be validated by none other than scientist Carlos Nobre, a member of the IPCC's Nobel Prize-winning team and the only Brazilian member of the British Royal Society.

With its multidisciplinary team that comprises top experienced scientists, investors and lawyers, the Fund will provide unique high-end advice to the investees with the sole purpose of maximising impact and value creation.

3.1.4. Stewardship focus

To ensure the investee will fully capture its science-based value creation proposal, the Fund's Investment Team will focus on a close and dedicated engagement with the company, sharing best practices and a 'hands-on' approach to improving their sustainability practices, with a view to build benchmarks and frameworks that can be replicated for other players in the sector in the region. This engagement approach will be strongly based on cooperation and dialogue, with escalation triggers to be considered only as a last and extreme resort.

Engagement efforts will be supported by science-based elements, which are expected to enhance the company's financial resilience. In other words, the Fund will act on the triple front - science <> sustainable finance <> stewardship - to ensure the company strengthens its business strategy and creates systemic value for stakeholders. That is, the Fund will propose scientific solutions to the company and, at the same time, bring benefits to the creation and/or perception of value for the company and its shareholders.

The Fund is well placed to carry out this strategy and such stewardship work, due to the following key advantages that are difficult to reproduce:

- Strategic advantage as a domestic player with more than 30 years of experience with stewardship in the region.
- Intimate knowledge of issuers in the region.
- No relational barriers, such as language and culture.
- Robust engagement plans led by science.
- A 'hands-on' approach that fills data gaps and enhances transparency.
- Ability to conduct and lead collaborative engagements with local leadership.

- fama re.capital's 30 years of experience in ESG engagements with public companies.
- fama re.capital's reputation for being the most vocal asset manager in Latin America on sustainability issues and recognised as the most audacious in its engagements.

3.1.5. Climate Advocacy and Education

As part of its stewardship strategy, the Fund will produce science-based analysis, open-source tools, and recommendations to support improvement in governmental climate policy. It will also share knowledge and engage in the climate public debate at the local level whenever it believes its inputs and views will help enhance understanding by civil society, government, and stakeholders around technical, scientific, and complex climate-related topics, especially in the context of misinformation and fake news. The Investment Team is also very keen on promoting education around climate science, law, and finance broadly among all stakeholders in the region, including in the investments sector, among other asset owners and asset managers. To that end, it will produce capacity building materials, and toolkits, carry out training sessions and collaborate with other partners in sharing knowledge through workshops, webinars, and events.

3.1.6. Prevention of greenwashing

In addition to the above mentioned, a fundamental aspect of the Fund's existence is the need to ensure an ethical, transparent, and levelled playing field where investors, consumers and other stakeholders have access to the necessary information to make conscious financial decisions. The Fund will not tolerate greenwashing practices by Investees and will work closely and fiercely on its engagements with the Investees to monitor and prevent any such practices, but mostly to provide constructive recommendations on how Investees can share transparent, accurate and adequate information to the public in relation to its climate transition actions and claims.

3.1.7. Prevention of litigation risks

By promoting engagement for the decarbonisation of investee companies, the LatAm Climate Turnaround Fund will also help prevent financial risks for companies related to the need for companies to transition to a low-carbon model, including carbon pricing and regulation risks, loss of competitiveness, and the risk of the company being the target of *climate litigation [see section 2.3].*

Litigation against corporations and financial institutions is still incipient and in its early stages, with limited successes so far, and specifically most of the damages' claims have not been

trialled yet. Existing climate risk assessments do not fully consider the impact of litigation and regulatory enforcement actions[79]. This landscape may change as climate change risks become even more material, case numbers grow, and evidence evolves. By analysing risks associated with climate litigation and regulatory enforcement, the Fund will develop a framework that accounts for the additional impact posed by legal action in the physical and transition risk exposures that companies face.

Particularly in Brazil, climate change has been approached by litigants as a matter of environmental liability, which is three-folded according to Brazilian law. This means the same event deemed harmful to the environment can trigger three types of liabilities: civil, administrative, and criminal. Environmental civil liability particularly is strict, meaning that there is no need to prove fault or negligence, or that the party committed any unlawful act: all that matters is that there was an environmental damage and that there is a causal link between the party and the damage. In Brazilian law, anyone who contributed to an environmental damage — including by economically benefiting from the activity that caused the damage— can be held liable for an environmental damage.

If the law evolves to frame climate issues as environmental liability matters, the legal risk exposure for greenhouse gas-emitting companies under scopes 1, 2, and 3 becomes very significant. This would shift greenhouse gas emissions from the realm of sustainability corporate practices into a matter of compliance.

The Fund's strength lies in helping the company **address the above-mentioned climate litigation risks that it faces**, by quantifying and bringing attention to these risks for managers, given their legal responsibility to prevent them, while ensuring the Fund fulfils its legal duty to its investors. The Fund's work essentially ensures that managers fulfil their legal duty to act in the company's best interest.

3.1.8. Investment screening process

The LatAm Climate Turnaround Fund will invest in stocks of Latin American listed companies that directly or indirectly contribute adversely to climate change, and operate in a wide array of sectors, including agribusiness, mining, steel, fossil fuels, thermal power plants, food processing and retail, banks, infrastructure, and cement, among others.

Companies will be screened by the Investment Team based on the following criteria:

(i) **Strong economic performance:** Robust operating performance that translates into strong financial indicators. In this analysis, we seek to understand the company's business and its sector, as well as its competitive advantages, management, etc. We aim to invest exclusively in well-managed, good companies with high rates of

[79] Thom Wetzer *et al.* Climate risk assessments must engage with the law. *Science* **383**,152-154(2024). DOI:10.1126/science.adj0598

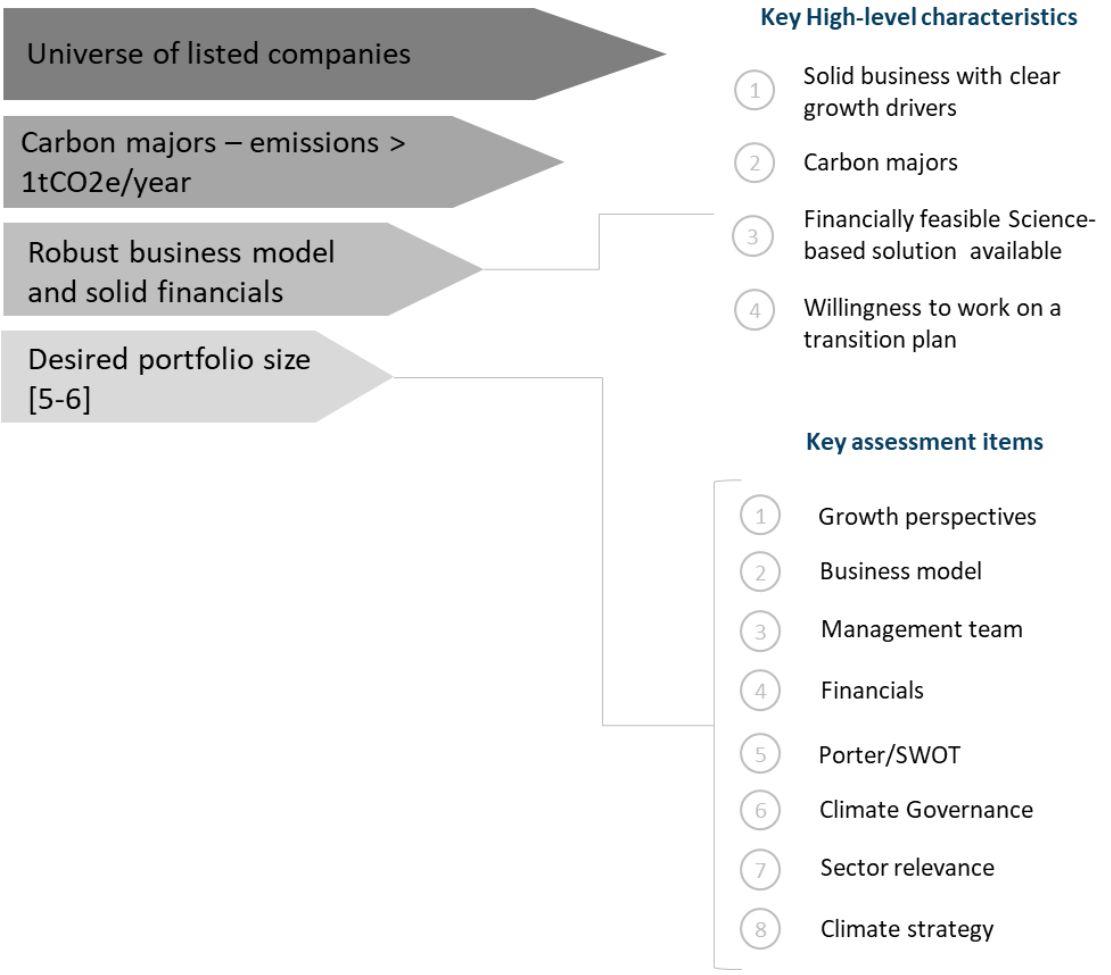
return, adequate margins, growth, good strategy, and appropriate capital structure. From a traditional perspective, this would be a company of excellence.

(ii) **Carbon Majors:** companies with annual emissions (scopes 1, 2 and 3) over one million tons of CO2e (). This is not a rigid number but indicates the fund's commitment to only evaluate companies with a meaningful climate footprint.

(iii) **Decarbonization Feasibility:** availability of economically viable solutions to support the target company's decarbonization process. We assume that it is unlikely that companies will agree to a climate transition plan if there is limited financial return to be captured from the investment. It is the Fund's mission to find scientific solutions for the company that have financial returns higher than the cost of capital and the company's opportunity cost.

(iv) **Openness for engagement:** Demonstrated willingness to embrace change and listen to proposed solutions. Following the conclusion of the scientific research, but prior to the investment, the investment team will validate the hypotheses embedded in the engagement plan with key executives of the company and ensure willingness to work collaboratively.

Therefore, the Fund will invest only in good businesses that are high emitters of greenhouse gases but have a scientifically viable economic solution, provided that the company is willing to adopt it, in a cooperative relationship.



The Fund will carry out a mapping of risks and opportunities of targeted sectors, as per the example below:

Exhibit 3

Mapping of Risks and Opportunities for the Agriculture Sector

Sector	Risks to Mitigate	Main Opportunities
Commodity production	– Deforestation. – Purchase of deforested areas. – Supply chain. – Fertilisers and pesticides. – Fuel for agricultural machinery. – Water.	– Sustainable/regenerative agricultural practices may contribute to cost reduction and increases in productivity. – Carbon credits.[80] – Biodiversity credits. – Overprice for socio-environmental

[80] As a secondary source of income, depending on pending legislation.

	– Monoculture and biodiversity. – Tariff barriers. – Boycotts.	policies. – Certifications.

Some of the shortlisted companies will be subject to more detailed analysis and will be scored based on the following criteria: (i) growth perspective, (ii) business model (SWOT analysis), (iii) executive team capabilities, (iv) financial performance, (v) competitive landscape (Porter), (vi) climate governance/transparency, (vii) sector relevance (in perspective of the country's emission matrix).

The Investment Team is acutely aware of the potential financial costs associated with implementing some of these measures and will take this into account in its approach. The Investment Team will observe principles of reasonableness, proportionality, utilization of the best available technology and economic viability. They will also consider other principles associated with preventing risks related to climate transition, such as loss of market access, technological lag risks, and infrastructure lock-in, among others.

The investment team will then focus the efforts on designing a recommendation for a science-based climate transition plan and on initiating pre-investment engagement with the highest ranked companies.

3.1.9. Performance fee aligned with climate impact

Investment funds commonly incorporate a performance fee structure to align the interests of fund managers and investors. Typically, this performance fee is tied with excess financial returns, creating an incentive for managers to optimize financial performance.

The LatAm Climate Turnaround Fund comprises two benchmarks: one financial and one focused on impact. The performance fee will only be fully applicable if both benchmarks are met.

In the context of the **impact benchmark**, the Fund will annually assess the portfolio's temperature using the WWF/CDP open-source tool. The fund's objective is to annually reduce the portfolio's temperature through proactive engagement, aligning it with the 1.5-degree target outlined in the Paris Agreement. Therefore, the performance fee will only be fully levied if the Fund's investee companies, in addition to recording a financial return, have reduced their carbon footprint, and thus contributed to slowing down the global temperature increase towards the 1.5°C limit in relation to pre-industrial levels, as established in the Paris Agreement.

The methodology is structured in three phases: firstly, a target protocol translates individual emissions goals into temperature equivalents. Subsequently, a company protocol

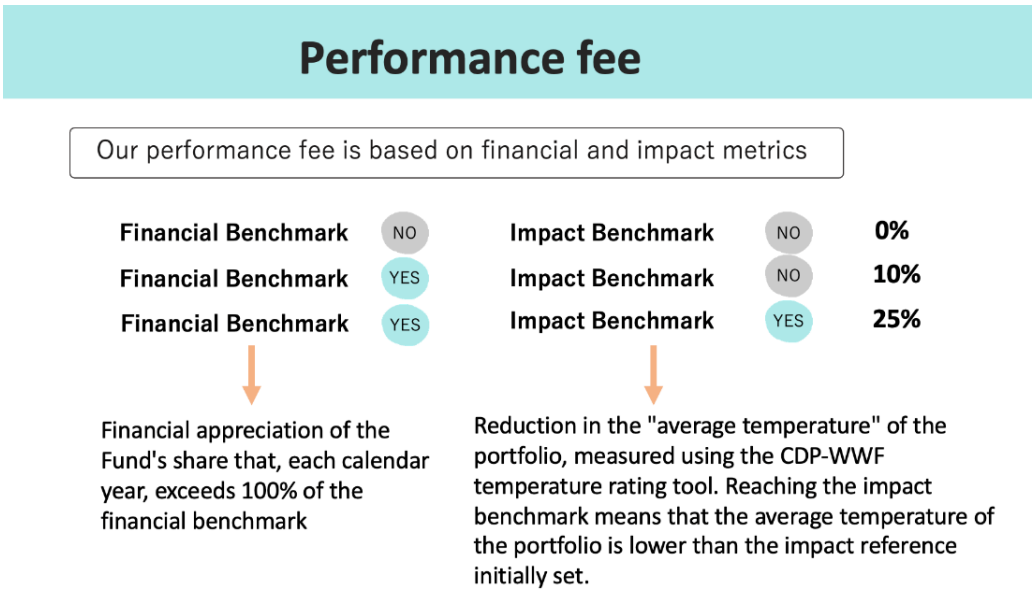
consolidates these into a comprehensive company score. Finally, a portfolio protocol assigns weights to these scores within an investment portfolio.

The target protocol uses the most up-to-date scientific climate projections from the IPCC's Special Report on 1.5°C scenario database to convert individual emissions goals into temperature predictions. It employs straightforward regression models to forecast warming by 2100, incorporating various climate scenarios that consider short, medium, and long-term trends in absolute emissions or emission intensities.

Considering that firms often set multiple targets, these are amalgamated into a singular score for each company. A set of minimum quality criteria is established to determine the acceptability of these targets.

At the portfolio stage, the scores of different companies are proportionately balanced to evaluate an index or a collective of companies, typical in financial portfolio contexts. The results will be duly validated by investors.

This structure ensures the Fund's managers have a clear financial incentive to promote real and measurable climate impact.



3.2. Engagement Process

3.2.1. Pre-investment engagement

The investment team will conduct a preliminary assessment of the company, based on publicly available information, and develop a preliminary recommendation for a climate turnaround plan (**Preliminary Recommendation**), considering at least:

a. An assessment of the company's current emissions and its emissions reduction plan if it has one.
b. Areas for improvement in the company's current plan based on deep science and best practices **in alignment with the Paris Agreement goals** and, where possible, the UN Biodiversity goals.
c. Economic value added analysis, by comparing the IRR of the proposed decarbonization solution with the company's cost of capital.
d. Suggested implementation timeline - often modularized over months.

Following the development of the Preliminary Recommendation, the Investment Team will approach the company at a pre-investment stage to assess the company's willingness to engage, to test the Preliminary Recommendation and to fill in any possible data gap. If the approach is successful and there is convergence around the Preliminary Recommendation, the Investment Team will make an investment decision.

3.2.2. Engagement plan

Based on the inputs from pre-investment interactions, the Investment Team will consolidate a final recommendation, which will be incorporated into a "**Climate Turnaround Action Plan**". The Climate Turnaround Action Plan consists of a spreadsheet comprising the following information: the action areas, objectives, and targets, as well as specific outputs and activities expected by the company and the Fund's team, frequency, and timeframes, as well as any other relevant information.

The Climate Turnaround Action Plan is an entirely tailor-made and dynamic document, which may be adjusted over time according to market and political changes, scientific evolvement, technological improvements, and new legal trends. This is a continuous process of analysis and interaction.

The Investment Team in collaboration with the target company will monitor several indicators such as (a) level of progress (by item); (b) transparency; and (c) assertiveness in communication, among others.

To the extent possible, the Investment Team will contribute resources in terms of technical, legal, and scientific support, capacity building, general guidance and opinions, and connections with potential partners, service providers, and relevant stakeholders.

The Investment Team and the investee will also agree on the focal points at the company, ideally a committee to be formed with the participation of (i) a high-level executive, (ii) managers of the involved teams, which may include at least the ESG/Sustainability and Finance teams. If the company does not have the proper ESG governance structure, the Investment Team's recommendation will include guidance in this regard.

Further work may be needed until both parties can agree on the Climate Turnaround Action Plan. The Investment Team will work hard to make an ambitious yet achievable recommendation and seek an appropriate compromise where possible to have a Climate Turnaround Action Plan that is agreeable to all parties.

3.2.3. Escalation framework

If, at some point, the Investment Team perceives the company is not progressing towards any or some of the agreed objectives, the engagement efforts may be escalated, as follows:

1. Further dialogue

The Investment Team will intensify the dialogue with the company and interact with more senior representatives through bilateral calls or meetings, in addition to those previously scheduled in the Climate Turnaround Action Plan, followed by letters to senior management and/or the board explaining the reasons for concern and reiterating its advice with technical, scientific, legal, and financial analysis, and looking for joint solutions to continue with the implementation of the Climate Turnaround Action Plan.

2. Collaborative engagement and/or public statement

If the previous approaches fail, the Investment Team may look for support from other aligned investors or stakeholders to join in collaborative meetings with senior management and/or the board or sign joint – private or public - letters. Additionally, the Investment Team may explore collaborative engagement initiatives if they are effectively coordinated and offer potential benefits for advancing the Climate Turnaround Action Plan. At this stage, the Investment Team could also opt to challenge the company's position publicly in media outlets, after a thorough analysis and established strategy.

The public statement may be published in media outlets (including print media, social media, and others) and may be used in the context of a media strategy – which can be designed with PR firms -, including press releases. These actions can

be taken singlehandedly or in collaboration with other investor group organisations, NGOs, or other relevant stakeholders. They are aimed at nudging the company into addressing the issue publicly - either by deciding to fulfil the Climate Turnaround Action or by providing convincing reasons not to.

3. Use of Voting Rights

Another escalation lever would be exercising our shareholder rights to express disapproval or dissatisfaction regarding the current progress, or lack thereof, in implementing the agreed-upon Climate Turnaround Action Plan, which may entail voting on shareholder resolutions or opposing standing items, diverging from management's direction, or voting against directors, pre-declaring voting intentions and filing or co-filing shareholder resolutions. However, this is a very unlikely scenario in Brazil, as most Brazilian publicly traded companies are controlled by a shareholder or a group of shareholders, and the rights of minority shareholders are limited. Investors often need to organise in groups to reach the percentages determined by law to exercise certain rights, including a call for a general shareholders' meeting. Recently, the CVM (Brazilian Securities and Exchange Commission) reduced the percentage to 1%-5%, depending on the value of the total share of capital, for shareholders to request information on "any relevant acts or facts related to the company's activities". We believe robust engagement with the company's management and embedment in the company's governance structure in a collaborative manner will help build strong ties and credibility that will allow the Fund to fulfil its objectives and promote climate and biodiversity impact regardless of such legal limitations.

4. Divestment

The Investment Team may choose to divest from the company, recognizing that this action would relinquish its influence over its decisions. However, divestment does not preclude future investment in the company. Should the Investment Team observe substantial progress in the future that aligns with the Fund's climate expectations (in conjunction with other factors like market opportunities, competitive advantages, etc.), the Investment Team will remain open to reinvesting.

Other than the lack of success in engagement, there are several reasons that could lead to divestment, including:

- The company's stocks appreciated, and the Fund's investment is no longer needed to create additional value.
- The company is no longer a good investment from a financial perspective.
- There has been a change in perception about the company's quality (changes in competitive, regulatory, market environments, consumer habits, etc.).

- Scientific solutions initially researched prove to be ineffective or unfeasible.
- Ethical violations deemed severe by the investment team.

3.3. Team

Core Team

Fabio Alperowitch, CFA
Fabio is the co-founder and CIO of fama re.capital, one of the first Brazilian asset managers with more than thirty years of experience with Responsible Investments. In the third sector, he is a member of the Board of Directors of WWF Brazil, LIFE Institute, Ethos Institute, and Racial Equality Pact. Fabio holds a bachelor's degree in business administration from Fundação Getúlio Vargas (FGV-SP). Fabio is a Chartered Financial Analyst (CFA) and holds the CFA ESG Certification.

Caroline Dihl Prolo
Caroline is the Head of Stewardship at fama re.capital. She leads all engagements pertaining to this fund, with both potential and current investees. Caroline is a Brazilian lawyer specialising in environmental, climate change law, and carbon markets. Founder of LACLIMA (Latin American Climate Lawyers Initiative for Mobilising Action), the first network of climate change lawyers in Latin America; consultant to the International Institute for Environment and Development (IIED); and legal advisor to the group of the Least Developed Countries in the United Nations Framework Convention on Climate Change (UNFCCC) negotiations since 2013. She is a columnist for Brazilian newspapers Valor Investe and Capital Reset. Caroline has worked fifteen years in law firm services in Brazil, seven leading the Environmental and Climate Change practice at Stocche Forbes Advogados. Caroline holds a bachelor’s degree in Law from Universidade Federal do Rio Grande do Sul (UFRGS) and a master’s degree in Law from University College London (UCL).

Tiago Gomes
Tiago Gomes serves as the Head of Value Creation for the LatAm Climate Turnaround Fund, where he directs the development of financial analysis and the formulation of a comprehensive multi-disciplinary strategy. With a wealth of experience spanning 15 years in various asset classes internationally, Tiago has played a key role in establishing the impact strategy and raising what has become the largest growth-focused climate solutions fund in Latin America at GEF Capital Partners. Tiago's educational background includes a bachelor’s degree in business administration from Fundação Getúlio Vargas (FGV-SP) and an MBA from the University of Chicago, Booth School of Business. He is also a certified board member by the Institute of Corporate Governance (IBGC) and has occupied seats on various boards.

Laura Vélez
Laura is the Head of ESG at fama re.capital. As part of the investment team, she supports the investment process and is responsible for structuring and managing the ESG Engagement Plan with investee companies and fama's ESG transparency efforts. Other attributions include participation in global initiatives such as TNFD, collaborative engagements such as CDP Non-Disclosure Campaign coordination, and ESG advocacy. Laura also coordinates fama re.capital's bi-annual ESG Academic Award. Previous experiences include working in Brazil and Colombia's banking and airline industries. Laura holds a bachelor's degree in Administrative Engineering from Universidad Nacional de Colombia and a master's degree in Corporate Sustainability and Environmental Management from the University of York. Laura holds the CFA ESG Certification.

Daniel Silva
Daniel is a Low-carbon Economy Analyst at fama re.capital, focusing on scientific research and engagement with invested companies. Through the most updated available science, Daniel researches and develops low-carbon strategies, and translates scientific arguments into financial and commercial ones. Daniel holds a bachelor's degree in economics from the University of Amazonia and a master's degree in Geography and Environment from the University of Texas at Austin. He is currently pursuing a PhD in Geography and Environment also at the University of Texas at Austin. Daniel has over a decade of experience working with institutions focusing on public policy and research on the Amazon and *Cerrado* biomes.

Amanda Witzke
Amanda is a Climate Impact Investing Analyst at fama re.capital and works closely with the fund's management team and investment professionals, building investment cases and supporting them with other matters of research, analysis, communication affairs, engagement with current and potential investors, and fostering long-term relationships based on trust and transparency. Amanda holds a bachelor's degree in Business Administration and Statistics from the University of North Carolina at Chapel Hill and has previously worked in a consultancy firm and the banking industry.

Senior Advisors

Carlos A. Nobre, PhD
Carlos Nobre is an Earth System scientist from Brazil, currently associated with Universidade de São Paulo's (USP) Institute for Advanced Studies, Universidade Federal do Espírito Santo (UFES), and Universidade Estadual Paulista (UNESP). He obtained a PhD in Meteorology at MIT in 1983. Nobre's work mostly focuses on the Amazon and its impacts on the Earth system. He chaired the Large-Scale Biosphere-Atmosphere Experiment in Amazonia (LBA). He has been the author of several IPCC reports, including the 2007 report that was awarded the

Nobel Peace Prize. He was National Secretary for R&D Policies at Brazil's Ministry of Science, Technology & Innovation and President of Brazil's Agency for Post-Graduate Education (CAPES). He is co-chair of the Science Panel for the Amazon (www.theamazonwewant.org) and the director of the Amazonia 4.0 project to promote a standing forest bioeconomy for the Amazon (www.amazonia4.org). He is a foreign member of the US National Academy of Sciences and the Royal Society and a member of the Brazilian Academy of Sciences and the World Academy of Sciences. He was awarded several prizes, including the Volvo Environmental Prize and the AAAS Science Diplomacy Award.

3.4. Investment Case

While preparing this white paper, the Investment Team is on the verge of embarking on the fund's inaugural investment, and simultaneously concluding and presenting to the target company a Climate Turnaround Action Plan. After months of comprehensive analyses and deliberations with key executives, a strategic plan has been crafted to rectify identified gaps and optimize an existing framework. To preserve confidentiality, the company in question will be anonymized and referred to as the "Agri company".

Agri Company is one of the most reputable agribusiness players in Brazil. The company was founded 40 years ago and has grown to be one of the largest producers of maize, soybeans, and cotton. It applies intensive farming practices in the ~400 thousand hectares of planted area in 2022 (i.e., Approximately 3 times the size of Lebanon).

The business operates an asset-light business model – only one-third of the planted area is company-owned – and has been known for investing in all stages of production, resulting in higher soybean yields than the average. The company has recently embraced sustainability as a core element of its business model. For instance, the executives have declared the company's commitment to the Paris Agreement in order to reduce GHG emissions. Moreover, the investment team is firmly convinced that it can play a pivotal role in substantiating the company's suite of practices publicly, thereby acting as a catalyst within the sector.

3.4.1. Macro context of the Investee

Brazil is the world's largest producer of soybeans and one of the leading suppliers of agricultural commodities such as beef. However, the country also has the highest rates of deforestation, which makes it one of the top 10 emitters of greenhouse gases. Furthermore, the country comprises the largest portion of the standing Amazon rainforest (approximately 60%), currently responsible for a significant share of the world's carbon stock. Brazil's agricultural powerhouse is partly due to the unique climate conditions such as adequate rainfall, widespread technology in soil correction, tropical temperature, and abundant arable

land. Considering the increasing demand for food, Brazil has a unique global position of being a major supplier of agricultural commodities and contributing to the challenge of tackling climate change.

In recent years, a combination of unsustainable agricultural practices (e.g., misuse of fertilizers), farmland expansion over marginal lands, labour issues, and extreme weather events have created negative effects that range from soil degradation to excessive emissions of greenhouse gases. The sustainability consequences of current land use decisions are important in Brazil due to agriculture being responsible for 74%[81] of total emissions, as well as Brazil's relevance as a global agricultural supplier.

While the IPCC's latest report forecasts a temperature increase in the coming decades, recent studies have shown registers of the reduction of rainfall[82] in the south of the Amazon and temperature impacts on soy productivity[83]. Therefore, the ongoing deforestation in the Amazon and agricultural unsustainable practices aggravate the negative feedback concerning climate-agriculture relations. As the world works to mitigate food security risks, biodiversity loss, and climate change, it is pivotal to consider agribusiness activities as part of the solution.

3.4.2. Current climate action at Investee

As one of Brazil's largest agricultural producers in Brazil, Agri company is a meaningful GHG emitter directly impacting and being impacted by climate change. The company's sustainable business strategy has robust elements to help reduce GHG emissions and improve resource efficiency across the value chain. For instance, they use precision agriculture practices and have engaged in minimal tillage which reduces emissions by loss of fertilizers and increases the carbon sink in soil.

The company has retained a Sustainability Director who oversees the implementation of the action plan and reports to various stakeholders. An ESG Committee has been established with oversight from the Board of Directors, demonstrating a commitment to high levels of governance. From a risk analysis perspective, key factors are included in the company's global risk assessment. However, managers do not yet account for stress test scenarios nor the impact of such climate risks and opportunities on the business' financials.

The business has designed a comprehensive action plan, and key elements include:

[81] SEEG.
[82] Leite-Filho et al (2021), Deforestation reduces rainfall and agricultural revenues in the Brazilian Amazon.
[83] Silva et al (2023), Temperature effect on Brazilian soybean yields, and farmers' responses.

Exhibit 4

Comprehensive Action Plan and Key Elements of Agri Company

	EMISSIONS	RESOURCE EFFICIENCY		
	GHG Emissions	**Biodiversity**	**Water**	**Waste**
Key metrics	− Emissions inventory in line with GHG Protocol (scopes 1, 2 to date) − 55% reduction in net GHG emissions in 21/22 compared to the 2019 baseline. Key objective to reach carbon neutrality by 2030 (2019 baseline) − Carbon intensity of 0.37 tco2e/ton output. Target by 2030 of 0.22 tco2e/ton output	− 108 thousand hectares of preserved land − Signatories to pacts related to the preservation and conservation of the Pantanal and Cerrado biomes	− Water reuse represents 0.75% of total water collected (well) vs. 0.65% in 2020	− 2.2 thousand tons of waste discarded in 2021 − 221% lower than 2020 − 81.8% of total waste was recycled vs. 67.4% in 2020
Action plan until 2021	− Reduction of soil tillage practices − Utilization of cover crops on parts of the productive area − Expansion of permanent preservation areas, which work as a carbon sink	− Partnership with key academic institutions to develop conservation projects − Implementation of early fire detection technology	− Installation of hydrometers to help monitor the volume of water utilised in some properties	− Implementation of the "Circularity and Zero Waste" program in some of the properties
Commitment going forward	− Reduction of conventional sources of Nitrogen − Expansion of cover crop program	− Focused research on regional fauna and flora to further understand the impact of agricultural activities on natural resources − Expansion of fire detection program to all properties	− Collection of data related to water collection, utilisation, and treatment − Data analytics should help improve efficiency	− Expansion of the program across all properties

The investment team has engaged with multiple executives on various occasions, expressing positive surprise at the discussions surrounding the existing environmental plan. This is particularly noteworthy when viewed in the context of the broader Brazilian agribusiness sector, which has shown limited efforts in addressing climate change. Since 2005, the company has made substantial investments in precision farming technology, supported by senior specialists in areas such as technology, data analysis, and plant pathology.

Technology has played a pivotal role in facilitating an accurate understanding of local climate information. This capability allows the company to assertively apply inputs and anticipate adverse climate effects, such as excess rain resulting from El Niño. Agri company's agronomists have recognized the importance of soil management over the traditional plant-centred view, a critical factor in scaling the utilization of cover crops, currently implemented on 40% of harvested land. This emerging practice holds promise as a solution to enhance soil resilience, including carbon retention capabilities, in Brazil.

The company has a long-standing history of utilizing bio-defensive products and has recently installed multiple bioreactors to multiply fungi and bacteria, meeting its demand for bio-defensive products. Additionally, Company A actively supports in-house research and development related to the production of biofertilizers, with potential implications for a substantial reduction in costs associated with conventional phosphate and potash products in the future.

As a pioneer in adopting cutting-edge technology, the company has efficiently reduced production costs and enhanced productivity to some extent. The company generally asserts its commitment to climate mitigation and adaptation, aligning with key objectives suggested by the EU Taxonomy. It is important to note that, until recently, the company's emissions inventory covered only scopes 1 and 2. Therefore, an essential analysis of the quality and depth of the scope 3 emissions inventory is warranted.

3.4.3. Recommended climate action plan

In the assessment conducted by the investment team and by the established framework, it is acknowledged that the company has undertaken commendable measures to mitigate exposure to climate risks. However, the consensus is that additional efforts are required to meet optimal standards.

In addition to the favourable financial outcomes resulting from the expansion of its conservation agriculture program — driven by cost reductions and productivity increases — the company stands to gain significant advantages through associated reductions in greenhouse gas (GHG) emissions. A study authored by Northrup et al in 2020[84] proposes that the integration of digital agriculture, crop and microbial genetics, and electrification can enable producers to curtail emissions while simultaneously maintaining high productivity levels. This perspective is aligned with the findings of Al-Kaisi & Yin in 2005[85], as presented in

[84] Nothrup, D. L. et al (2022). Novel technologies for emission reduction complement conservation agriculture to achieve negative emissions from row-crop production.

[85] Tillage and Crop Residue Effects on Soil Carbon and Carbon Dioxide Emission in Corn–Soybean Rotations - Al-Kaisi - 2005 - Journal of Environmental Quality - Wiley Online Library

their paper titled "Tillage and Crop Residue Effects on Soil Carbon and Carbon Dioxide Emission in Corn–Soybean Rotations" (published in the Journal of Environmental Quality, available on Wiley Online Library). Their research suggests that adopting no-tillage practices, coupled with the utilization of bioinputs, has the potential to enhance the soil's ability to sequester carbon.

Upon conducting a preliminary evaluation of the company's climate-focused action plan, coupled with an examination of established best practices, we have formulated the recommendations detailed below:

Exhibit 5

Details on recommended Action Plan

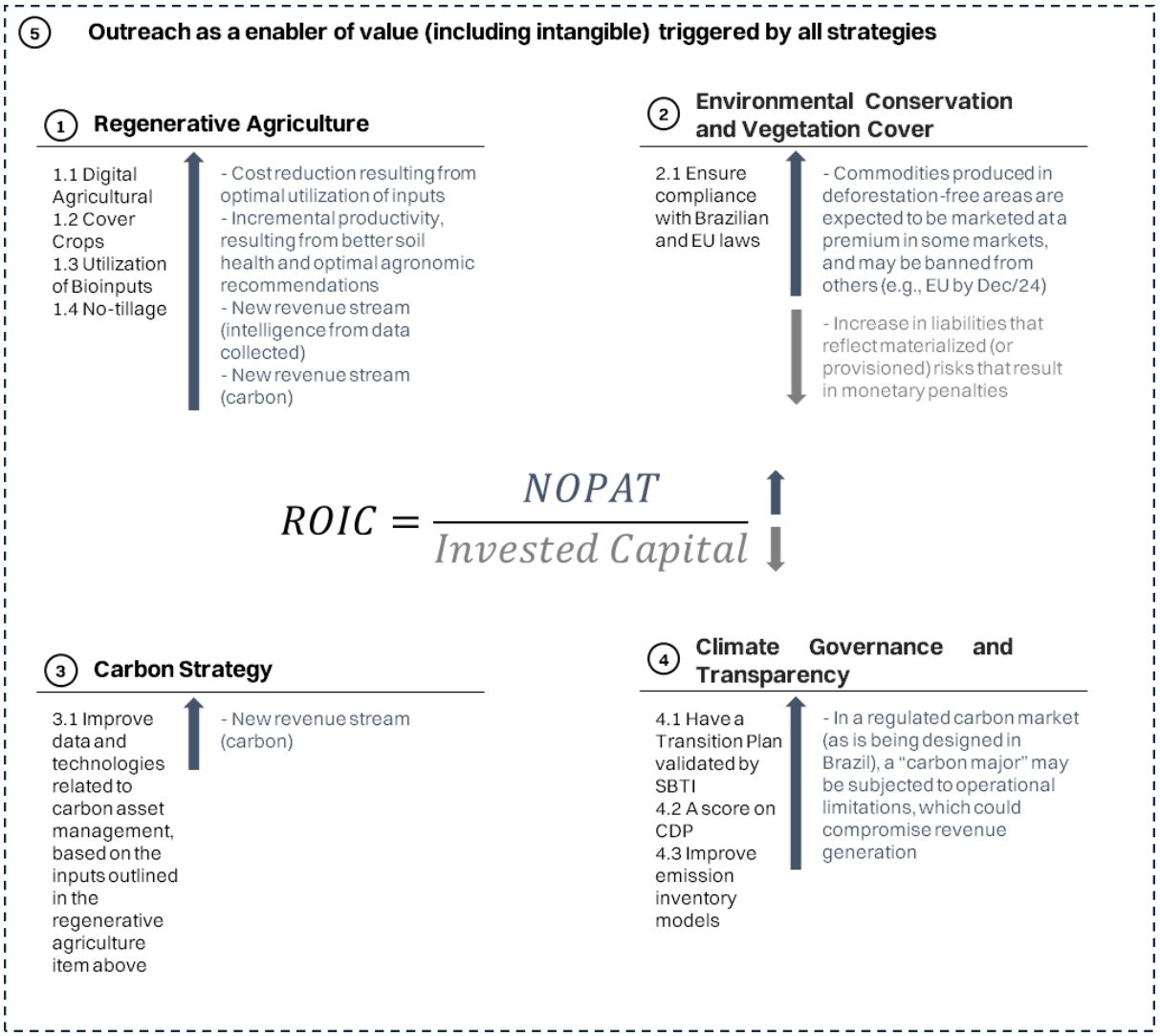
MACRO THEME	MACRO OBJECTIVES	MICRO OBJECTIVES	KEY ACTIVITIES
Regenerative agriculture	- Reduction of annual CO2 emissions by [•]% compared to the 2019 baseline. - [•]% reduction in costs, primarily resulting from the substitution of conventional inputs with bioinputs.	1. Replace fertilizers with biofertilizers - primarily P (phosphorus) and K (potassium). Enhance understanding of replacing nitrogen products with biological alternatives. 2. No-till farming: Measure the efficiency resulting from reduced soil tillage and assess the optimal coverage area for this strategy. 3. Cover crops in cultivated areas: Expand the number of varieties and mixes used. 4. Digital agriculture: Expand activities, including precision farming.	**Company to lead** 1+2+3+4. Provide information to the Fund and incorporate Fund inputs into related documents. 1. expansion of product portfolio 2. Measure carbon in no-tillage areas and control areas. Then guide agricultural activities that optimize low carbon emission or capture. 3. Evaluate trade-offs between cover crop variety and impact on productivity and ecological benefits. Then, guide decisions on cover crops based on economic benefits and ecological indicators (e.g., carbon). Consider cost-benefit analysis for expanding cover crops. 4. Measure carbon and biodiversity in areas with regenerative practices and control areas. **CTF to lead** 1.1. Monitor R&D progress. 1.2. Explore alternative references available in the market. 2.1. Evaluate cover crops and identify opportunities for improvement. 3.1. Assess the existing plan for [•]% by 2025. 3.2. Explore alternative references available in the market. 4.1. Support Comin data analysis and publication of results.
Environmental conservation and vegetation cover	- Ensure the minimum native vegetation coverage required by Brazilian law and refrain from clearing vegetation in new areas. - Optimize the ecological functionality of vegetation cover at the landscape level.	1. Ensure that all Company A's land parcels meet the minimum Legal Reserve (RL) requirements or have a compensation plan (e.g., Environmental Reserve Quotas - CRA) and the required Permanent Preservation Area (APP). 2. Implement ecological and spatial intelligence in the restoration of	**Company to lead** 1+2. Share relevant information with the Fund about new events related to legal non-compliance and lawsuits that may impact the achievement of the specified goal. 1.1. Present an overview of Legal Reserve (RL) and Permanent Preservation Area (APP) compliance at the farm level for Company A, including the status of licensing or Rural Environmental Registry (PRA) for areas deforested

		native vegetation areas: when applicable, recovery or reforestation should take place in areas with better connectivity to remnants of native vegetation, prioritizing farms located in biomes or landscapes with ecological vulnerability.	post-2008, following the recommendations of the Forest Code and state regulations. 2.1. If the company is interested in restoring vegetation cover, provide a plan and incorporate spatial optimization recommendations. **CTF to lead** 1.1. Analyse legal compliance information for areas deforested post-2008, including licensing or PRA, at the farm level, based on state PRA regulations, general Forest Code guidelines, and applicable jurisprudence, and provide inputs to the company. 1.2. Provide inputs for the recovery or compensation plan for farms with deficits developed by the company and to be considered for the farm to prepare the PRA or CRA. 2.1. Develop landscape maps with ecological indicators for the conservation of native vegetation fragments, including ecosystem services and vegetation connectivity on Company A's farms.
Carbon strategy	- To develop a carbon management strategy that measures and assesses opportunities in environmental assets related to carbon	1. Improve data and technologies related to carbon asset management, based on the inputs outlined in the regenerative agriculture item above	**Company to lead** 1.1. Provide data and clarifications to the Fund for the construction of the company's carbon strategy. 1.2. Share with the Fund data, analyses, documents, and projects related to engagement with past, present, and future carbon projects in which the company participates in any capacity. 1.3. Consider recommendations from the Fund regarding past, present, and future carbon projects. 1.4. Consider, for the development of the carbon strategy, the role of carbon assets in fulfilling the company's SBTI transition plan, including their role in terms of neutralization, insetting, and offsetting, based on applicable laws and regulations and international best practices and the UNFCCC Paris Agreement. 1.5. Share with the Fund relevant information about new events related to legal non-compliances and lawsuits that may impact the achievement of the specified goal. **CTF to lead** 1.1. Evaluate carbon market opportunities related to soil carbon stock assets and guide the company on how to incorporate these opportunities into its climate transition plan and business. 1.2. Propose a carbon strategy for the company. 1.3. Connect the company with other international players promoting carbon assets in the sector. 1.4. Evaluate the company's past and existing carbon projects and share insights, feedback, and recommendations
Climate governance and transparency	- Excellence in planning and transparency in climate management.	1. Have a Transition Plan validated by SBTI (Science-Based Targets initiative). 2. Achieve an "A" score in the CDP Climate Change assessment. 3. Improve emission inventory models and adapt them to the reality of Brazilian agriculture.	**Company to lead** 1+2+3. Review financial documents and corporate policies to incorporate necessary information according to the SBTI plan. 1+2+3. Prepare a sustainability report in line with the SBTI transition strategy.

			1+2+3. Include Fund inputs in the review of documents and the SBTI plan, as well as in greenwashing prevention practices. 1+2+3. Share relevant information with the Fund about new events related to legal non-compliance and lawsuits that may impact the achievement of the specified goal. 1.1. Conduct interviews and consultations for the development of the SBTI plan. 1.2. Publish the SBTI plan on the website. **CTF to lead** 1+2. Guide the company in using transparent language that avoids greenwashing while highlighting relevant information about progress in climate management. 1+2+3. Monitor new benchmarks, legislation, best practices, studies, litigation, and related trends and share them with the company for incorporation into its strategies and plans, as applicable, and for the continuous improvement of its processes and planning. 1.1. Guide the company regarding benchmarks for the development of the SBTI plan. 1.2. Review the SBTI plan. 2.1. Guide the company in reporting information to CDP, Sustainability Report, and updates to the Reference Form.
Outreach	- To become a reference in sustainable and low-carbon agriculture worldwide.	1. Showcase at COP30. 2. Mention in international press coverage and participation in events (as a relevant case study for combating climate change). 3. Be a case study for a renowned international academic institution.	**Company to lead** 1+2+3. Collaborate with the Fund in developing materials and approaches to promote Company A's climate results case for presentation at COP30, international press, and academic institutions' case studies, as well as any other opportunities identified by the Fund or the company, including providing relevant data and clarifications. 1+2+3. Share with the Fund communication strategies and activities related to the company's climate management, including addressing any doubts about the appropriateness of the approach from the perspective of greenwashing risks. 1+2+3. Share with the Fund relevant information about new events related to legal non-compliance and lawsuits that may impact the achievement of the specified goal. **CTF to lead** 1+2+3. Engage with other investors of the company in communicating their climate results. 1+2+3. Guide the company in greenwashing prevention practices. 1.1. Organize and propose an event or participation in an event during COP30 to present the Company A case results. 1.2. Develop and propose recommendations to the company for sustainability communication leading up to COP30 in Brazil. 2.1. Assess participation in industry events and working groups, such as the soy roundtable, and identify opportunities to showcase the Company A case. 2.2. Indicate, guide, and connect the company with opportunities for exposure in national and international press.

			3.1. Foster contacts and connections for the company with renowned academic institutions. 3.2. Promote scientific papers prepared by the fund's team related to Company A.

The action plan was developed considering the potential value creation for the business through the implementation of various suggested activities. This assessment considered how these activities may contribute positively to the business or prevent any potential value erosion.



4. fama re.capital

Fama re.capital is a Brazilian asset manager committed to ethical investments since 1993. We operate as a Responsible Investment Platform with the aim of accelerating the changes the world needs through high-quality products that deliver both financial returns and positive impact simultaneously.

Our approach is comprehensive incorporating ethical, environmental, and human rights considerations into our investment strategies. Recognizing the singular and complex nature of sustainability issues, we place significant emphasis on qualitative analysis. We acknowledge that these issues are unique to different 'realities' and may not be fully captured by numerical metrics alone, except for a few exceptions such as carbon metrics and others. By prioritizing qualitative analysis, we ensure a nuanced understanding of the diverse dimensions of sustainability and make informed decisions that align with our values and commitment to responsible investing.

We are proud to be certified as a B Corp and recognized as vocal advocates for responsible investing. We were pioneers in Brazil in establishing our own Stewardship Code and disclosing our stewardship efforts through a quarterly Stewardship Report. Additionally, we were the first Brazilian asset manager to measure and disclose the carbon footprint of our portfolio following best global market practices.

We play an active role in the global community of investors committed to sustainability. We are the only Latin American asset manager co-founder of the Net Zero Asset Managers' initiative (NZAM) and the only Brazilian member of the Nature Action 100. We have also participated in the development of relevant tools and frameworks such as the Taskforce on Nature-related Financial Disclosures (TNFD) and Forest IQ and have supported key local and international statements aimed primarily at the local government to raise its climate action and ambition. Nowadays, we are members of the PRI 'Sustainable Systems Investment Managers Reference Group' and the PRI 'Stewardship Initiative on Nature Signatory Advisory Committee'.

Our Climate-related efforts and commitments not only earned us a place as a finalist in the prestigious PRI Awards in 2022 but also garnered global recognition as a Case Study by The Investor Agenda. This recognition was based on our adherence to the rigorous framework of the Investors' Climate Action Plans (ICAPs) Expectations Ladder. Since 2021, our PRI report has served as a transparency tool for our net-zero commitment. Particularly through the Climate Change module, we can track progress and report on our climate transition plan, following the TCFD guidelines. In our 2023 PRI report, we earned a 5-star (the highest possible) score for the modules "Policy Governance & Strategy" and "Direct - Direct-Listed Equity - Active Fundamental".

Our dedication extends beyond financial investments. We make social investments through our NGO, FAMA Institute, established in 2010. The Institute supports causes related to human rights and the environment, demonstrating our commitment to contributing to a fair and more sustainable world.

Our founder has a long history of contribution to sustainability and third-sector organizations. He is currently an advisor to renowned institutions such as WWF Brazil, LIFE Institute, Instituto Ethos, and “Pacto pela Equidade Racial,” reinforcing our dedication to promoting ethical values and responsible practices across all spheres of society.