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Management Report

FAMA LatAm Climate Turnaround FIA IS

Second Quarter – 2025

Summary

Executive Summary

In the second quarter of 2025, the Climate Turnaround Fund (CTF) deepened its sectoral climate investment strategy, expanding its focus beyond direct emissions from agriculture and land use. The fund's entry into the sanitation sector, through the investment in SABESP, marks a new phase aimed at traditionally overlooked sectors with high decarbonization potential. The SABESP case illustrates how universal access to sanitation can serve as a structural driver for both climate mitigation and adaptation, particularly given the scale of emissions associated with wastewater treatment and the disposal of organic waste.

In addition, progress in engagement with portfolio companies demonstrates the fund's ability to influence high-impact strategic and environmental agendas, promoting regenerative practices, supply chain traceability, circular economy models, and low-carbon technological solutions. By integrating social, climate, and economic perspectives, the CTF reinforces its role as a catalyst for a just and resilient transition in the Brazilian economy.

Message from the CIO

In global climate change debates, the focus often placed on tropical forests – due to their importance as carbon sinks – tends to overshadow the role of water. Oceans, rivers, watersheds, and mangroves play a vital role in global climate regulation, with deep and far-reaching direct and indirect consequences for both economies and financial markets. Yet, the strategic relevance of water has remained peripheral in climate discussions and, importantly, in capital allocation for sustainable investments.

Oceans are the planet's largest natural carbon sink, absorbing around 25% of global CO_2[1] emissions through physical, chemical, and biological processes, including the solubility of atmospheric carbon and the photosynthetic activity of phytoplankton.

Moreover, oceans have a profound impact on global climate patterns through thermohaline circulation – a complex system that regulates temperatures and rainfall across regions. Disruptions to this circulation, driven by climate change and the resulting planetary warming and polar ice melt, trigger extreme weather events such as more frequent and intense storms, prolonged droughts, and climate phenomena like El Niño and La Niña, with direct economic consequences for agriculture, energy, insurance, and urban infrastructure.

The role of freshwater systems – watersheds, rivers, and aquifers – is equally strategic. These systems also shape the hydrological cycle and the planet's energy balance. The degradation of river basins intensifies extreme events such as floods and water scarcity, directly impacting food production, electricity supply (especially in Brazil, with its strong reliance on hydropower), and urban water security. In other words, the health of rivers and watersheds is a macroeconomic stability factor.

Sustainable management of these systems reduces operational and financial risks in water-dependent sectors such as energy, mining, food production, sanitation, and construction. Overlooking these risks is a strategic blind spot for investors and governments – one that will likely result in increasingly frequent, costly, and socially devastating emergency responses.

In Brazil, the urgency of this issue is even more pronounced. With an extensive coastline, a river-based energy matrix, and an urban population concentrated in coastal areas, the country is particularly vulnerable to climate change impacts related to water.

[1] The oceans represent the planet's largest natural carbon sink, absorbing about 25% of global CO_2 emissions through physical, chemical, and biological processes — including the solubility of atmospheric carbon and the photosynthetic activity of phytoplankton.

> The protection and restoration of ecosystems such as mangroves and riparian forests, and the efficient management of river basins, help mitigate physical risks, reduce future costs, and offer tangible investment opportunities in adaptation and resilience.

In our *socio-bioeconomy fund*, for instance, we explicitly recognize oceans and mangroves as strategic biomes for future investments, acknowledging that water protection – in all its forms – is central to a low-carbon economy. While we have yet to finance direct projects in these ecosystems, we are strategically positioned to explore opportunities that enhance both the environmental and economic value of these assets.

Additionally, through our *climate transition fund* (Climate Turnaround Fund), we recently invested in SABESP, highlighting the potential of water management as a vector not only for decarbonization but also for social justice. The investment thesis is linked to the universalization of sanitation services, efficient treatment of organic waste, protection of water sources, and restoration of riparian forests. These efforts generate clear co-benefits: reducing methane and CO_2 emissions, improving the company's operational efficiency, and enhancing the climate resilience of cities.

At this historic moment, Brazil has both the responsibility and the opportunity to lead a new paradigm in global climate policy. *By hosting COP30, the country can demonstrate that addressing the climate crisis requires putting water – both freshwater and marine – at the center of mitigation, adaptation, and investment strategies.*

Bringing rivers, watersheds, mangroves, and oceans into climate finance is not only a scientific and strategic correction; it is also a powerful lever to unlock capital at scale, drive innovation, and generate lasting economic value.

The future must be green – but also blue.

Fabio Alperowitch, CFA

Founder of fama re.capital

Fund Performance

In the second quarter of 2025, the LatAm Climate Turnaround FIA IS ("CTF") returned 4.4%, compared to 6.6% for the benchmark. *The performance of the fund's portfolio companies during the first quarter of 2025 reflected consistent signs of operational recovery and resilience in the face of sectoral and macroeconomic challenges*.

Marfrig stood out with strong appreciation driven by the consolidation of its merger with BRF, while SLC maintained solid growth supported by robust agricultural fundamentals. SABESP advanced in its privatization agenda and delivered strong financial results, reflecting efficiency gains. Banco do Brasil remained stable despite revised market expectations and increased caution in rural credit.

Throughout the first quarter of 2025, *SLC Agrícola reported strong operational results*, with a 38% increase in revenue compared to the previous quarter, while maintaining a gross margin of nearly 40%. A key highlight was *the acquisition of the agricultural producer Sierentz*, which added three leased farms to its portfolio and approximately 100,000 hectares of planted area – a 13% increase in its total farmland.

Soon after, the company also announced the acquisition of nearly 48,000 hectares of farmland it had already been operating, previously owned by Mitsui subsidiary Agrícola Xingu, including the Paladino (BA) and Pamplona (MG) farms. With this transaction, SLC consolidated its position as *the largest agricultural producer in the country in terms of managed farmland*, reaching approximately 833,000 hectares of planted area for the 2025/2026 season. These areas have already begun to impact the company's balance sheet as of the first quarter of 2025.

In April 2025, the company launched "Carbono Xingu," a strategic partnership between SLC, Agro Penido, and Agrorobótica. The program will initially cover 9,000 hectares at Fazenda Pioneira (MT), *implementing regenerative agriculture practices, measuring soil carbon sequestration, and certifying carbon credits* under the Verra VM0042 methodology. To measure and record carbon and soil fertility levels, the AGLIBS platform will be used – a technology developed by Agrorobótica in partnership with Embrapa Instrumentação, based on laser spectrometry and artificial intelligence, and the same technology used by NASA's Curiosity rover on Mars.

In June 2025, SLC's program “Turning Waste into Living Soils” was *recognized at the UN Global Compact Brazil Network's Ambition 2030 Forum, winning in the Circular Economy category.* The initiative involves composting production waste into biofertilizers applied on the company’s own fields, eliminating the need for landfill disposal and promoting both operational efficiency and productivity gains. According to Álvaro Dilli, SLC’s HR and Sustainability Director, the company increased its recyclability rate from 29% to 99.8% and has already produced 13,000 tons of biofertilizers, all used on its cultivated lands. To date, 11 units have adopted the zero-landfill model, and the goal is to extend the program to all units by 2029.

Regarding climate disclosure transparency, SLC's 2024 CDP report received a B+ rating, down from an A- the previous year. The CDP’s climate questionnaire was updated over the past year to include more detailed and complex requirements. The good news is that the company advanced in the Water Security and Forests categories, reaching an A- rating.

Our engagement with SLC has evolved significantly, structured around five working groups. Key topics include measuring the impact of the company’s regenerative agriculture practices, revising carbon neutrality targets and its zero-deforestation policy, improving sustainability disclosures and communication, and discussing the company's positioning for the 30th United Nations Climate Change Conference (COP30), to be held in November 2025 in Belém, Pará.

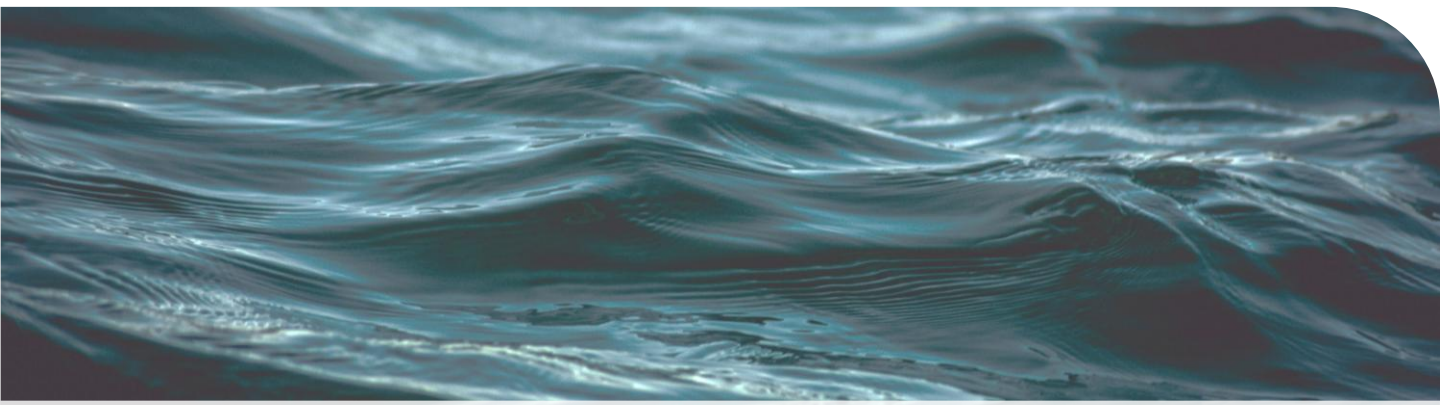

Image via Unsplash

Marfrig also delivered a strong quarter, with its share price rising 21%. Net revenue and adjusted EBITDA increased by 27% and 20.8%, respectively, compared to Q1 2024. The company's operating performance was further boosted by currency depreciation.

However, the market's positive reaction was primarily driven by the *announcement of the full acquisition of BRF* (Marfrig was already the controlling shareholder and, on May 15, 2025, proposed a share swap to fully integrate BRF into Marfrig).

The company published its 2024 Integrated Report, providing more robust and updated information on its zero-deforestation and traceability commitments. Marfrig achieved 100% monitoring and control of its direct suppliers and 88.8% of indirect suppliers in the Amazon, and 79.6% in the Cerrado – *moving closer to its goal of reaching 100% by the end of 2025.*

Our engagement with the company has progressed positively, especially through work on *financial mechanisms to support inclusion and traceability of small producers*, in partnership with the Dutch initiative IDH - Sustainable Trade Initiative. In addition, discussions are advancing on natural capital accounting and possible methodologies and opportunities for the company. Through the PRI Spring collaborative engagement, the company has also participated in dialogues on its leadership in biodiversity and zero-deforestation commitments, including the non-conversion of new areas.

Lastly, Banco do Brasil experienced a more challenging quarter compared to previous periods, due to both internal and external factors. Rising delinquency in agribusiness loans driven by adverse climate conditions — *a central theme of our climate transition strategy* — and new Central Bank accounting rules requiring increased provisioning for losses were the main areas of concern.

The bank reported an adjusted net income of R$7.4 billion in Q1 2025, with a return on equity (ROE) of 16.7%. This result represents a 20.7% decline compared to the same period in 2024 and fell significantly short of market expectations.

On the engagement front, we held important meetings to resume dialogue with the bank and align around the Climate Action Plan proposed by the fund. Under the PRI Spring collaborative investor initiative, we are also seeking additional information from the company to support a proposal for engagement, particularly on biodiversity and zero-deforestation commitments - topics that are central to the CTF's climate agenda.

The importance of the sanitation sector in the climate agenda

The sanitation sector is commonly associated with public health and urban development agendas – therefore viewed primarily through a social lens. However, its relevance in addressing the climate crisis is increasingly evident. When we consider that untreated organic matter discharged into water bodies continues to emit greenhouse gases such as methane, it becomes intuitive to recognize that universal access to water and sanitation services is a *core element of any decarbonization strategy*.

According to the Intergovernmental Panel on Climate Change (IPCC), wastewater and organic waste treatment systems account for approximately 3% of global methane emissions – a gas with a global warming potential more than 80 times that of CO_2 in the short term (IPCC, AR6, 2021). These emissions arise mainly from the anaerobic decomposition of organic matter in treatment plants and the inadequate disposal of sewage and waste.

Despite these impacts, the sanitation sector also offers *significant mitigation potential.* Existing technologies enable the capture and reuse of biogas, the production of biofertilizers, and the use of treated sludge as an energy or agricultural input. According to the International Water Association (IWA, 2021) [2], it is possible to convert treatment plants into *"net energy positive"* systems – generating more energy than they consume – particularly when integrated with anaerobic digestion and waste heat recovery.

In parallel, nature-based solutions (NbS), such as constructed wetlands, riparian vegetation restoration, and the rehabilitation of water source areas, offer combined *hydrological and climate benefits*. Studies show that natural or restored wetlands function as carbon sinks, accumulating organic matter and sequestering CO_2 in the soil (Moomaw et al., 2018, Frontiers in Environmental Science)[3]. In this way, sanitation plays an increasingly relevant role in territorial strategies for both climate mitigation and adaptation.

In the Brazilian context, the goal of achieving universal sanitation access by 2033 – established by the new legal framework (Law No. 14.026/2020) – represents not only a major social milestone, but also *a strategic opportunity to align the sector with Brazil's national climate targets under the UN Paris Agreement (Nationally Determined Contributions – NDCs).*

[2] IWA. Climate Smart Utilities.
[3] Lemos, C., & Porto, M. (2019). Greenhouse gas emissions from wastewater treatment plants: A review of mitigation strategies.

To that end, it is essential to incorporate decarbonization guidelines into waste, water, and sewage management plans, while also fostering *regulatory and financial innovation* – potentially including instruments such as carbon credits for avoided methane emissions or green finance mechanisms.

This link between universalization and decarbonization becomes even more urgent in light of the current infrastructure gap. According to 2022 data, *only 56%[4] of the Brazilian population had access to sewage collection, and just over half of that volume, 52.2%[5], was treated.* These figures underscore the long road ahead, especially in more vulnerable regions, where infrastructure deficits overlap with exposure to extreme events such as flooding, water contamination, and disease outbreaks.




Investing in sanitation through a climate-aware and integrated lens *not only reduces social inequalities but also strengthens community resilience and amplifies the positive impacts of the ecological transition.* Far from being a passive consumer of climate policies, the sanitation sector has the potential to become a *structural driver of decarbonization and climate justice* – especially when linked to the bioeconomy, green infrastructure, and sustainable urban planning.

[4] Brasil61. (2024, March 21). Saneamento básico: Brasil evolui apenas 0,2% no serviço de coleta de esgoto.
[5] Saneamento Hoje. (2024). Ranking do Saneamento 2024.

Our investment in SABESP

The first three investments of our fund focused on sectors with significant greenhouse gas emissions, reflecting the profile of Brazil's national emissions. SLC Agrícola, Marfrig, and Banco do Brasil operate in sectors directly linked to agricultural and land use activities. For subsequent investments, we have targeted either hard-to-abate sectors or industries that, while not representing a large share of the country's total emissions, include companies with high absolute annual GHG emissions – thus qualifying as "carbon majors" under the CTF [6] methodology.

The sanitation sector fits this rationale. Waste-related activities account for 4.5% [7] of Brazil's total emissions, of which 28% [8] stem from wastewater treatment. In 2023, SABESP emitted over 2.2 million tCO_2e [9], placing it among the largest GHG-emitting companies in the country. While the sector has historically been overlooked in terms of decarbonization potential, the implementation of Brazil's sanitation regulatory framework brings with it the mandate to universalize access to water and sewage services – an important driver of emissions mitigation.

SABESP is the second-largest sanitation company in the world, responsible for water supply and wastewater collection and treatment in 375 municipalities in the state of São Paulo, serving approximately 28 million people. Following its privatization, completed in July 2024, the company formalized its commitment to accelerate investment, improve efficiency, and expand service coverage – key elements aligned with a decarbonization trajectory.

The company has committed to invest R$70 billion by 2029 to meet its universalization obligations under its new concession contract – four years ahead of the target set by Brazil's sanitation legal framework – and R$260 billion by 2060.

This new concession contract – signed as part of the privatization process – includes mandatory universalization targets, efficiency metrics (e.g., loss reduction, productivity improvements, and service quality), and a tariff review mechanism with gain-sharing. In practice, the contract is structured to ensure that part of the synergies and efficiency gains achieved by the private operator are passed on to consumers through lower tariffs.

[6] Empresas que emitem mais de 1 milhão de toneladas de CO2 eq por ano, considerando emissões diretas e indiretas.
[7] iCare Brasil. (n.d.). A descarbonização do setor de saneamento.
[8] Liberal Amazon. (2024, abril 12). Emissões do Brasil têm maior alta em 19 anos.
[9] SABESP. (2024). Relatório de Avaliação – Ações Verdes B3.

With privatization, SABESP now holds a privileged position in the sanitation market. The company, which already had advanced technical indicators, is reinforcing its structure to implement cutting-edge water and wastewater treatment technologies. The new contract significantly expands its operating scope, enabling the company to pursue inorganic growth opportunities – something that was restricted under its former state-owned model. In addition, its unmatched size and scale allow for substantial operational efficiencies, supporting a competitive and efficient expansion plan.

Beyond its operational strength, *we believe SABESP is well positioned to lead the decarbonization agenda in the sanitation sector, which can take several forms.*

A recent study published in Nature[10] highlights a practical and cost-effective solution for transforming sewage sludge into two useful products: *clean hydrogen and nutrient-rich protein* suitable for animal feed. The process uses solar energy and combines simple steps – grinding, treatment with low-cost chemicals, and microbial processing. This approach makes use of nearly all the organic matter in the sludge while safely removing heavy metals.

This technology reduces pollutant emissions and energy consumption by more than 99% compared to traditional methods such as incineration or anaerobic digestion. It also runs directly on solar energy, with no need for grid connection. As renewable energy prices drop, this becomes a sustainable and affordable way to treat waste, generate clean energy, and produce food. The study estimates that with low-cost renewable electricity (around US$14/MWh, as already seen in parts of the European Union), the protein output could be cost-competitive with traditional feedstock, generating strong financial returns – up to 70% of the organic carbon is converted into sellable products, and hydrogen yields can reach a solar-to-hydrogen conversion efficiency of 10%.

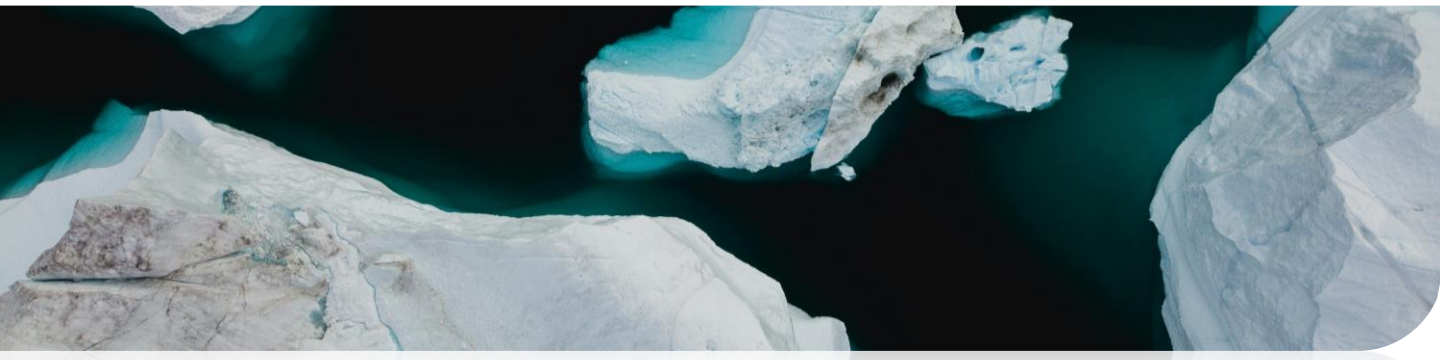

Image via Unsplash

[10] Nature. (2024). Wastewater treatment for a circular economy. Nature Water, 2, 618–620.

Other viable alternatives also offer strong return potential. *Biomethane capture*[11] in anaerobic digestion systems, for example, can generate up to 250 Nm^3 of biogas per ton of dry sludge – equivalent to around 1,500 kWh[12] of thermal or electric energy. *Biomass production* can yield inputs for fertilizers or animal feed valued at over US$300 per ton[13]. *Biochar*, produced through sludge pyrolysis, can sell for US$200 to US$600 per ton[14] and generate carbon credits for sequestering CO_2 in the soil. *With supportive policies and more mature carbon markets, these solutions could become even more profitable.*

In the context of universalizing sanitation services, SABESP plays a key role in reducing GHG emissions – particularly through expanded sewage collection and treatment. Without adequate treatment, wastewater – especially the resulting sludge – can emit large volumes of methane, a greenhouse gas with a global warming potential far greater than CO_2. In a scenario without universalization, maintaining 2022 levels of infrastructure and treatment, SABESP would emit 5.8 million tCO_2e between 2023 and 2029, and another 22.3 million tCO_2e from 2030 to 2050. *With universalization, emissions over those periods would fall to 1.5 million and 1.3 million tCO_2e respectively – representing emission reductions of 75% and 94%.*[15]

Given this context, *we believe SABESP has unique characteristics to become a leading player in the sector's climate transition*. Its scale, commitment to universalization and efficiency targets, and new governance model provide the foundation for adopting innovative, low-carbon technologies with strong financial return potential. Historically overlooked in mitigation strategies, the sanitation sector now emerges as an attractive frontier for climate investment, with monetization opportunities through green hydrogen, protein co-products, carbon credits, and renewable energy from waste.

Our allocation to SABESP reinforces our conviction that it is possible to invest in alignment with Brazil's decarbonization while targeting sectors traditionally outside the climate radar – yet with high transformation potential.

[11] Appels et al. (2008), Renewable and Sustainable Energy Reviews.
[12] WRAP UK (Waste & Resources Action Programme) — Energy from Waste reports.
[13] Razon & Tan (2011), Applied Energy — estudo sobre biomassa de microalgas.
[14] Lehmann & Joseph (2015), Biochar for Environmental Management.
[15] Sabesp. (2024). Relatório de Sustentabilidade 2024.

Moreover, *SABESP's core mission of providing access to clean water and basic sanitation is essential for enabling climate adaptation and resilience* – especially in cities – in the face of rising temperatures and growing risks of water scarcity, heat waves, and extreme weather events. By ensuring water supply and sanitation infrastructure for marginalized communities, SABESP also helps *reduce social vulnerabilities* that are – and will increasingly be – worsened by the climate crisis. For this reason, the company's activities are clearly aligned with the promotion of *climate justice*, and its ability to play that role will be tested and expanded as it works to achieve universal service coverage and address the physical impacts of climate change across its operating territory.

Our Climate Action Plan and Engagement with SABESP

Our initial engagement with the company began in October 2024 and advanced in close collaboration with the Sustainability team, centered around SABESP's new Sustainability Strategy – anchored on four key pillars:

1. Universal access to water and sewage services;
2. Protection and efficient management of natural resources;
3. Water security and climate resilience; and
4. Constructive and healthy relationships with strategic stakeholders.

The company quickly understood the engagement model proposed by the Fund and recognized the high value of the partnership, identifying a number of opportunities where the Fund's technical input and recommendations could support SABESP in advancing its climate agenda.

Reinforcing the collaborative approach that has shaped the Fund's engagement with all portfolio companies, our interaction with SABESP has been fluid and bilateral. As a result, we jointly developed a Climate Action Plan structured around four pillars – one of which was suggested by the company itself:

- → *Climate Strategy and Transparency :* Support the company in developing a comprehensive climate strategy and improving climate-related disclosures, including mitigation and adaptation components and a potential commitment to climate targets and a transition plan.
- → *GHG Emissions Mitigation :* Assist in designing emission reduction initiatives aimed at achieving net-zero operational emissions, including identifying potential revenue streams from avoided or removed emissions associated with the company's assets.
- → *Market Positioning:* Contribute to positioning SABESP in the market as a benchmark in climate-resilient and low-emission sanitation infrastructure, as well as a promoter of climate mitigation and adaptation outcomes for society—an ambition that aligns with the company's universalization goals
- → *Climate Justice:* Support the company in strengthening its engagement with vulnerable stakeholders to mitigate climate risks related to water access and sanitation services.

As with our other CTF portfolio companies, discussions with SABESP have been structured into dedicated working groups – one for each of the four pillars of the agreed Climate Action Plan.

It is worth highlighting that SABESP is one of the few companies in the world to establish a formal partnership with the United Nations Framework Convention on Climate Change (UNFCCC) to support its Secretariat in advancing the climate adaptation agenda, particularly through the "Resilience Frontiers" initiative. Other companies with similar partnerships include Microsoft, Adidas, and 3M. Through our engagement, we aim to help strengthen this high-level partnership and SABESP's role as an international benchmark in climate mitigation and adaptation in the sanitation sector.

In this first phase of engagement, our interactions aim to identify pain points and areas where the CTF team can offer support. After this initial mapping, we will define specific and joint actions between the company and the Fund. In the third phase, those actions will be implemented and monitored.

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