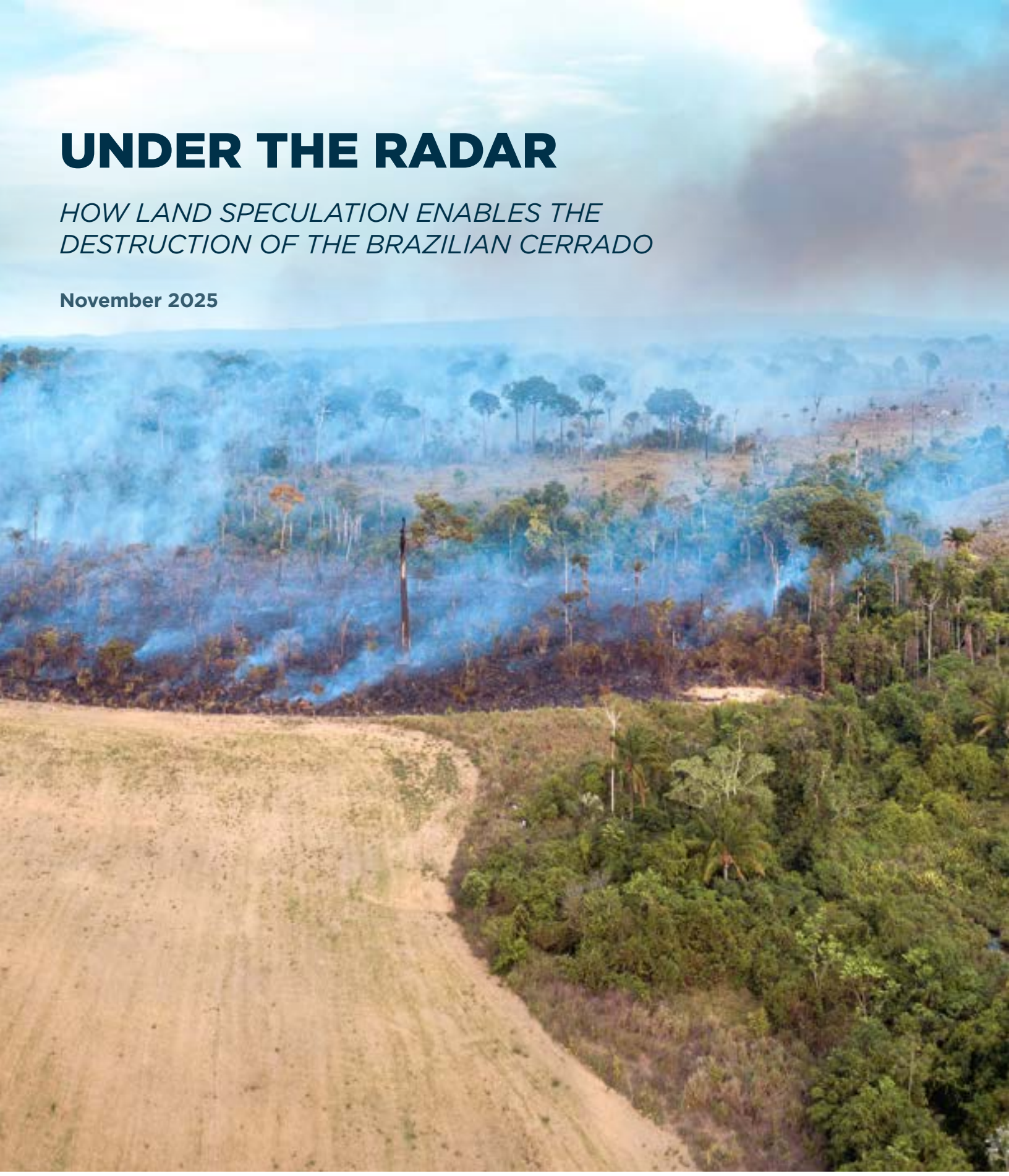
UNDER THE RADAR

HOW LAND SPECULATION ENABLES THE DESTRUCTION OF THE BRAZILIAN CERRADO

November 2025



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Created in 1999, Rede Social de Justiça e Direitos Humanos (Network for Social Justice and Human Rights) works closely with Indigenous, quilombola (rural Afro-Brazilian), and peasant communities, providing legal defense, grounded research, public education, and advocacy to protect land rights, biodiversity, and ecological food production. Its analysis of the social and environmental impacts of the financialization of agriculture and farmland is channeled back to the impacted communities, equipping them to defend their land. Rede Social has successfully worked on several landmark legal cases to guarantee human rights of social movements in Brazil. www.social.org.br

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Preface

This is the fourth in a series of reports from Friends of the Earth U.S., ActionAid and the Brazilian Network for Social Justice and Human Rights exposing the role of multinational corporations in the increasing destruction of the Brazilian Cerrado. While the details documented in each report are quite intricate, the pattern of destruction is clear: the overarching driver is expansion of agribusiness plantations, driven in turn by financialization of land and commodity crops. The underlying logic is what, in political economy, is called accumulation by dispossession; that is, the large-scale transfer of common land and public assets into private hands. Violent actors and financial interests drive people off their land and turn it over to agribusiness companies which amass wealth by committing ecocide through deforestation, land degradation and agrichemical poisoning.

This trend will not be overcome merely through enhanced corporate social responsibility. While agribusiness may – and must – adopt practices to become more sustainable, such as Zero Deforestation commitments; and while financial services may – and must – adopt due diligence policies to become more responsible – we believe this series of exposés makes it clear that the scale of the ecocide and land-grabbing in the Cerrado is anything but sustainable and responsible. As this report's recommendations should make clear, reversing the destruction will require fundamental transformation, beginning with a halt to the expansion of the plantation model of agribusiness and the financialization of land.

The previous reports in this series, in English, can be found here: **https://foe.org/resources/cerrado-report**

EXECUTIVE SUMMARY

Photo: ActionAid

Brazil's Cerrado is in the grip of a deforestation crisis, driven in large part by the expansion of agribusiness. This report reveals how the U.S. pension giant TIAA has played a key role in converting vast tracts of land in western Bahia to soy and cotton plantations, contributing to increasingly grave impacts on local communities and the environment. Shrouded by its complex corporate structure, TIAA appears to have exploited loopholes in Brazil's foreign land ownership law, allowing it to further expand across the Cerrado, fueling land-grabbing and ecocide.

The Brazilian Cerrado is the world's most biodiverse savannah and is critically important for ecological, cultural, and economic reasons. It is home to Indigenous, quilombola (rural Afro-Brazilian) and peasant communities who possess valuable knowledge of this unique biome and protect its biodiversity with historical cultural practices – and who also possess unique and inalienable rights under Brazilian law and numerous United Nations conventions. The Cerrado is home to 5% of the world's plant and animal species, with over 12,000 plant species, of which nearly 40% are endemic. A crucial water source, the Cerrado is the source of some of South America's most important rivers. It also plays a key role in mitigating climate change by storing significant amounts of carbon in its deep root systems and soil. Protecting the Cerrado is crucial not only for Brazil but also for the planet and humanity, influencing global biodiversity, water cycles, and climate regulation.

Yet despite its importance, the Cerrado is one of the most threatened ecosystems in Brazil, with over 50% of its original area already deforested or converted to agriculture. Within the Cerrado, the MATOPIBA region (acronym for the states of Maranhão, Tocantins, Piauí, and Bahia) is the current frontier for Brazil's soy expansion, where land grabbers are destroying large swaths of native vegetation to establish large industrial monoculture plantations.

The expansion of agribusiness in the Cerrado is driven by the farmland speculation of transnational financial and trading corporations that have connections with local business elites. TIAA is a key player both in Brazil and globally, targeting over 3 million acres of land in several countries.

This report uses land ownership data, remote sensing data, field research and testimonials from the ground to contribute to ongoing research into the impacts of farmland speculation in MATOPIBA. Data sources are provided in the report's Annex 1.[1]

TIAA's land acquisitions have been scrutinized for over a decade with concerns about forest destruction and alleged rights violations. The company and its business partners have been investigated for potentially violating Brazil's land ownership laws. In spite of this, TIAA has not taken sufficient action to mitigate and remedy these alleged abuses, and appears to have devised a strategy to expand and acquire land throughout Latin America alongside Radar, its key partner in Brazil. Its new subsidiary, Radar Gestão de Investimentos, formed in 2024, is taking over TIAA's land holdings in Brazil and appears poised to expand even further. This must be investigated in light of Brazil's legal restrictions around foreign land ownership.

TIAA published its No Deforestation policy in 2018, at a time when its lands were already practically completely deforested, as this new research on its practices in Western Bahia has ascertained. SLC, TIAA's key partner in the Cerrado, is historically responsible for deforesting vast areas of land to establish its own farms, though its "no deforestation" policy, adopted in 2021, appears to have slowed this trend.

TIAA has been made aware of these concerns and its responses are integrated throughout this report and in Annex 2. While TIAA represents its farmland management as responsible, the alleged impacts of its landholdings in the Cerrado contribute significantly to the broad trend of harmful conversion of the Cerrado landscape. Deforestation in the Cerrado increased by 68% in 2023 compared to the previous year, with the highest deforestation rate in the state of Bahia. Agribusiness companies play a central role in fueling this process.

This report also highlights the dearth of regulations in both Brazil and the United States to prevent companies and financiers from expanding land grabbing and deforestation. The Brazilian and U.S. governments have a responsibility to hold companies accountable for deforestation, increased greenhouse gas emissions, land-grabbing, and human rights violations of Indigenous and peasant communities.

Photo: ActionAid USA

On TIAA's Ownership of RADAR

The ownership structure of TIAA, Nuveen and Radar presents challenges to understanding their relationships. To clarify: In its annual sustainability reports,[2] TIAA describes its subsidiary Nuveen Natural Capital as being the manager of Radar land, describing the company as "Nuveen Natural Capital's Radar"[3] and noting that "Radar is a land management company jointly owned by Nuveen Natural Capital and Cosan Group."

A key to all of this is explaining that while Radar is legally a joint venture of TIAA with the Brazilian company Cosan, Radar was restructured in 2016 so that TIAA owns the preferred shares in Radar, while Cosan owns the majority of common shares. As explained in a 2017 Brazilian news article entitled "Foreigner circumvents restriction and invests in land,"[4] TIAA's preferred shares used to constitute 97% of the capital in the company, giving it preference in the distribution of profits from Radar and its subsidiaries, while Cosan's stake in common shares make it legally a Brazilian company and give it preference in business decisions, even though Cosan's capital was only 3%. Cosan's financial results report for the 1st quarter of 2025 shows that Cosan owns half of Radar and TIAA the other half,[5] just as Cosan owns half of Radar Investment Management and Nuveen owns the other half.[6]

Thus it appears from the amount of capital reportedly invested in Radar by TIAA and the way TIAA takes credit in the reports, that, for practical purposes, TIAA can be described as the de facto owner and manager of the land. For example, TIAA/Nuveen Natural Capital's 2025 Sustainability Report says that "Nuveen Natural Capital manages 899,163 acres for TIAA in Brazil (down from 1,001,294 in 2024)"[7].

Therefore, throughout this report, when we refer to TIAA's stake in land ownership, we are referring not necessarily to land owned directly or solely by TIAA, but rather to TIAA/Nuveen's corporate network, which includes Radar and its joint ventures/subsidiaries.

Defining Land Grabs

The term "land grab" is a broad concept used in academic literature and in many contexts of land conflict and injustice.[8] This report uses land grabbing to refer to the unjust acquisition or control of land that harms communities and ecosystems. Land grabs do not always involve illegal activity; in this report, when we allege that an entity may benefit from or be linked to land grabbing, we are not alleging a specific illegal activity.[9] Regardless of legal questions, generally speaking, land grabbing increases land inequality and denies access to land for people who need it for their livelihoods.

Land grabbers often take advantage of communities whose legitimate customary tenure rights to land may not have been recognized by a country's legal system.[10] In Brazil, land grabbing often involves fraudulent documentation, violence or threats, but not always. Land grabs are often led by corporate actors and individuals working together to control land, water, profits, and other resources at the expense of communities who live, work on and use the land.[11] Some land grabs are for purposes of land speculation that makes land a financial asset in order to profit from its limited availability, while destroying other meaningful relationships of people to land.[12] Land grabs for industrial agriculture do not increase food security, because with the right access to resources small diverse farms can make food more widely accessible where it is needed.[13] Concentrating control of land into fewer hands to produce international agricultural commodities like animal feed and biofuels is wasteful, harmful to the planet and threatens people's access to livelihoods and food.

KEY FINDINGS[14]

Photo: Shutterstock/Angela_Macario

- TIAA through its Brazilian subsidiary, Radar, owns approximately 40,000 hectares of land across various municipalities in Western Bahia – an area more than six times the size of Manhattan.[15] Most of this land directly owned by Radar was deforested prior to Radar's acquisition. However, much of this land is within farms operated by multiple entities. On farms owned by multiple landlords in Western Bahia, including Radar, 41,200 hectares (ha) have been deforested, of which 32,704 hectares have been deforested since 2018 – the year in which TIAA's asset manager, Nuveen, published its No Deforestation policy. Notably, on plots directly owned by Radar, investigations found deforestation of 18,774 hectares since 2012 and 208 hectares since 2018.[16] However, given that much of this land is within farms operated by multiple corporate entities, it is challenging to ascertain which specific acts of deforestation may be carried out by which corporate entities. What is clear is that, while deforestation on plots directly owned by Radar has indeed decreased, – indeed, these plots had been almost entirely deforested by 2018 – TIAA's No Deforestation policy has not prevented deforestation on all productive units in which TIAA holds a stake.[17]
- In 2024, TIAA and Cosan formed a new subsidiary in Brazil, Radar Gestão de Investimentos. Radar Gestão de Investimentos now controls massive landholdings across Latin America and appears poised to exploit these landholdings in order to capture carbon finance through Brazil's newly established carbon credit market.
- TIAA and Radar's key partner in the Cerrado, SLC, adopted a No Deforestation policy for its landholdings in 2021. Nonetheless 14,000 hectares – equivalent to the size of San Francisco – have been deforested on plantations part-owned or controlled by SLC in Western Bahia.
- 1,509 fire alerts have been detected through satellite monitoring on farms partially owned by TIAA in Western Bahia since 2020, and an area twice the size of greater New York City – 75,964 hectares – has been burned on farms owned partially by TIAA in Western Bahia since 2020.[18] This figure is almost double the number of hectares that TIAA owns, due to areas being subject to fire alerts repeatedly over several years.[1]

1 Fire alerts referred to in this report are from the NASA VIIRS Alert System.

- 440 fire alerts have been detected through satellite monitoring on farms part-owned or leased by TIAA and Radar's key partner in Brazil's Cerrado, SLC, since 2020; according to fire alert data, an area almost the size of Sacramento in California – 29,813 hectares – has been subject to fire alerts on plantations part-owned or controlled by SLC since 2020.
- Deforestation in the Cerrado increased by 68% in 2023 compared to the previous year – surpassing deforestation in the Amazon for the very first time – driven by activity in the MATOPIBA region, which accounted for three out of every four hectares deforested in the Cerrado in 2023 (74%). Bahia has the highest rate of deforestation in the Cerrado**.**
- In 2010, TIAA acquired parcels of land involved in complex legal proceedings related to land-grabbing, prompting a major investigation. Despite TIAA stating that it had sold both the plantations involved, research by Rede Social showed that, at the time this report was written, there were still parcels of land in the disputed area, totaling around 10,000 hectares, registered in Brazil's agrarian reform agency INCRA's platform in the name of two TIAA subsidiaries.
- The operations of TIAA and SLC contribute to a trend of green land grabbing in Western Bahia, where plots within the territory critical to the lives and culture of customary communities have been grabbed by corporations as "legal reserves" – protected forest areas that are mandated for landowners farming the land.
- TIAA's financial speculation in land and the expansion of its agribusiness in Western Bahia, by driving up land values in the area, contribute to a trend of increasing deforestation and destruction of native vegetation, alongside violent land-grabbing and violations of communities' rights.

In light of these findings, the following action is urgently required:

In Brazil, TIAA should ...

- Meet with local rights holders to understand the reality of their experience and address their grievances.
- Enact a moratorium on all new operations in farmland and agribusiness markets and seek to cap and reduce its landholdings portfolio.
- Increase efforts to stop the ongoing deforestation and human rights violations against rural communities in the areas where it operates or has partnerships, and provide concrete remedy and compensation for any communities that may have been harmed by its operations.
- Respond to the demands of Indigenous, quilombola, and peasant communities affected by its landholdings, including where legal cases remain unresolved and community land rights claims are still pending formal recognition and titling processes.
- Terminate commercial relationships with companies that do not have robust policies or processes in place to identify, mitigate and prevent deforestation on their landholdings and/or that are operating on properties claimed or contested by Indigenous and peasant communities in the absence of Free, Prior, Informed Consent (FPIC), including legal reserves.
- Commit to full transparency about which lands it has acquired and return lands to any rights-holders with legitimate claims in cases of land rights violations.

Asset owners and pension funds in the United States, European Union, and Canada should reconsider their contributions to TIAA land funds until TIAA has undertaken these recommended actions and addressed all concerns that its land funds may be causing harm to communities in Brazil and beyond; TIAA participants should urge TIAA to halt its farmland operations and disband its Brazilian business.

The U.S. government[2] should ...

- Establish national ESG criteria which outline what qualifies as ESG investments to ensure consistency and prevent greenwashing. U.S. standards should be aligned with globally recognized frameworks like the UN Guiding Principles on Business and Human Rights and the OECD Guidance for Multinational Enterprises on Responsible Business Conduct. Companies should be required to take a "double materiality" approach by reporting on the financial risks of social and environmental factors for their operations, as well as on the impacts of their corporate activities and supply chains on the environment and society.

- Develop a sustainable finance taxonomy. Following in the footsteps of the EU and many other jurisdictions, a Sustainable Finance Taxonomy should be developed to classify economic activities that are sustainable, as well as activities that are unsustainable. The taxonomy should be aligned with other major national and regional taxonomies to allow interoperability and usability. It should encompass the key social and environmental issues and contain a list of unsustainable activities and Technical Screening Criteria (TSC) for all biodiversity-risk sectors. This would allow investors to identify which companies are meeting environmental standards and developing business strategies which avoid deforestation and biodiversity loss, as well as to discourage land speculation. Currently, there are no plans in the U.S. to launch a Sustainable Finance Taxonomy.[19]

- Mandate ESG, Foreign Land Disclosure Requirements, and ownership transparency. Pension funds should publicly disclose how ESG factors are integrated into their investment processes through standardized reporting. Require U.S. entities investing in foreign land to disclose details about the location, size, purpose, and intended use of the investment. Mandate disclosure of the ultimate beneficial owners of entities involved in foreign land acquisitions to prevent misuse or concealment.

- Create a dedicated agency or task force under the Department of Labor or SEC to oversee ESG compliance for public pension funds, which should implement regular audits and penalties for noncompliance to maintain accountability. SEC and criminal authorities should act if investors do not meet the requirements in existing regulations and the new regulations proposed. Fines and sanctions such as holding board members accountable, (temporarily) revoking a license, or not allowing market access for certain financial products should be used.

- Enforce due diligence requirements. Mandate rigorous and independent environmental and social impact assessments from large companies, including financiers, before approving investments to evaluate potential adverse effects on ecosystems and local populations. Conduct a corruption risk analysis to ensure investments are not linked to corruption, fraud, or unlawful land acquisition practices in the host country. The requirement should involve the identification of the most important social and environmental impacts caused by, contributed to, or directly linked to the company and the value chain. After identification, the company should act to stop or mitigate these impacts and provide remedy. Implementing these measures would enable investors to identify corporations that have adopted reliable actions to address environmental and social issues. And it would force large investment firms to develop such strategies themselves.

- Impose limits on land acquisitions in regions with significant cultural, historical, ecological, or Indigenous value.

- Establish a federal agency or task force to monitor and enforce compliance with foreign land investment regulations. Conduct periodic reviews of U.S. foreign

2 The current political context in the U.S. likely puts these recommendations out of reach at the time of this publication. Nonetheless, these recommendations represent what a responsible government should, can and must do to ameliorate the harms detailed in this report.

land investments to ensure alignment with legal and ethical standards.

- Foster accountability by creating and maintaining an accessible database of U.S. foreign land investments for the public and the media. Engage NGOs and local organizations in monitoring and reporting on the impacts of U.S. investments.

Brazilian government institutions should ...

- Immediately suspend TIAA and SLC's environmental authorizations to operate in Western Bahia and investigate the companies' environmental authorizations and operations. If evidence of illegal activities is found, prosecute those responsible and cancel the companies' concession contracts.
- Immediately halt all deforestation in the region and in landholdings related to TIAA/Radar and SLC.
- Ensure land rights mechanisms for affected communities, including civil society oversight. This process must meet demands from rural communities to protect their land, forests, and water sources, as well as compensation paid to them for damage caused by agribusiness.
- Cancel all CARs (Cadastro Ambiental Rural – Rural Environmental Registries) of TIAA's properties and other agribusiness corporations in the region, as these self-reported data often contain overlapping areas of rural communities and are frequently used by land-grabbers to secure bank loans.
- INCRA (Brazilian Institute for Agrarian Reform) should cancel all certifications in SIGEF (Sistema de Gestão Fundiária – Land Management System) that overlap the delimited territories of rural communities, as these records are often used by digital land-grabbers to prevent and delay the certification and titling of land by communities.
- Regarding the acquisition of farmland by foreign corporations, INCRA should be transparent about its investigation processes and criteria. It also needs to improve investigation mechanisms to follow the law that limits foreign land ownership in Brazil.

Photo: Teresa Paris

BRAZIL'S CERRADO: A VAST ECO-PARADISE UNDER THREAT

A global biodiversity hotspot and the largest savanna in the world, the plains of Brazil's Cerrado are home to giant anteaters and armadillos, maned wolves, and Hyacinth Macaws.[20] Around 200 species of mammals and 860 species of birds live alongside diverse peasant, quilombola (rural Afro-Brazilian), and Indigenous communities.[21]

Location of MATOPIBA and the Cerrado biome in western Bahia, Brazil.

Bahia lies in the northeast of Brazil and is the country's fifth largest state.[22] Only a few decades ago, nearly all of Brazil's western Bahia, a flat plain approximately the size and shape of Portugal, was covered in this unique tropical savanna.[23] Its vast underground root system forms a complex subterranean network, serving as a powerful carbon sink.[24] Deforestation and land use change is Brazil's single biggest contributor of greenhouse gas emissions, so protecting the Cerrado is vital in terms of Brazil meeting its climate goals under the Paris Agreement.[25]

Bahia is part of the MATOPIBA region, which also includes the states of Maranhão, Tocantins, and Piauí, and is Brazil's most recently targeted region for agribusiness expansion. From the 1960s, soy plantations began to move northward from southern Brazil, and within a few decades, the MATOPIBA region became the epicenter of Brazilian agribusiness expansion. Half of the Cerrado's forest was lost to deforestation and replaced by mono-cropping of agriculture commodities.[26] Soy monocultures currently occupy over 4% of Brazil's entire territory, with half affecting the Cerrado biome.[27] The scale and pace of the Cerrado's recent deforestation is of historic proportions: More land has been deforested in the past 20 years – close to 13 million hectares, an area larger than the state of Pennsylvania – than in the previous 500 years.[28]

Since 1990, around a quarter of western Bahia has been converted to industrial crops.[29] As a result, Brazil is now the world's largest producer of soy and second-largest exporter of cotton. The majority of soy is exported to Europe and China for animal feed – indicative of the growing global demand for meat and dairy products. But global trade and consumption are not the only drivers of land appropriation and environmental destruction: Financialization of land and a resulting trend of land speculation have led some of the world's largest pension funds to plough billions into buying farmland in the Cerrado, including the Teachers Insurance and Annuity Association, commonly known as TIAA, the $1.2 trillion pension fund for teachers and civil servants across the United States.[30]

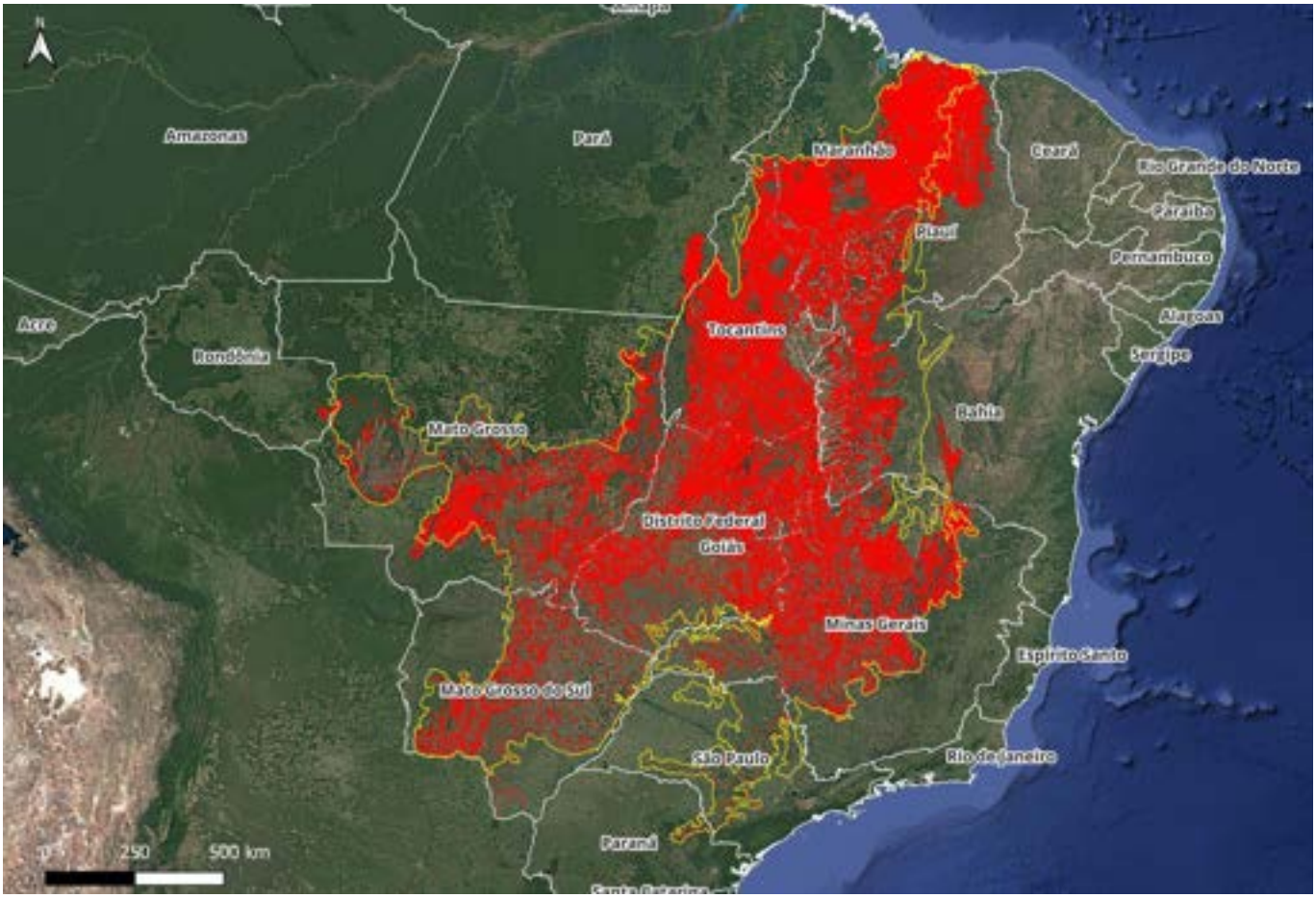
The expansion of agribusiness in the Cerrado is linked to farmland speculation, which is stimulated by the operations of transnational financial and trading corporations that have connections with local land-grabbers. Alongside deforestation, impacts include water pollution, drought, pesticide poisoning, and violence against communities, often by armed militias. The entire production chain, which is connected and organized through financial mechanisms, has responsibility for the serious impacts from this process, including on the environment and society.

MapBiomas is a multi-stakeholder project that analyses Brazilian territory transformations based on the annual mapping of land cover and land use. Data recently published by MapBiomas shows that more than half of the area area deforested in Brazil in 2023 occurred in the Cerrado. As the country's two largest biomes, the Amazon and the Cerrado together represent 85% of the country's total deforestation; however, deforestation in the Cerrado has surpassed deforestation in the Amazon for the first time. Deforestation in the Cerrado increased by 68% in 2023 compared to the previous year, driven by agribusiness activity in the MATOPIBA region which accounted for three out of every four hectares deforested in the Cerrado in 2023 (74%). Bahia has the highest rate of deforestation in the Cerrado.[31]

What's more, the MapBiomas report states that 97% of deforestation across Brazil is driven by land conversion for industrial plantations, while 93% of detected deforestation is associated with some form of irregularity and/or illegality.[32]

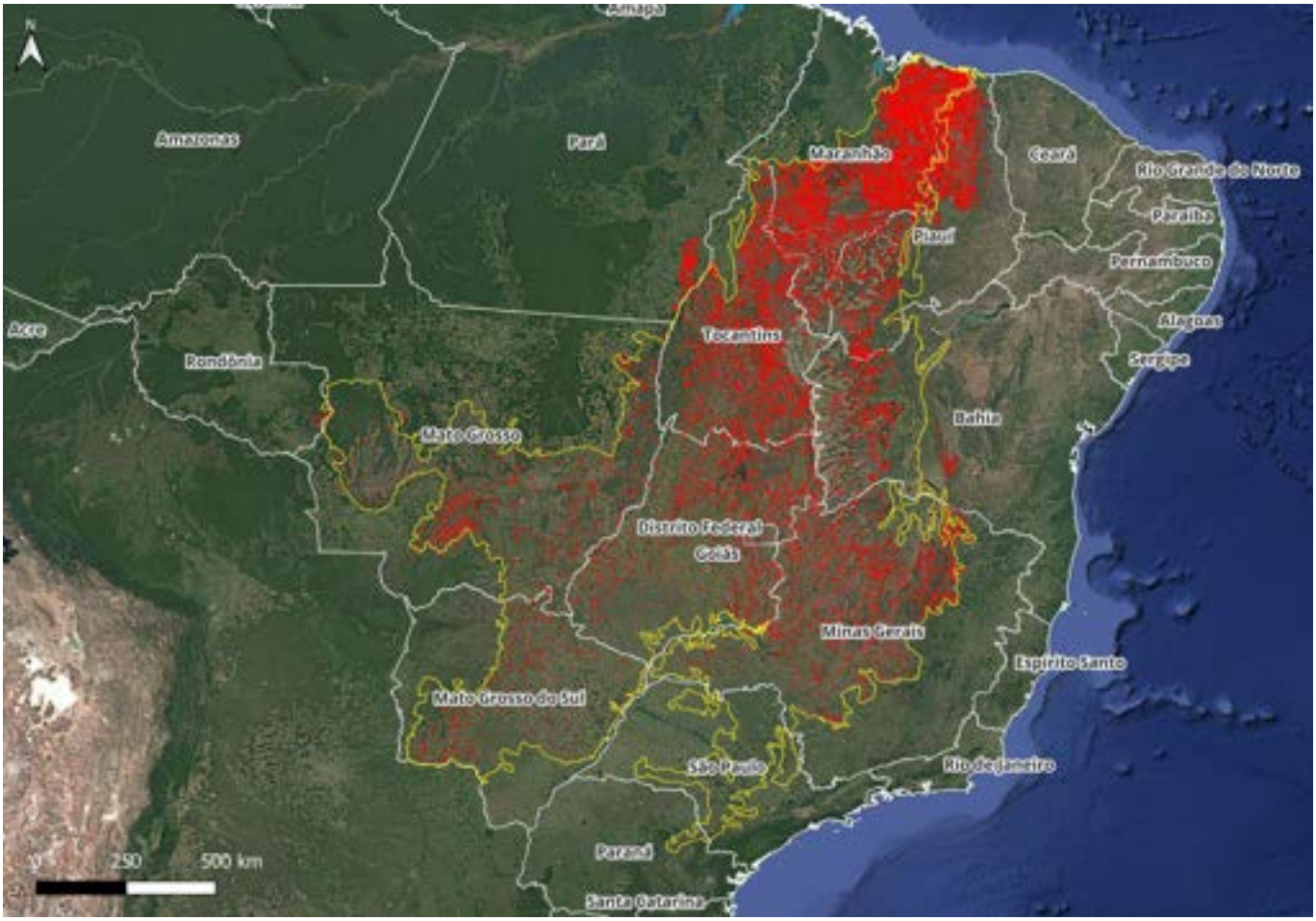
Areas that haven't yet been deforested are fragmented and under deforestation pressure for conversion into yet more agribusiness plantations. While the eyes of the world watch on with horror year after year as the Amazon burns, the Cerrado is being silently destroyed, even more threatened and fragmented than the Amazon. A recent study shows there's still a chance to save much of its rich biodiversity – but it also warns that the "window of opportunity is closing fast." Today, just over half of the region is still covered with native vegetation.[33]

Water consumption in the Cerrado has soared in parallel, due to water-grabbing by agribusiness plantations that use massive



Deforestation in the Cerrado, 2018-2024

Source: AidEnvironment



Deforestation in the Cerrado, 2024

Source: AidEnvironment

irrigation systems during the dry season. This industrial agricultural expansion is causing the pollution and destruction of water sources in Brazil. The Cerrado is an essential source of water and crucial for regulating 40% of Brazil's freshwater, yet it's facing its worst drought in 700 years, according to a 2024 study.[34] Its aquifers are losing water faster than they can replenish, and rivers are shrinking. Twelve of Brazil's major river basins and three aquifers – the Guarani, Bambuí, and Urucuia – all rely on the Cerrado as a source for much of their water. The rural communities living and farming in the watershed area of the once vast São Francisco River are worried about whether they can still rely on the diminishing supply for their own water needs.[35] The Cerrado also provides water for cities and municipalities, as well as energy generated by hydropower which provides 80% of Brazil's electricity. The Paraná, São Francisco, and Tocantins river basins in the Cerrado are all used for hydropower production. The sector is vulnerable to water supply shocks: Shortages and droughts can cause spikes in electricity prices and can further exacerbate conflict already driven by the establishment of large dams for the energy sector. Conflicts over water in the Cerrado will only increase as the region continues to get hotter and dryer due to climate breakdown.[36]

Photo: Teresa Paris

HOW TIAA AND RADAR OPERATE IN WESTERN BAHIA

Photo: Shutterstock/JHVEPhoto

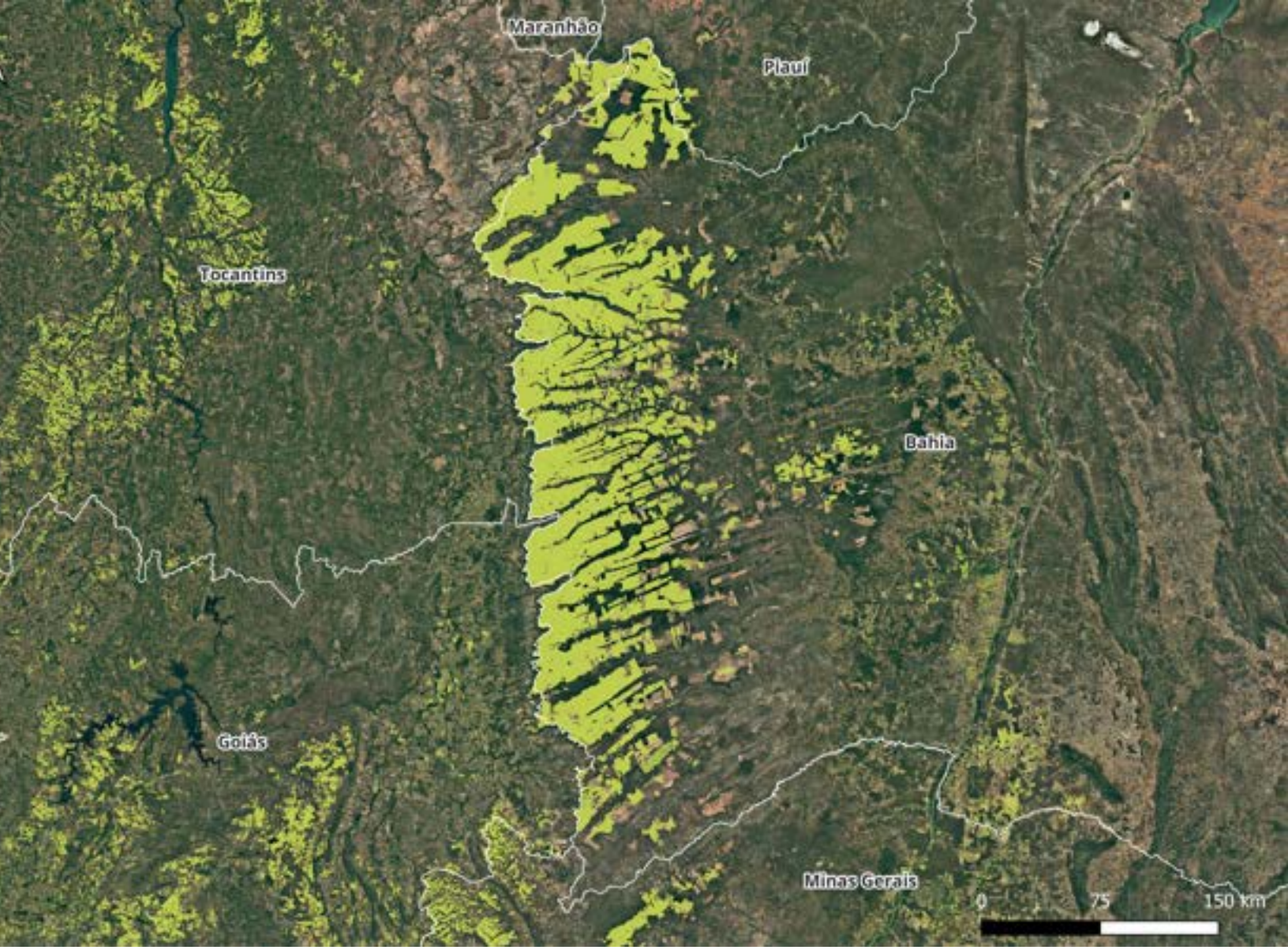
TIAA is one of the largest pension funds in the United States, and one of the largest investors in fossil fuels and agribusiness – two of the greatest contributors to climate breakdown. The pension fund giant has an estimated $33 billion invested across the two sectors.[37] Nuveen Natural Capital is a land-focused asset manager and a wholly owned subsidiary of TIAA. Through Nuveen, TIAA's complex of companies has bought up over 3 million acres of land across 10 countries, making it one of the biggest institutional farmland owners in the world.[38] In a June 2025 report by FIAN International documenting how the accumulation of vast amounts of land by a small group of global corporate landowners is fueling inequality and accelerating the climate crisis, TIAA is listed as the seventh largest institutional landowner worldwide.[39] Its land portfolio in Brazil, where it has targeted 1 million acres, holds some of its most contentious acquisitions.[40]

Around the time of the financial crisis in 2008 and the collapse of the housing market in the United States, many financial corporations turned to targeting farmland. TIAA was one of many financial corporations that started buying up farmland in Brazil, targeting the northern Cerrado, and specifically the MATOPIBA region. Like many regions across Brazil, land governance and rule of law are weak across the MATOPIBA region, as are environmental protections.[41]

Over the years, the Network for Social Justice and Human Rights has published a series of reports documenting land-grabbing and deforestation in the Cerrado.[42] One of the first companies to engage in land speculation in rural Brazil was Radar Propriedades Agrícolas. Radar was the result of a joint venture agreement between Cosan – a Brazilian sugarcane agribusiness corporation – and TIAA.[43]

One of the first companies to engage in land speculation in rural Brazil was Radar Propriedades Agrícolas, the result of a joint venture between TIAA and Brazilian sugarcane producer COSAN.

In Bahia, the municipalities of Formosa do Rio Preto and Correntina have been impacted by Radar and its partnerships with agribusiness corporations such as SLC. The region has been strongly affected by the expansion of soy, corn, and, more recently, cotton monocultures. The state of Bahia is the second-largest producer of cotton in the country, and Correntina is the biggest producer in the state.



Areas deforested for industrial soy cultivation in western Bahia. (Source: AidEnvironment)

Data in the tables below confirm that there has been a rapid increase in the amount of land used for soy and cotton monocultures in the municipalities of Formosa do Rio Preto and Correntina:

Table 1

Area (hectares) under soy production in Correntina and Formosa do Rio Preto – 2004 and 2022		
Municipality	2004	2022
Correntina	98,325	193,100
Formosa do Rio Preto	95,266	427,500

Source: IBGE | Produção Agrícola

Table 2

Area (hectares) under cotton production in Correntina and Formosa do Rio Preto – 2004 and 2022		
Municipality	2004	2022
Correntina	9,867	36,900
Formosa do Rio Preto	11,770	44,518

Source: IBGE | Produção Agrícola

TIAA's expansion hidden by complex corporate structure

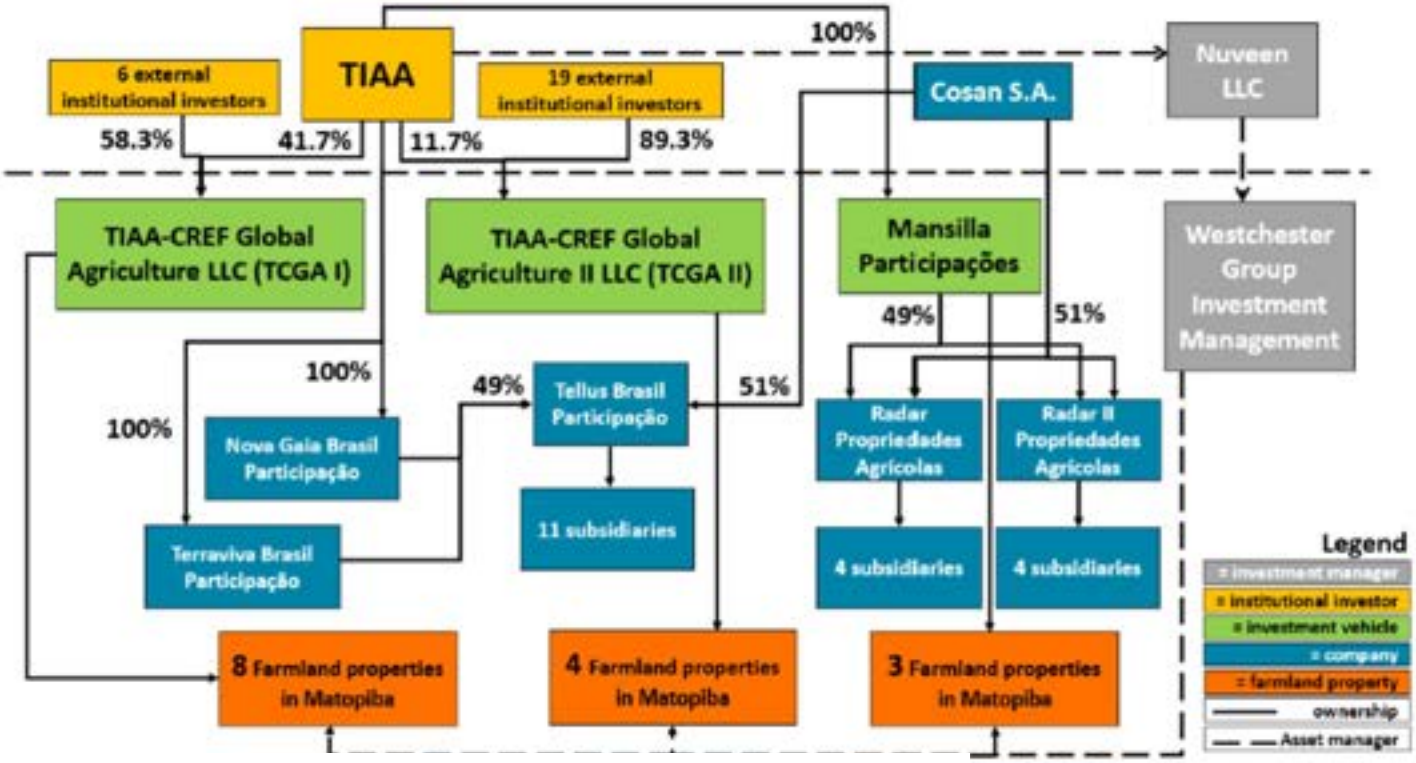
A 2023 investigation by the Brazilian news outlet Agência Pública and the Organized Crime and Corruption Reporting Project (OCCRP) exposed how Cosan S.A. and TIAA

have created several jointly owned companies in order to do business in the Brazilian rural land market.[44] The OCCRP investigation suggests that the strategy of setting up a complex structure of subsidiaries has allowed these companies to take advantage of tax breaks and loopholes in laws that limit land purchases by foreigners in Brazil. One of these subsidiaries is Radar Propriedades Agrícolas, which launched such a type of land business in 2008. Radar was created as a joint venture between Cosan and Mansilla, TIAA's intermediary in Brazil. Other subsidiaries derived from the partnership between Cosan and Mansilla (TIAA) are Janus, Tellus, Tellus Bahia, Araucária, and Aroeira.[45]

TIAA and Radar's operational model

Under the National Institute of Agrarian Reform (INCRA), since 2018, Brazilian law stipulates that the total combined area of rural properties acquired by foreigners cannot exceed 25% of the municipal territory where the property is located. Furthermore, individuals of the same foreign nationality cannot collectively own more than 10% of the territory of the municipality. Questions must be raised as to whether TIAA's operational model and corporate structure complies with Brazilian law.

Structure of TIAA subsidiaries Radar and Tellus, 2019.



Source: CRR based on TIAA Quarterly Statement (June 2019) and Rede Report on Radar

The OCCRP investigation also found how these companies ignored a series of warnings when buying farms in Brazil, negotiating land deals with individuals who were facing charges for land-grabbing. A large portion of the land acquired by the group is located in the MATOPIBA region.

Radar's business deals are based on treating land as a financial asset. They involve buying an area at a relatively low price, leasing it with the expectation that the price will rise, and selling it expecting to profit. Research from Rede Social documented in this and previous reports shows that the so-called "agricultural

frontier" in the MATOPIBA region has been the target of this type of deal, where many farms have been recently established following a process of land-grabbing and deforestation. Farmland speculation by these companies has caused massive environmental destruction of the Cerrado in the MATOPIBA region. To justify their control of the land, rural real estate companies, such as Radar, lease land to agribusiness corporations such as SLC, mainly for the expansion of soy monocultures.

Radar's business deals are based on treating land as a financial asset: buying an area at a relatively low price, leasing it with the expectation that the price will rise, and selling it expecting to profit.

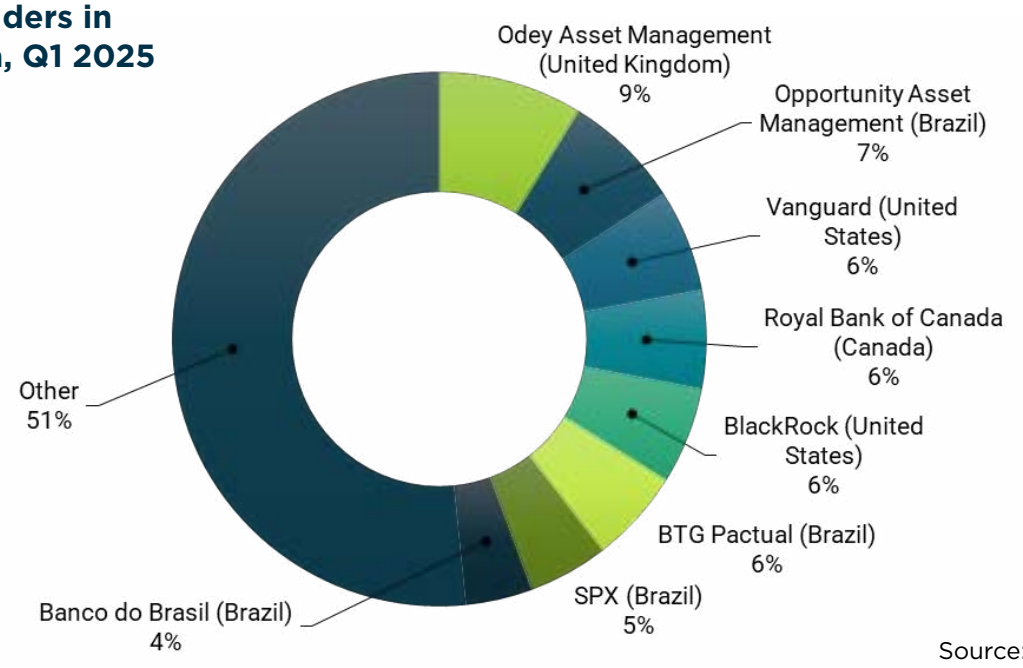
Since late 2023, even at a time of relatively low land prices in Brazil, Radar and SLC have seemingly been devising a strategy to expand and acquire new farms. In previous years Radar went through a process of buying and selling shares of its own subsidiaries in what appeared to be an effort to keep the prices of their farms high. In 2016, TIAA, through Mansilla, acquired a large stake in Radar. The other partner, Cosan, held onto only 3%. Between 2021 and 2022, Cosan bought back part of Radar, as well as its subsidiaries, Tellus, and Janus. This deal may have been part of Radar's strategy to evade an investigation by INCRA, the Brazilian agency that demarcates farmland, into land acquisitions involving foreign companies. INCRA's initial report identified Radar's partner companies as violators of the laws that limit such acquisitions and noted that the properties in question may have been acquired illegally through land-grabbing.[46]

In January 2024, Cosan and TIAA expanded their partnership by creating a new company, Radar Gestão de Investimentos S/A, which goes by the trade name Radar Gestora. This is a significant commercial move from TIAA: The newly formed company now holds huge swathes of land, controlling the entirety of Radar's landholdings as well as its subsidiaries in Brazil. This includes eucalyptus plantations controlled by TIAA, as well as plantations in other Latin American countries. Also of note is the fact that Radar Gestão was formed just months before the Brazilian government established its first regulated carbon market. In December 2024, President Lula signed Law 15.042 which sets out the carbon credit market into two sectors: regulated and voluntary. While the agricultural sector is not covered by the new regulation, the government "maintains the possibility of agribusiness generating carbon credits through the maintenance of Permanent Preservation Areas, legal reserves and restricted use areas."[47] This leaves Radar Gestão de Investimentos poised to expand and benefit from the government's potential new source of carbon finance.

In 2024, Cosan and TIAA created a new company, Radar Gestão, or Radar Gestora, which now controls the entirety of Radar's landholdings as well as its subsidiaries in Brazil.

OCCRP's investigation into Radar's land in Brazil found that besides the areas acquired since 2008 in the MATOPIBA region, the company now controls many of the Cosan Group's sugarcane plantations in the central-southern region of the country, plus eucalyptus plantations in other states.[48] A document from CADE – Brazil's national competition regulator – for the creation of Radar Gestão de Investimentos S/A, shows that Radar's properties are currently managed by Nuveen Latin America, a TIAA subsidiary.[49] This case begs investigation in light of the legislation limiting foreign acquisition and ownership of rural properties. The law establishes that foreign enterprises must inform INCRA and the Congress of any land acquisitions, so they can ensure that the limits of ownership are being respected. If the buyer does not inform these government authorities, the acquisitions may be declared invalid.

Top shareholders in SLC Agricola, Q1 2025



Source: Profundo

SLC Agrícola: Radar's "sidekick in speculation"

SLC Agrícola is one of the most powerful agribusiness corporations in western Bahia. Founded in 1977, SLC produces grain and cotton and was one of the first agribusiness companies to offer its shares on the stock market through an initial public offering in 2007.[50] Among SLC's shareholders one finds foreign billionaires, banks accused of financing destructive projects in the Amazon, U.S. retirement and pension funds, and even the International Monetary Fund.[51]

In recent years, SLC has expanded its operations based on an "asset light" strategy that seeks to "monetize its assets and maintain operations." In 2023, of all the land used by the company to grow its crops, 66.2% was either leased or purchased from joint ventures, and the remaining 33.8% was its own land.[52] SLC also sells land when prices go up. When the company sells land, however, it does not necessarily reduce its production and the amount of land under its control. In fact, it has done quite the opposite. As part of its "asset light" strategy, SLC follows the "sale and lease back" model in its deals with Radar – that is, it sells a parcel of land and then leases it from the buyer, maintaining control over the operations the entire time.

In 2012, SLC Agrícola established SLC LandCo as a joint venture with the British Valiance Asset Management fund "to monetize part of its real estate earnings" and "raise capital to continue acquiring land with high appreciation potential."[53] SLC LandCo purchases and prepares land that it leases to SLC Agrícola, who then manages it.[54]

The company became the largest producer of agricultural commodities in the country in early 2025 when it acquired the operations of Agrícola Xingu S.A., forming SLC-MIT – a joint venture with Mitsui & Co., one of the largest corporate groups of Japan.[55] Since 2021, SLC has controlled nearly 39,000 hectares in the municipalities of Correntina, São Desidério (Bahia), and Unaí (Minas Gerais).[56] SLC also operates through Terra Santa Agro S.A., which has farms in Mato Grosso. After a recent 45% increase in its area, SLC now controls approximately 674,000 hectares of land in Brazil. This is more than twice the size of all indigenous territories in the state of Bahia together, which are home to 229,000 people.[57]

SLC LandCo and Radar Propriedades Agrícolas's strategies are similar. These companies acquire recently deforested areas along the so-called "agricultural frontier" that have high appreciation potential and then lease them to justify speculation on the land market. There are cases where both

The Paysandu Plantation – SLC, in Correntina and São Desidério, BA. Source: AidEnvironment

companies (Radar and SLC LandCo) lease adjacent parcels of land to SLC Agrícola, which is no coincidence.

In western Bahia (BA), Rede Social has found that SLC controls six plantations:

- Parceiro Plantation in Formosa do Rio Preto, which extends into the neighboring municipality of Corrente, in Piauí
- Panorama Plantation and Paysandu Plantation in the municipality of Correntina
- Paladino Plantation in São Desidério
- Piratini Plantation in Jaborandi
- Palmares Plantation in Barreiras

Together, they total around 178,000 hectares used for soy, cotton, and corn monocultures. These vast plantations are also linked to forest destruction and "green land-grabbing" due to their operations encroaching upon territory critical to the lives and culture of customary communities.

SLC Agrícola leases part of the SLC Parceiro Plantation from Radar. Another part is controlled by SLC LandCo, while the biggest part belongs to SLC Agrícola itself. The plantation spans across 38,000 hectares of land.

In Correntina, SLC runs the Panorama and Paysandu Plantations; the latter extends into the municipality of São Desidério. Approximately 34,000 hectares in size, the Paysandu Plantation is owned by Mitsui & Co. (Agrícola Xingu S.A.) and has been managed by SLC since 2021. According to AidEnvironment's monitoring reports, nearly 2,000 hectares of the Paysandu Plantation were deforested between 2019 and 2020, shortly before SLC took over its operations. In 2021, SLC adopted a No Deforestation policy[58] – but the purchase was in keeping with its approach of purchasing recently deforested land, thereby evading responsibility for the deforestation.

Under Brazil's 2012 Forest Code, agricultural producers are required to offset the environmental toll of their activities by establishing and maintaining so-called "legal reserves" – "set-aside" areas that constitute part of a landowner's landholdings and which preserve native vegetation. In the region of the Cerrado discussed here, a producer must maintain 35% of each of their rural properties as a legal reserve. The Panorama Plantation is 24,600 hectares in size. SLC LandCo owns part of the farm and leases the other part from Radar (Tellus Bahia) and Agropecuária Tapera Ltda. The legal reserves of the Radar and Tapera plantations, which are leased to SLC, overlap the territories of the Fecho de Pasto traditional communities of Capão do Modesto, Porcos, Guará e Pombas, Cupim, and Vereda da Felicidade.

Fechos de Pasto are peasant communities that historically use their land collectively to raise crops and livestock.

Legal Reserves, as noted in the text, are parcels of land that private landowners must preserve for biodiversity conservation under Brazilian law. The area required for a legal reserve varies from 35%, as in the Cerrado, to 80% in the Amazon. While the principle of legal reserves is quite positive, monitoring and enforcement are weak, and there are many cases, such as those described in this report, where landowners claim land as legal reserve that is far from their productive properties and encroaches on land claimed by peasant communities.

The Paladino Plantation, located in São Desidério, has close to 22,000 hectares of land and is operated by the SLC-Mitsui joint venture. The Piratini Plantation, in Jaborandi, has nearly 25,300 hectares and belongs to SLC LandCo. In Barreiras, the Palmares Plantation is approximately 34,000 hectares in size, of which almost half is owned by SLC Agrícola and a small portion by SLC LandCo, and the other half is leased from other companies. The dynamics of SLC's expansion can be explained by its "asset light" strategy, even though it continues to incorporate more areas to expand its monocultures. The merger with Mitsui & Co.


Photo: Shutterstock/Cacio Murilo


Photo: Shutterstock/lourencolf

in Bahia is part of this process.

In addition to its joint ventures with SLC, data from the Brazilian land management system, SIGEF, and the Sistema Nacional de Crédito Rural (National System of Rural Credit) shows that, in western Bahia, subsidiaries of the Radar group own a total of approximately 40,000 hectares of land across the municipalities of Formosa do Rio Preto, Correntina, São Desidério, Barreiras, and Luís Magalhães.[59] This figure includes 6,300 hectares belonging to Araucária Propriedades Agrícolas (Radar group), located in the municipality of Corrente, in Piauí. It is part of Fazenda Parceiro, operated by SLC Agrícola, the largest part of which is in the municipality of Formosa do Rio Preto, in Bahia, and extends across the same plateau to Corrente. The headquarters and access to the farm are located in Bahia, which is why SLC advertises the farm as being located in Formosa do Rio Preto.

The figure of 40,000 hectares excludes 15,000 hectares of Fazenda Bananal, recently sold to the Schmidt family business group.

Included in the 40,000 hectares is Fazenda Grão de Ouro. Notably, Cosan's 2025 report to shareholders claims this property has been sold; however, until April 2025 Fazenda Grão de Ouro was still listed in the National Rural Registration System (SNCR), one of the databases used for this survey. In addition to the land in Formosa do Rio Preto and Correntina, Radar also partially owns:

- a plantation which overlaps the protected National Park of Grande Sertão Veredas in the municipality of Cocos, purchased from the Marinho family, which owns the Brazilian television network Rede Globo;
- Hertz plantation, in São Desidério, whose legal reserve was registered on another farm in the municipality of Barra, more than 350 kilometers away;
- Rio de Janeiro plantation in Barreiras, where, according to AidEnvironment's findings, over 1,200 hectares have been deforested between 2012 and 2023;[60]
- and part of the Bananal plantation, located in the municipality of Luis Eduardo Magalhães. AidEnvironment's monitoring reports indicate that nearly 25,000 hectares of this farm have been deforested since 2012, the period in which Radar (Aroeira Propriedades Agrícolas LTDA) acquired the property though it was subsequently sold.

Considering the lack of transparency of these real estate deals and the corporate structure of this group of companies, which has more than 10 subsidiaries, it is possible that there are other properties in the region under Radar's control.[61]

Photo: Rede Social

RADAR'S LAND BUSINESS IS UNDER LEGAL DISPUTE IN WESTERN BAHIA

Photo: Leia Rodrigues

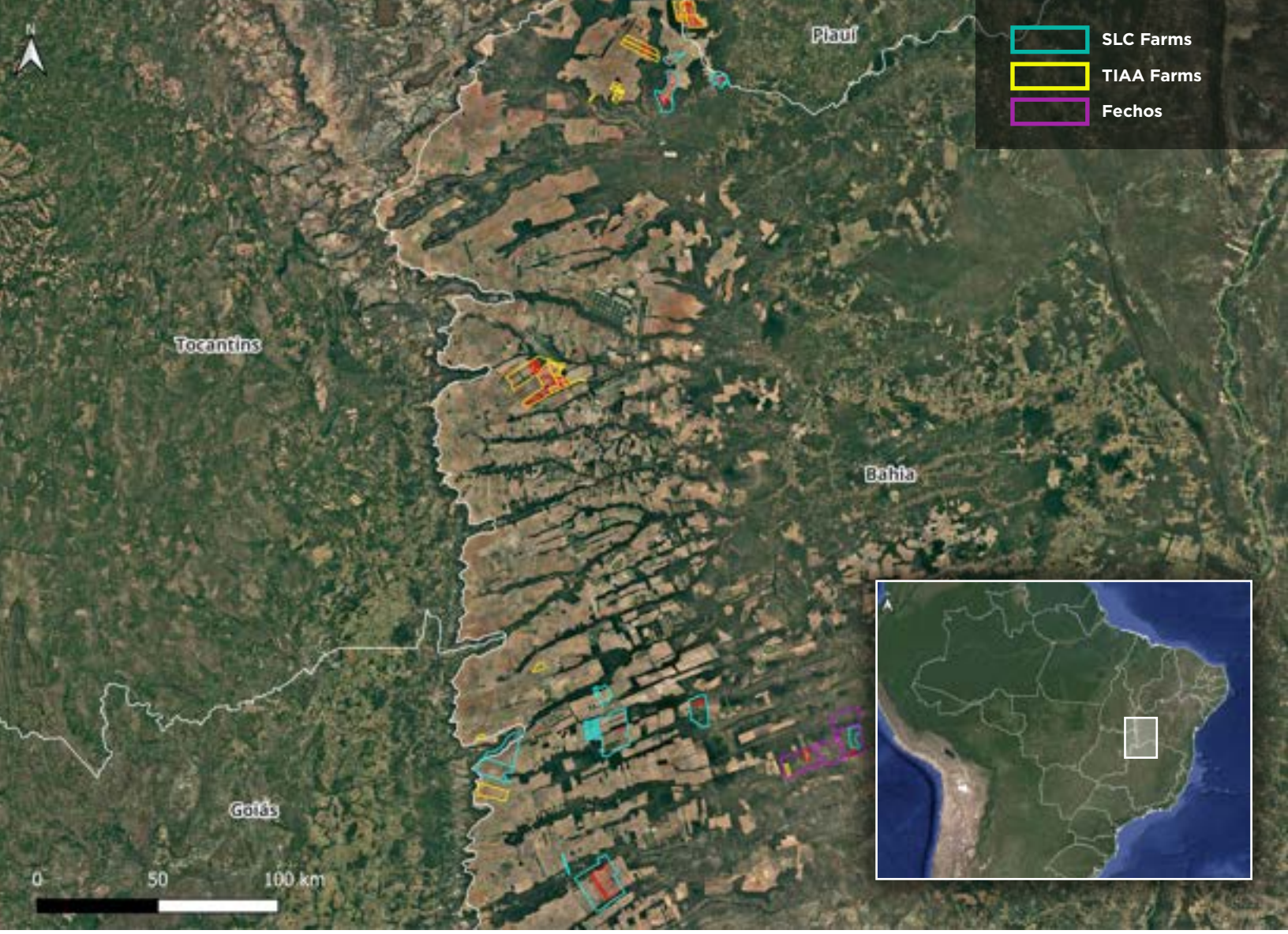
Formosa do Rio Preto: Radar and SLC and Operation Far West

SLC is a key partner of Radar in the MATOPIBA region, including in western Bahia, where serious questions have arisen as to the legality of their land operations in the region. According to Agência Pública and OCCRP's investigation into the real estate deals of Cosan in Brazil – in conjunction with TIAA and Radar – SLC and Radar control land under legal dispute in Formosa do Rio Preto.[62] In 2010, according to reporting by Agência Pública and OCCRP, Radar acquired parcels of land that are involved in complex legal proceedings. The investigation revealed emails between TIAA directors in late 2016, who reportedly expressed concern about the legal dispute and the possibility of land-grabbing allegations being published in the press.

Investigations show that SLC and Radar control land under legal dispute in Formosa do Rio Preto.

Disclosed to the public as part of the investigation called "Operation Far West", an anti-corruption investigation described in more detail on the following page, plaintiffs alleged a major land grabbing scheme and the bribery of judges of the Court of Justice of Bahia to obtain favorable rulings in land disputes. The lawsuit concerns an area of over 360,000 hectares, including the region of Coaceral (Cooperativa Agrícola do Cerrado do Brasil Central, or the Agricultural Cooperative of the Cerrado of Central Brazil) in Formosa do Rio Preto. It was in this region that Radar acquired United and Parceiro plantations, in an area allegedly grabbed by a landowner by the name of José Valter Dias. Radar appears to have bought the land from the alleged owners who were in dispute over the area with José Valter in court. A court ruling was handed down in Dias's favor, leading Radar to then enter negotiations with Dias. This ruling was, however, later overturned, and the investigation of this case is still ongoing.

In response to the investigation, TIAA stated that after years of fighting in court for the plantations in Formosa do Rio Preto, Radar had sold both the United and Parceiro Farms to a local landowner. Investigations for this report, however, have not found proof of this sale. In January 2024, the SIGEF database showed that there were still eight parcels of land in the disputed area of Coaceral, totaling around 10,000 hectares, registered in the name of two companies from the Radar Group (Radar and Tellus Bahia).[63] Some of Radar's properties in the area under dispute were leased to SLC until 2020; however, they currently do not appear in SLC's portfolio. In addition to these dubiously appropriated areas in the region of Coaceral, Radar owns a plantation – also called Parceiro Plantation – which spans the municipalities of Formosa do Rio Preto in Bahia, and Corrente in Piauí, which was leased to SLC.

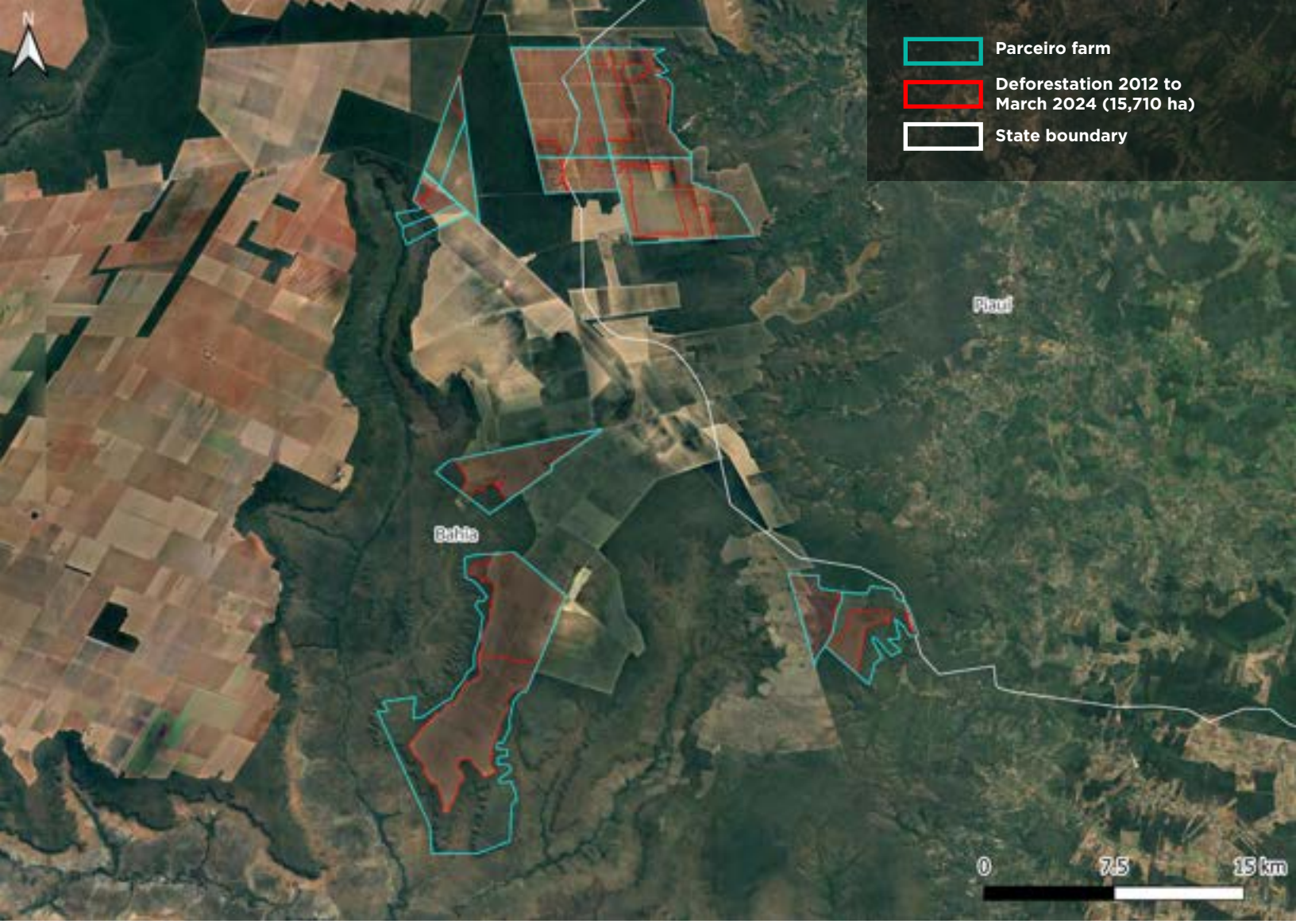


Radar and SLC's plantations and the land of the Vereda da Felicidade; Capão do Modesto; Porcos, Guará e Pombas, and Cupim Fecho de Pasto communities, in western Bahia. Deforestation 2012-2024 is highlighted in red.
Source:AidEnvironment

On Operation Far West

"Operation Far West" is the name given to a Brazilian Federal Police investigation into a large-scale corruption scheme involving land grabbing in Bahia State – one of the most high-profile recent cases involving judicial corruption and land grabbing. The operation uncovered a network of farmers, lawyers, and judges who allegedly worked together to obtain favorable court rulings that legitimized the illegal acquisition of land from local communities. This involved securing land titles through bribery and manipulating land boundaries, effectively stealing vast amounts of land.

The launch of Operation Far West in November 2019 revealed a scheme to buy and sell court decisions related to land disputes on around 800,000 hectares of land, which encompasses the "Estrondo Farm" and a group of farms in the plateau known as "Coaceral," both in the municipality of Formosa do Rio Preto, Bahia. In its first phase, the operation immediately led to the removal of the then president of the Bahia Court of Justice, Gesivaldo Nascimento Britto, and several other high-ranking judicial officers, as well as the arrest of eight other people, including the judge and former president of the Bahia Court of Justice, Maria do Socorro Barreto Santiago, as well as businessmen, lawyers and civil servants. The district judge, Sérgio Humberto de Quadros Sampaio, was also arrested (Ministério Público Federal, 2019).



The Parceiro Plantation -- Radar, SLC, and others, in Formosa do Rio Preto, BA, shows more than 15,000 hectares of deforestation since 2012. Source: AidEnvironment

The Parceiro and Colorado plantations: a new trend of "green grabs"

The offsetting of legal reserves in areas that are separate from the plantations has led to a trend known as "green land-grabbing," which is affecting the territories of rural communities who preserve the Cerrado. Two plantations partially owned by Radar appear to exemplify this trend.

SLC operates the Parceiro plantation, part-owned by Radar, in the municipalities of Formosa do Rio Preto in western Bahia and Corrente in Piauí as part of its "asset light" strategy.[64] In SLC's quest to "monetize its assets," it sold the property to Radar and leased it back for its own production.[65] Radar owns 6,300 hectares of the SLC Parceiro Farm, according to data from SIGEF.[66] The remainder of this vast farm belongs to SLC Agrícola and SLC LandCo, among other owners. In total, this plantation extends across over 38,000 hectares of land. It is three times greater than the area of common use of the Capão do Modesto Fecho de Pasto community – the same area that Agrícola Xingu S.A. (Mitsui & Co.) registered as the legal reserve of a plantation owned by the SLC-Mitsui joint venture.[67]

In August 2013, while the Parceiro Plantation was still in SLC's name, the registration of its legal reserve was cancelled and transferred to another property in the municipality of Barreiras do Piauí. There is no requirement that a plantation's legal reserve must be within the productive plantation's boundaries, only that it is located within the same biome. This has resulted in the proliferation of a new form of "green land-grabbing," where farming landowners often appropriate lands that have been used by rural communities for

Selected Fundo e Fecho de Pasto Communities in Correntina, BA, showing areas deforested from 2012-2024
Source: AidEnvironment

their livelihoods for decades. Monitoring of deforestation in the Barreiras do Piauí area shows that over 9,000 hectares of the Parceiro Plantation were deforested between 2012 and 2014, and more than 6,000 hectares were destroyed between 2019 and 2020.[68]

The offsetting of legal reserves in areas separate from the plantations has led to a trend known as "green land-grabbing."

Fundo e Fecho de Pasto communities in Correntina – peasant communities that historically use the land collectively to grow crops and raise livestock – have recently suffered the impacts of "green land-grabbing" on their areas of common use. Brazilian NGO AATR's (Association of Grassroots Lawyers) analysis of deforestation and land-grabbing in the Fecho de Pasto areas in Vereda da Felicidade, Capão do Modesto, Cupim, and Porcos, Guará e Pombas showed that they have been targeted by "green land-grabbing" since changes to the Forest Code were introduced in 2012. By allowing landowners to register legal land reserves to compensate for deforestation on other nonadjacent properties, the Forest Code incentivizes deforestation of the territories of the Fecho and Fundo de Pasto communities.

In 2021, AATR identified 1,262 CAR/Cefir[69] records totaling 390,404 hectares, of which 82,300 hectares had been registered as legal reserves that overlap 40 areas of the Fecho de Pasto communities in the Corrente River basin. The communities affected the most by land-grabbing are Vereda da Felicidade (28,118 hectares), Capão do Modesto (11,264

hectares), Porcos, Guará e Pombas (8,744 hectares), and Cupim (8,650 hectares).[70]

In the case of Vereda da Felicidade, the Coordenação de Desenvolvimento Agrário (CDA, or the Agrarian Development Coordination) – the state body responsible for carrying out administrative procedures to determine if a parcel of land is "terra devoluta" or public land – analyzed documents issued by notary offices for the area. Their analysis showed that the land records for 28,118 hectares overlapping the community's territory are, in fact, for public land belonging to the state of Bahia.

Two of the properties overlapping the Fecho de Pasto da Vereda da Felicidade are the Agropecuária Tapera Plantation and the Colorado Plantation. The latter belongs to Radar through its subsidiary, Tellus Bahia, spans approximately 667 hectares of land, and is part of the legal reserve of the Grão de Ouro Plantation, also owned by Tellus Bahia.[71] The Colorado Plantation's land record indicates that the plantation was created when the property identified by record No. 2,918, dated 1989, was broken up. However, there is apparently no acquisition title, suggesting that it may not have been duly transferred from public property to a private party. Agropecuária Tapera sold the Colorado Plantation to Tellus Bahia in 2014 but continues to control the other parcel.[72] The Grão de Ouro Plantation, the Tapera Farm, and another area owned by SLC LandCo are all leased by SLC, and together they constitute the SLC Panorama Plantation, which has around 24,600 hectares of cotton plantations.

Most of the Cerrado biome in Fecho da Vereda da Felicidade community has been preserved. However, in 2023, over 2,000 hectares of the Santa Teresa Plantation (controlled by Yamaguchi Agropecuária Group) were deforested. Half of the deforested land was in the area that overlaps with the Fecho da Vereda da Felicidade community.[73]

As for the properties overlapping the territories of the Capão do Modesto[74] and Cupim Fechos de Pasto communities, the boundaries specified in the land records may have been fraudulently declared. After registering their legal reserve in these fechos de pasto – again, areas designated by local peasant farmers for collective subsistence activities – agribusiness groups filed a lawsuit demanding that the community be evicted. In May 2023, the Correntina State Court ordered the land records of the properties overlapping the Fecho de Pasto of Capão do Modesto community to be blocked in light of the proof of land-grabbing by the local notary office. But the ruling was later overturned by a state court, reportedly due to pressure by representatives of agribusiness organizations.[75]

Another 3,000-hectare property, called the Tabuleiro Plantation, also overlaps the land of the Capão do Modesto Fecho de Pasto community. This plantation is controlled by Agrícola Xingu S.A. (Mitsui & Co.) and was registered as the legal reserve for areas operated by SLC/SLC-MIT. In Bahia, the two plantations owned by Agrícola Xingu S.A. and operated by SLC since 2021 are the Paladino Farm and the Paysandu Plantation.

Photo: Teresa Paris

THE HUMAN COSTS OF AGRIBUSINESS IN WESTERN BAHIA

The expansion of agribusiness plantations affects the Fundo de Pasto and brejeira (wetland) communities, which have historically practiced collective and ecological forms of agriculture and pastoralism. These communities continually face threats of displacement and violence by land-grabbers. The state is slow to protect the communities' territories, thus allowing the environmental destruction and human rights violations to continue. Local state offices also serve the interests of agribusiness plantations by granting permits for plantations to extract thousands of cubic meters of water daily from rivers.

The stories shared by rural communities during field research in Formosa do Rio Preto and Correntina reveal the impacts of agribusiness on their lives and territories.

Elisete,[76] a resident of Brejão, a wetland community south of the Coaceral plateau in Formosa do Rio Preto, reported suffering from the impacts of the agribusiness plantations on the plateau. These plantations appropriate water for their central pivot irrigation systems, reducing the levels of the Sapão River, which is the source of the community's water supply. Other rivers in the region that used to always have water, even in the summer when there is little rainfall, now suffer from drought because of the agribusiness plantations. Furthermore, local residents explain that the pesticides used in the plantations contaminate rivers, soils, and the food and fodder that the communities depend on.

Elisete and her mother make handicrafts from buriti fruit and capim dourado or golden grass. She told us that part of their wetland now dries up, which affects her family's lives because of the importance of the wetland species for the community's food and handicraft production. She reported that a large area along the edge of the plateau was deforested in 2022. Shortly after, a mudslide covered part of the village below the mountain, the community's fences, and ground cover plants, which no longer grow. In 2023, the irrigation of soy plantations in the Coaceral region disturbed the waters of the Sapão and Sassafrás Rivers, leaving them murky.[77]

Elisete's mother, grandfather, and other relatives have always lived on that land, but they say that

the community now faces threats from land-grabbers and agribusiness corporations that try to claim the area as their legal reserve. She said that she has already stood up to land-grabbers and "sent them running," but she is afraid because on more than one occasion, "armed men showed up saying it was their land, that they had bought it."

Elisete's mother, grandfather, and relatives have always lived on the land, but their community faces threats from land-grabbers and agribusiness corporations that claim the area as their legal reserve.

Iremar Barbosa, who lives in Correntina, also explained how agribusiness affects biodiversity and the communities' way of life by cutting off their access to the plateaus:

"'Os Gerais' in western Bahia are central plateaus. What some call the Cerrado is what we call the 'Gerais,' which were always spaces used freely for the communal economy. There used to be over 150,000 heads of cattle in the municipality of Correntina. This number was reduced to 30,000 because the communities lost this territory to agribusiness and land-grabbers. They lost their pequi, buriti, and cashew production, which are native fruits. This region used to be rich in animals that are native to the Cerrado: agouti, a variety of armadillo species, pacas, tapirs, deer that we'd see in herds along the way, rheas, bush pigs, capybaras, jaguars – many species. They have disappeared from the region."

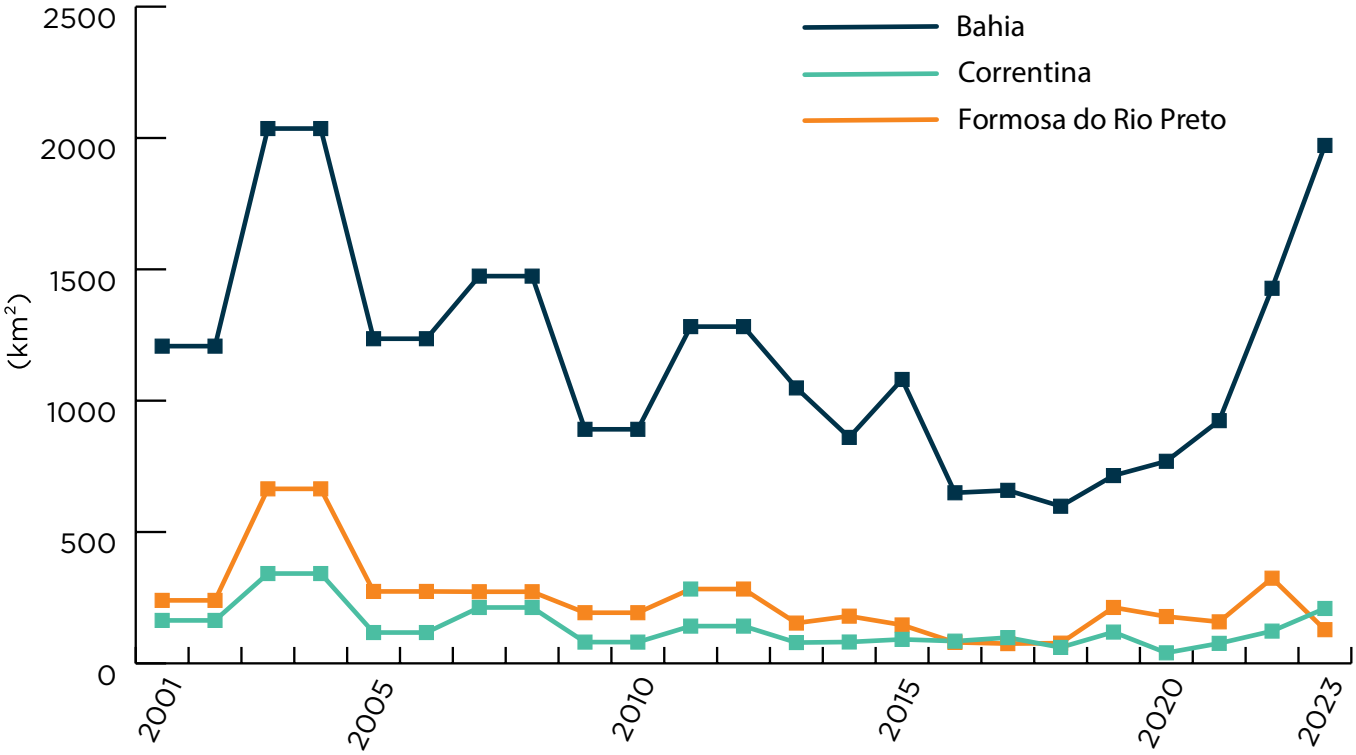
Deforestation

Deforestation, in connection with land-grabbing by agribusiness, continues to expand in the Cerrado. According to the National Institute for Space Research (INPE), over 11,0000 km^2 of native Cerrado vegetation was destroyed in 2023 – around a third of the size of Maryland in the U.S., and a 3.02% increase in relation to 2022.[78] Of the 11 states that overlap with the Cerrado biome, the four in the MATOPIBA region accounted for 75% of deforestation.[79] In the same period, 1,971.71 km^2 of native vegetation was destroyed in the state of Bahia – around one and a half times the size of Los Angeles, and 38% more than the previous year – the biggest increase in the country. INPE data show that 63.47% of deforestation of the Cerrado was on private land, 7.39% in conservation units and environmental protection areas, and 6.14% on public land. Agribusiness corporations have strong influence over state offices, and this type of lobby promotes land-grabbing and deforestation.[80]

Agoutis and other wildlife have disappeared from western Bahia.

Photo: Shutterstock/David Havel

Increase in deforestation per year (km²) in Bahia, Correntina, and Formosa do Rio Preto



Source: Terra Brasilis/INPE Compiled by: Teresa Paris

Water-grabbing by agribusiness in western Bahia

In western Bahia, land-grabbing is also related to the appropriation of water. The plateaus, where large tracts of land have been grabbed by agribusiness, are the main recharge areas of the Urucuia aquifer, one of the biggest in the country.[81] While many communities lose access to communal water sources, the state of Bahia is handing out water use permits to agribusiness.[82] Agribusiness plantations appropriate enormous amounts of water to irrigate, using central pivots and massive "pools." This causes rivers to dry up and springs to disappear, pollutes the water with pesticides, and destroys habitat for aquatic species and fauna.

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Research from Agência Pública highlights how agribusiness has been encroaching on the water sources of riverine and peasant communities.[83] Agribusiness extracts billions of liters of water every day, free of charge. The Instituto do Meio Ambiente e Recursos Hídricos (Institute for the Environment and Water Resources) of the state of Bahia has granted permits to extract 1.8 billion liters of water per day to directors and advisers of the Associação de Agricultores e Irrigantes da Bahia - AIBA (Association of Farmers and Irrigators of Bahia), Associação Baiana dos Produtores de Algodão - ABAPA (Cotton Producers of Bahia Association), and to companies linked to these associations.[84] This volume is enough to supply around 11.8 million people with water daily. According to the research, the state does not monitor water extraction, the dredging of rivers or the digging of wells that tap into the Urucuia aquifer. As a result of the intense water extraction in recent years, thousands of cubic kilometers of water in the aquifer have dried up. Moreover, land-grabbers have been applying for water permits to fuel real estate speculation, as "ownership" of the water raises the land value, even when there is no water intake system in place.

One of the permits investigated in the report had been granted to Paulo Schmidt, who received authorization to extract 33.4 million liters of water to irrigate land on Radar's Rio de Janeiro Farm in Barreiras. The Schmidt family leases around 10,000 hectares of this plantation from a Radar subsidiary.[85] Paulo Schmidt is vice president of ABAPA and owner of Schmidt Agrícola, together with his brothers who are also linked to those corporate associations. Radar, and therefore TIAA, are also beneficiaries of this water grab.

SLC Agrícola, one of the companies that controls the largest area of land in western Bahia and sits on AIBA's board of directors, obtained a permit to extract 145.5 million liters of water per day. Other agribusiness companies that received permits in the region were Mitsui & Co. and its partner SLC-MIT, for a total of 220 million liters of water per day – enough to supply two million people with water daily.

Pesticide pollution

Residents of rural communities in Correntina and Formosa do Rio Preto complain of persistent pollution from pesticides. Intense aerial and land spraying affects the food that the communities produce; contaminates water sources, the soil, and animals; and causes health problems. The poison sprayed on the farms' monocultures up on the plateaus contaminates the water sources of the communities living in the lowlands.

A recent study by the National Campaign in Defense of the Cerrado and the Pastoral Land Commission found traces of the herbicides atrazine, 2,4-D, and glyphosate in the river that supplies water to communities in Formosa do Rio Preto.[86] Even though use of these substances is permitted for soy production in Brazil, atrazine is banned in the European Union, and the levels of 2,4-D and glyphosate detected in the water were much higher than is legally permitted. These substances are highly toxic to the environment and to people's health. The contamination of water sources in the Cerrado has enormous impacts, as the biome is home to many springs that supply hydrographic basins in several regions of the country.

Violence against rural communities

In western Bahia, agribusiness corporations reportedly expand their operations into rural communities' territories using harassment, fraud, and irregularities in notarized documents to consolidate land-grabbing. According to investigative reports from Agência Pública, O Joio e o Trigo, and De Olho Nos Ruralistas, cases of violence include murder attempts, threats, destroying fences and shelters, and roadblocks. Private security companies are often hired to act as armed militias. For example, the "Estrela Guia" firm reportedly works in several municipalities in MATOPIBA, including Correntina and Formosa do Rio Preto. According to Agência Pública, Estrela Guia hired a well-known and highly feared reservist of the military police.[87] The company's clients[88] reportedly include Cargill[89] and Bergamaschi Agro, owned by Luiz Carlos Bergamaschi, the president of Abrapa, who has been accused of threatening the Capão do Modesto community.[90]

Iremar, a resident of a community in Correntina, explains how armed militia and companies show up in the communities with fake documents, claiming to own the area, and telling them to leave. But the communities resist:

"People from the community don't put up with it because they've always had a way of life where they raise animals and let them out at two specific times of the year. And the businessmen want to use the area for their legal reserves, but we know that a few days later, they'll drive a tractor over it, just as they already do. And then, they move the legal reserve to Muquém do São Francisco, in the municipality of Barra, or who knows where. So, that puts an end to the communities' peace and strategy for economic survival and interferes with people's cultural way of life. In the case of Capão do Modesto and Cupim, for example, people there see a hitman every day who goes around with a gun and threatens them. People are risking their lives because they were born in Capão do Modesto, because their ancestors were born there."

TIAA AND RADAR: A QUESTIONABLE LEGACY

Photo: Shutterstock/BMJ

This research is not the first time that TIAA and Radar's operations have been linked to dubious land acquisitions, deforestation, and alleged human rights violations. In both Maranhão and Piauí, Radar purchased farms from a group accused of grabbing vast tracts of land.[91] In the municipality of Santa Filomena, in Piauí, this group is facing land-grabbing charges related to 124,000 hectares of land. The legal case involves several plantations in the same region as the Ludmila/Laranjeiras plantation which Radar acquired from this group.[92] In Maranhão, areas controlled by Radar were bought from SLC Agrícola, one of Radar's key business partners in Bahia. SLC Agrícola was responsible for acquiring land from the group accused of land-grabbing in Piauí.

Radar now owns more than 315,000 hectares of land and over a thousand production units spread over approximately 90 plantations in Brazil.[93] Since Radar Gestão de Investimentos' creation, Nuveen has taken over around 170,000 hectares of eucalyptus plantations managed by TIAA in Brazil (mostly in the state of Mato Grosso do Sul), as well as in Chile, Colombia, Panama, and Uruguay according to a report published in 2024.[94] A total of 500,000 hectares of land in Latin America are under the new company's control. Valued at 18 billion reals, Radar Gestora is jointly managed by Cosan and TIAA (via Nuveen Latin America), each with a 50% stake.

Radar Gestão de Investimentos controls a significant amount of land, which gives it a predominant role in the land market and considerable power to expand its land business in Brazil and other parts of Latin America. It has been expanding mainly into areas along the so-called "agricultural frontier," areas where agribusiness corporations are widely reported to use land-grabbing schemes and commit environmental destruction, forcing rural communities to leave their territories, as is the case in western Bahia. The question has to be asked, therefore, whether the U.S. pension fund giant TIAA has benefitted from persistent violations of environmental and human rights, and if so, why there has been no accountability or redress?

TIAA's "no-deforestation" policy

In a landscape of weak corporate value chain commitments and policies on no deforestation, TIAA's approach to monitoring and mitigating against deforestation in its value chain appears to stand out for being particularly lacking in substance. In 2018, Nuveen published its "Zero Deforestation Policy," which states that "Nuveen and Westchester will not acquire land on behalf of any of its accounts in Brazil that has been cleared from native vegetation after the dates below." For the Cerrado, the cutoff date is May 2009 "or later in accordance with criteria set forth by the Roundtable for Responsible Soy." It states that the policy came into effect on August 1, 2018, and applies to "all future farmland investments in Brazil."[95]

In a landscape of weak corporate value chain commitments and policies on no deforestation, TIAA's approach to monitoring and mitigating against deforestation in its value chain appears to stand out for being particularly lacking in substance.

Any investor or company that is serious about tackling deforestation should set out in its policy exactly how it monitors, identifies, mitigates, and remediates deforestation in its value chain. In this report we consider partial ownership of a farm -- often meaning ownership of a plot of land within a given farm property -- to indicate situations in which TIAA/Radar owns a plot of land within a large farm with multiple corporate owners, which may have experienced significant deforestation both before and after 2018. The operation of plots of land under Radar's ownership is not independent of the farm as a whole, and any deforestation on these farms should be viewed at the level of the whole farm or productive unit. With respect to the land market, the price of a particular farm must be understood in the more general context of high demand for land and the expansion of commodity production. Thus, while TIAA and Radar may maintain that plots of land under their direct ownership have seen a decrease in deforestation since 2018, they arguably benefit from -- and therefore bear responsibility for -- the conversion of the properties as a whole.

An entire industry of supply chain experts exists to support companies to adopt and implement strong no deforestation and exploitation commitments.[96] In 2019, the Accountability Framework Initiative – a coalition of more than 20 environmental and human rights groups – launched the Accountability Framework. The framework serves as a single resource and best-practice guide for companies to take "effective action to address the deforestation, conversion, and human rights impacts of supply chains."[97] At the heart of the framework is a set of 12 principles which reflect international norms, such as the UN Guiding Principles on Business and Human Rights (UNGP) and the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct. The principles cover the commitments that companies should make with regard to respect for human rights and ecosystem protection, through to establishing effective due diligence protocols such as supply chain traceability, monitoring and verification, and reporting and disclosure.[98]

Yet TIAA/Nuveen's Zero Deforestation Policy is not accompanied by any such commitments or details. The entire policy fills just half a page, rendering it impossible to know exactly how it's being implemented by Nuveen. A document from Nuveen entitled "Process and Q&A regarding sustainability concerns" does not illuminate on its policy implementation any further. The document "responds to concerns voiced in the public domain and seeks to provide transparent responses." While it does state that Nuveen welcomes "engagement and dialogue with all stakeholders," it is not clear whether this document is intended to invite genuine stakeholder consultation and dialogue or merely to provide cover for the lack of such engagement. In order to fully implement its no-deforestation commitment, Nuveen's policy should have an independent monitoring system and UNGP-aligned grievance mechanism and procedures governing the company's response to alleged noncompliant business partners.

Loopholes in Nuveen's no-deforestation policy

Given that Nuveen's Zero Deforestation Policy offers such scant detail, Rede Social and Friends of the Earth U.S. submitted a number of questions to the company to better understand its due diligence process and implementation of its policy. During many years of doing field research with affected communities in Brazil, Rede Social never saw any evidence of TIAA's due diligence in cases of land-grabbing or any effective action by TIAA to stop deforestation on properties owned or partially owned by Radar or other linked business interests.

Nuveen confirmed that its 2018 Zero Deforestation Policy and accompanying due diligence processes apply to the entirety of TIAA and its subsidiaries in Brazil. This would therefore include Radar, Mansilla, Janus, Tellus, Tellus Bahia, Araucaria, and Aroeira, as well as the newly formed Radar Gestão de Investimentos. Rede Social and Friends of the Earth U.S. asked how it implements its no-deforestation policy with regard to landholdings held by Radar and its subsidiaries in Brazil, if it could provide specific details as to how it monitors for deforestation, and if it could explain the process that it takes if it is alerted to deforestation driven by landholdings held in its portfolio. Nuveen's full response is published in the Annex at the end of this report.

Nuveen stated that it has "two key processes for monitoring deforestation": "pre-acquisition due diligence" during the "farm scouting phase" and "portfolio deforestation monitoring." In the pre-acquisition phase, Nuveen states that it uses public deforestation databases such as Global Forest Watch, MapBiomas, and PRODES-INPE (Brazilian Deforestation Monitoring System) to ascertain levels of historical deforestation. Nuveen reiterated that its "policy imposes a strict restriction on the acquisition of areas converted after the cut-off dates defined for each biome."

As part of its ongoing deforestation monitoring, Nuveen states that it conducts "two on-site visits annually across all areas in its portfolio" to "verify property management practices and identify potential vegetation suppression." Alerts generated by deforestation satellite mapping are reportedly verified through site visits.

As part of these site visits, Nuveen appears to predominantly rely on its Code of Conduct

Photo: Teresa Paris

for its "tenants," which it has not provided and which does not seem to be published online, but which they state sets out 80 indicators under various themes, and which operates similarly to an audit with three levels of criticality for noncompliance. While Nuveen states that it monitors for noncompliance, there is no mention of either a time-bound action plan or what action Nuveen takes if compliance is not achieved. Nuveen provided no information on how these steps fit into its wider due diligence system and its process for noncompliance in terms of effective restoration, compensation, monitoring report, and future learnings.

Any credible corporate "Zero Deforestation" policy should include "Zero Use of Fire" or a fire management plan, but Nuveen's position on instances of fires on its landholdings is opaque. In Nuveen's 2024 Sustainability Report, in the section on satellite data and wildfire monitoring, the positive outcomes are simply stated as "Ability to respond to risks" and "Engagement with tenants on fire management." Rede Social and Friends of the Earth U.S. asked Nuveen how it uses satellite data on deforestation and fire detection, as well as its process for mitigation and remediation as part of its wider due diligence if a fire or deforestation is detected. The response from Nuveen focused on the effects of the fire, with no mention of the causes or drivers, and spoke of "supporting and encouraging tenants" on fire prevention. Nuveen did not respond to a question on how many instances of deforestation or fire-related deforestation it has been alerted to, or why it wasn't reporting on this issue as part of its policy.

In response to a question on whether Nuveen can ensure "Free, Prior and Informed Consent" for its land holdings, Nuveen's response was also obfuscating, stating that processes for potential new agricultural land acquisitions "ensure alignment with FPIC principles," yet the language that follows in the response used words such as stakeholder "dialogue" and "engagement," with no mention of consent itself.

As laid out in international norms, FPIC is not merely a set of principles but a set of practices involving active engagement between corporate or state actors and customary rights-holders. Notably, in the almost ten years during which Rede Social, Friends of the Earth, and others have raised concerns about TIAA's possible role in enabling land-grabbing in the Cerrado, no local community members have been consulted or engaged in dialogue with TIAA or its subsidiaries as far as Rede Social and Friends of the Earth are aware.

In its initial response to Rede Social and Friends of the Earth, Nuveen stated that "An independent grievance channel has been in place in Brazil since 2018 to enable local communities to raise concerns about NNC or tenant activities." A follow-up question asking to be signposted to the grievance mechanism prompted this response from Nuveen:

"We have informative signs displayed on our farms, which include a '0800' number for reporting any concerns. This allows local communities, employees, or third parties to raise issues related to Nuveen or tenant activities.

"In addition, our tenants each operate their own grievance channels, which are available to employees, third parties, or community members at any time. This practice is part of our Code of Conduct and is incorporated into our evaluation and assessment verification process."

It is not at all clear whether Nuveen's grievance mechanism meets the UN Guiding Principles on Business and Human Rights' guideline criteria on nonjudicial grievance mechanisms. The UNGP's criteria "provide a benchmark for designing, revising or assessing a nonjudicial grievance mechanism to help ensure that it is effective in practice," stating that such mechanisms should be legitimate, accessible, predictable, equitable, transparent, and rights-compatible. Certainly, providing a phone number within farm properties, and grievance channels operated by tenants whose land claims are contested by local rights-holders, with no information regarding how grievances may be addressed, no assurance of anonymity, and no provision for the security of complainants, falls far short of acceptable practices.

ESG regulation for the financial sector in the United States

In the United States, there are very few regulations for the financial sector when it comes to investments and forest risks, as well as wider environmental and social risks. Efforts to incorporate environmental, social, and governance (ESG) issues have historically been driven by voluntary, market-led efforts. The Securities and Exchange Commission (SEC) plays some role in regulating institutional investors, as well as securities exchanges, the sector's brokers and dealers, investment advisers, and domestic mutual funds. It requires transparency from companies issuing shares and bonds on the stock exchange on their financial situation and risks and has recently promoted various initiatives to compel issuers to be more transparent about their exposure to climate and other ESG risks, as set out below. It has also taken steps to prevent "greenwashing" by investors through an amendment in 2023 to the Investment Company Act.[99]

In addition, each U.S. state has its own securities regulator whereby enforcement is limited to securities sold within each state. States are also in charge of the regulation of investments by insurance companies.[100]

In the years prior to the 2024 election, the SEC initiated a number of proposals to foster regulations on ESG issues.[101]

In May 2021, the Biden administration issued a directive to the Department of Labor (DOL) to identify how U.S. pension funds could be protected from the threats of climate-related financial risk. The Employee Benefits Security Administration within the DOL oversees the Employee Retirement Income Security Act (ERISA). ERISA covers the majority of private-sector pension plans.[102]

This resulted in the so-called "ESG rule." The DOL's 2022 ESG rule clarified that climate change and other ESG factors may be relevant to the risk-and-return analysis of a potential investment and therefore should be factored into investment decisions. The rule faced widespread backlash, however, predominantly from "red states." As part of this movement, certain political figures are seeking to prevent asset managers, including pension funds, from including ESG factors in their investment decision-making processes. At least 49 anti-ESG bills were introduced across the U.S. in 2023, and state treasurers have removed funds from asset managers who apply ESG factors. The backlash against ESG -- and indeed, against any regulations seeking to align investment and business practices with climate science and human rights norms -- has only deepened under the current U.S. administration.[103]

Brazil's (failed) attempts to control foreign ownership of land

In Brazil, laws on foreign land ownership have been amended numerous times over decades. Back in the 1960s, a series of media articles critical of foreign land acquisitions in Brazil prompted Congress to set up a commission to investigate further. The result of the commission's findings became known as the "Velloso Report." It revealed that "roughly 20 million hectares of Brazilian farmland had been acquired by foreigners, particularly U.S. companies and individuals, much of it within the Amazon region." In response, the government passed regulation which limits the amount of land that foreigners can own and which states that approval from the national government is required for foreign land acquisitions over a certain size. Pivotal to the law was the specification that "these restrictions and requirements apply not only to foreign individuals and companies but also to Brazilian companies with majority foreign ownership."[104]

Following the neoliberal reforms of the 1990s, the law was reinterpreted so that it applied "only to foreign individuals and companies, and not to foreign-owned Brazilian companies," essentially rendering it obsolete. A foreign company was then able to acquire Brazilian land without government approval and with no restrictions on size, through the simple creation of a Brazilian subsidiary.

Unsurprisingly, this "laissez-faire" attitude to foreign land acquisition led to a spate of foreign land-grabs as part of the global land-grab phenomenon. In 2010, the government issued a new interpretation

Photo: Shutterstock/lourencolf

of the law, reverting back to the pre-1990s legal framework. Since 2018, Brazilian law stipulates that the total combined area of rural properties acquired by foreigners cannot exceed 25% of the municipal territory where the property is located. Furthermore, individuals of the same foreign nationality cannot collectively own more than 10% of the territory of the municipality.

Yet TIAA has been able to – on paper at least – comply with Brazilian law without substantively altering its business plan. Radar Propriedades Agrícolas, the joint venture between TIAA and Cosan, approached the new regulatory framework by disputing the legal meaning of a foreign-controlled Brazilian company. TIAA (then TIAA-CREF) provided the majority of the capital for Radar, but Cosan has more voting positions on the company's board.

In her research on the financialization of land in Brazil, Madeleine Fairbairn describes TIAA alleged corporate thinking on Brazil's land regulation:

"In a 2011 interview, one of the company's legal representatives explained that the restrictions should actually be interpreted in light of Law 6.404, passed in 1976, which defines shareholder control in terms of the number of voting seats on a company's board rather than in terms of majority capital as stated in the 1971 law."

TIAA and Cosan have taken no chances though. They created a separate company in 2012 – Tellus Brasil Participações Ltda – which funnels foreign capital into Brazilian farms. On paper, Tellus is majority Brazilian-owned,[105] but the capital that Tellus uses to buy farm properties comes from subsidiaries of TIAA and the farmland funds it manages. Through creating these complex corporate structures to circumvent these legal restrictions on foreign land ownership, TIAA and Cosan have ensured that their operations appear to comply with the letter of the law, even if not its spirit.

LEGAL CONCERNS RELATED TO TIAA'S LANDHOLDINGS IN WESTERN BAHIA

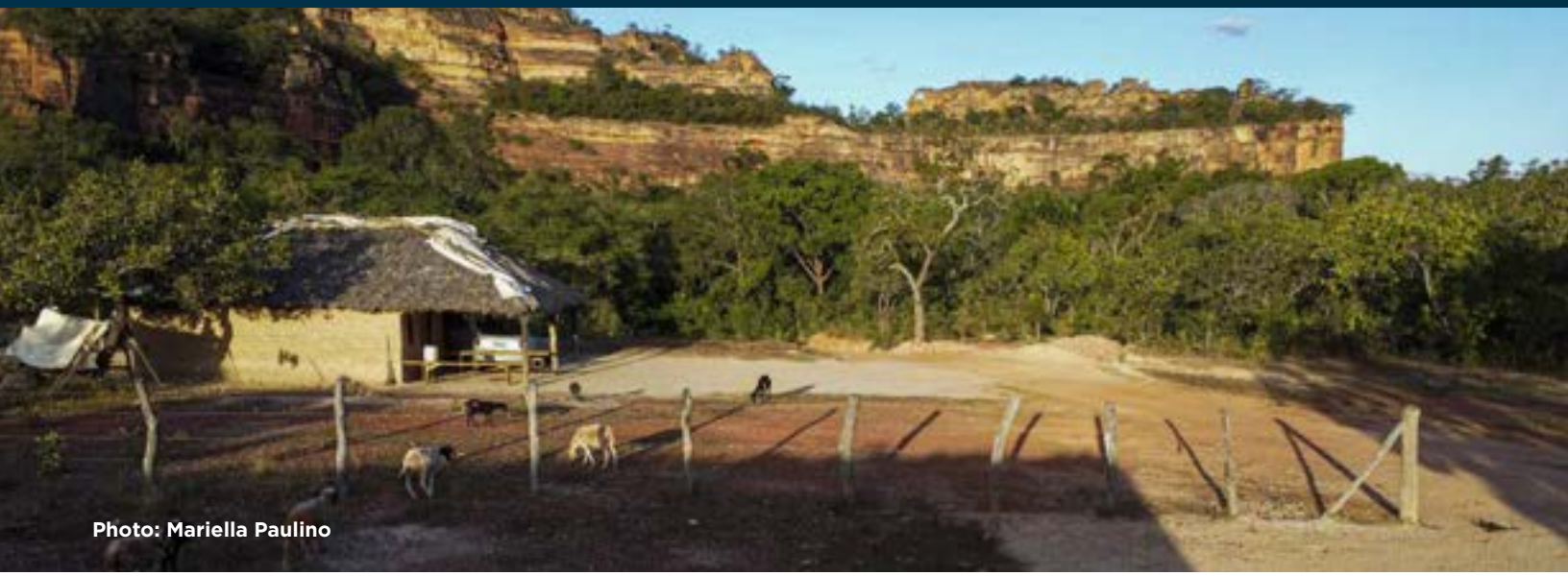

Photo: Mariella Paulino

TIAA's land holdings under Brazilian law

Radar and its subsidiaries' landholdings remain unclear, making it difficult to assess the legality of its land portfolio under Brazil's laws restricting foreign ownership of land. Nuveen maintains a partial map online with farmland holdings to provide "transparency in how we pursue sustainable practices through our investments globally," but the details provided on its website do not fully match public ownership records.[106] Questions around why TIAA has been vague about the locations of its farmland have prompted illuminating responses from Nuveen: In its document entitled "Process and Q&A regarding sustainability concerns," it states that the "updated version (of its online farmland map) balances the quiet right of enjoyment related to statutory lease conditions as well as providing more transparency."[107] Nuveen's practice of approaching land "transparency" as a choice speaks volumes, while significantly undermining affected communities and local rights holders. It disregards genuine land investment transparency, best described as a "public disclosure of relevant land investment-related information, as well as the ability of people to access, understand, and use that information."[108]

Radar and its subsidiaries' landholdings remain unclear, making it difficult to assess the legality of its land portfolio under Brazil's laws restricting foreign ownership of land.

However, there are strong indications from the federal government in Brazil declared in 2019, that TIAA and Radar were potentially in breach of foreign ownership laws on land investments. As previously reported by Rede Social and Friends of the Earth U.S., INCRA – the national agency for agrarian reform responsible for the supervision and control of acquisitions by foreigners – issued a statement in 2019 on Radar's subsidiary, Tellus Brasil Participações S.A. INCRA concluded that while Tellus Brasil Participações S.A. was legally founded as a Brazilian company, it should be treated as a foreign company, as it belongs to an economic group that involves foreign corporations.[109]

Consequently, according to INCRA, since the company acquired properties while laws were in place to regulate land acquisitions by foreign entities, those land deals were in violation of Brazilian law. INCRA therefore "declared that the acquisitions of dozens of rural properties by the joint venture between the U.S. pension

fund TIAA and Cosan S.A., which resulted in the creation of various companies of the Radar Group, were null and void." INCRA also stated that further reason to annul the land acquisitions was evidence indicating that the origins of the properties had been forged on the land records for land-grabbing purposes (Public Registry Law 6.015/1973), as "there was no mention of the transfer of land from the State to private owners."[3]

Published research by the Organized Crime and Corruption Reporting Project (OCCRP) raises additional questions. According to an investigation by OCCRP in 2023, drawing on data from inside Cosan, TIAA and Cosan reorganized Radar's shareholding structure in 2016 in order to fend off allegations about its being deemed a foreign entity. Under the new arrangement, Cosan reportedly held a majority of the voting shares of both Radar and Radar II. On paper, TIAA held more shares than Cosan – being "non-voting" shares, TIAA appeared to have less control over Radar. But according to OCCRP, the documents show "TIAA could veto major investments, provided 60 percent of the capital, and was entitled to 97 percent of profits." As OCCRP reported, that one document notes that TIAA's Brazilian holding company could buy Cosan out of the partnership "at any time."'[110] This type of loophole in the law that regulates the acquisition of land by foreigners in Brazil clearly works to the benefit of TIAA, while allowing massive foreign investment in land in Brazil which result in deepening the social and environmental impacts detailed in this report.

TIAA and Cosan's creation of Radar Gestora in 2024 to take over the totality of Radar and its subsidiaries' land in Brazil may enable the conglomerate to bypass foreign investment laws.

TIAA's acquisition of land under dubious circumstances

TIAA and Radar appear to have either turned a blind eye to alleged land-grabbing and human rights violations or failed to investigate such cases as part of routine due diligence. In both Maranhão and Piauí, Radar purchased properties from a group accused of grabbing vast tracts of land. The case involves several plantations in the same region as the Ludmila/Laranjeiras plantation that Radar acquired from this group.[111] In Maranhão, areas controlled by Radar were bought from SLC Agrícola, who in turn was directly responsible for acquiring land from the group accused of land-grabbing in Piauí.

Radar's acquisition of United and Parceiro farms in 2010 – both involved in complex legal proceedings – is further evidence of the company's questionable actions when it comes to its land acquisitions. The legal case is ongoing, yet TIAA has shown no evidence of publicly updating its own corporate policies or due diligence processes to identify, mitigate, and remediate against land rights violations.

TIAA may also be benefitting from "green land-grabbing" under Brazil's 2012 Forest Code. Part of the legal reserve of Tellus Bahia's Grão de Ouro Farm overlaps with the Fecho de Pasto da Vereda da Felicidade communities. This plot within territory critical to the livelihoods and culture of communities has been co-opted by Tellus Bahia as a "legal reserve," offsetting its own industrial farm in order to bestow legal and environmental legitimacy on its operations. Through the overlap of the Grão de Ouro Farm and the Fecho de Pasto da Vereda da Felicidade community territory, TIAA may be directly profiting from land-grabbing and human rights abuses against rural communities and their ancestral lands.

3 Please see: inside INCRA-Brazil investigation on Radar "Case nº 54000.000473/2016-10/INCRA", the analysis "Despatch DFC-2 3499347", page 731" (May 21, 2019), referred by INCRA "Advice 9513/2020/VDFC/DFC/DF/SEDE/INCRA (SEI 6126804)", page 1526 (May 5, 2020).

ACTIVITIES, LAND ACQUISITIONS, FIRE ALERTS, AND DEFORESTATION[112]

Fire alerts

Legal decision or investigation

Deforestation

Corporate merger/ acquisition

Policy commitment

2008		Cosan and TIAA merge to form Radar Propriedadas Agricola.
2009		Nuveen sets deforestation threshold, stating in its 2018 No Deforestation Policy in Brazil it "will not acquire land on behalf of any of its accounts in Brazil that has been cleared from native vegetation" in the Cerrado after this date.
2010		Brazil government restricts land acquisition by mixed companies.
		Cosan and Mansilla (TIAA) form subsidiaries Janus, Tellus, Tellus Bahia, Araucária, and Aroeira
		Radar acquires parcels involved in complex legal proceedings.
2012		Radar buys part of Bananal plantation, in municipality of Luis Eduardo Magalhães. 25,000 hectares are deforested on the whole farm from 2012 onward (Source: AidEnvironment).
		Radar partner SLC Agrícola establishes SLC LandCo joint venture with Valiance Asset Management fund (UK).
		Rio de Janeiro plantation (Radar and others): 1,200 hectares deforested between 2012 and 2023.
		Parceiro plantation (SLC Agrícola, SLC LanCo, Radar and others): over 9,000 hectares deforested between 2012 and 2014.
		Brazilian Forest Code adopted.
2013		SLC acquires Agrícola Xingu S.A., forming SLC-MIT, with Mitsui & Co., one of Japan's largest corporate groups. SLC becomes largest agrocommodity producer in Brazil.
		Registration of legal reserve of Radar and SLC's Parceiro Plantation canceled and transferred to another property in municipality of Barreiras do Piauí.
2016		TIAA, through Mansilla, acquires large stake in Radar. Cosan, TIAA's other partner, keeps only 3%.
		Emails revealed between TIAA directors concerned about legal disputes and possible land-grabbing allegations published in the press.
2017		Hertz Plantation, 11,130 hectares, acquired and registered by Radar in São Desidério, western Bahia.
2018		Nuveen, TIAA's asset manager, adopts Zero Deforestation Policy in Brazil, declaring 2009 cutoff date for deforestation in the Cerrado biome.
		Rio de Janeiro plantation partially acquired and registered by Radar in Barreiras, western Bahia. Plantation registered as 17,462 hectares. 1,704 hectares deforested on the whole farm between purchase and 2023.

2019		Parceiro plantation (Radar/SLC): More than 6,000 hectares deforested on the whole farm between 2019 and 2020.
		Paysandu Plantation (Mitsui & Co): 1,874 hectares deforested between 2019 and 2020 before SLC takes over operations in 2021.
2020		Incra – Brazil's National Land Institute – concludes that TIAA violates foreign ownership restrictions.
		Rio de Janeiro plantation (Radar and others): 7 fire alerts, 189 hectares burned on the whole farm.
		Bananal plantation (Radar and others): 232 fire alerts, 5,292 hectares burned on the whole farm.
		United plantation/ Águas Claras/Lote 05 (Radar): 241 hectares burned on the whole farm.
		Parceiro plantation (Radar/SLC): 198 fire alerts, 11,438 hectares burned on the whole farm.
		Panorama plantation (SLC/ Tellus Bahia/ Others): 451 hectares burned on the whole farm.
		Paysandu plantation (Mitsui & Co): 89 fire alerts, 3,506 hectares burned on the whole farm.
		Paladino plantation (SLC/MIT): 1,228 hectares burned on the whole farm.
		Piratini plantation (SLC LandCo):12 fire alerts, 460 hectares burned on the whole farm.
		Palmares plantation (SLC Agrícola, SLC LandCo and others): 149 hectares burned on the whole farm.
2021		Águas Claras Lot 05.03A, Plantation Lot 05.02, Plantation Lot 05.02A acquired and registered by Radar.
		Parceiro/Mariana plantation, Fazenda Mariana II and Mariana III acquired and registered by Radar in the SIGEF.
		Fazenda Reserva Lot nº 05.02 and 05.02A acquired and registered by Radar.
		Cosan goes through Mansilla to buy back part of Radar, Tellus, and Janus. Buy-back process continues through 2022.
		Rio de Janeiro plantation (Radar and others): 40 fire alerts, 1,049 hectares burned on the whole farm.
		Bananal plantation (Radar and others): 64 fire alerts, 5,238 hectares burned on the whole farm.
		United plantation (Radar): 6 fire alerts, 446 hectares burned on the whole farm.
		Parceiro plantation (Radar/SLC): 410 fire alerts, 10,438 hectares burned on the whole farm.
		Panorama plantation (SLC-leased legal reserves from Radar and Tapera farms, overlapping Fecho de Pasto territories): 59 fire alerts, 2,817 hectares burned on the whole farm.
		Paysandu plantation (SLC): 8 fire alerts, 326 hectares burned on the whole farm.
		Paladino plantation (SLC/MIT): 595 hectares burned on the whole farm.

2021		Piratini plantation (SLC LandCo): 35 fire alerts, 2,346 hectares burned on the whole farm.
		Palmares plantation (SLC Agrícola, SLC LandCo and others): 20 fire alerts, 1,318 hectares burned on the whole farm.
		Tabuleiro plantation (legal reserve for areas operated by SLC-MIT): 8 fire alerts, 455 hectares burned on the whole farm.
2022		Rio de Janeiro plantation (Radar and others): 85 hectares burned on the whole farm.
		Bananal plantation (Radar and others): 59 fire alerts, 2,974 hectares burned on the whole farm.
		Parceiro plantation (Radar/SLC): 135 fire alerts, 10,168 hectares burned on the whole farm.
		Colorado plantation (Tellus Bahia/Radar): 6 fire alerts.
		Paysandu plantation (SLC): 14 fire alerts, 2,840 hectares burned on the whole farm.
		Paladino plantation (SLC/MIT): 2 fire alerts.
		Piratini plantation (SLC LandCo): 68 fire alerts, 1,574 hectares burned on the whole farm.
		Palmares plantation (SLC Agrícola, SLC LandCo and others): 69 fire alerts, 3,604 hectares burned on the whole farm.
		Tabuleiro plantation (legal reserve for SLC-MIT): 4 fire alerts.
2023		Deforestation in the Cerrado increases by 68% compared to 2022.
		Agência Pública and OCCRP expose how Cosan and TIAA have created several jointly owned companies to buy up dozens of plantations, covering over 30,000 hectares, from people accused of systemic land-grabbing.
		Bananal plantation (Radar and others): 2 fire alerts, 1,611 hectares burned. 25,000 hectares deforested.
		Rio de Janeiro plantation (Radar and others): 23 fire alerts, 2,449 hectares burned on the whole farm.
		United plantation (Radar): 4 fire alerts, 21 hectares burned on the whole farm.
		Parceiro plantation (Radar/SLC): 72 fire alerts, 6,965 hectares burned on the whole farm.
		Colorado plantation (Tellus Bahia/Radar): 14 fire alerts, 2,065 hectares burned on the whole farm.
		Paysandu plantation (SLC): 8 fire alerts, 2,898 hectares burned on the whole farm.
		Piratini plantation (SLC LandCo): 7 fire alerts, 1,512 hectares burned on the whole farm.
		Palmares plantation (SLC Agrícola, SLC LandCo and others): 24 fire alerts, 1,584 hectares burned on the whole farm.

2024		Cosan and TIAA expand partnership by creating Radar Gestão de Investimentos S/A, (trade name Radar Gestora). The company takes over all of Radar and its subsidiaries' land in Brazil, including TIAA-controlled eucalyptus plantations in Brazil.
		Brazilian government establishes country's first regulated carbon market.
		Mariana II & Mariana III plantation (Radar): 40 fire alerts, 2,644 hectares burned on the whole farm.
		United plantation (Radar): 29 fire alerts, 1,013 hectares burned on the whole farm.
		Parceiro plantation (Radar/SLC): 60 fire alerts, 5,863 hectares burned on the whole farm.
2024		Panorama plantation (SLC/ Tellus Bahia / others): 49 fire alerts, 2,450 hectares burned on the whole farm.
		Paysandu plantation (SLC): 2 fire alerts, 1,682 hectares burned on the whole farm.
		Piratini plantation (SLC LandCo): 49 fire alerts.
		Palmares plantation (SLC Agrícola, SLC LandCo and others): 3,736 hectares burned on the whole farm.
		Tabuleiro plantation (legal reserve for SLC-MIT): 15 fire alerts.

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CONCLUSION

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The ongoing expansion of agribusiness in the Cerrado, and in Brazil more widely, is seriously threatening vulnerable ecosystems and the livelihoods of rural communities. Under President Lula's administration, the Brazilian government managed to curtail Amazon deforestation by 30.6% between November 2023 and November 2024, reaching the lowest level of deforestation in nine years, according to data from the country's national space research institute, INPE. This is in part due to the implementation of a formal deforestation action plan in the Amazon, increasing fines for environmental violations, and cracking down on illegal activities.[113]

In contrast, the Cerrado is experiencing a surge in deforestation rates. The Cerrado is vital for wildlife and to replenish watersheds across the continent. Its destruction would affect not just Brazil but South America more broadly, with water and food security severely undermined.

As the largest institutional owner of industrial farmland and timberland globally, directly and through various subsidiaries and joint ventures, and the largest speculator in farmland among retirement funds, TIAA has long been accused of enabling land-grabbing, deforestation, and the corporate domination of land.[114] TIAA promotes an image of a socially responsible business, yet its land investment model has contributed to the devastation of local livelihoods and the environment. Such destruction has been thinly veiled under a veneer of glossy annual reports and rhetorical discourse about sustainability. By keeping landholdings subject to legal dispute in its portfolio, TIAA is demonstrating legally, morally, and fiscally dubious behavior. Despite Radar being under investigation by INCRA, TIAA has doubled down and created additional companies, further expanding its corporate network and land-grabbing in Brazil.

For rural communities in Western Bahia and in Brazil, land is life. Indigenous peoples and other local communities are the best protectors of land, forests, and biodiversity. So, respecting land rights of rural communities is integral to dealing with the global climate and

ecosystem breakdown. Financialization of land is a major cause of environmental destruction and climate change.[115]

Debates around the regulation of finance in the United States are being increasingly drawn upon polemic and ideological lines, with little to no consideration of the very real impacts felt by those whose land has been grabbed.

The issues showcased in this report highlight the absence of binding national and international frameworks to prevent financial corporations from disregarding the environment and human rights with impunity. Political leadership is urgently required to create and enforce binding regulations to tackle this scandal.

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RECOMMENDATIONS

Photo: Shutterstock/Leonidas Santana

In Brazil, TIAA should ...

- Meet with local rights holders to understand the reality of their experience and address their grievances.
- Enact a moratorium on all new operations in farmland and agribusiness markets and seek to cap and reduce its landholdings portfolio.
- Increase efforts to stop the ongoing deforestation and human rights violations against rural communities in the areas where it operates and provide concrete remedy and compensation for any rights-holders that may have been harmed by its operations.
- Respond to the demands of Indigenous, quilombola, and peasant communities affected by its landholdings, including where legal cases remain unresolved and community land rights claims are still pending formal recognition and titling processes.
- Terminate commercial relationships with companies that do not have robust policies or processes in place to identify, mitigate, and prevent deforestation on their landholdings and/or that are operating on properties claimed or contested by Indigenous and peasant communities in the absence of FPIC, including legal reserves.
- Commit to full transparency about which lands it has acquired and return lands to communities in cases of land rights violations.
- **Asset owners and pension funds in the United States, European Union, and Canada should** reconsider their contributions to TIAA land funds until TIAA has undertaken these recommended actions and addressed all concerns that its land funds may be causing harm to communities in Brazil and beyond. **TIAA participants should** urge TIAA to halt its farmland operations and disband its Brazilian business.

The U.S. government[4] should...

- Establish national ESG criteria which outline what qualifies as ESG investments to ensure consistency and prevent greenwashing. U.S. standards should be aligned with globally recognized frameworks like the UN Guiding Principles on Business and Human Rights and the OECD Guidance for Multinational Enterprises on Responsible Business Conduct. Companies should be required to take a "double materiality" approach by reporting on the financial risks of social and environmental factors for their operations, as well as on the impacts of their corporate activities and supply chains on the environment and society.

- Develop a sustainable finance taxonomy. Following in the footsteps of the EU and many other jurisdictions, a Sustainable Finance Taxonomy should be developed to classify economic activities that are sustainable, as well as activities that are unsustainable. The taxonomy should be aligned with other major national and regional taxonomies to allow interoperability and usability. It should encompass the key social and environmental issues and contain a list of unsustainable activities and Technical Screening Criteria (TSC) for all biodiversity-risk sectors. This would allow investors to identify which companies are meeting environmental standards and developing business strategies which avoid deforestation and biodiversity loss, as well as to discourage land speculation. Currently, there are no plans in the U.S. to launch a Sustainable Finance Taxonomy.116

- Mandate ESG, Foreign Land Disclosure Requirements, and ownership transparency. Pension funds should publicly disclose how ESG factors are integrated into their investment processes through standardized reporting. Require U.S. entities investing in foreign land to disclose details about the location, size, purpose, and intended use of the investment. Mandate disclosure of the ultimate beneficial owners of entities involved in foreign land acquisitions to prevent misuse or concealment.

- Create a dedicated agency or task force under the Department of Labor or SEC to oversee ESG compliance for public pension funds, which should implement regular audits and penalties for noncompliance to maintain accountability. SEC and criminal authorities should act if investors do not meet the requirements in existing regulations and the new regulations proposed. Fines and sanctions such as holding board members accountable, (temporarily) revoking a license, or not allowing market access for certain financial products should be used.

- Enforce due diligence requirements. Mandate rigorous and independent environmental and social impact assessments from large companies, including financiers, before approving investments to evaluate potential adverse effects on ecosystems and local populations. Conduct a corruption risk analysis to ensure investments are not linked to corruption, fraud, or unlawful land acquisition practices in the host country. The requirement should involve the identification of the most important social and environmental impacts caused by, contributed to, or directly linked to the company and the value chain. After identification, the company should act to stop or mitigate these impacts and provide remedy. Implementing these measures would enable investors to identify corporations that have adopted reliable actions to address environmental and social issues. And it would force large investment firms to develop such strategies themselves.

- Impose limits on land acquisitions in regions with significant cultural, historical, ecological or Indigenous value.

- Establish a federal agency or task force to monitor and enforce compliance with foreign land investment regulations.

4 The current political context in the U.S. likely puts these recommendations out of reach at the time of this publication. Nonetheless, these recommendations represent what a responsible government should, can and must do to ameliorate the harms detailed in this report.

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Photo: Agência Senado

Conduct periodic reviews of U.S. foreign land investments to ensure alignment with legal and ethical standards.

- Foster accountability by creating and maintaining an accessible database of U.S. foreign land investments for the public and the media. Engage NGOs and local organizations in monitoring and reporting on the impacts of U.S. investments.

Brazilian government institutions should ...

- Immediately suspend TIAA and SLC's environmental authorizations to operate in Western Bahia and investigate the companies' environmental authorizations and operations. If evidence of illegal activities is found, prosecute those responsible and cancel the companies' concession contracts.
- Immediately halt all deforestation in the region and in landholdings related to TIAA and SLC.
- Ensure land rights mechanisms for affected communities, including civil society oversight. This process must meet demands from rural communities to protect their land, forests and water sources, as well as compensation paid to them for damage caused by agribusiness.
- Cancel all CARs (Cadastro Ambiental Rural - Rural Environmental Registries) of TIAA's properties and other agribusiness corporations in the region, as these self-reported data often contain overlapping areas of rural communities and are frequently used by land-grabbers to secure bank loans.
- INCRA (Brazilian Institute for Agrarian Reform) should cancel all certifications in SIGEF (Sistema de Gestão Fundiária – Land Management System) that overlap the delimited territories of rural communities, as these records are often used by digital land-grabbers to prevent and delay the certification and titling of land by communities.
- Regarding the acquisition of farmland by foreign corporations, INCRA should be transparent about its investigation processes and criteria. It also needs to improve investigation mechanisms to follow the law that limits foreign land ownership in Brazil.

ANNEX1: SOURCE DATA

Data on land ownership, fire alerts and land clearing/deforestation in this report is based on the following sources:

a. **Land Clearing: Terra Brasilis (PRODES, Inpe), available at:**
https://terrabrasilis.dpi.inpe.br/

b. **Fire alerts: Firms (NASA), available at:**
https://firms.modaps.eosdis.nasa.gov/alerts/

c. **Land ownership: Acervo Fundiário, SIGEF & SNCI (Incra), available at:**
http://acervofundiario.incra.gov.br/acervo/login.php
This database is only accessible from within Brazilian territory (or thought a VPN connection) and only through an account registered to a Brazilian citizen.

Fire alerts data comes from Nasa (above); burned areas were calculated through the overlapping of two sources:

a. **Planet: ©2025 Planet Labs Inc., available at:**
https://www.planet.com/geospatial-data

b. **Terra Brasilis, available at:**
https://terrabrasilis.dpi.inpe.br/

Photo: Shutterstock/JH Bispo

ANNEX2: RESPONSES FROM NUVEEN NATURAL CAPITAL TO FRIENDS OF THE EARTH

Photo: ActionAid USA

In response to query from Friends of the Earth U.S., Nuveen Natural Capital sent the following response on November 11, 2024:

Thank you for your questions. Here are some responses, which we hope are useful.

Regarding the Nuveen Natural Capital (NNC) Sustainability Policy:

NNC's Global Sustainability Policy, including a Zero Non-Deforestation Policy, has been in place in Brazil since 2018. Please refer to the policy and Q&A at this link Brazil 2018 Zero Deforestation Policy + Q&A (uveen.com).

For the Cerrado, Brazil, NNC adopts the cut-off date applied by the RTRS Soy Standard. The RTRS Soy guidance specifies that no conversion after 2016 will be certifiable. This is applicable to forest, native vegetation, and wetlands.

The cut-off date adopted by NNC in the Cerrado is earlier than that proposed by the EU Zero Deforestation regulation as well as that proposed by the Accountability Framework, both of whom have cut-off dates in 2020.

Regarding implementation:

Implementation of the policy is carried out via internal and external checks. This includes:

- regular site visits of local team (approx. 55 in-country specialists)
- internal satellite analysis by a dedicated local Environmental team: includes regular cross-reference deforestation alert systems such as MapBiomas, Global Forest Watch, PRODES, and DETER. The satellite-based fire monitoring system further supports the deforestation policies by detecting fire-related deforestation.
- independent validation of the policy by an external third party: a satellite imagery analysis company in Brazil

Regarding social due diligence, Free, Prior and Informed Consent (FPIC) considerations and alerts in companies invested:

Social and environmental verifications are conducted to ensure tenanted farms are acting in alignment with our standards for social welfare and environmental responsibility. These standards are benchmarked against external frameworks, including RTRS and Bonsucro. On-site verification is carried out in conjunction with a 3rd-party NGO.

An independent grievance channel has been in place in Brazil since 2018 to enable local communities to raise concerns about NNC or tenant activities.

We do not invest in companies, only in land-based assets. Prior to potential land acquisitions, a detailed and structured due diligence procedure is in place including land title, legal, social and environmental considerations.

Regarding the Forest Code:

We are committed to ensuring that land-based assets comply with Brazil's Forest Code. Compliance efforts include a program to regularize properties under the Environmental Compliance Program (PRA). In states like São Paulo, which were developed before the issuance of the Forest Code, we have established agreements with the state to restore Permanent Preservation Areas and Legal Reserves. Over roughly a decade we have restored over 5,600 acres of native vegetation (approx. 5,400 acres through 2023).

Regarding successful outcomes:

Please refer to the following case studies, outlined in the Annual Sustainability Report 2023 and Annual Sustainability Report 2024. These include:

- Supporting seed collectors' network (page 50)
- Creating alliances to fight fires, increase diversity of income, and enhance food security in rural communities (page 49)
- Satellite data for wildfire monitoring (page 56)
- Restoration of native vegetation (page 55)

Response to Friends of the Earth, December 4, 2024

After reviewing the response above, Friends of the Earth U.S. asked a series of more detailed follow-up questions, to which Nuveen Natural Capital responded on December 4, 2024, as follows:

Thank you for your detailed questions.

We appreciate and value the important role NGOs and other stakeholders play in shaping the sustainability discourse in Brazil and influencing the evolution of our sustainability program. Much of what has been achieved to date has been a result of constructive collaboration.

In the spirit of transparency, we are providing detailed responses to each of your questions. We expect such transparency to be reciprocated, and for you to give us advance warning of at least 2 weeks, should you intend to publish any portion of our responses or make claims in relation to the Nuveen Brazil farmland operations. If assured of constructive collaboration, we would be open to further positive engagement.

Our detailed responses to each of your questions are below:

4. The response signposts to Nuveen's Brazil 2018 Zero Deforestation Policy + Q&A which states that: 'This policy seeks to ensure our investments do not promote deforestation in Brazil regardless of the investment entity involved.' Could you therefore confirm that Nuveen's Brazil 2018 Zero Deforestation policy and accompanying due diligence processes applies to the entirety of TIAA and its subsidiaries in Brazil?

Yes, Nuveen's Brazilian farmland zero-deforestation policy came into effect in 2018. While it applies to properties acquired after its publication, the portfolio has been reviewed and is compliant with the cut-off dates established in the policy.

We believe that Nuveen was one of the first agricultural value chain stakeholders/land owning groups to establish such a zero-

deforestation policy, which takes into account the diversity of biomes, including the Cerrado, with robust cut-off dates.

We would welcome any feedback as to which zero-deforestation policies and cut-off dates in the agricultural value chain you are benchmarking us against and any advice you could provide.

5. **Whilst the response sets out a number of tools that Nuveen is using to detect deforestation linked to its land holdings in Brazil, it is not clear how these tools are being used as part of Nuveen's due diligence process to identify and mitigate against deforestation. Could you set out what Nuveen's due diligence process is with regards to non-compliance of its deforestation policy, including effective restoration, compensation, and monitoring and reporting, and incorporating learnings going forward? Could you explain how the 55 in-country staff that you mention are part of Nuveen's due diligence system, including their roles and responsibilities? Pre-Acquisition Due Diligence:**

Nuveen has two key processes for monitoring deforestation:

Pre-Acquisition Due Diligence: During the farm scouting phase, we conduct analyses of the deforestation history of the properties using public databases such as Global Forest Watch, MapBiomas, and PRODES-INPE (Brazilian Deforestation Monitoring System). In addition, satellite imagery from sources like Landsat, Sentinel, CBERS, Maxar, and Planet is analyzed by our geoprocessing team. Properties under consideration for acquisition are verified by a third-party geoprocessing company specializing in this field. This third-party also contributed to establishing the cut-off dates outlined in the zero-deforestation policy. The policy imposes a strict restriction on the acquisition of areas converted after the cut-off dates defined for each biome.

Portfolio Deforestation Monitoring: Nuveen conducts two on-site visits annually across all areas in its portfolio. These visits aim to verify property management practices and identify potential vegetation suppression. In 2024, Nuveen strengthened its monitoring procedures by introducing satellite-based deforestation monitoring. Monthly planet imagery of the entire portfolio is now purchased and processed by the internal geoprocessing team. Alerts generated from these analyses are subsequently verified on the ground by the asset management team.

Nuveen's team in Brazil, comprising approximately 55 professionals, is multidisciplinary and divided among the Legal, Commercial, Financial, ESG, and Asset Management departments. The Asset Management team, consisting of 12 members, is further segmented into Environmental, Land Management, and Property Management divisions. This team is primarily responsible for conducting technical analyses during pre-acquisition and portfolio monitoring, ensuring the effective implementation of the company's zero-deforestation policy.

6. **Could you provide the indicators that these staff are using for the 'regular site visits' stated and how often these visits take place?**

The Code of Conduct outlines expectations for the management of our farmland properties.

Our Sustainability and Environmental teams conduct dedicated visits to tenants with the primary purpose of verifying compliance with the Code of Conduct. While other farm visits may occur for various reasons, any identified breaches of the Code during these visits are promptly reported to the Sustainability Manager. Such findings are incorporated into detailed action plans for resolution. However, there is a specific process and set of visits focused solely on verifying compliance with the Code of Conduct requirements.

Our evaluation system for properties includes approximately 80 indicators across key areas such as social and environmental performance, human rights, transparency, and infrastructure. These indicators are categorized by three levels of criticality for non-compliance. The frequency of visits and follow-ups is determined by the severity of any identified gaps. Where needed, plans are put in place to monitor gaps and progress, until compliance is achieved.

7. Similarly, could you explain how Nuveen uses the satellite data on deforestation and fire detection? If a fire or deforestation is detected, what is Nuveen's process for mitigation and remediation as part of its wider due diligence? In Nuveen's 2024 Sustainability report in the section on satellite data and wildfire monitoring, the positive outcomes are stated as 'Ability to respond to risks' and 'Engagement with tenants on fire management'. Could you say how many instances of deforestation and/or fire-related deforestation Nuveen has identified as being linked to its land holdings, and over what period? What is the reason for Nuveen not publicly reporting on this? Does Nuveen take action beyond simply engaging with tenants? If so, in what circumstances and how?

Nuveen has an internal fire monitoring system that uses NASA data for rapid detection of heat spots. This process enables prompt contact with the tenant, who has a fire brigade trained to act directly in combating fires. Additionally, satellite imagery is used to assess the area effectively impacted by the fires.

Evaluating the actual effects of fires is a complex process that requires time and typically occurs after the rainy season that follows such adverse events. Where required, Nuveen works in collaboration with official agencies to remediate and compensate affected areas as part of the environmental compliance process for the properties.

Furthermore, based on historical data and the identification of areas most susceptible to wildfires, actions are taken to support and encourage tenants and local communities in fire prevention, risk mitigation, and firefighting efforts.

8. The response states an 'independent validation of the policy by an external third party' as part of Nuveen's policy implementation? Could you explain what this means? Who 'validates' Nuveen's policy and how, and how is this part of policy implementation?

Land acquisitions made after the publication of the zero-deforestation policy undergo verification by a third-party company specialized in geoprocessing. The third-party company validates each asset in the portfolio and confirms that the property has been reviewed and complies with Nuveen's zero-deforestation policy.

9. In response to our previous question on how Nuveen ensures the Free, Prior and Informed Consent (FPIC) of local communities potentially affected by land holdings held by Radar and its subsidiaries in Brazil, Nuveen does not mention FPIC but 'environmental and social standards'. Could you therefore confirm that Nuveen is not able to ensure the Free, Prior and Informed Consent of local communities?

Nuveen employs a structured socioenvironmental evaluation process for evaluations of potential new agricultural land acquisitions in MATOPIBA, ensuring alignment with FPIC principles. This process was developed with two important local NGOs.

While these processes are implemented in property evaluations, no new farmland acquisitions have reached completion since 2019 for diverse commercial reasons. The processes which take place at evaluation include:

- **Stakeholder Identification**: We map and engage key stakeholders, including local communities, Indigenous groups, and other affected parties, to understand their perspectives and ensure inclusive dialogue.
- **Geospatial Analysis**: We conduct comprehensive mapping to identify potential overlaps with Indigenous territories, traditional lands, and other areas of cultural or social significance.
- **Field Investigations**: Structured interviews and consultations are held with stakeholders to capture insights about land use, conflicts, and opportunities. This phase prioritizes transparency and informed participation from all involved parties.

- **Risk and Opportunity Assessment**: Risks, such as potential conflicts or environmental concerns, are identified alongside opportunities for positive local impact. These findings inform mitigation strategies and community engagement plans.
- **Action and Documentation**: Potential gaps or concerns are addressed through tailored action plans.

In addition, given that our farmland properties are leased, we select operators with robust governance systems to manage them. During visits, we seek to evaluate whether tenants engage effectively with local communities, manage grievances appropriately, including how they have responded to any issues raised during the period.

Over 80% of our farmland is certified under third-party certification schemes, such as RTRS and Bonsucro. These certifications require robust consultation processes and community engagement practices to be in place, ensuring alignment with internationally recognized standards.

We believe that the level of certification on our farmland is higher than industry average among agricultural value chain stakeholders, though we would welcome your commentary here.

10. The response references 'An independent grievance channel has been in place in Brazil since 2018 to enable local communities to raise concerns about NNC or tenant activities.' Unfortunately, we are unable to find any information on this grievance mechanism, and our partners in Brazil are also unaware of it. Could you signpost us to where this information is provided?

The independent grievance channel referenced was established in 2018. We have informative signs displayed on our farms, which include a "0800" number for reporting any concerns. This allows local communities, employees, or third parties to raise issues related to Nuveen or tenant activities.

In addition, our tenants each operate their own grievance channels, which are available to employees, third parties, or community members at any time. This practice is part of our Code of Conduct and is incorporated into our evaluation and assessment verification process.

11. The response states that 'Prior to potential land acquisitions, a detailed and structured due diligence procedure is in place including land title, legal, social and environmental considerations.' Could you set out exactly what Nuveen requires as part of its due diligence process prior to land acquisitions, rather than what is considered?

Nuveen's due diligence process is carried out by a multidisciplinary team to minimize risks as much as possible. Below are examples of the analyses conducted (not an exhaustive list):

Environmental:

- Protected Areas Analysis: Ensures the property is not located within Conservation Units, Indigenous Lands, Traditional Communities, or other protected areas.
- Land Conversion History: Verifies that the property complies with the zero-deforestation policy and environmental legislation.
- Environmental Liabilities: Checks for any existing liabilities, such as contaminated areas, restoration requirements, or other environmental issues.

Land Management:

- Deed and Georeferencing Analysis: Ensures the property boundaries are registered with INCRA (Brazil's National Institute for Colonization and Agrarian Reform) and that there are no legal restrictions associated with the property.

Social, with a focus on MATOPIBA:

- Stakeholder Mapping: Identifies key stakeholders, including local communities and Traditional Peoples, and ensures their rights and concerns are respected.

- Social Risks and Impacts: Analyzes potential conflicts or risks related to land use, community livelihoods, or access to resources.

Legal:

- Ownership Chain: Verifies the legitimacy and traceability of property titles.
- Judicial Proceedings: Ensures there are no ongoing legal disputes involving the property.

12. The response states that Nuveen has an agreement with the state 'to restore Permanent Preservation Areas and Legal Reserves. Over roughly a decade we have restored over 5,600 acres of native vegetation.' Could you provide more detail on Nuveen's restoration process, including how Nuveen determines what needs to be restored; and how the most appropriate restoration approach is determined, designed, and implemented?

Nuveen carries out restoration activities as part of its environmental compliance program, which aligns with Brazilian environmental legislation. These restorations are authorized and coordinated with government agencies to ensure full compliance.

Under Brazil's environmental framework, the Rural Environmental Registry (CAR) serves as the foundational step. This system consolidates detailed environmental information about each property, enabling government authorities to monitor compliance with regulations. Properties registered in the CAR undergo an evaluation process to identify potential environmental liabilities, such as deficits in Legal Reserves or Permanent Preservation Areas (APPs).

When liabilities are identified, the property enters the Environmental Regularization Program (PRA). This program defines a clear roadmap for achieving compliance, which may include restoration, reforestation, or compensation measures. Restoration projects under the PRA must be authorized by environmental agencies and are closely monitored to ensure they meet legal and ecological standards.

To execute these activities, Nuveen relies on a specialized team of forestry engineers, biologists, agronomists, and geographers. This team works to ensure that all restoration efforts are not only aligned with legal requirements but also contribute to the sustainable management of the landscapes involved.

13. Could you also confirm whether Nuveen claims reforestation carbon credits as part of its restoration process?

Our Brazilian farmland business does not have any carbon projects for restoration/reforestation and does not claim carbon credits.

Our Sustainability Report includes details on carbon projects on global timberland properties.

Photo: Shutterstock/PARALAXIS

Endnotes

1 Annex 1

2 https://www.nuveen.com/en-us/insights/responsible-investing/nuveen-natural-capital-2025-sustainability-report

3 https://www.nuveen.com/en-us/insights/responsible-investing/nuveen-natural-capital-2025-sustainability-report P. 54

4 https://valor.globo.com/brasil/noticia/2017/12/19/estrangeiro-contorna-restricao-e-investe-em-terra.ghtml

5 https://api.mziq.com/mzfilemanager/v2/d/6aa68515-2422-4cc4-bafa-8870ccdfedb0/bc608c28-6bed-ceed-de0c-5ec3a11791db?origin=1 P. 41

6 https://api.mziq.com/mzfilemanager/v2/d/6aa68515-2422-4cc4-bafa-8870ccdfedb0/bc608c28-6bed-ceed-de0c-5ec3a11791db?origin=1

7 Note that this report uses acres rather than hectares.

8 Borras, S. M., & Franco, J. C. (2024). Land rush. The Journal of Peasant Studies, 1–16. https://doi.org/10.1080/03066150.2024.2317961

9 Upon reviewing the findings in this report, Nuveen responded, "Allegations of land grabbing are incorrect and abhorrent: all land purchases followed due legal process for confirming land title.

10 https://www.fao.org/cfs/policy-products/vggt/en/#:~:text=The%20Voluntary%20Guidelines%20on%20the,and%20poverty%2C%20supporting%20sustainable%20development

11 https://nffc.net/what-we-do/land-resource-grabs

12 https://www.tni.org/en/publication/landgrabbing-contested-meanings-of-land

13 https://www.scientificamerican.com/article/agroecology-is-the-solution-to-world-hunger/

14 Findings related to land ownership, fire alerts and land clearance/deforestation and are based on source data listed in Annex 1.

15 In response to a prior finding that Radar owned 55,000 hectares in the state of Bahia, Nuveen responded that "The actual number is less than half of this [eg, less than half of 55,000 hectares - ed.] Since 2019, there have been farm sales, and Radar has not purchased any land since 2019." At the time of this publication, Nuveen has not provided a precise figure for its landholdings; the figure used here is derived from public sources as noted in Annex 1.

16 There has been no land conversion or deforestation on any of the Radar properties currently under management in accordance with the Nuveen Zero Deforestation Policy, effective 2018.

17 TIAA, through Radar, owns plots within farms in western Bahia, such as Rio de Janeiro, Bananal, Parceiro, among others. These plots cannot exist on their own; they can only be operated on a large scale and by large groups, which would explain Radar's partnerships with these groups in the region, as we will see. Although our investigations found deforestation of 18,774 hectares in Radar's plots since 2012 and 208 hectares since 2018, these plots of land do not exist in isolation from the farms of which they are part, and therefore are linked to deforestation outside those plots, but inside the farms to which they belong. In this report, we use the concept of "partial ownership" to say that Radar benefits from what happens on the farms where it has plots of land. This applies to deforestation, land grabbing, and fire alerts.

18 Nuveen has disputed this finding, saying "Only 15 fire incidents were confirmed on Radar's farms in Western Bahia, out of 960 heat spots detected, and in contrast to your allegation of 1,509 fires (as fire alerts not necessarily imply in fire incidents). Most of these incidents started outside of Radar's managed farms boundary.

19 As recommended by the Forests and Finance coalition of which Friends of the Earth U.S. is a member. See Forests & Finance. (October 16, 2024). *Regulating Finance for Biodiversity. An Assessment for the Global Biodiversity Framework,* https://forestsandfinance.org/publications/bobc-2024-regulate-finance/

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29 Molly Herring. Op. cit.

30 Sarah Sax and Maurício Angelo. Op. cit.

31 MapBiomas. (May 28, 2024). *RAD 2023: Matopiba overtakes the Amazon and takes the lead in deforestation in Brazil*. https://brasil.mapbiomas.org/en/2024/05/28/matopiba-passa-a-amazonia-e-assume-a-lideranca-do-desmatamento-no-brasil/

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la leases and operates SLC LandCo's land, when it becomes ready for growing. Currently, SLC Agrícola owns 81.2% of SLC LandCo and Valiance, 18.8%. For more information, see SLC Agrícola. (2025). *Our Big Dream*. https://www.slcagricola.com.br/

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59 Nuveen has contested this figure but has not provided data directly to our researchers or publicly on its website, which would allow us to assess the difference between the findings of our investigation and Nuveen's assertion. We welcome the publication of all of Nuveen's land ownership data.

60 The Bananal plantation, in the municipality of Luis Eduardo Magalhães, was acquired by Radar (Aroeira Propriedades Agrícolas LTDA) from Agrifirma, which had bought it from Sertaneja Empresa Agropastoril. As for the Rio de Janeiro farm, owned by the subsidiary firm Q045 Negócios Imobiliários/Janus (SNCR 9060850149823), this parcel of land used to be part of the Bananal plantation. Sertaneja Empresa Agropastoril sold this parcel to the Rio de Janeiro company, owned by José Volter Laurindo de Castilhos. Adecoagro then bought the parcel and sold it to Janus. See Nuveen. (2025). *Farmland transparency map*. https://www.nuveen.com/global/investment-capabilities/real-assets/farmland/map## José Volter Laurindo de Castilhos and family are the owners of Agropecuária Tapera Ltda., which sold the Grão de Ouro and Colorado Farms to Radar (Tellus Bahia) and, like Radar/Tellus Bahia, they own a property that overlaps the land of the Vereda da Felicidade Fecho de Pasto community, as we will see shortly.

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63 Land ownership: Acervo Fundiário, SIGEF & SNCI (Incra), available at: http://acervofundiario.incra.gov.br/acervo/login.php

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65 See Sigef, certification number for the Parceiro Farm Lot 02: fc230874-f0d6-43b8-839e-ef9008beff4d.

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71 According to data from Sigef.

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111 Ibid.

112 Sources for land ownership, land clearance/deforestation and fire alerts can be found in Annex 1: Source Data.

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116 As recommended by the Forests & Finance coalition, of which Friends of the Earth U.S. is a member. See Forests & Finance. Op. cit.