

June 2023

Realtime Deforestation 13

Monitoring System



*Soy and cattle supply chains
Amazon and Cerrado Biomes – Brazil*

Updated
in
October 2023



aid
environment

Aidenvironment develops **Realtime Deforestation Monitoring (RDM)** reports to engage companies and urge action towards real-time deforestation events, as well as to support civil society and financial sector stakeholders in their efforts to halt deforestation linked to commodity production and trade. In Brazil, the recent increase in deforestation rates is mainly linked to the expansion of Soy and Cattle production within the Amazon and Cerrado biomes.

The RDM 13 report of June 2023 highlights 7 cases mainly linked to the soy supply chain in the Cerrado and Amazon biomes. **The 7 cases present 13,107 hectares of deforestation and 80 fire alerts in Mato Grosso, Bahia and Piauí states.** The cases cover deforestation alerts detected in May 2023, with visually confirmed deforestation events between October 2022 and May 2023.

From now on, together with the confirmed cleared area, the RDM also estimates the linked **CO₂ emissions (above-ground carbon emissions)** according to the cleared vegetation type.

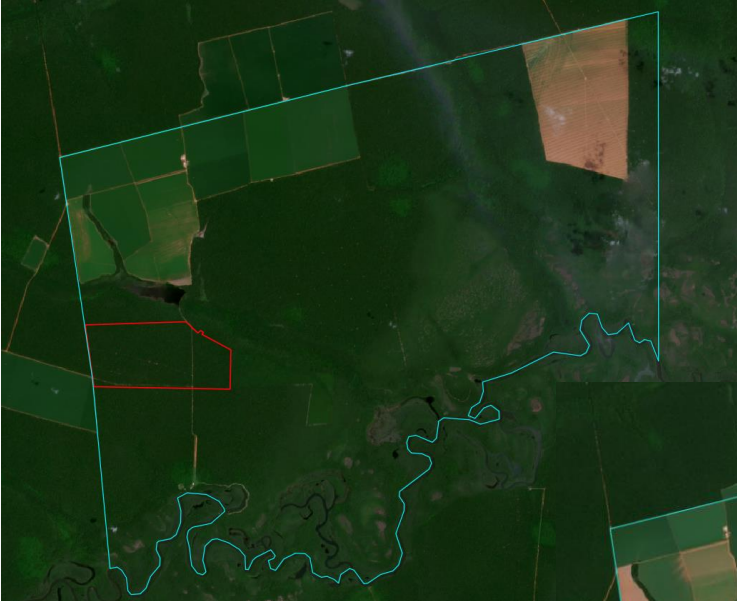

The **European Union Deforestation Regulation (EUDR)** entered into force in June 2023, and this RDM report brings four potentially non-compliant cases to it: Case 1, 2, 3 and 4, all in the Amazon biome.

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Property	
Fazenda São Jorge (Fazenda Roseira and Fazenda Amparo and Fazenda Maçaranduba)	
Feliz Natal, Mato Grosso	Amazon biome
CAR: MT-5103700-4314FB185CA04192AC2D670A595F54E3, MT-5103700-15D7D1A7ECC04755B28C46B58ECA04C3, MT-5103700-6478EDF8F6664FF3ABF8A7DB2DA73EFC	SIGEF/SNCI: 9010320064838
Area property (ha): 33,750	Coordinates property: -12.24151, -54.86723
Cleared Area	
Coordinates clearance:	-12.24151, -54.86723
1,966 hectares	period clearance: Nov 2022 to Apr 2023
905,697 tons of CO ₂	
- fires alerts	
Inside Forest Code's protected areas: No	- -
Type of vegetation: Ombrophilous Forest transition	Priority for Biodiversity Conservation: Extremely high
Conservation area(s) (overlapping or bordering): -	
Indigenous Territories (overlapping or bordering): -	
Imagery: limits of the property (blue), limits of the cleared area (red)	
November 2022	
	
April 2023	
	
Source: Imagery ©2022 Planet Labs Inc.	
Source: Imagery ©2023 Planet Labs Inc.	

Environmental fines and embargoes				
Embargoes:	Yes	4 embargoes for illegal clearing of native vegetation: 2 for clearing of 10 ha, and 2 for clearing of 13 ha of native vegetation in Fazenda Roseira, all in 2017		
Environmental fines:	Yes	5 fines for illegal deforestation in 2017	BRL 18,500	
Ownership and other linked properties				
Ownership:	Agropecuária 30 de Dezembro (CAR Validated), Agropecuária São Francisco (CAR Validated)			
Company group:	More than 60 companies active in São Paulo and Mato Grosso, including: Aripuanã Agropecuária (Aripuanã, Feliz Natal, and Juará - MT); Jaú Agronegócios (Feliz Natal - MT); Caraguá Agronegócios (Colniza, Feliz Natal, Sinop, Nova Bandeirantes, Nova Monte Verde, Paranatinga - MT); RFO Participações (São Paulo and Andradina - SP); Agropecuária São Francisco (Feliz Natal, Juará, Aripuanã - MT); Agropecuária Sol Nascente (Feliz Natal, Juará, Aripuanã - MT); Arati Agronegócios (Feliz Natal - MT); Guaporé Agronegócios (Andradina - SP, Diamantino - MT); Agropecuária Luciante (Aripuanã - MT)			
Linked properties:	Other 45 properties in Aripuanã (MT), Colniza (MT), Feliz Natal (MT), Juará (MT), Nortelândia (MT), Nova Bandeirantes (MT), and Paranatinga (MT), all linked to Agropecuária 30 de Dezembro and the linked companies found. Unknown total area. In Feliz natal (MT): Fazenda Amparo; Fazenda Gleba 23 de Setembro (Lotes 1, 2 e 3); Fazenda São Gabriel. In Aripuanã (MT): Fazenda Guariba; Fazenda Cachimbo. In Juará (MT): Fazenda Santo Antônio; Fazenda Santa Mônica. In Nortelândia (MT): Fazenda Camargo			
Supply chain links				
Main Commodities		Timber and soy		
Confirmed supply chain link, level of certainty, and soy trader/ beef processor		Yes	Low	Bunge, Cofco
Companies' reply		Viterra (potential trading link removed): "Viterra has had no commercial relationship with Fazenda São Jorge or its owners."		
Soy	Main exporter groups (municipality)	C. Vale Cooperativa Agroindustrial (70%), Fiagril (28%), Bunge (3%)		
	Warehouses (50 km radius)	47 warehouses, e.g., 1 owned by COFCO International, and 1 by Glencore Importadora e Exportadora		
	Supply chain links & details:	-		
Beef	Main traders (municipality)	JBS (75%), Frigosul (10%), Minerva (7%), others (8%)		
	Slaughterhouses (sourcing from the municipality)	7 different slaughterhouses sourced cattle from Feliz Natal (MT) in 2021, e.g.: 2 owned by JBS (Diamantino and Colider, both in MT), 1 by Marfrig (Tangará da Serra - MT), 1 by Marfrig (Paranatinga - MT)		
	Supply chain links & details:	One of the owners of the property also owns Frigoari, a slaughter company in Ariquemes (RO)		
Other supply chain links and details:		Fazenda Maçaranduba supplied timber in 2020 to Lumber & Plywood Product Manufacturing Industries. A linked company, Caraguá Agronegócios, supplied timber in 2020 to six different lumber and plywood product manufacturing industries		
General comments				
<p>Agropecuária 30 de Dezembro, which has branches in three different municipalities in Mato Grosso (Feliz Natal, Juará, and Aripuanã), is owned by Luciante Participações S.A., Ricardo Publio de Oliveira, Rfo Participações Ltda, and Carlos Eduardo Biziak (1). The main economic activity of Agropecuária 30 de Dezembro, as registered in CNAE, is timber extraction from native forests. Still, it is also active in soy, corn, rice farming, and cattle breeding (2). From June - September 2019 already, 1,447 ha of native vegetation were cleared in the area (2), and from February to June 2020, another 2,750 ha of native vegetation were removed (3). The properties are owned by a conglomerate of agribusiness companies led by investors from Presidente Prudente and Andradina in São Paulo state. Ricardo Publio de Oliveira owns 62 different companies, including Jaú Agronegócios, Agropecuária Sol Nascente, Xingu Agropecuária, and Agropecuária São Francisco, that are linked to the farms under alert. In 2010, one of the farms owned by Agropecuária 30 de Dezembro, in Feliz Natal, was embargoed for illegal deforestation, with a new case filed in 2016 (4). The General Attorney of Mato Grosso state dismissed the accusation because it was considered prescript (7). Luciante Participações filed a lawsuit against RFO due to illegal acts in a joint venture called "Grupo Sol Nascente" (8). Agropecuária São Francisco and Agropecuária Sol Nascente had operation licenses for the farms São Paulo and Santo André cancelled by Mato Grosso state in 2017. In 2019, a new company belonging to RFO Participações (Caraguá Agronegócios) obtained the operation license for these two farms. Another relevant name linked to these agribusiness companies is Natalino Bertin (7), arrested in 2018 by the Car Wash Operation and accused of money laundering (8). Natalino signed an agreement with the Mato Grosso state government in 2014 to protect and maintain the Legal Reserve areas of Fazenda/Gleba Maçaranduba (9).</p>				
<p>(1) https://www.vriconsulting.com.br/empresa.php?cnpj=11550677000462&empresa=agropecuaria-30-de-dezembro-ltda (2) http://www.mightyearth.org/wp-content/uploads/Rapid-Response_Soy-and-Cattle_Report-6.pdf (3) https://www.mightyearth.org/wp-content/uploads/RR_Report_June_2020.pdf#new_tab (4) https://servicos.ibama.gov.br/ctf/publico/areasembargadas/ConsultaPublicaAreasEmbargadas.php (5) www.mpf.mp.br/atuacao-tematica/ccr4/dados-da-atuacao/manifestacoes-do-colegiado/atas-ordinarias/ano-2017/ATA516SO.pdf (6) https://www.jusbrasil.com.br/processos/228191364/processo-n-1051138-1920198260100-do-tjsp (7) www.sociosbrasil.com/nome/natalino-bertin (8) https://www.istoedinheiro.com.br/lava-jato-manda-prender-empresario-natalino-bertin/ (9) https://www.jusbrasil.com.br/diarios/77102152/doemt-23-09-2014-pg-18</p>				

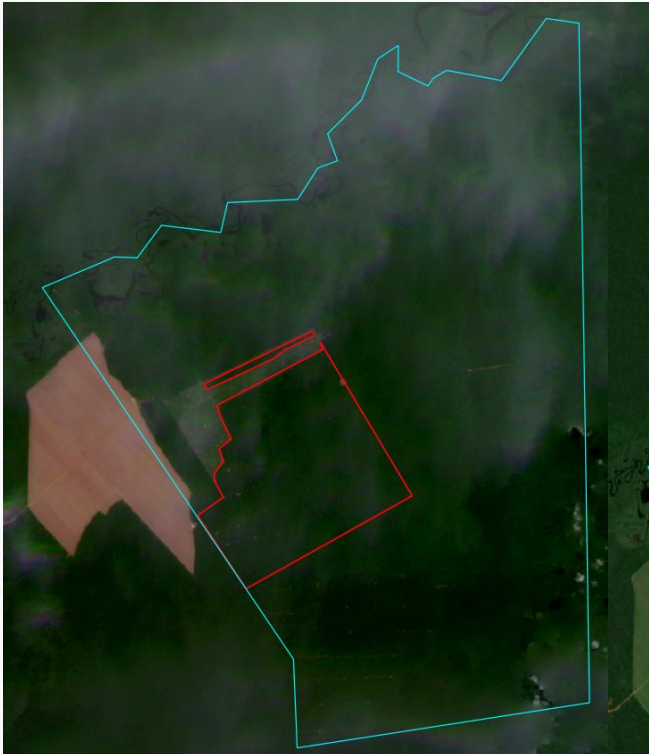

Property	
Fazenda Von den Steinen (Fazenda Bandeirantes II)	
Feliz Natal, Mato Grosso	Amazon biome
CAR: MT-5103700-6FB7B2D516CC4AC8B6997F4A3E69DCCD	SIGEF/SNCI: 9011211187616
Area property (ha): 4,284	Coordinates property: -12.09986, -54.06699
Cleared Area	
Coordinates clearance:	-12.11531, -54.11032
487 Hectares	period clearance: Dec 2022 to Mar 2023
224,351 tons of CO ₂	
- fires alerts	
Inside Forest Code's protected areas: No	- -
Type of vegetation: Ombrophilous Forest transition	Priority for Biodiversity Conservation: High
Conservation area(s) (overlapping or bordering): -	
Indigenous Territories (overlapping or bordering): Next to Parque do Xingu territory	
<p>Imagery: limits of the property (blue), limits of the cleared area (red)</p> <p>December 2022</p> <div><p>March 2023</p><div></div></div> <div><div>Source: Imagery ©2022 Planet Labs Inc.</div><div>Source: Imagery ©2023 Planet Labs Inc.</div></div>	

Environmental fines and embargoes				
Embargoes: Yes		7 environmental embargoes linked to João Ismael Vicentini in a total of 7,873 ha. Three embargoes in Fazenda Von den Steinen (Feliz Natal - MT), two of which in 2007 due to illegal clearance of native vegetation, including within the legal reserve area, and one in 2016. 4 embargoes in a linked property, Fazenda Nova Bandeirantes, all in 2007, due to illegal clearance and carrying out potentially harmful activities without an environmental license.		
Environmental fines: Yes		10 environmental fines linked to João Ismael Vicentini were found, both linked to Fazenda Von den Steinen and Fazenda Bandeirantes. Seven fines in 2007, five in Feliz Natal (MT), due to illegal forest clearance, including clearance inside legal reserves (mandatory conservation areas by the Forest Code), and two due to unauthorized farming and agroforestry activities, in Sinop and Feliz Natal (both in MT). Two fines in 2013, both in Feliz Natal (MT), linked to the infringement of an embargo, namely by preventing the regeneration of native vegetation and by farming soy in the embargoed area. One fine in 2016, in Feliz Natal (MT), due to illegal forest clearance.	BRL 13,979,520	
Ownership and other linked properties				
Ownership:		João Ismael Vicentini (CAR Validated)		
Company group:		Registered as a soy producer in Mato Grosso, no linked companies found		
Linked properties:		Vicentini family has other 2 linked properties totalling 19,734 ha. One bordering farm, Fazenda Arco Iris - 2.996 ha, owned by Ivo Vicentini and another linked property close by - Fazenda Laura e Vó Idali - 3.228 ha, owned by Silvia Marina de Sá Pereira Vicentini and Ivo Vicentini.		
Supply chain links				
Main Commodities		Timber and soy		
Confirmed supply chain link, level of certainty, and soy trader/ beef processor		Yes	Low	Bunge
Soy	Main exporter groups (municipality)	C. Vale Cooperativa Agroindustrial (70%), Fiagril (28%), Bunge (3%)		
	Warehouses (50 km radius)	6 warehouses owned by individuals and local storage companies/cooperatives		
	Supply chain links & details:	-		
Beef	Main traders (municipality)	JBS (75%), Frigosul (10%), Minerva (7%), others (8%)		
	Slaughterhouses (sourcing from the municipality)	7 different slaughterhouses sourced cattle from Feliz Natal (MT) in 2021, e.g.: 2 owned by JBS (Diamantino and Colider, both in MT), 1 by Marfrig (Tangará da Serra - MT), 1 by Marfrig (Paranatinga - MT)		
	Supply chain links & details:	-		
Other supply chain links and details:		Active in logging		



General comments

João Ismael Vicentini was part of the list of largest deforesters and illegal loggers released by the Ministry of the Environment in 2009, resulting in a series of lawsuits. Vicentini, accused of clearing 7,238 hectares of native vegetation, is the second largest deforester among 75 people/entities included in the list, with more than 80 thousand hectares of native vegetation cleared illegally (1). None of the accused of deforestation on the list was arrested. Still, all had to pay fines proportional to the environmental damage caused, in addition to ensuring the recovery and repair of the areas harmed (2). Vicentini was also involved in Operação Mapeanguari when the Federal Public Prosecutor's Office requested the preventive arrest of 33 people for illegally logging hardwood within the indigenous territory Parque Indígena do Xingu (MT). The Federal judge dismissed 14 requests, including those that referred to João Ismael Vicentini and his two brothers, Ilton Vicentini and Ivo Vicentini, due to a lack of substantive evidence to sustain their arrest (3). João Ismael and Ivo Vicentini were indicted for paying a heavy fine. They had their properties embargoed upon the accusation of illegally clearing 4,300 hectares of native vegetation, in addition to promoting logging within the Indigenous territory Parque Indígena do Xingu in areas adjacent to their properties (Fazendas Bandeirante I and II). The three brothers, João Ismael, Ivo, and Ilton, allegedly leased several properties they owned in the surroundings of the Indigenous territory to Nei Frâncio, at the time the third largest soy producer in Brazil, who combined several of these smaller properties into larger areas with easy access to BR-163 (a road known as soy highway) and to dirt roads leading to Parque Indígena do Xingu, through which illegal timber was brought out of the Indigenous territory (4). An external expert investigation was requested by João Ismael and conducted later. No technical staff from IBAMA took part in this investigation, and it concluded that there was no evidence of illegal clearances or logging within the indigenous land in question that could be linked to Vicentini's properties (5). João Ismael was the owner of Xingu Refúgio Amazônico, a tourism project developed close to a tourism-oriented indigenous village - Aldeia Puiwa Poho - where visitors could interact with indigenous traditional life, routines, and customs (6). João Ismael's touristic lodge has been identified as exploiting the Waurá and Trumai indigenous groups, while the forest management plans developed around its area were deemed false (7). The Vicentini family has a long history linked to farming activities. They established themselves at the beginning of the 20th century in the regions of São Paulo and Paraná, where they focused on coffee production. In the 60s and 70s, thanks to government initiatives to promote land occupation and national territory integration, the Vicentini family acquired land in Mato Grosso, close to what is now the Parque Indígena do Xingu. Luiz Vicentini, the father of João Ismael, Ivo, and Ilton, made significant investments in the region of Feliz Natal throughout the years, mostly related to farming and agroforestry activities, and, in 1996, he distributed part of the family's land assets to his children (8). The family "Vicentini" owns 54,000 hectares in the region neighbouring the Indigenous territory Parque Indígena do Xingu. In 2016, Brazil's General Attorney (AGU) cancelled the title of Vicentini's family property as there was evidence of an overlap of the property with the Indigenous territory Parque Indígena do Xingu (9). Ilton Vicentini, brother of João Ismael Vicentini, is a member of the Australian Cedar Producers' Association based in the municipality of Eldorado - State of Minas Gerais (10). He was also president of the Rural Union in the same municipality (11). Moreover, 2007 he was arrested for alleged environmental crimes (12). The property under alert has an authorisation for clearance of 486 hectares of native vegetation, valid until September 2026, covering the deforested area reported in the property (13).



- (1) <https://www.conjur.com.br/2009-jun-09/governo-ajuizar-75-aco-es-supostos-desmatadores-amazonia>
<https://www.sedep.com.br/noticias/defesa-do-meio-ambiente-governo-processa-supostos-desmatadores-da-amaznia/>
<https://extra.globo.com/noticias/brasil/governo-muda-criterios-passa-divulgar-lista-de-desmatadores-por-estado-297752.html>
- (2) <https://www.rdnnews.com.br/ultimas/pai-de-deputado-e-prefeito-estao-na-lista-de-75-desmatadores/14495>
- (3) <https://www.gazetadigital.com.br/editorias/cidades/justica-federal-decreta-priso-es-preventivas-de-19-acusados/143678>
- (4) https://oeco.org.br/reportagens/1944-oeco_22068/
- (5) <https://colnizamtnoticias.com.br/artigo/per%C3%ADcia-judicial-comprova-erro-do-ibama-na-opera%C3%A7%C3%A3o-mapeanguari>
- (6) <https://acervo.socioambiental.org/acervo/noticias/um-programa-bem-legal-com-os-indios-em-pleno-alto-xingu>
- (7) <https://seppirhomologa.c3sl.ufpr.br/xmllui/bitstream/handle/123456789/3032/Mapas%20de%20conflitos%20causados%20por%20Racismo%20Ambiental%20no%20Brasil.pdf?sequence=1&isAllowed=y>
https://oeco.org.br/reportagens/1944-oeco_22068/
- (8) <https://www.sonoticias.com.br/opiniao/a-saga-das-familias-vicentini-e-turquino/>
<https://www.feliznatal.mt.gov.br/municipio/historia>
- (9) https://www.agu.gov.br/page/content/detail/id_conteudo/427191
- (10) <https://www.procedro.org.br/portfolios/ilton-vicentini/>
- (11) <https://www.douradosnews.com.br/noticias/pecuaristas-de-ms-querem-indenizacao-de-r-3-milhoes-a74fe05f12c210017e/250764/>
- (12) <https://www.folhadelondrina.com.br/geral/justica-liberta-tres-fazendeiros-de-londrina-604234.html>
- (13) <https://geoportal.sema.mt.gov.br/#/>

Property				
Fazenda Rio Negro				
Feliz Natal, Mato Grosso		Amazon biome		
CAR:	MT-5103700-A6BA7DC7DD29439394536FE5FC2FC1ED	SIGEF/SNCI:	9020122012356	
Area property (ha):		6,702	Coordinates property:	-11.64294, -54.03374
Cleared Area				
Coordinates clearance:		-11.65215, -54.04472		
800 hectares		period clearance: Jan to Apr 2023		
368,544 tons of CO ₂				
- fires alerts				
Inside Forest Code's protected areas:		No		
Type of vegetation:	Ombrophilous Forest transition	Priority for Biodiversity Conservation:	High	
Conservation area(s) (overlapping or bordering): -				
Indigenous Territories (overlapping or bordering): Next to Parque do Xingu territory				
Imagery: limits of the property (blue), limits of the cleared area (red)				
January 2023				
		April 2023		
				
Source: Imagery ©2023 Planet Labs Inc.				
Source: Imagery ©2023 Planet Labs Inc.				




Environmental fines and embargoes				
Embargoes:	Yes	3 environmental embargoes: one in Fazenda Tigre VI (Cláudia - MT) due to the clearing of 42 ha of native vegetation; two in União do Sul (MT), in one of which 1,840 ha of the property were under embargo.		
Environmental fines:	Yes	1 environmental fine in 2013 for clearance of 42 ha of native vegetation without a permit in Fazenda Tigre IV (Cláudia - MT); 2 environmental fines in 2020 in Fazenda Butantã (União do Sul - MT), one for fire without a permit		unknown
Ownership and other linked properties				
Ownership:	Tigre Investimentos S/A (CAR Validated)			
Company group:	Lenoir Felipe Bachinski and Ivani Orlandi own Tigre Investimentos, registered in 3 different municipalities in Mato Grosso: Cláudia, Feliz Natal, and União do Sul. There are at least other 5 linked companies: Cláudia Armazéns Gerais (Cláudia - MT); União Armazéns Gerais (União do Sul - MT); Tigrinhos Indústria e Comércio de Madeiras (União do Sul - MT); Universal Agro (Cláudia - MT); Compensados Tigre (Cláudia - MT, União do Sul - MT)			
Linked properties:	Other 97 linked properties, totalling at least 22,865 ha. In União do Sul (MT): Fazenda Ibeba (unknown area), Fazenda Entre Rios (2,048 ha), Fazenda Miranda (179 ha), Fazenda Mirandinha (249 ha), Fazenda Córrego Motor (107 ha), Fazenda Tigre (299 ha), Fazenda Marina (429 ha), Agropastorial Portal da Amazônia III (2,897 ha), Fazenda Formoso (1,297 ha), Fazenda Gallon (737 ha), Fazenda Gallon III (578 ha), Fazenda Tigre (249 ha), Fazenda Cascavél e Butantã (5,021 ha), Fazenda Lote Sapude (1,366 ha), Fazenda Rancho Alegre (2,904 ha), Fazenda Tapajós (1,105 ha). In Cláudia (MT): 82 properties in a continuous area (approximately 3,400 ha)			
Supply chain links				
Main Commodities		Timber and soy		
Confirmed supply chain link, level of certainty, and soy trader/ beef processor		Yes	Medium / Low	Cofco / Bunge
Companies' reply		Amaggi (potential trading link removed): "No commercial relationship was identified between AMAGGI with the mentioned property after the deforestation [Fazenda Rio Negro]".		
Soy	Main exporter groups (municipality)	C. Vale Cooperativa Agroindustrial (70%), Fiagril (28%), Bunge (3%)		
	Warehouses (50 km radius)	10 warehouses, e.g., 2 owned by Scheffer Armazéns Gerais		
	Supply chain links & details:	A linked farm, Fazenda Ibeba (União do Sul - MT), has trading links with Cofco		
Beef	Main traders (municipality)	JBS (75%), Frigosul (10%), Minerva (7%), others (8%)		
	Slaughterhouses (sourcing from the municipality)	7 different slaughterhouses sourced cattle from Feliz Natal (MT) in 2021, e.g.: 2 owned by JBS (Diamantino and Colider, both in MT), 1 owned by Marfrig (Paranatinga - MT)		
	Supply chain links & details:	-		
Other supply chain links and details:		Active in logging		
General comments				
Lenoir Felipe Bachinski and Ivani Orlandi own Tigre Investimentos since 2004 (1). According to an investigation by the Attorney General's Office, the Amazon fires of 2019 ravaged areas that had already been illegally cleared in 2016 and 2017, whose alleged deforesters were formally indicted by the Federal Public Prosecutor's Office. The fires coincided with at least one-third of deforestation events' locations in 2016 and 2017 that were legally targeted. It was deemed that the occurrence of these fires and the hotspots detected were a strong indication of the ongoing expansion process and the use of the previously cleared areas, all of which were close to the main axes of deforestation expansion in the Legal Amazon area (2). Madeireira Tigrinhos Indústria e Comércio de Madeiras, also owned by Lenoir Bachinski and Ivani Orlandi, was sued in this legal process, even though Bachinski denied having engaged in any forest fire in the region while asserting that he had the authorization to clear his land. In 2014, Bachinski and Orlandi had already signed a deferred prosecution agreement (termo de ajustamento de conduta - TAC) with the Public Prosecutor's Office due to illegally burning 2,000 hectares of native vegetation in their properties, which area they committed to restoring (3).				
(1) http://cnpj.info/Tigre-Investimentos-S-A				
(2) https://oglobo.globo.com/brasil/amazonia-areas-cujo-desmatamento-levou-aco-es-na-justica-foram-queimadas-neste-ano-23948650				
(3) https://nossosparques.org.br/es/noticia/202043				

Property			
Fazenda Lang Schandles			
Porto dos Gaúchos, Mato Grosso		Amazon biome	
CAR:	MT-5106802-84A9A6F5B66942229D5B308403EA48F4	SIGEF/SNCI:	-
Area property (ha):	12,370	Coordinates property:	-11.90966, -57.12927
Cleared Area			
Coordinates clearance:		-11.86232, -57.09576	
459 Hectares	period clearance: Nov 2022 to Feb 2023		
211,452 tons of CO2			
- fires alerts			
Inside Forest Code's protected areas:	Yes	363 ha inside declared Legal Reserve	
Type of vegetation:	Ombrophilous Forest transition	Priority for Biodiversity Conservation:	Extremely high
Conservation area(s) (overlapping or bordering):		-	
Indigenous Territories (overlapping or bordering):		-	
Imagery: limits of the property (blue), limits of the cleared area (red)			
November 2022			
		February 2023	
			
Source: Imagery ©2022 Planet Labs Inc.		Source: Imagery ©2023 Planet Labs Inc.	

Environmental fines and embargoes				
Embargoes:	Yes	1 embargo in Fazenda Lang Schandles (Porto do Gaúchos - MT), in 2011, for illegal clearance of 669 ha of native vegetation.		
Environmental fines:	Yes	2 environmental fines: 1 in 2011, linked to Fazenda Lang Schandles (Porto dos Gaúchos - MT), for illegal clearance of native vegetation in the legal reserve area without prior permit from the environmental agency; 1 in 1998 for irregular transport of timber products	BRL 3,595,000	
Ownership and other linked properties				
Ownership:	Gumercindo Barpp			
Company group:	Gtf Participações (Caçador - SC)			
Linked properties:	Other 11 properties, totalling 13,384 ha. In Caçador (SC): Chácara Barpp (18 ha), Fazenda Capão Alto (32 ha), Fazenda Campanário (438 ha). In Lebón Regis (SC): Fazenda Rio dos Patos (277 ha). In Timbó Grande (SC): Fazenda Campina (265 ha). In Santa Cecília (SC): Fazenda Cachoeira (162 ha). In Porto dos Gaúchos (MT): Fazenda Lang Schandles III (953 ha), Fazenda Lang Schandles (1,121 ha). In Paranhos (MS): Fazenda Sossêgo das Meninas (7,560 ha), Fazenda Nossa Senhora do Rocio (1,432 ha). In Ribas do Rio Pardo (MS): Fazenda Águas Claras (1,127 ha)			
Supply chain links				
Main Commodities		Multiple		
Confirmed supply chain link, level of certainty, and soy trader/ beef processor		No	Low	JBS
Soy	Main exporter groups (municipality)	-		
	Warehouses (50 km radius)	14 warehouses owned by individuals and local storage companies/cooperatives		
	Supply chain links & details:	-		
Beef	Main traders (municipality)	JBS (81%), Marfrig (8%), Minerva (4%), others (7%)		
	Slaughterhouses (sourcing from the municipality)	10 different slaughterhouses sourced cattle from Porto dos Gaúchos (MT) in 2021, e.g.: 1 owned by JBS (Juará - MT), 1 owned by Marfrig (Paranatinga - MT)		
	Supply chain links & details:	A linked property, Fazenda Sossêgo das Meninas (Paranhos - MS), indirectly supplied JBS (Nairai - MS) through Fazenda Escondido (Tacuru - MS) in 2019, Fazenda Nova Esperança (Tacuru - MS) in 2018, and Fazenda Água Colorado (Paranhos - MS) in 2018. The same linked property indirectly supplied another JBS slaughterhouse (in Ponta Porã - MS) through Sítio Santo Antônio in 2019.		
Other supply chain links and details:		Fazenda Lang Schandles supplied timber to the following sawmills between Nov 2022 and Feb 2023: Gelson Tadeu Gobbi, Barazetti Bonfim & Bonfim, D.E. Mocelin, Alison da Silva Gama, and Madeireira Jaraguá, which is a regular supplier of biomass to FS Bioenergia (FS Agrisolutions)		
General comments				
A linked property Fazenda Sossêgo das Meninas (Paranhos - MS), has 10 hectares of its area overlapping with the Sete Cerros Indigenous Territory (1). Fazenda Lang Schandles supplied wood to Madeireira Jaraguá between November 2022 and February 2023. Madeireira Jaraguá is a frequent supplier to FS Bioenergia, Brazil's largest corn ethanol producer (2). FS Bioenergia is controlled by the US-based Summit Agricultural Group (3). The company claims that 100% of its energy sourcing comes from biomass (4)				
(1) https://deolhonosruralistas.com.br/wp-content/uploads/2023/04/Tabela-0s_Invasores.xlsx (2) https://www.udop.com.br/noticia/2023/03/01/maior-produtor-de-etanol-de-milho-do-pais-quer-ir-a-5-bilhoes-de-litros.html (3) https://www.summitag.com/brazil-renewables (4) https://www.fs.agr.br/nosso-negocio/biomassa/				

Property			
Fazenda Charruá			
São Desidério, Bahia		Cerrado biome	
CAR:	BA-2928901-04852A6CF744431D806B7996A009FE3E, BA-2928901-51019204866945A09FB87176726324AB, BA-2928901-70F951B5349C426D8D99203C50EE7602, BA-2928901-16107333C8784177BD785A9F0F989FDA	SIGEF/SNCI:	9500256403019
Area property (ha):	8,004	Coordinates property:	-12.92848, 45.43608
Cleared Area			
Coordinates clearance:	-12.95914, -45.46448		
2,795 hectares	period clearance: Feb to May 2023		
55,136 tons of CO2			
- fires alerts			
Inside Forest Code's protected areas:	Yes	218 ha inside declared Legal Reserve	
Type of vegetation:	Savanna Park	Priority for Biodiversity Conservation:	Very high
Conservation area(s) (overlapping or bordering):		-	
Indigenous Territories (overlapping or bordering):		-	
Imagery: limits of the property (blue) limits of the cleared area (red)			
February 2023			
		May 2023	
			
Source: Imagery ©2023 Planet Labs Inc.		Source: Imagery ©2023 Planet Labs Inc.	

Environmental fines and embargoes				
Embargoes:	No	-		
Environmental fines:	No	-		
Ownership and other linked properties				
Ownership:	Matosul Agroindustrial / Mantova Agropecuária (Charruá Agropecuária)			
Company group:	7 linked companies: Campo Belo Agropastoril (São Desidério - BA); Marca 7 Agropecuária (Campo Grande - MS); Orium Participações (Campo Grande - MS); Ompe Agropecuária (Campo Grande - MS and Maracajú - MS); Rio do Peixe Agropecuária (Campo Grande - MS and Arapoti - PR); Matosul Grãos (Campo Grande - MS, Caseará - TO, Aguaí - SP); Italbrás Participações (Campo Grande - MS). Matosul Agroindustrial is registered in several different municipalities besides São Desidério - BA, namely Campo Grande - MS, Maracajú - MS, Água Clara - MS, Aguaí - SP, Arapoti - PR, Ribeirão Cascalheira - MT and Caseará - TO			
Linked properties:	Other 4 linked properties, totalling 6,044 ha. Bordering properties in São Desidério (BA): Fazenda Charruá I (2,476 ha), Fazenda Charruá II (2,575 ha), Fazenda Charruá III (167 ha), Fazenda Charruá IV (826 ha)			
Supply chain links				
Main Commodities		Soy		
Confirmed supply chain link, level of certainty, and soy trader/ beef processor		Yes	Low	Cargill
Companies' reply		Cargill: "Out of the 7 cases mentioned in the report, we have had recent negotiations with 1 of the farms mentioned, and in another 2 cases with the farmer/ group in a different farm. For the remaining 4 cases, we have no commercial relations. In the cases related to our supply chain, we are still investigating one of them."		
Soy	Main exporter groups (municipality)	Cargill (53%), Bunge (16%), ALZ (6%), Mitsui (5%), ADM (5%), others (16%)		
	Warehouses (50 km radius)	21 warehouses, e.g., 3 owned by SLC Agrícola		
	Supply chain links & details:	-		
Beef	Main traders (municipality)	JBS (100%)		
	Slaughterhouses (sourcing from the municipality)	24 different slaughterhouses sourced cattle from Jaborandi (BA) in 2020, e.g.: 1 owned by JBS (Itapetinga - BA)		
	Supply chain links & details:	-		
Other supply chain links and details:		-		
General comments				
Andressa Perondi owns Mantova Agropecuária (1), and Angela Rosane Mancuso Perondi and Jovir Perondi acknowledge Matosul Agroindustrial (2). Jovir's father, Olímpio Perondi, founded Cerealista Matosul, a large export company operative in the grain and feed sector in Mato Grosso do Sul. This company was sold, in the 2000s, to the Cargill Group (3). In 2011, an employee of Matosul Agroindustrial of Aguaí (SP) died of asphyxiation after being buried under a large quantity of sugar that fell on him when he was cleaning a sugar storage silo without having received proper training or protective equipment to do so. The company was convicted and had to pay compensation of R\$ 500,000 to the parents of the deceased employee for material and moral damages (4). In 2020, Andressa Perondi was appointed director of Mantova Trading Limited, a company headquartered in the UK (5). The cluster of bordering and linked properties, together with the property under alert, have an authorisation for clearance of a total of 5,660 hectares of native vegetation between 2019 and 2023 (6).				
<div>(1) https://solucoes.receita.fazenda.gov.br/servicos/cnpjreva/Cnpjreva_qsa.asp</div> <div>(2) http://cnpj.info/Matosul-Agroindustrial-Ltda-Campo-Grande-MS</div> <div>(3) https://www.acritica.net/editorias/geral/fundador-da-cerealista-matosul-olimpio-perondi-morre-aos-94-anos-em/522731/</div> <div>(4) https://direitoreal.com.br/noticias/mantido-valor-de-indenizacao-por-morte-de-empregado-de-18-anos-soterrado-por-acucar</div> <div>(5) https://find-and-update.company-information.service.gov.uk/company/11340206/officers</div> <div>(6) Inema Bahia (state environmental agency)</div>				

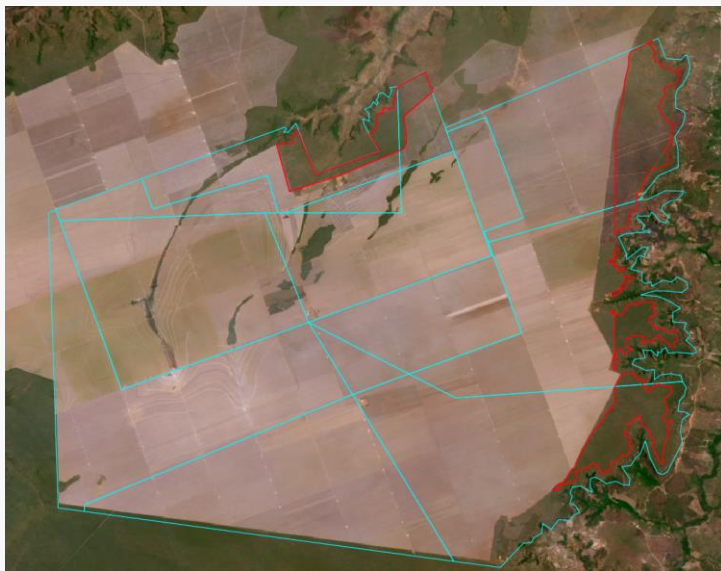

Property			
Fazenda Barra Velha			
Correntina, Bahia		Cerrado biome	
CAR:	BA-2909307-64778DBE7855473099C29AC29E946505, BA-2909307-44B4EA5A44B04ABD9B2DAE3DAFE86636, BA-2909307-A6207E6DB0B6454FB8BDA4190F4B1299	SIGEF/SNCI:	3181080935132
Area property (ha):	38,258	Coordinates property:	-13.24703, -45.04304
Cleared Area			
Coordinates clearance:	-13.23261, -44.98412		
4,236 Hectares	period clearance: Jun 2022 to May 2023		
544,552 tons of CO2			
- fires alerts			
Inside Forest Code's protected areas:	No	- -	
Type of vegetation:	Forested Savanna	Priority for Biodiversity Conservation:	Extremely high
Conservation area(s) (overlapping or bordering):		-	
Indigenous Territories (overlapping or bordering):		-	
Imagery: limits of the property (blue), limits of the cleared area (red)			
June 2022			
		May 2023	
Source: Imagery ©2022 Planet Labs Inc.			
Source: Imagery ©2023 Planet Labs Inc.			
Fires - 19 January 2023			
			
Source: European Union - EO Browser Copernicus Sentinel data 2023			

Environmental fines and embargoes				
Embargoes:	Yes (other links)	1 environmental embargo in 2012 at a linked property Fazenda Sassapão, in Formosa do Rio Preto (BA)		
Environmental fines:	Yes (other links)	5 environmental fines in linked properties in Formosa do Rio Preto (BA) and São Desidério (BA) between 2012 and 2018	BRL 1,900,000	
Ownership and other linked properties				
Ownership:	Barra Velha Agropecuária			
Company group:	Grupo Mizote. Specifically, some of the linked companies are: Fmp Algodoeira do Oeste (São Desidério - BA); Codeagro - Cooperativa de Desenvolvimento do Agronegócio do Oeste da Bahia (Barreiras - BA); Mizote Empreendimentos Agrícolas (São Desidério - BA); Agropecuária e Armazéns Mizote (São Desidério - BA); Central Geradora de Energia Eléctrica Rio de Pedras (Barreiras - BA).			
Linked properties:	Other 43 properties in Correntina (BA), São Desidério (BA), and Formosa do Rio Preto, totalling at least 97,100 ha.			
Supply chain links				
Main Commodities		Multiple		
Confirmed supply chain link, level of certainty, and soy trader/ beef processor		Yes	High	Bunge, Cofco
Companies' reply		Louis Dreyfus (potential trading link removed): In Correntina municipality "LDC did not receive products from the Group in question"		
Soy	Main exporter groups (municipality)	ALZ (25%), ADM (23%), Mitsui (21%), Bunge (12%), others (19%)		
	Warehouses (50 km radius)	22 warehouses, e.g., 2 owned by Agrícola Xingu and 1 by SLC Agrícola		
	Supply chain links & details:	Links to Bunge and Cofco, not clear if through soy or other crops trading (cotton, corn)		
Beef	Main traders (municipality)	JBS (100%)		
	Slaughterhouses (sourcing from the municipality)	18 different regional slaughterhouses sourced cattle from Correntina (BA) in 2020		
	Supply chain links & details:	-		
Other supply chain links and details:		Between 2014 and 2018, Paulo Mizote supplied cotton to numerous clients, including Bunge, LD commodities, Cofco, Toyoshima USA Inc, Plexus Cotton Limited, ICT Trading SA, and Paul Reinhart (based on export data)		

General comments

Barra Velha Agropecuária is a company owned by Paulo Massayoshi Mizote and Willian Seiji Mizote, which business activities, part of Grupo Mizote, are mostly linked to the production, trade, and export of cotton and grains (soy, maize, rice) (1). Paulo Massayoshi Mizote is currently part of the Board of Directors of the Association of Cotton Producers of Bahia (ABAPA), and he has already been the vice president of this association in the past (2). Paulo Massayoshi Mizote is the president of Grupo Mizote, one of the leading cotton producers in the West of Bahia. Their operations started in 1984 and continue developing properties in the Brazilian state of Bahia (3). This case concerns ongoing deforestation in Fazenda Barra Velha (Correntina - BA), having been previously reported on in Rapid Response and RDM reports. Between 1 March 2018 and 14 April 2019, 1,662 ha was already cleared in Fazenda Barra Velha, and between March and June 2022, 1,542 ha were additionally cleared on the property. A potential trading link with Louis Dreyfus Company (LDC) was reported, but the company stated that it did not receive soy, corn or cotton volumes from the Mizote group in 2020, 2021 or 2022 harvests (4). Grupo Mizote is among the players in Correntina's water conflict and is listed in the Comissão Pastoral da Terra (CPT) 2016 report of agrarian conflicts over land involving 240 families in 2016 and 2017 (5). In 2013, Correntina's citizens started a "Fora Mizote" movement against a concession to deforest 24,599 hectares of native vegetation requested by Grupo Mizote in the same Fazenda Barra Velha (6). In 2018, representatives of local communities impacted by Mizote's plans interposed a process in Bahia's Court of Justice (7). Paulo Massayoshi Mizote and his wife, Eunice Matiko Ishida Mizote, are also involved in a land dispute in Formosa do Rio Preto (BA) with alleged land grabber José Valter Dias, who is accused of forging documents and bribing local judges to confiscate area of 300,000 ha (8). In 2014, MetLife, one of the largest global providers of insurance, annuities, and employee benefit programs, with 90 million customers in over 60 countries, provided a loan of USD 30 million to Paulo Massayoshi Mizote (9). Grupo Mizote collects the 11th largest volume of water in the Cerrado biome in Bahia among the companies linked to the Bahia Association of Farmers and Irrigators (Aiba) and Abapa. The company has an authorisation to capture 76.3 million litres per day from the Rio Grande Basin, one of the main tributaries of the São Francisco River (10). In 2011, Grupo Mizote received a public loan of more than USD 680k from Desenbahia (the Development Agency of Bahia state) to buy agricultural machines to be used in the properties of the Group in São Desidério (11).

- (1) <http://cnpj.info/Barra-Velha-Agropecuaria>
- (2) <https://abapa.com.br/diretoria/> and <https://abapa.com.br/mais-noticias/nova-diretoria-da-abapa-toma-posse/>
- (3) <https://doi.org/10.14393/RCT112501> and <https://falabarreiras.com/sem-categoria/grupo-mizote-apresenta-empreendimento-para-conselho-de-desenvolvimento-sustentavel-de-correntina/>
- (4) https://www.mightyearth.org/wp-content/uploads/Rapid-Response_Soy-and-Cattle_Report-1.pdf, https://www.mightyearth.org/wp-content/uploads/Rapid-Response_Soy-and-Cattle_Report-3.pdf and https://aidenvironment.org/wp-content/uploads/2022/08/Annex_4_LIFE_RDM_Report_4_Aug2022_UPDATED_Dec22-1.pdf
- (5) <https://www.cptnacional.org.br/component/jdownloads/send/41-conflitos-no-campo-brasil-publicacao/14061-conflitos-no-campo-brasil-2016?Itemid=0>
- (6) https://www.asabrazil.org.br/noticias?artigo_id=3141
- (7) <https://www.jusbrasil.com.br/diarios/documentos/555707164/andamento-do-processo-n-8003344-0820188050000-agravo-de-instrumento-14-03-2018-do-tjba>
- (8) <https://www.legalnote.com.br/publicacao-diario-oficial/00248257120158050000/54712943/>
- (9) <https://www.agrimarketing.com/ss.php?id=87690>
- (10) <https://apublica.org/2021/12/os-privilegiados-com-a-agua-do-cerrado-baiano/>
- (11) <http://www.zeneto.com.br/noticia/4309/governo-anuncia-pacote-de-r-27-milhoes-em-financiamentos-para-regiao-oeste>

Property			
Fazenda Emaflor			
Baixa Grande do Ribeiro, Piauí		Cerrado biome	
CAR:	PI-2201150- EB49540222724380B3EA675019C5C5A8	SIGEF/SNCI:	-
Area property (ha):	60,815	Coordinates property:	-8.71753, -44.98948
Cleared Area			
Coordinates clearance:		-8.65667, -44.92091	
2,364 hectares		period clearance: Oct 2022 to May 2023	
118,145 tons of CO ₂			
80 fires alerts			
Inside Forest Code's protected areas:	Yes	55 ha inside declared Legal Reserve	
Type of vegetation:	Wooded Savanna	Priority for Biodiversity Conservation:	No
Conservation area(s) (overlapping or bordering):		Bordering Estação Ecológica de Uruçuí-Una	
Indigenous Territories (overlapping or bordering):		-	
Imagery: limits of the property (blue), limits of the cleared area (red)			
October 2022			
		May 2023	
			
Source: Imagery ©2022 Planet Labs Inc.		Source: European Union - EO Browser Copernicus Sentinel data 2023	

Environmental fines and embargoes				
Embargoes:	No	-		
Environmental fines:	No	-		
Ownership and other linked properties				
Ownership:	Emaflor Empreendimentos Rurais e Participações and Tropical Agroparticipações			
Company group:	Cantagalo General Grains, Cgg Trading, Corredor Logística e Infraestrutura, Siqueira Empreendimentos e Participações, Serez Capital Prestação de Serviços de Consultoria			
Linked properties:	Other 16 linked properties, totalling at least 44,681 ha. In Balsas (MA): Fazenda Boa Vista (unknown area). In Conceição do Araguaia (PA): Fazenda Furnas do Araguaia (unknown area). In Landri Sales (PI): Fazenda Farroupilha (3,998 ha), Fazenda Angical, Brejo dos Cablocos e Sossêgo (100 ha), Fazenda Cantinho (135 ha). In Uruçuí (PI): Fazenda Apare (2,716 ha), Fazenda Tucum (2,910 ha), Fazenda Diamante (2,176 ha), Fazenda Esmeralda (4,022 ha), Fazenda Acauã (4,012 ha), Fazenda Coral (4,003 ha), Fazenda Mamba (2,260 ha). In Sebastião Leal (PI): Fazenda Imperial (8,280 ha), Fazenda Roma (1,187 ha). In Ribeiro Gonçalves (PI): Fazenda Sul Fazendas (unknown area). In Baixa Grande do Ribeiro (PI): Fazenda Bananeira Solta I e Solta II (8,882 ha)			
Supply chain links				
Main Commodities		Soy		
Confirmed supply chain link, level of certainty, and soy trader/ beef processor		Yes	High	Bunge, Cargill
Companies' reply		Cargill: "Out of the 7 cases mentioned in the report, we have had recent negotiations with 1 of the farms mentioned, and in another 2 cases with the farmer/ group in a different farm. For the remaining 4 cases, we have no commercial relations. In the cases related to our supply chain, we are still investigating one of them."		
Soy	Main exporter groups (municipality)	Cargill (13%), Bunge (10%), LDC (6%), others71%)		
	Warehouses (50 km radius)	13 warehouses, e.g., 1 owned by Bunge		
	Supply chain links & details:	Emaflor has direct soy trading links with Bunge and Cargill in Uruçuí (PI) in 2022		
Beef	Main traders (municipality)	No data		
	Slaughterhouses (sourcing from the municipality)	2 regional slaughterhouses sourced cattle from Baixa Grande do Ribeiro (PI) in 2019		
	Supply chain links & details:	-		
Other supply chain links and details:		-		

General comments

Emaflor Empreendimentos Rurais e Participações (former Tropical Empreendimentos e Participações) is a company owned by Luiz Conrado dos Santos Carvalho Sundfeld, Marcos Pepe Bertoni, and Fernanda Regina Duarte (1). Tropical Agroparticipações is owned by the Sanders family (Greicy Heinrich Sanders, Cornélio Adriano Sanders, Gregory Sanders, and Gueberson Sanders) (2). Both companies are active in soy, maize and cotton farming and wholesale of agricultural commodities (3). Fazenda Condomínio Tropical and Emaflor (4), or simply “Fazenda Emaflor”(5), is composed of several areas that, together, form the 60.767 hectares with one CAR declaration (PI-2201150-EB49540222724380B3EA675019C5C5A8) (6). The condominium is owned by Emaflor Empreendimentos Rurais e Participações – a successor company of Tropical Empreendimentos e Participações – and Tropical Agroparticipações (4), a company currently owned by one of the largest soy producers in Matopiba, the Sanders family. The company Emaflor Empreendimentos Rurais e Participações and the president of Aprosoja Piauí, Alzir Pimentel Aguiar Neto, are the shareholders of the company AZN Participações (AZN group), currently responsible for managing Fazenda Emaflor, a project financed by the Banco do Nordeste (7). Alzir Neto opposes the expansion of the Soy Moratorium to the Cerrado region and led the farmers’ resistance against initiatives from Abiove and Bunge to include anti-deforestation clauses in contracts signed with producers in Piauí (8).

(1) <http://cnpj.info/Tropical-Empreendimentos-e-Participacoes-Ltda-Tropical-Empreendimentos-e-Participacoes-Ltda>
(2) <https://cnpj.biz/26957386000118>
(3) <https://www.consultasocio.com/q/sa/luiz-conrado-dos-santos-carvalho-sundfeld>
(4) <https://siga.semar.pi.gov.br/media/uploads/2022/06/30/0d2a8164-9514-45af-88f1-b7914931b0a5.pdf>
(5) <https://siga.semar.pi.gov.br/media/uploads/2022/11/28/5fcbc8dc-53fd-4b8f-b00c-ba45cdd31a3c.pdf>
(6) <https://www.car.gov.br/#/>
(7) <https://www.instagram.com/p/CcOxR9MFlqS/?ref=tjournal.ru>
(8) <https://www.youtube.com/watch?v=pxlTmxxTdl4>

Deforestation and fire alert data are the starting point of the analysis for each case study. After confirming the clearance of native vegetation through satellite imagery, each of the cases is analyzed through the Aidenvironment database crossing data from different sources and datasets as described below. Finally, the data is validated by a local partner, and a qualitative analysis of each case is developed using publicly available data.

Deforestation & Fire

We processed deforestation alert data from the INPE/Deter program for both biomes, Amazon and Cerrado. The Global Forest Watch (GLAD alerts) and the Mapbiomas Alertas platforms are alternative sources. The fire alerts are checked in the NASA/Firms platform and processed using the EO Browser Copernicus Sentinel platform. For each selected case, the deforestation is confirmed through satellite images.

Landownership (SIGEF/SNCI/SNCR) and the Environmental Cadastre self-declaration (CAR)

The landownership data is from the Federal Tenure Land systems SIGEF and SNCI, crossing it with SNCR to identify the owner. The land ownership registration on local notary offices is not checked and might differ from the federal systems. The self-declaration for the Environmental Cadastre (CAR) is checked in the Federal System SICAR, including the Legal Reserves and Permanent Preservation Areas (APP), according to the Brazilian Forest Code. For some states, such as Mato Grosso and Pará, it is possible to check the CAR declarant name through the Environmental State Agencies' CAR platforms. It is essential to highlight that CAR is not recognized as official ownership data.

Brazilian Forest Code protected areas

The Brazilian Forest Code defines Legal Reserves and Permanent Preservation Areas (APP) as having mandatory conservation status on private properties. The size of Legal Reserves in private properties varies according to the biome [80% Amazonia biome, 35% Cerrado biome inside Legal Amazon, and 20% other areas]. Permanent Preservation Areas (APP) are those linked to water and soil conservation areas (close to river bases, wetlands, slopes, and high hills.) The Legal Reserve and APP areas considered in this report are those self-declared within the Cadastro Ambiental Rural (CAR) system – Brazil's environmental registration system. In some cases, the CAR was also used to find information on ownership because even if it is a self-declared document, in some cases, it still provides the most recent information on who is operating in a property.

Conservation Areas and Indigenous Territories

Conservation Areas data is from the ICMBio, responsible for monitoring and managing the Officially recognized Natural Reserves according to the National System of Natural Reserves (SNUC – Sistema Nacional de Unidades de Conservação). The SNUC determines the jurisdiction of the area – federal, state, or local government or private owner – and how the natural resources may be used by whom in each of the natural reserves' categories. Indigenous Territories data is from FUNAI, the National Foundation for Indigenous Populations. Indigenous Territories are officially recognized and determine areas where local Indigenous populations have customary rights to access and use the land.

Type of Vegetation and Priority for Biodiversity Conservation

The type of vegetation data is from the IBGE (Brazilian Institute of Geography and Statistics) and Embrapa, consulted through the INPE website. The classification according to the Priority for Biodiversity Conservation is from a study elaborated by the Brazilian Ministry of the Environment, updated in 2018.

Environmental Embargoes and Fines

Embargoed areas and Environmental fines are checked in the database from IBAMA, the Federal Environment Agency. Embargoes are areas where any activity is suspended or unauthorized by IBAMA, oftentimes due to environmental degradation or other crimes such as slavery labor. Properties can be removed from the list of embargoed areas after addressing the problem. Environmental fines are usually linked to regulation infractions and are addressed to the property owner.

Company Group and linked properties

Once the ownership of the property is linked to an individual, we use the SINTEGRA database to check all the registered companies under this individual or group of individuals' names. If a company already registers the ownership, we also check the corporate structure of the company through open-source websites. Once the ownership, linked companies, and corporate structure are defined, we search for other properties registered under the same or similar ownership in the Federal Tenure Land systems SIGEF and SNCI.

Level of certainty of links to soy traders and beef processors

Soy – High: the trading relationship between the owner of the property and the trader is confirmed by traders or by the National Supply Company (Conab) trading subsidy programs, or traders have assets (warehouses) within the boundaries of the property; Medium: trading relationship with the corporate group, not necessary with the specified property is confirmed by traders or by Conab's subsidy programs; Low: the trader is the leading soy exporter in the municipality (Trase platform), or traders have assets (warehouses) within a radius of 50 km from the property.

Cattle – High: animal transportation data (GTA) confirm the direct trading relationship between the property and beef processors; Medium: animal transportation data (GTA) confirm the indirect trading relationship between the property and beef processors; Low: the beef processor is the leading meat exporter in the municipality (Trase platform), or beef processors have assets (slaughterhouse) within a radius of 50 km from the property.

Leading exporters (municipality), warehouses, and slaughterhouses

The data on main soy and beef exporters per municipality is from the Trase platform. The warehouses' location is from the SICARM, and the slaughterhouses' location is from the Ministry of Agriculture. The municipalities' export data and companies' assets' location only indicate a potential trading link, not being used as proof of trading links as explained in the previous item (level of certainty of links to soy traders and beef processors).

CO₂ Emissions

The calculation of CO₂ emissions refers to the "above-ground carbon emissions" according to the cleared vegetation type(s) [Source: [Nogueira et al. \(2015\)](#). *Carbon stock loss from deforestation through 2013 in Brazilian Amazonia*]. The tons of CO₂ emission is calculated per type of vegetation times the ratio of molecular weight of carbon dioxide to carbon (44/12) times the number of hectares cleared.

For more info, please contact:

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