

GREENPEACE



UNDER FIRE

***How demand for meat and dairy
is driving violence against
communities in Brazil***



24 August 2019, Rondônia, 8°32'15.359" S 63°12'35.34" W:
Fires burning amongst the trees in the haze near
Candeiras do Jamari in the state of Rondônia, Brazil.
©Moriyama/Greenpeace



‘Globally, we have not made progress toward ending the loss of natural forests. Particularly concerning is the increasing rate of loss of irreplaceable primary forests. . . . Since the [New York Declaration on Forests] was endorsed [in September 2014], average annual humid tropical primary forest loss has accelerated by 44%. . . . Serious corrective action is needed. Efforts to date have been inadequate to achieve systemic change. The private sector is not on track to eliminate deforestation from agricultural production.’¹

New York Declaration on Forests Five-Year Assessment Report (2019)

We are the flour in your bread, the wheat in your noodles, the salt on your fries. We are the corn in your tortillas, the chocolate in your dessert, the sweetener in your soft drink. We are the oil in your salad dressing and the beef, pork or chicken you eat for dinner. We are the cotton in your clothing, the backing on your carpet and the fertilizer in your field.’²

Gargill, 2001 corporate brochure

‘[O]ur industry will fall short of a 2020 goal to eliminate deforestation.’³

Ruth Kimmelshue, Chief Sustainability Officer, Cargill

CONTENTS

EXECUTIVE SUMMARY	2
THE CERRADO: NATURE AND PEOPLE IN THE FIRING LINE	6
UNDER THE GUN: HOW THE COMMODITIES TRADE FUELS CONFLICT IN THE CERRADO	8
COLLATERAL DAMAGE: COMMUNITIES IN THE SOYA INDUSTRY'S CROSSHAIRS	12
THE ESTRONDO ESTATE: A CYCLE OF VIOLENCE AND CONFLICT	14
LAND GRABBING	14
RONALD LEVINSOHN AND THE DELFIN GROUP	15
ILLEGAL LAND CLEARANCE, IRREGULAR PERMITS AND THE THREAT OF MORE DEFORESTATION	16
SLAVE LABOUR	18
VIOLENCE AND INTIMIDATION AGAINST LOCAL COMMUNITIES	18
ESTRELA GUÍA: GUNS FOR HIRE	19
WAR FOR TERRITORY: LIFE ON THE SOYA FRONTLINE	20
BOLSONARO'S WAR ON THE AMAZON AND BEYOND	27
RIDING SHOTGUN: RICARDO SALLES IS BOLSONARO'S RIGHT-HAND MAN	31
BURNING ISSUE: BRAZIL'S SELF-INFLICTED FOREST FIRE CRISIS	35
FUELING THE FIRES: THE EU'S OVERCONSUMPTION OF MEAT AND DAIRY	36
DEADLY TRADE-OFF: HOW SOYA FROM ESTRONDO REACHES GLOBAL MARKETS	38
SCORCHED EARTH: THE COMMODITY TRADE'S LEGACY OF DESTRUCTION	40
TIME FOR ACTION	45
ANNEX: MEET THE MEGA-TRADERS	48
ENDNOTES	52
REFERENCES	58

EXECUTIVE SUMMARY

‘They are known as geraizeiros. ... Their way of life is completely aligned with the characteristics of the Cerrado biome, from which they obtain everything they need to survive. They base their way of life on a diverse range of activities including small-scale farming and livestock production and gathering of wild products.’

Portal Ypadê website (CNPCT [National Council for the Sustainable Development of Traditional Peoples and Communities, Brazil]) ‘Geraizeiros’

Brazil’s forests are on fire. Land across the country is being cleared and burned to plant crops and graze cattle – feeding the ever-growing demand for agricultural commodities from the world’s biggest food companies.

Over the past decade there have been numerous commitments from industry to source forest/ecosystem risk commodities ‘responsibly’. Five years ago, more than 150 companies came together with governments, indigenous peoples and civil society organisations to sign the New York Declaration on Forests (NYDF), promising to eliminate deforestation for commodities like soya, cattle and palm oil by 2020.⁴ In September 2019, the NYDF’s official assessment concluded that achieving this goal is now ‘likely impossible’ because ‘efforts to date have been inadequate to achieve systemic change.’⁵

Brazil’s forests and savannahs remain at the frontline of industrial agriculture’s war on the world’s climate, the environment and traditional communities.⁶ The situation in Brazil has worsened under President Bolsonaro, whose government appears to have adopted an attack on the Amazon and indigenous peoples as the pillar of its economic policy. Bolsonaro’s government has given tacit endorsement to land grabbing and incursions by illegal loggers, miners and farmers into indigenous lands.⁷ His Environment Minister has responded to the deforestation crisis with calls for the Amazon to be ‘monetised’,⁸ the head of the government agency tasked with monitoring deforestation has been sacked⁹ and the resources and budget of Brazil’s environmental protection agency, IBAMA, have been slashed.¹⁰ Unsurprisingly, Brazil has suffered a sharp increase in

‘We’ve been through this many times before. But at least now you are here to tell our story.’

Jossone Lopes Leite, geraizeiro

24 March 2019, Cachoeira community, Estrondo Estate, Formosa do Rio Preto: Jossone Lopes Leite, a member of the traditional geraizeira community of Cachoeira, whose way of life is affected by the activities of Agronegócio Estrondo. ©Moriyama/Greenpeace



fires and deforestation in 2019, compared to recent years: the annual deforestation rate has reached nearly 1 million hectares (ha) for the first time in a decade, with the increase detected even before the incidence of forest fires peaked.¹¹

While cattle remains the primary driver of deforestation and conversion, both globally¹² and in Brazil,¹³ soya – primarily used as animal feed for intensive meat and dairy production¹⁴ – continues to expand rapidly throughout South America. In Brazil, soya production has more than quadrupled over the past two decades¹⁵ and is projected to increase by another third over the next 10 years, with exports growing by 42%.¹⁶ By the end of the next decade, a further 9.5 million ha¹⁷ – an area three times the size of Belgium¹⁸ – is forecast to be planted with soya within Brazil alone, putting even greater pressure on its forests and natural ecosystems.

The failure of the private sector to drive the systemic changes necessary to cut its links to deforestation and human rights abuses – and the harsh reality of this failure for local communities – is exemplified by the case of Agronegócio Estrondo, which is located in the soya frontier of the Brazilian Cerrado.

Estrondo operates on lands to which the land-use rights of traditional *geraizeira* communities have been legally recognised. Nevertheless, the communities are subject to frequent violence and harassment. Documentary footage captured during an investigation by Greenpeace Brazil shows an armed raid on one such community by a group claiming to be Bahia state police, the shooting of a cattle herder by a member of a private security force, harassment of a community member at a security checkpoint, armed patrols and security fences cutting across community lands.

The deforestation, human rights and legality issues with this estate are well known, having been covered many times by the Brazilian media and Greenpeace. As this report documents, even the Brazilian authorities recognise that the estate was founded on a land grab, was established using slave labour and has engaged in illegal land clearance. Despite this, in May 2019 officials renewed a deforestation permit to clear an additional 25,000 ha within the estate.¹⁹

Despite political and private sector commitments, mega-traders Bunge and Cargill have silos within the Estrondo estate, behind the checkpoints, and export soya from the estate globally. Bunge exported Estrondo's soya to the European Union (EU) as recently as August 2019.²⁰

Presented with the evidence in this report, Bunge and Cargill failed to provide any meaningful response or to demonstrate action to tackle the issues linked to the Estrondo estate where they have facilities and from which they export – though Cargill says it is now investigating.

'In all contracts of purchase and sale of grain, the producer declares the regularity and respect for the environment and social protection rules in the cultivation of the product, as well as [their] knowledge of the possibility of contractual termination in case of non-compliance.'

Raúl Padilla, President of Global Operations, Bunge, letter to Greenpeace Brazil, 24 September 2019

Agronegócio Condomínio Cachoeira do Estrondo also replied, denying any wrongdoing, disputing the area of the estate and its ownership and claiming self defence as justification for the presence of security within the estate.²¹

We are living through a climate emergency. Governments and companies have failed us. The global food and agriculture system is broken. The absence of laws to ensure that supply chains and financial activities are not contributing to the destruction of ecosystems or to social conflict, and current international trade negotiations – including the EU-Mercosur trade deal – look set to further accelerate deforestation, putting profit before people and planet.

The commodities trade has proven itself unwilling to reform in time to stem the violence and prevent climate and ecological breakdown. Bolsonaro's agenda has raised the stakes even further for companies that source soya, beef or other forest/ecosystem risk commodities from Brazil: increased demand for those commodities is the justification for further deforestation and violations of the rights of the country's indigenous peoples and communities. Alongside consumer goods companies, brands like McDonald's, Burger King and KFC must take a stand and publicly reject commodities and companies linked to environmental destruction and human rights abuses in the Amazon and other threatened regions.

Specifically in the case of Estrondo, this means that government and companies must ensure the following:

- **Protect people:** guarantee the safety of the traditional *geraizeira* communities and official recognition of their land, ensuring an end to the violence against them and the removal of Estrondo's infrastructure so that they are able to exercise their land-use rights unimpeded and without further degradation of the lands
- **No deforestation:** ensure any plans for further clearance of natural vegetation within the estate are immediately and permanently abandoned
- **Stop buying destruction and violence:** suspend all purchases from companies linked to Estrondo until the criteria above are met and credible plans to address past violations, abuses and illegalities are in place

Ultimately, those using forest/ecosystem risk commodities must limit their sourcing to what they can publicly demonstrate does not come from forest or other ecosystem destroyers or abusers of human rights – but simply cleaning up supply chains will not be enough. Companies need to fundamentally change their business models to prevent climate and biodiversity catastrophe and to uphold human rights.

'Cargill is firmly committed to eliminating deforestation from our global supply chains and protecting the rights of indigenous peoples and communities. Our commitment to human rights is unwavering – treating people with dignity and respect in the workplace, in our supply chains and in the communities where we do business. And we expect the same of our suppliers.'

Nick Martell-Bundock, Senior Direction, Cargill, communication to Greenpeace, 27 September 2019



21 August 2019, Brasília: President Jair Bolsonaro.
©Marcos Corrêa/PR

‘[The Amazon] is not being devastated or consumed by fire – these are lies by the media.’

Jair Bolsonaro, United Nations General Assembly, New York, 24 September 2019



23 August 2019, Altamira, Pará, 8°37'33.36" S
54°37'17.579" W: Smoke rises along a road through forest. ©Moriyama/Greenpeace



8 August 2008, Agua Boa: Cattle yard.
©Beltrá/Greenpeace

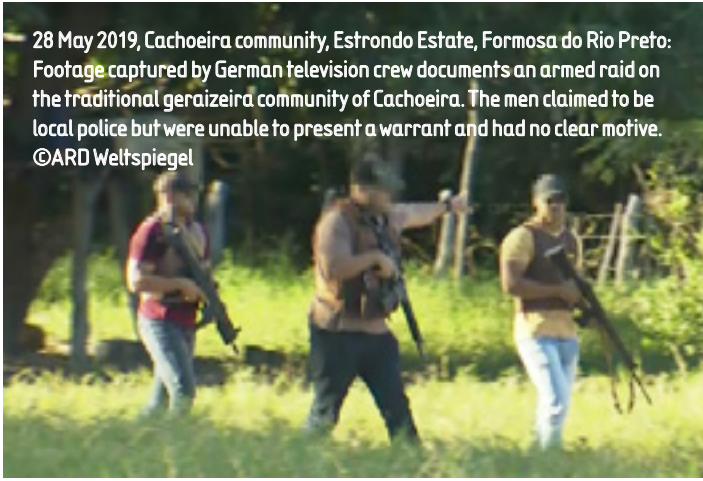


1 January 2004, Itacoatiara:
Soya production in Brazil.
©Rudhart/Greenpeace



9 September 2014, Germany: Factory farm.
©Dott/Greenpeace

28 May 2019, Cachoeira community, Estrondo Estate, Formosa do Rio Preto: Footage captured by German television crew documents an armed raid on the traditional geraizeira community of Cachoeira. The men claimed to be local police but were unable to present a warrant and had no clear motive. ©ARD Weltspiegel



26 April 2018, Brasília: 3,000 indigenous people protest in the capital. ©Braga/MNI



23 May 2019, Riachão das Neves: Bunge silo near the border of Formosa do Rio Preto. ©Cruppe/Greenpeace

'The consumer goods industry, through its growing use of soya, palm oil, beef, paper and board, creates many of the economic incentives which drive deforestation.'²²

Consumer Goods Forum, 2010

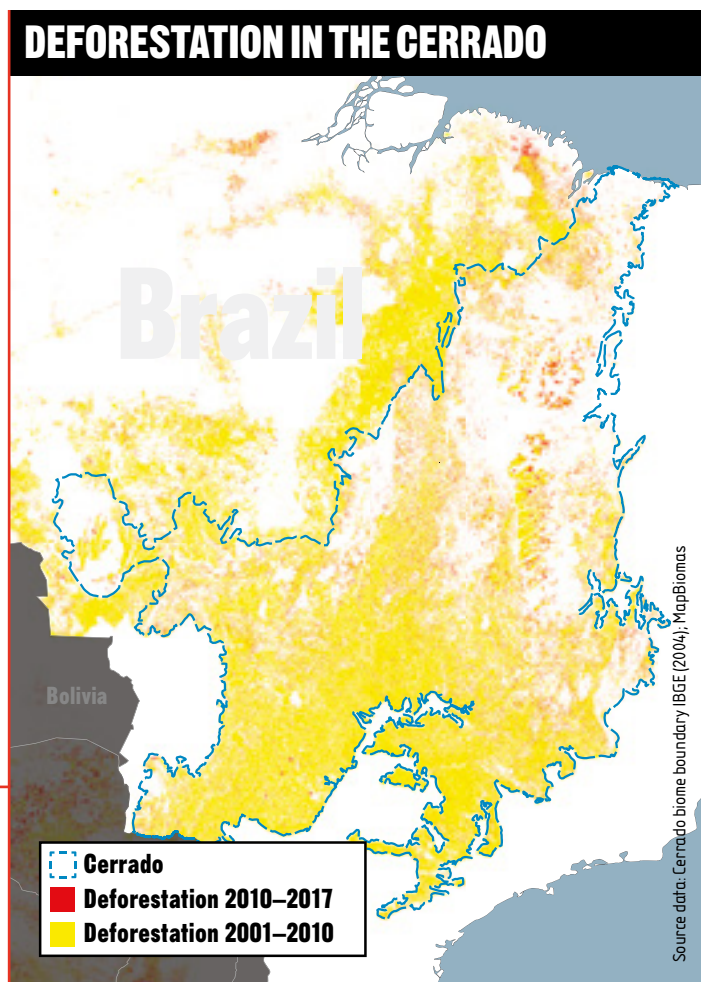
'[O]ver the last nine years we have... learned that the forces driving deforestation are more complex than almost any stakeholder realised in 2010.'²³

Consumer Goods Forum, 2019



22 May 2019, London, United Kingdom: Food companies are pushing meat-rich diets that are bad for the planet and our health. ©Ratcliffe/Greenpeace

THE CERRADO: NATURE AND PEOPLE IN THE FIRING LINE



The Brazilian Cerrado is the most biodiverse savannah in the world. Spanning 200 million ha, the Cerrado is home to 5% of the planet’s plant and animal species,²⁴ over 4,800 of which are found nowhere else.²⁵ The region is known as a ‘cradle of waters’, because it is critical to eight of the 12 Brazilian river basins; it contains the headwaters of nearly all of the southern tributaries of the Amazon River as well as several rivers in the states of Maranhão and Piauí.²⁶

Yet despite its ecological value, the Cerrado is being rapidly cleared: it lost 2.8 million ha of natural forest and 1.8 million ha of natural grassland between 2010 and 2017,²⁷ with the main threats coming from soya farms and cattle ranches.²⁸ Between August 2017 and July 2018, some 665,000 ha of the Cerrado (an area more than four times the size of the city of São Paulo) were cleared of natural vegetation.²⁹ In 2018, almost 100,000 ha were cleared in the state of Mato Grosso; a recent study conducted in this state concluded that 95% of that deforestation was done illegally.³⁰

It is estimated that nearly half of the Cerrado’s natural vegetation (about 95 million ha,³¹ an area larger than Venezuela³²) has already been destroyed. The remaining area holds an estimated carbon store equivalent to 13.7 GtCO₂.³³

As in the Amazon biome,³⁴ cattle has been the leading

direct driver of conversion: just under a quarter of the Cerrado – approximately 48.5 million ha, almost twice the size of the UK³⁵ – was pasture as of 2017.³⁶ A further 24 million ha have been converted to cropland, often after previously being used for pasture.³⁷

The area of the Cerrado known as ‘Matopiba’ is currently at the heart of agribusiness expansion, and is particularly threatened. Matopiba, which covers nearly 74 million ha in the Brazilian states of Maranhão, Tocantins, Piauí and Bahia,³⁸ is being hailed as the ‘new frontier’ for soya and other agricultural commodities.³⁹ Between 2007 and 2014, nearly two-thirds of agricultural expansion in Matopiba came at the expense of the Cerrado’s savannah, forests and other native vegetation.⁴⁰

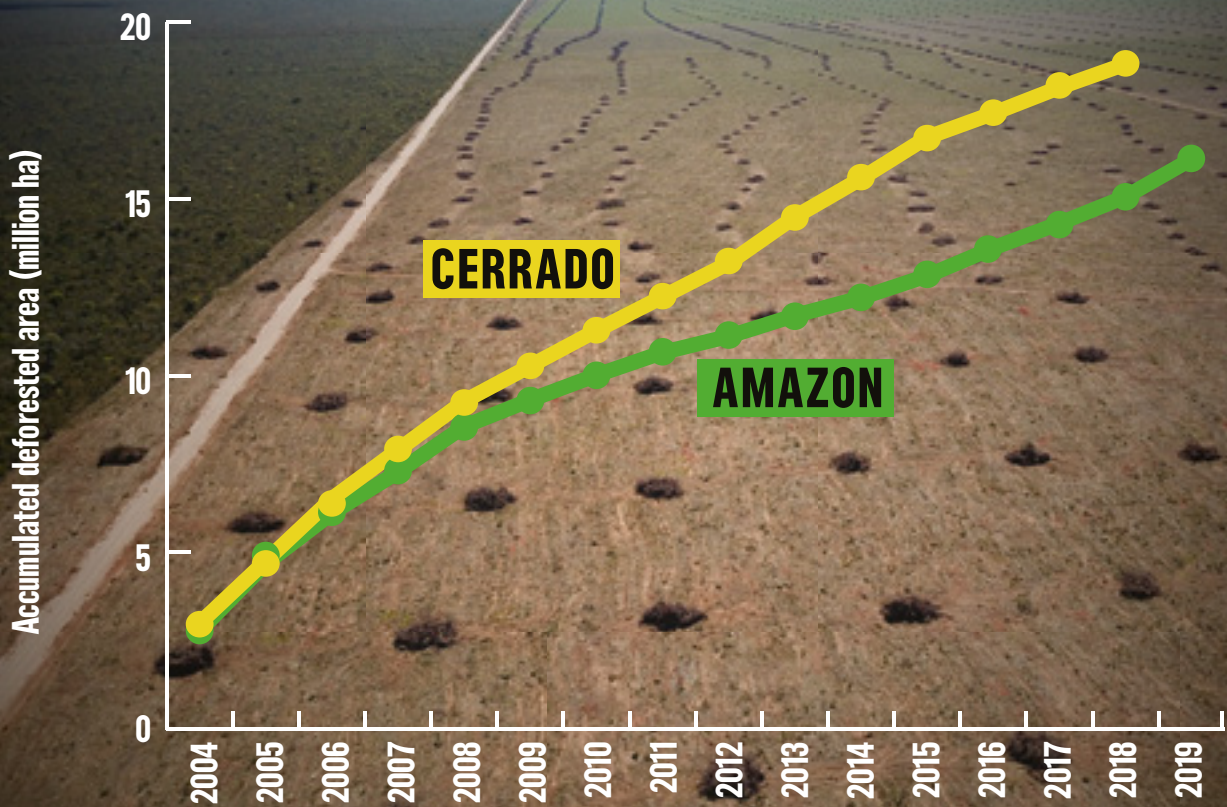
Brazil’s most recent official projections indicate that in 2028/29 Matopiba is expected to be producing 29 million tonnes of soybeans, an increase of 6.5 million tonnes over current production (+22%), on a planted area of 8.8 million ha (up from 7.6 million ha in 2018/19).⁴¹ Matopiba is singled out as an ‘area of great productive potential’ ripe for expansion, with land there being half the price as in the state of Mato Grosso⁴² – as agribusiness in this region expands, the price of land is a decisive factor.

23 March 2019,
Estrondo Estate, Formosa do Rio Preto,
11°16'46.32"S 46°24'52.68"W.
©Moriyama/Greenpeace



Accumulated deforestation 2004-2019

15 July 2019, Formosa do Rio Preto:
Recent land clearance. ©Greenpeace

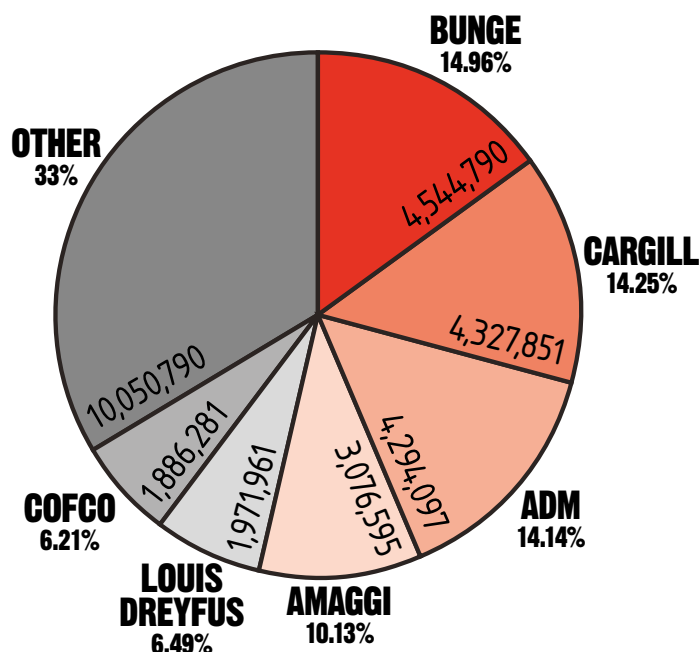


Instituto Nacional de Pesquisas Espaciais (INPE)

The Brazilian National Institute of Space Research (INPE) issues annual deforestation reports for the Brazilian Legal Amazon⁴³ and the Cerrado via its PRODES satellite monitoring system.⁴⁴ The data show a loss of 33.8 million ha of forest and savannah over the two biomes between 2004 and 2018.

UNDER THE GUN: HOW THE COMMODITIES TRADE FUELS CONFLICT IN THE CERRADO

TOP EXPORTERS OF SOYA FROM THE CERRADO IN 2017⁵⁵
(by volume in tonnes)



The ravaging of regions like the Cerrado is driven by the global hunger for agricultural commodities such as soya, maize and cotton.⁴⁵ In Brazil alone, some 35.8 million ha, an area the size of Germany,⁴⁶ are dedicated to soya production.⁴⁷ The trade is dominated by a handful of mega-traders: analysis by Trase, a nongovernmental organisation (NGO) focused on increasing the transparency of agricultural commodity supply chains, shows that by 2017 just six companies – Bunge, Cargill, ADM, Louis Dreyfus, COFCO International and Amaggi (order by volume) – accounted for 58% of Brazilian soya exports.⁴⁸ In turn, multinational brands including the fast food companies Burger King, KFC and McDonald’s, as well as numerous retailers and consumer goods manufacturers, are supplied directly or indirectly by one or more of these traders, with soya or meat and dairy products fed on soya-based animal feed.⁴⁹

Trase analysis indicates that between 2006 and 2016, the supply chains of these six mega-traders were associated with two-thirds of the total deforestation risk⁵⁰ directly linked to soya expansion in Brazil.⁵¹ This risk is concentrated in the Cerrado⁵² – where at least 40% of Brazilian soya was produced in 2017, of which 60% was exported.⁵³ Together, these six traders accounted for two-thirds of all soya exported from the Cerrado.⁵⁴

Between 2010 and 2015 just five traders – including ADM, Bunge and Cargill, all signatories of the 2006 Amazon Soy Moratorium⁵⁶ (see ‘Bolsonaro’s war on the Amazon’ below) – were responsible for more than three-quarters of total soya exports from Matopiba.⁵⁷ These three traders were also the biggest soya exporters from the Cerrado in 2017, with combined exports of 13 million tonnes.⁵⁸

In 2018 IBAMA fined five traders, including both Bunge and Cargill, for trading soya from illegally deforested areas in Matopiba.⁵⁹

The six exporters responsible for the majority of Brazil’s soya exports have acknowledged the ‘sustainability risks’ of operating in such a vulnerable region. All but Amaggi are members of the Soft Commodities Forum (SCF), which pledged in February 2019 to monitor supply chains in 25 ‘high-risk’ municipalities in the Cerrado in order to address deforestation and associated impacts.⁶⁰ Of the 25 ‘priority’ municipalities identified by the SCF, 23 are located in Matopiba.⁶¹

In June 2019, the SCF’s members published ‘progress reports’ which detail their exposure to the Cerrado and the 25 high-risk municipalities.⁶² These reports indicate that the mega-traders are heavily dependent on soya from the Cerrado, despite their recognition of the enormous social and environmental threat: almost 40% of ADM,⁶³ Bunge⁶⁴ and Cargill’s⁶⁵ Brazilian soya comes from the Cerrado, with varying but considerable proportions originating in these 25 municipalities. Indeed, the extensive infrastructure

► 15 July 2019, Formosa do Rio Preto: Recent land clearance. ©Greenpeace

▼► 25 March 2019, Luís Eduardo Magalhães: Trucks passing Cargill facilities. ©Moriyama/ Greenpeace

▼▼► 25 March 2019, Luís Eduardo Magalhães: Bunge silo. ©Moriyama/ Greenpeace enabled



these traders have established arguably encourages expansion and conversion by facilitating farmers' access to global markets.⁶⁶

In September 2017, over 60 Brazilian NGOs, including Greenpeace Brazil, published the Cerrado Manifesto, a call for 'immediate action in defense of the Cerrado by companies that purchase soy and meat from within the biome, as well as by investors active in these sectors'.⁶⁷ The following month, 23 global brands, including McDonald's, members of the Consumer Goods Forum and several retailers, signed a 'statement of support' that signalled their intention of 'working with local and international stakeholders to halt deforestation and native vegetation loss in the Cerrado'; as of September 2019, more than 125 brands and investors had signed the statement.⁶⁸

However, despite being aware of the risks, global companies that depend on soya and other commodities have completely failed to introduce the controls needed to eliminate deforestation and exploitation from their supply chains.⁶⁹ Soya is primarily used as animal feed,⁷⁰ yet analysis by Greenpeace of over 50 brands revealed that companies were totally unaware of how much soya was consumed as animal feed in their meat and dairy supply chains.⁷¹

In other words, brands were taking little or no action to ensure the soya consumed within their supply chains came from traders and producer groups that were not destroying forests or exploiting workers and local communities.





24 May 2019, Estrondo
Estate, Formosa do Rio
Preto: Checkpoint and
watchtower manned
by the Estrela Guía private
security company.
©Cruppe/Greenpeace

'Brazil's Federal Police have launched an investigation, dubbed "Operation Far West," to crack down on an alleged massive land grab by an agribusiness collective in western Bahia, one of Brazil's largest soy producing regions.

The case centers on alleged corruption involving judges, lawyers and farmers, who stand accused of conspiring to secure favorable court rulings to legitimize the grabbing of some 800,000 hectares (2 million acres) . . .

Sérgio Humberto Sampaio, one of the judges involved, was responsible for a ruling that benefitted the Estrondo megafarm collective over traditional communities, by reducing the area claimed by the communities from 43,000 to 9,000 hectares (106,000 to 22,000 acres) in 2018.

Agribusiness mogul Walter Horita, one of Estrondo's main tenants, is also cited in the investigation for allegedly paying millions in bribes and overseeing the movement of 22 billion reais (\$5.2 billion) between 2013 and 2019, with 7.5 billion reais (\$1.8 billion) unaccounted for.'

Maurício Angelo, 'Brazil investigates agribusiness bribes to judges for favorable land rulings', Mongabay, 27 November 2019

'Judge Sérgio Sampaio has made absolutely illegal decisions aimed at protecting the economic groups that make up the condominium. We expect those responsible, both the corrupt and the corrupted, to be held responsible.'

Association of Lawyers for Rural Workers (AATR), quoted in Mongabay

COLLATERAL DAMAGE: COMMUNITIES IN THE SOYA INDUSTRY'S CROSSHAIRS



28 May 2019, Cachoeira community, Estrondo Estate, Formosa do Rio Preto: An armed raid on the traditional geraizeira community. ©ARD Weltspiegel.

'If anyone gets sick here at night he is bound to die because they will not let us get through [their roadblocks].'⁷²

Guilherme Ferreira de Sousa, geraizeiro

'I believe this was only an excuse to incriminate me, as they [Estrondo] are being defeated in court. I know I'm targeted, but this won't intimidate me.'⁷³

Adão Batista Gomes, geraizeiro

'The violent actions by Estrondo are commonly tied to the court calendar. If they lose a legal action, they tend to act more violently against the people.'⁷⁴

Mauricio Correa, member of the Association of Lawyers for Rural Workers



15 December 2017, Estrondo Estate, Formosa do Rio Preto: Electric fences patrolled by Estrela Guia private security cut across traditional geraizeira community lands. ©Repórter Brasil

Greenpeace Brazil recently investigated one soya-producing estate in Matopiba, Agronegócio Estrondo, located in the municipality of Formosa do Rio Preto in Western Bahia. Formosa do Rio Preto is at the heart of the soya deforestation frontier in the Cerrado and is recognised as a ‘high-risk’ municipality by traders in the SCF.⁷⁵ INPE data show it to be the municipality where the most deforestation has occurred in the Cerrado, with almost 450,000 ha of natural vegetation converted between 2001 and 2018.⁷⁶

Between January and August 2019, INPE’s Real-Time Deforestation Detection System (DETER) issued alerts covering a total of 404,910 ha in the Brazilian Cerrado. The municipality in which the most deforestation occurred was Formosa do Rio Preto: it accounted for almost 5% of the total, with alerts being issued about clearance of a total of 17,458 ha within the municipality.⁷⁷

Nevertheless, Formosa do Rio Preto has strong links to the global market – it is the fourth-largest soya-producing municipality in Brazil (the first three are also located in the Cerrado),⁷⁸ and four of the six SCF members purchase soya grown here.⁷⁹ In 2017, according to Trase, Bunge sourced 350,000 tonnes of soya from this municipality – its third most important sourcing region in Brazil.⁸⁰ According to official projections the municipality will increase its soya production by 30% over the next decade.⁸¹

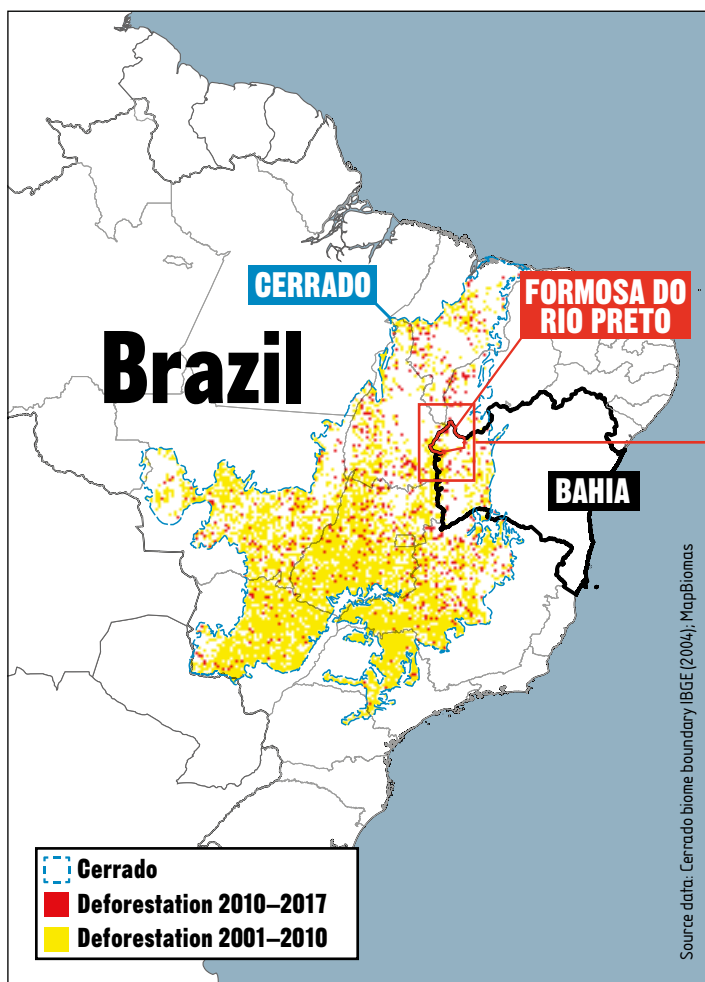
Bunge and Cargill both operate silos within the estate’s boundaries⁸² and source soya directly from its plantations⁸³

– the estate itself thus also has strong links to the global market.

The Estrondo estate’s soya is also traded through other silos in Formosa do Rio Preto and in the nearby municipality Luís Eduardo Magalhães. Mega-traders ADM, Bunge, Cargill and Louis Dreyfus – through the Amaggi Louis Dreyfus Zen-Noh joint venture – have silos in those municipalities and export to the global market. Although it has no silos in these two municipalities, COFCO International also exports from the area.⁸⁴

The Estrondo estate has a notorious record that includes a history of land grabbing, use of slave labour and illegal land clearance.⁸⁵ Footage collected during Greenpeace Brazil’s investigation in late May 2019 documents an armed raid on a traditional *geraizeira* community whose lands lie within the estate. The raid, the purpose of which remains unclear, was led by individuals claiming to be police – though failing to present warrants – and using what was later confirmed by a confidential source to be a Bahia state police vehicle (see ‘Violence and intimidation against local communities’ below).⁸⁶

Adding to existing tensions over land-use rights and control is the recent renewal of a deforestation permit⁸⁷ that grants Delfin Rio S/A – Crédito Imobiliário, the main holding company for the Estrondo estate, four years to clear an additional 25,000 ha – an area that covers much of the remaining lowland natural vegetation within the estate’s boundaries.



THE ESTRONDO ESTATE: A CYCLE OF VIOLENCE AND CONFLICT

LAND GRABBING

Until recently, the Estrondo estate website claimed it covered 305,000 ha,⁸⁸ an area larger than the cities of Rio de Janeiro and São Paulo combined.⁸⁹ Land registry documents show that in 1978 the Delfin group, owned by Ronald Guimarães Levinsohn,⁹⁰ acquired the land where this estate is situated – an area covering some 444,000 ha.⁹¹ The National Institute of Colonisation and Agrarian Reform (INCRA) has called into question the legality of this purchase, suggesting that the Estrondo estate was founded on a land grab.⁹²

2018 Bahia state court documents assert that the Estrondo estate was established under the ownership of four holding companies: Delfin Rio S/A Crédito Imobiliário, Cia Melhoramentos do Oeste da Bahia, Colina Paulista S/A and União de Construtoras S/A.⁹³

Of those, only Delfin Rio S/A Crédito Imobiliário and Cia Melhoramentos do Oeste da Bahia are currently acknowledged on the Agronegócio Estrondo website as owners within estate;⁹⁴ public registry profiles show that these are controlled by Levinsohn or his family.⁹⁵ The other two companies are ultimately held offshore. Colina Paulista S/A, registered in the Australia farm within the Estrondo estate, is owned by Tamzim Trading Ltd, a holding company registered

in the British Virgin Islands.⁹⁶ União de Construtoras S/A – whose ultimate owner, Giacometti Investments S/A, is based in Panama⁹⁷ – allegedly transferred its share to Delfin in 1981⁹⁸ and later changed its name.⁹⁹ Thus, it appears that the estate is now held by just three companies. These three companies are named in a lawsuit for recognition of local communities' right to 43,000 ha of land within the Estrondo estate.¹⁰⁰

The Bahia state prosecutor has indicated that all four of the original holding companies are interlinked and associated with Levinsohn's Delfin. The case documents note 'the number of spin-offs, mergers and re-mergers, and transfers of areas between the legal entities União de Construtoras S/A; Delfin Rio S/A – Crédito Imobiliário; Colina Paulista [sic] S/A; and Cia Melhoramentos do Oeste da Bahia' and that 'any land registry entries that have different rights holders are owned by Delfin Rio S/A – Crédito Imobiliário'; they also state the prosecutor's conclusion based on his analysis of various documents that 'Colina Paulista S/A and Cia Melhoramentos do Oeste da Bahia are the result of a partial spin-off of Delfin Rio S/A – Crédito Imobiliário ... [designed to facilitate] the concealment of irregularities behind an enormous amount of bureaucracy.'¹⁰¹



Ronald Guimarães Levinsohn, head of the Delfin group. Source: Agência O Globo

RONALD LEVINSOHN AND THE DELFIN GROUP

The Delfin group and Levinsohn are notorious in Brazil as the result of a huge financial banking scandal in the early 1980s involving allegations of fraud and collusion of various ministers within the then dictatorship. When Levinsohn's Delfin group collapsed in 1983, its debt had reached 77 billion old cruzeiros (US\$203 million). Levinsohn had secured this debt with state banks using as collateral two undeveloped tracts of land whose value on paper was a mere 6.3 billion cruzeiros (US\$16.6 million). In order to maintain control of what was left of the debt-ridden company, in 1991 Levinsohn agreed to pay the remainder of the debt over 13 years. Following extensive legal battles, in 2006 the Superior Court of Justice ruled that the property represented fair and appropriate compensation to the state against losses¹⁰² – effectively writing off the equivalent of millions of dollars in debt.

Reports of money laundering scandals involving Levinsohn have continued: for example, in 2016, the Federal Public Ministry in Rio de Janeiro (MPF/RJ) accused Levinsohn and 15 others of criminal association and crimes against the financial system for the sale of securities to Brazil's Postales and Petros (Petrobrás) funds. The 'Operation Fresh Start' investigation uncovered that some 90 million Brazilian reais (US\$27 million) had been diverted from these funds.¹⁰³

In 2011, Levinsohn told the media that he had entered into a definitive partnership with the Horita brothers – listed as tenants on the Estrondo website – with the aim of increasing productivity, reducing costs and collaborating on social enterprises, while maintaining a focus on the environment. According to Levinsohn, his family had sold 80,000 ha of the estate's land to the Horita brothers and they were running another 25,000 ha as a partnership.¹⁰⁴

According to TV Globo and Bahia News, following a decision by Pará's Superior Court of Justice, on 19 November 2019 the Federal Police acted on search and seizure warrants against 21 people – including Walter Yukio Horita, one of Levinsohn's partners – as part of an investigation into land grabbing in JJF Holding de Investimentos e Participações, a 366,000 ha estate also located in Formosa do Rio Preto. Mongabay reports that Sérgio Humberto Sampaio, one of the judges under investigation, was responsible for a ruling that benefitted the Estrondo estate at the expense of the *geraizeira* communities, by reducing the area of land to which their rights were recognised from 43,000 ha to 9,000 ha. Chain Reaction Research reports that mega-traders ALZ Grãos, Bunge and Cargill all have warehouses inside the area claimed by JJF Holding.¹⁰⁵

▼ A Oeste Semanal newspaper article from June 2011 gives an extensive profile of Levinsohn and his ties to the Agronegócio Estrondo business, including the Horita brothers, owners of one of the companies on the estate.

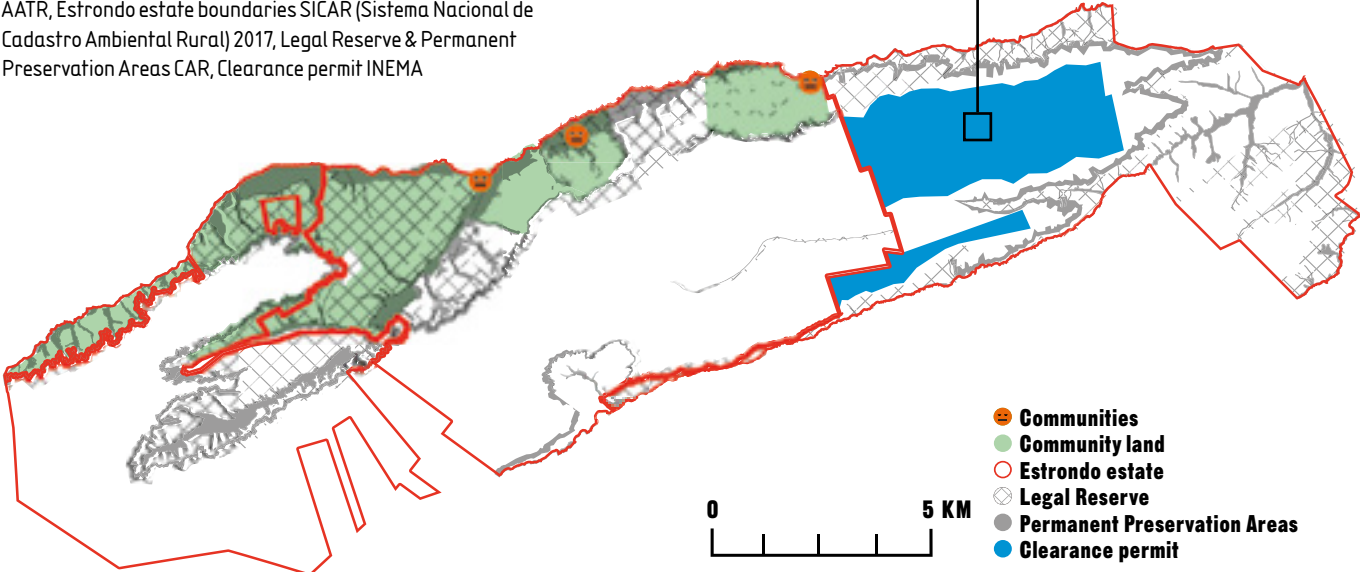


ILLEGAL LAND CLEARANCE, IRREGULAR PERMITS AND THE THREAT OF MORE DEFORESTATION

23 May 2019, Estrondo Estate,
Formosa do Rio Preto, 11°09'24.52"S 45°44'24.66"W:
Road cutting through 25,000 ha of natural
vegetation licensed for deforestation.
©Cruppe/Greenpeace



Sources: Communities Greenpeace mapping, Community land AATR, Estrondo estate boundaries SICAR (Sistema Nacional de Cadastro Ambiental Rural) 2017, Legal Reserve & Permanent Preservation Areas CAR, Clearance permit INEMA



'The issuing of those [2002 deforestation permits covering 49,000 ha] was contrary to the federal environmental legislation... The whole area was cleared irregularly.'¹⁰⁶

Zenildo Soares, Executive Manager of IBAMA in Barreiras (BA), 2009 interview with Repórter Brasil

'[W]hile enforcement of environmental legislation, including the Forest Code, is important, it is not enough to ensure conservation of the biome, since it allows legal conversion of up to 80% of rural properties.'

Cerrado Manifesto, September 2017

'Condomínio Cachoeira do Estrondo denies any accusation of illegal clearing and reaffirms that it maintains its legal reserve in 22%, above legal requirements. Regarding the renewal of the licence obtained in May 2019, the enterprise does not have a definitive plan for its execution, however it guarantees that if and when this would happen, the process will be done within legal requirements and following procedures established by the relevant bodies/institutions.'
Agronegócio Condomínio Cachoeira do Estrondo, Statement to Greenpeace in response to letter to Delfin, 29 November 2019

Well over a third of the land claimed by the Estrondo estate has been deforested since 2000 to grow soya, cotton and maize, with the vast majority cleared between 2001 and 2009.¹⁰⁷ In the 2000s IBAMA repeatedly investigated Agronegócio Estrondo for illegal land clearance,¹⁰⁸ including allegations that deforestation permits covering 49,000 ha in the estate were fraudulently obtained.¹⁰⁹ In April 2019, Greenpeace Brazil documented the harvesting of soya illegally cultivated in an area that IBAMA had excluded from commercial activity.¹¹⁰

Legal Reserves (LRs) are areas within rural properties that 'must be conserved with a native vegetation cover by the rural estate property's owner, landholder, or occupant', as mandated by Brazil's Forest Code (Law 12,651/2012, Article 17). Article 12 stipulates that in the Cerrado, outside the Legal Amazon, 20% of the property must be set aside as a Legal Reserve. Article 17 also mandates 'the immediate suspension of activities in Legal Reserve areas irregularly deforested after 22 July 2008'.¹¹¹

On 14 August 2014, a technical inspection by Bahia's Institute of Environment and Water Resources (INEMA) found that the Estrondo estate's owner, the company Delfin Rio S/A – Crédito Imobiliário, had given 'false information ... by declaring that its Legal Reserve area was preserved and by declaring a different sized area for the reserve than that endorsed in the property register' and that 'the effective environmental degradation of its Legal Reserve area following the use of that land ...

prevents its natural regeneration'. INEMA ultimately fined the company 201,000 reais (US\$60,000) for this infraction in November 2016.¹¹²

Yet despite its knowledge of the violation, on 12 January 2015, INEMA granted Delfin Rio S/A – Crédito Imobiliário a deforestation permit for nearly 25,000 ha within the Estrondo estate.¹¹³ The area licensed for clearance covers virtually all the remaining lowland natural vegetation within the estate's boundaries.

In September 2018, in its application to renew the deforestation permit, Delfin Rio S/A – Crédito Imobiliário stated that the Legal Reserve and Permanent Preservation Areas within the estate were under its full 'responsibility and ownership', as the regulations require.¹¹⁴ This statement appears disingenuous.

Greenpeace mapping analysis shows that vast areas of the claimed Legal Reserve fall within the 43,000 ha of land within the Estrondo estate that a court ruling of 3 May 2017, later confirmed by the Bahia Court of Justice, recognised as land on which the *geraizeira* communities have traditional land-use rights.¹¹⁵ As such, Delfin cannot legitimately use this area to show compliance with the Forest Code's Legal Reserve requirements or secure permission to clear additional land within the estate.

Despite these known land-management issues, on 22 May 2019 INEMA approved a renewal of the original permit, allowing the land to be cleared within the next four years.¹¹⁶

SLAVE LABOUR

Agronegócio Estrondo has a history of human rights abuses. In 2005, an inspection by the Brazilian Ministry of Labour and Employment (MTE), Public Ministry of Labour (MPT) and Federal Police (PF) identified the use of forced labour in two separate parts of the estate. A total of 91 people linked to soya or cotton production were freed.¹¹⁷

VIOLENCE AND INTIMIDATION AGAINST LOCAL COMMUNITIES

Multiple incidents of intimidation and violence against the local traditional communities, known as the *geraizeiras do Alto Rio Preto* – the traditional peoples of the Upper Preto River – have been documented.

On 28 May 2019, a Greenpeace Brazil investigative team and several accompanying journalists witnessed an armed raid on one of these communities. An unmarked Mitsubishi SUV – whose registration was later confirmed by a confidential source as belonging to a Bahia state police vehicle – arrived at the village.

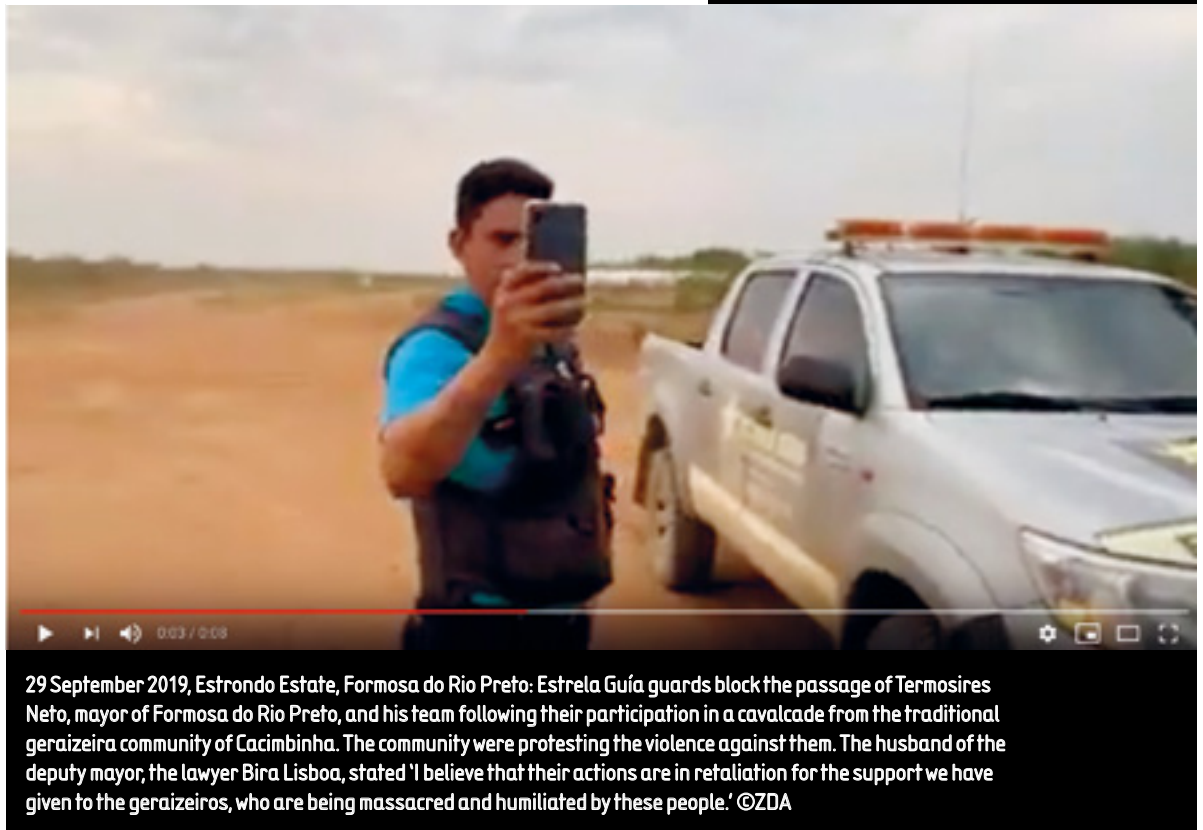
When four men approached claiming to be state police, wearing unmarked flak jackets and carrying automatic weapons, a woman from the community (whose brother-in-law had been detained illegally by the Estrondo estate's private security force, Estrela Guía, several days earlier¹¹⁸) fled with a number of female Greenpeace Brazil staff into one of the houses for shelter. One of the men forced entry after shouting to the women, 'Come out with your hands up, this is the police.' He searched the house and ordered the women to lift their shirts 'to check for guns'. Other community members were threatened as the men sought to gain entry to their homes, claiming 'We have come here because we received an anonymous complaint and we need to go inside to check it out.'

Greenpeace Brazil staff questioned the men's actions on the grounds that no warrant had been produced. The armed men continued to press the community members: 'We will go in, and I know you will be shocked by what we find, because we will find stuff.' While the intent of the raid remains unclear, afterward members of the community told Greenpeace Brazil they had feared that the men planned to plant evidence – drugs or guns – to incriminate them.¹¹⁹

In total, Greenpeace Brazil team members and members of the community were kept together under armed guard for about two hours. The armed men finally left at sundown without having searched further houses – perhaps because of the presence of international journalists and film crew. Their parting words were a threat: 'This isn't over.'¹²⁰



28 May 2019, Cachoeira community, Estrondo Estate, Formosa do Rio Preto: Greenpeace Brazil staff and accompanying journalists witness first-hand an armed raid on the traditional *geraizeira* community. ©ARD Weltspiegel



Estrela Guia – Guiding Star in English – is a private company founded in 2006 that provides security and armed escort to both the public and private sector.¹²¹

In its November 2019 letter to Greenpeace, Agronegócio Condomínio Cachoeira do Estrondo states that the guards are employed in self defence.

According to company documents, the company employs about 300 people.¹²¹ Its public sector contracts include one from the Mayor of Barreiras for security services for 1.8 million reais (US\$468,000) in 2018, renewed in February for 2019.¹²³

Statements by Delfin representatives in a 2014 court case indicate that the Estrondo estate provides its partners an integrated administrative management service including road maintenance, security and checkpoints. Estrela Guia, in its role as security provider, is mentioned several times in the court documents.¹²⁴ Thus, companies operating within the estate, including Cargill and Bunge, are recipients of its services and therefore interested parties in any review of its actions.

Although numerous official complaints have been made by individuals from traditional communities about the intimidation and violent

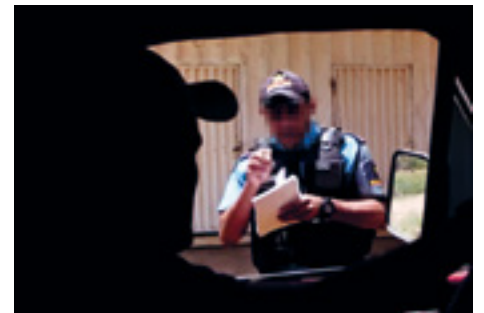
actions of Estrela Guia against them,¹²⁵ community members say their complaints have never been followed up.¹²⁶

The Association of Lawyers for Rural Workers of the State of Bahia has described how this armed private security force has engaged in a series of intimidatory acts against the *geraizeira* communities 'with illegal support from [local] police officers'.¹²⁷ Injustices they identify include breaking into people's homes, illegally detaining or abducting community members, planting weapons and making false accusations of illegal possession and/or discharging of firearms, seizing community cattle, restricting movement on the roads and engaging in various intrusive surveillance operations.¹²⁸

In April 2019, Brazil's Federal Police extended Estrela Guia's licence to operate for another year.¹²⁹ In June 2019 – several months after video emerged of a uniformed Estrela Guia guard shooting a community member (see 'War for territory: life on the soya frontline') – the Federal Police granted Estrela Guia authorisation to acquire a further six rifles, six shotguns, six handguns and over 600 bullets.¹³⁰



WAR FOR TERRITORY: LIFE ON THE SOYA FRONTLINE



Away from the cameras, such acts of violence and intimidation are reportedly a regular feature of the local communities' daily life, interfering with their ability to pursue their traditional livelihoods on the land of their forefathers. Community members told Greenpeace Brazil staff how they have been spuriously accused of crimes such as bank robbery and possession of firearms and that their cattle regularly are stolen and corralled; in addition, equipment that enables them to connect to the internet has reportedly been stolen and paths through their lands fenced off.¹³¹

Supporting community claims and the findings of others,¹³² investigations by Greenpeace Brazil in 2019 have documented security perimeter fences along with armed manned watchtowers and trenches some 3 metres deep obstructing free passage over communities' traditional land, effectively isolating the

communities from one another and impeding their grazing rights.

In 2017, a collective action was brought by the Cachoeira, Cacimbinha/Arroz, Gatos, Aldeia/Mutamba and Marinheiro *geraizeira* communities for recognition of their right to 43,000 ha of land within the Estrondo estate. However, despite various court rulings in their favour¹³³ – and the finding of the Bahia state prosecutor that the evidence 'points to irregularities that clearly render the [Estrondo] register null and void'¹³⁴ – the estate continues to prevent them from exercising their traditional land-use rights, and violence against the communities has continued. Agronegócio Condomínio Cachoeira do Estrondo continues to claim in a November 2019 letter to Greenpeace that the ruling only recognises 9,000 ha for the communities (despite other more

15 December 2017, Cachoeira community, Estrondo Estate, Formosa do Rio Preto: Estrela Guía guard questions members of the traditional *geraizeira* community at one of several checkpoints. ©Repórter Brasil

17 August 2019, Cachoeira community, Estrondo Estate, Formosa do Rio Preto: The Association of Lawyers for Rural Workers in Bahia report that armed men acting as Estrela Guía security guards approached traditional *geraizeira* community members herding cattle. They threatened and then shot at the community members, injuring one of them, Fernando Ferreira Lima. Video footage shows community members arriving to help carry him out and take him to the nearest hospital. ©Private archive



senior decisions recognising the legitimacy of the 43,000 ha claim).

On 31 January 2019, according to the Association of Lawyers for Rural Workers, members of the Estrela Guía security force shot a *geraizeiro* in the leg while he was attempting to recover cattle that had been seized by the estate.¹³⁵ A video filmed by a member of the *geraizeira* community and passed to the Pastoral Land Commission (CPT) documents the events. In it, community members on horseback are shown approaching the corralled cattle. When asked if they will release the cattle, one guard refuses, saying he is acting on the farm's order. Shots are fired and one of the community members shouts: 'The way you're pointing the gun at me, you're aiming to kill!'¹³⁶ The video footage then documents the moment he is shot.

On 7 April 2019, according to the Association of Lawyers for Rural Workers, the president of the Cachoeira *geraizeira* community was illegally detained by armed members of Estrela Guía while he was looking for stray cattle. Claiming they had an arrest warrant, the guards held him at one of the estate's security outposts. He was then transferred to the local police station and accused of illegal possession of a

shotgun. At the station, the duty officer reportedly produced a shotgun.¹³⁷ The *geraizeira* community leader was released on bail five days later when the judge failed to find any 'decisive motive for the enactment of preventive prison'.¹³⁸

In a similar case, the Association of Lawyers for Rural Workers reports that on 24 May 2019 members of Estrela Guía pursued and intercepted the vehicle of a *geraizeiro* from the Cachoeira community on a public road as he was returning home after locating his cattle. They detained him on allegations of possessing a shotgun, and the weapon he was allegedly carrying was reportedly produced by the duty police officer when he was transferred to the local police station.¹³⁹ The prison release paperwork order shows that the detainee was held on accusations of possession of a firearm and discharge of a firearm.¹⁴⁰ *Geraizeira* community members told Greenpeace Brazil that the detainee's defence lawyers requested forensic testing of the weapon, but the local police station claimed it did not have the capacity to do this.¹⁴¹ Although no official charges were brought, the detainee was released under conditions that included not leaving the state of Bahia and adhering to a 6pm to 6am curfew – undermining his ability to herd his cattle.¹⁴²

CONFLICT MAPPING: AGRONEGÓCIO ESTRONDO OPERATIONS, TRADER SILOS AND COMMUNITIES



22 March 2019, Estrondo Estate, Formosa do Rio Preto: Soya cultivation on an area under embargo.
©Moriyama/Greenpeace



- IBAMA embargo
- Soya grain silos
- Centúria farm
- Watchtowers
- Clearance permit
- Communities
- Greenpeace photo



Sources: Property boundaries SICAR 2017, embargoes IBAMA April 2019, silos Conab June 2019, farm location Horita Group (<http://www.horita.com.br/pag.contatos.html>), watchtowers Greenpeace mapping, clearance permit INEMA, communities Greenpeace mapping. Background image Sentinel 2 dated 10 May 2019.

Deforestation data (to 2017) from INPE (<http://terrabrasilis.dpi.inpe.br/app/map/deforestation?hl=pt-br>).



BUNGE

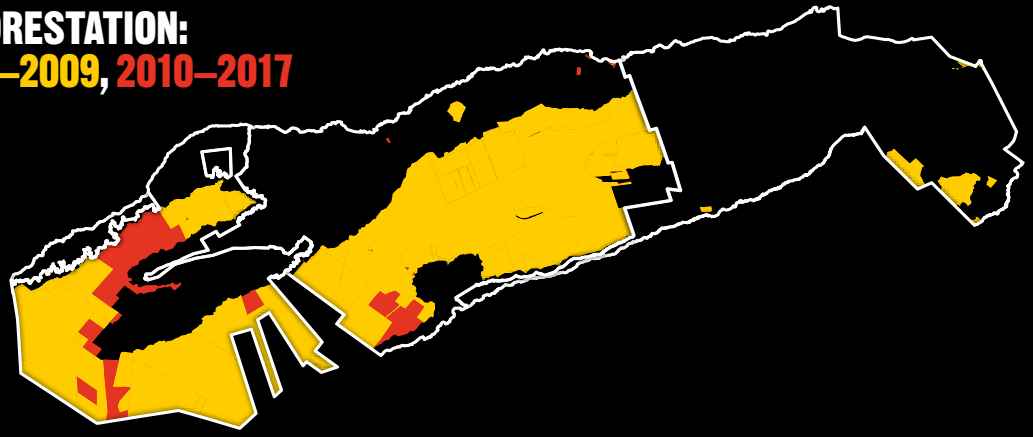
©Cruppe/Greenpeace



Cargill

©Cruppe/Greenpeace

**DEFORESTATION:
2001–2009, 2010–2017**



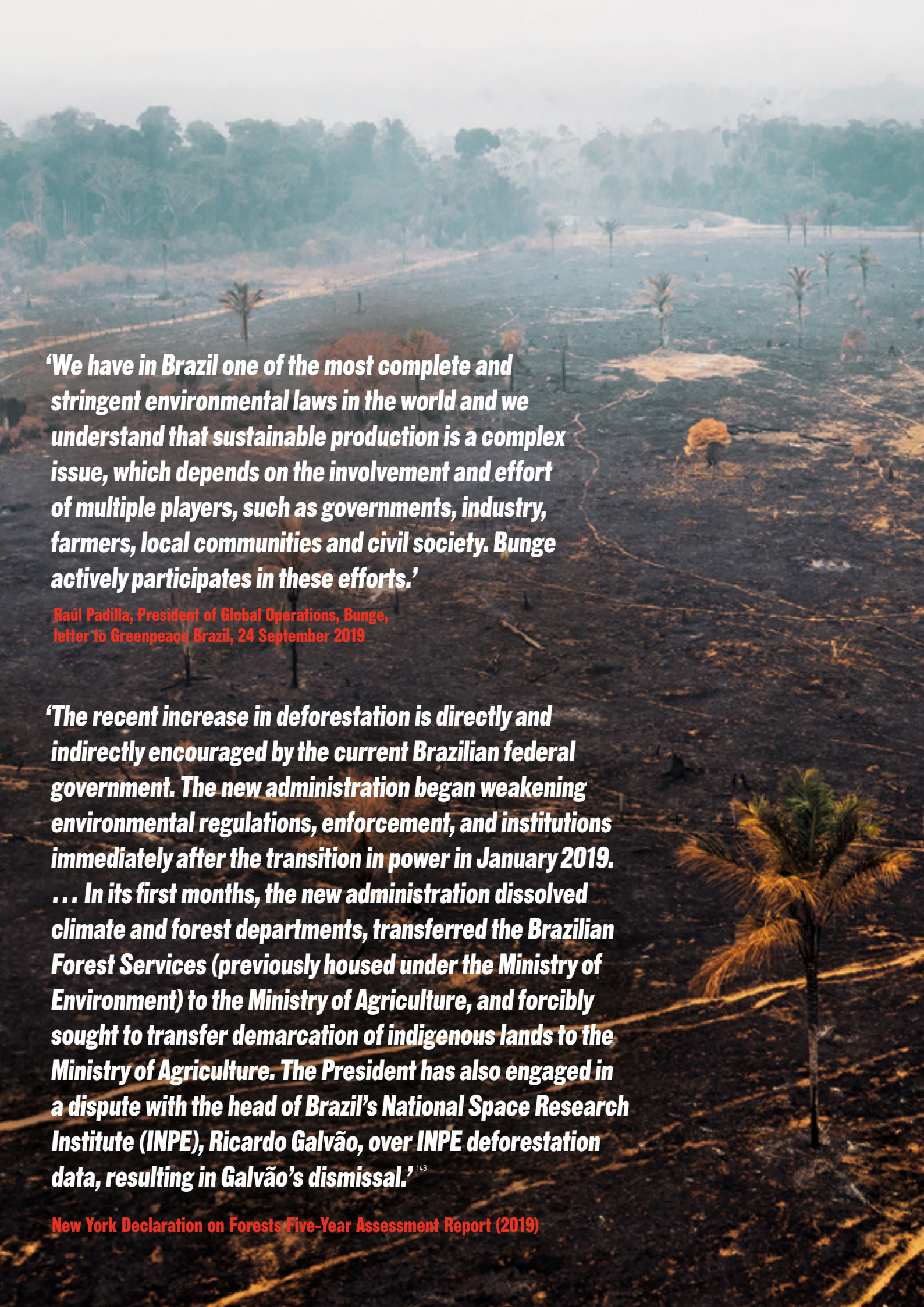
© Gruppe/Greenpeace



© Gruppe/Greenpeace



► 31 January 2019, Estrondo Estate, Formosa do Rio Preto:
Still from a video made available by the Pastoral Land Commission which documents the moment a geraizeiro was shot by the Estrela Guia private security force while trying to retrieve his cows from estate corrals. ©Private archive



‘We have in Brazil one of the most complete and stringent environmental laws in the world and we understand that sustainable production is a complex issue, which depends on the involvement and effort of multiple players, such as governments, industry, farmers, local communities and civil society. Bunge actively participates in these efforts.’

Raúl Padilla, President of Global Operations, Bunge, letter to Greenpeace Brazil, 24 September 2019

‘The recent increase in deforestation is directly and indirectly encouraged by the current Brazilian federal government. The new administration began weakening environmental regulations, enforcement, and institutions immediately after the transition in power in January 2019. . . . In its first months, the new administration dissolved climate and forest departments, transferred the Brazilian Forest Services (previously housed under the Ministry of Environment) to the Ministry of Agriculture, and forcibly sought to transfer demarcation of indigenous lands to the Ministry of Agriculture. The President has also engaged in a dispute with the head of Brazil’s National Space Research Institute (INPE), Ricardo Galvão, over INPE deforestation data, resulting in Galvão’s dismissal.’¹⁴³

New York Declaration on Forests Five-Year Assessment Report (2019)

25 August 2019, Amazon,
9°17'11.124" S 64°14'9.516" W:
Haze and burnt land crossed
by lines from cattle herds.
©Ligabue/Greenpeace





25 January 2019, Brasília: Brazil's President Jair Bolsonaro gives a statement at the Planalto Palace. Image courtesy Presidency Brazil/Handout via Reuters

BOLSONARO'S WAR ON THE AMAZON AND BEYOND

'It's a shame that the Brazilian cavalry hasn't been as efficient as the Americans, who exterminated the Indians.'

**Jair Bolsonaro, Correio Braziliense,
12 April 1998**

'In 2019 we're going to rip up Raposa Serra do Sol [indigenous territory in Roraima, northern Brazil]. We're going to give all the ranchers guns.'

**Jair Bolsonaro, in Congress,
21 January 2016**

The Amazon rainforest is the largest and most iconic forest in the world. Fifteen years ago, the Brazilian Amazon was in a full-blown deforestation crisis. Then, in 2006, a group of soya traders, civil society organisations led by Greenpeace Brazil, and the Brazilian government agreed to implement the Soy Moratorium:¹⁴⁴ a voluntary commitment not to purchase soya from farms within the Brazilian Amazon that had cleared forests after July 2006 (revised to July 2008 in 2014).¹⁴⁵ Following multiple temporary extensions, the moratorium was renewed indefinitely in 2016.¹⁴⁶

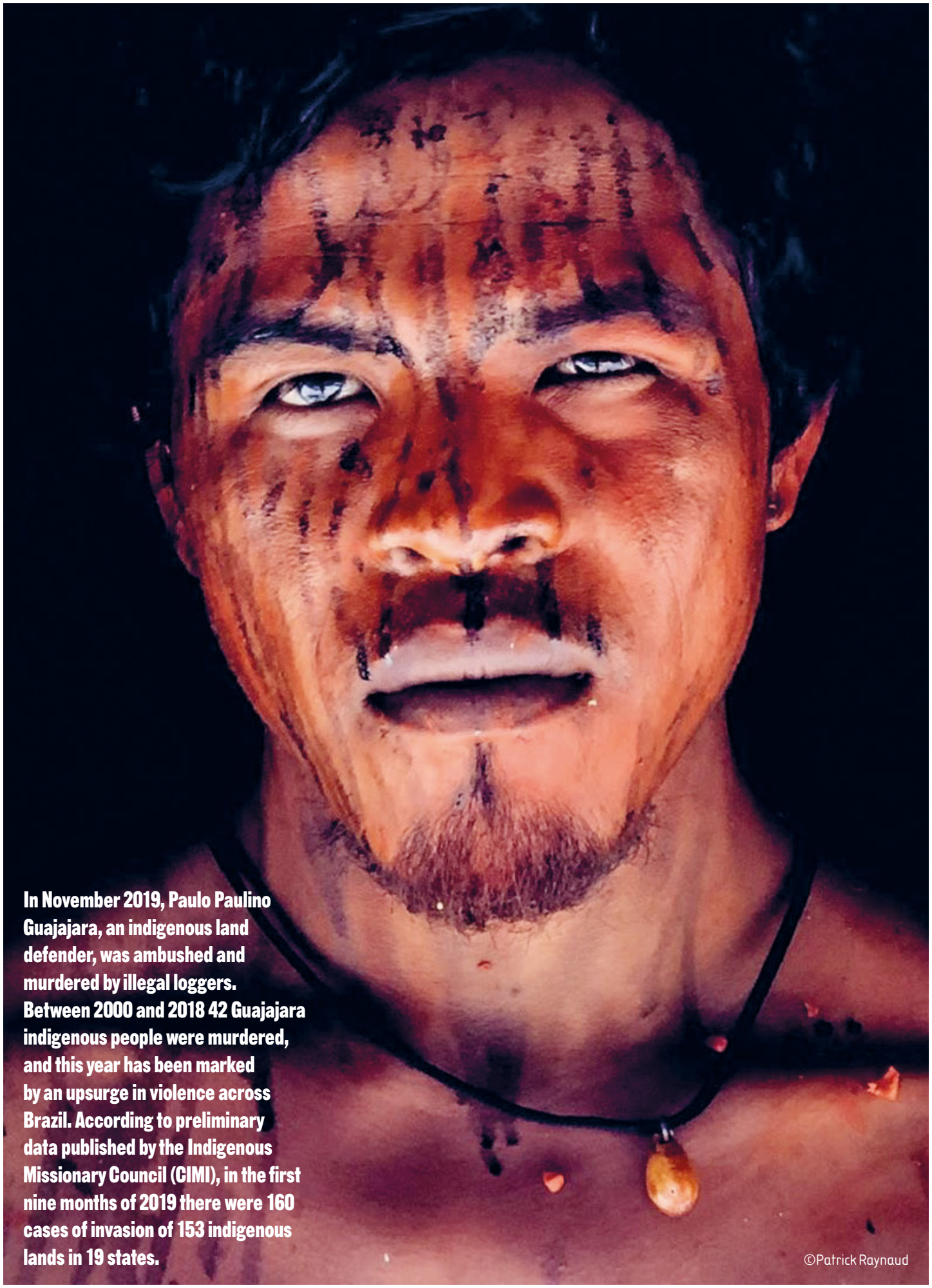
The Soy Moratorium has largely been successful in limiting soya as a direct driver of deforestation in the Brazilian Amazon. The average annual deforestation rate in the affected municipalities has fallen to less than one-fifth of what it was prior to the implementation of the moratorium.¹⁴⁷ Nonetheless, the area planted with soya in the Brazilian Amazon has increased by 3.5 million ha since 2006, with new plantings mainly on land previously used to graze cattle.¹⁴⁸ Not only has its expansion seemingly displaced cattle ranchers into new, often forested land in the Brazilian Amazon,¹⁴⁹ but the soya industry has carried on expanding in other ecologically important areas across South America, including the nearby Cerrado.

After several years of stability, during which deforestation rates were falling (albeit not quickly enough), the Amazon is once again in the firing line.

During his 2018 election campaign, Brazil's President Jair Bolsonaro repeatedly promised to weaken the Brazilian government's environmental agencies and to open up protected areas and indigenous lands to farming and mining. He also repeatedly threatened to withdraw from the Paris Agreement should international efforts be made to restrict agricultural expansion in the Brazilian Amazon.¹⁵⁰

Since taking office, Bolsonaro has carried out many of these threats. His Environment Minister, Ricardo Salles, has called climate change a 'secondary' issue¹⁵¹ and appears keen to dismantle the Amazon Fund,¹⁵² through which governments can make donations to Brazil to help it reduce deforestation within its share of the Amazon rainforest.¹⁵³ Norway – by far the largest contributor – and Germany have now suspended donations, following the dissolution of the fund's steering committee.¹⁵⁴ In April, Bolsonaro dissolved the Inter-Ministerial Committee on Climate Change and its Executive Group, together with the National REDD+ Commission, which acts as a guarantor for resources coming from the Green Climate Fund awarded to Brazil last year. Consequently, funds have not been invested.¹⁵⁵ The mandate of the Brazilian Forest Service has also been shifted from the Ministry of the Environment to the Ministry of Agriculture.¹⁵⁶

Putting the Amazon at further risk, the lands and rights of indigenous peoples who have been the



In November 2019, Paulo Paulino Guajajara, an indigenous land defender, was ambushed and murdered by illegal loggers. Between 2000 and 2018 42 Guajajara indigenous people were murdered, and this year has been marked by an upsurge in violence across Brazil. According to preliminary data published by the Indigenous Missionary Council (CIMI), in the first nine months of 2019 there were 160 cases of invasion of 153 indigenous lands in 19 states.

©Patrick Raynaud



◀ 17 October 2014, Altamira, Pará:
Construction of Belo Monte Dam.
©Quintanilha/Greenpeace



▼ 19 September 2019,
Pará: Illegal mining within the
Mundurukú indigenous land.
©Braga/Greenpeace



defenders of the forest continue to be violated. Bolsonaro's attempt to transfer responsibility for demarcating indigenous lands from the National Indian Foundation (FUNAI) – which Bolsonaro has called 'a nest of rats'¹⁵⁷ – to the Ministry of Agriculture was blocked by the Brazilian Congress,¹⁵⁸ however, the newly appointed President of FUNAI is Marcelo Xavier da Silva, who has a history of opposing protections for indigenous peoples.¹⁵⁹ Bolsonaro is also threatening to permit mining in an area of the Amazon rainforest that is larger than Denmark and heavily forested.¹⁶⁰ IBAMA officials warn that their mission has been hindered by staff reductions, political interference and environmental deregulation, and the agency's budget has been cut by 25% since January.¹⁶¹



Brazil's forests have also taken a hit. In July and August 2019, official deforestation alerts for the Brazilian Amazon – which had already increased in the first part of 2019, after Bolsonaro took office – rose alarmingly in comparison to the preceding year.¹⁶² Bolsonaro described the reported figures as 'lies', directly attacking the globally recognised National Institute of Space Research (INPE) – in charge of deforestation monitoring systems and publishing deforestation data since 1988 – and sacking its director in August.¹⁶³ However, in November 2019, INPE confirmed that the annual Amazon deforestation rate for the period August 2018–July 2019 had risen to nearly 1 million ha for the first time since 2008; preliminary figures from August to October 2019, during the peak of the fire crisis, indicate double the number of areas with deforestation warnings compared to the same period in 2018.¹⁶⁴

▲ 24 August 2019, Colniza, Mato Grosso, 9°7'43.32" S 61°28'15.899" W:
Burning land near a track and recently logged areas.
©Moriyama/Greenpeace.

◀ 26 April 2018, Brasília: Indigenous people from 100 different groups protest outside the National Congress, calling for demarcation of their lands.
©Braga/MNI



▲ 9 July 2019, Brasília: Environment Minister Ricardo Salles and President Jair Bolsonaro speak to the press after meeting at the ministry. ©Cruz/Agência Brasil

Segurança no campo
Ricardo Salles - Federal
VOTE .30-06 

Contra a praga do javali 

Contra a esquerda e o MST 

Contra o roubo de trator, gado, insumos... 

Contra a bandidagem no campo 



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NOVO

◀ Ricardo Salles' 2018 election leaflet called for 'Security in the field' – 'Vote .30-06 [rifle ammunition]', 'Zero Tolerance'. Now-deleted tweets from 16 August 2018 from his @sallesnovo Twitter account reportedly state 'And where is the right to self-defence? How will the farmer guess the intentions of those who invaded his property?'

RIDING SHOTGUN: RICARDO SALLES IS BOLSONARO'S RIGHT-HAND MAN

'The lower court decision [that the remapping of the environmental management plan of the Tietê river was misconduct] is being appealed. I'm sure it will be reviewed because it's wrong. ... [W]ithout economic development for the entire territory there is no way to take care of the environment. There are a number of initiatives going on in terms of improving infrastructure, urban conditions, real estate activities and these are often running into environmental constraints that have no technical basis – and which are based on the mistaken, prejudiced and persecutory view of the private sector in many cases, like [the Tietê river case].'¹⁶⁵

Ricardo Salles, August 2019

Ricardo Aquino Salles, Brazil's current Minister of the Environment, ran a previous election campaign for the National Congress under the slogan 'Vote .30-06 – Zero Tolerance'.¹⁶⁶ The .30-06 is ammunition for a popular rifle, and Salles' campaign poster displayed this ammunition centrally with four examples of where Salles was suggesting farmers should be allowed to use arms: against wild boar, against the political left and the Landless Workers Movement (MST), against field bandits and against thieves stealing tractors, cattle and agricultural equipment.

Bolsonaro's choice of Salles for his current position was a controversial one, not least because of his widely recognised pro-agribusiness, anti-environment stance.¹⁶⁷ While serving as Environment Secretary for the state of São Paulo in 2016, Salles was accused of administrative misconduct – ordering alterations to official maps of the environmental management plan for a protected area of the Tietê river 'with the clear intention of benefiting economic sectors, notably mining'.¹⁶⁸ Salles was sentenced on 18 December 2018: in addition to a fine, he was to be deprived of his political rights for three years. Just two weeks after this conviction, Salles was appointed

Minister of the Environment for Bolsonaro's government.¹⁶⁹

In addition to this infraction, Salles is currently being investigated for illicit enrichment by Brazil's Federal Prosecutor's Office in São Paulo. Between 2012 and 2018, during which time he was working in government positions reportedly with average monthly salaries of between 16,868 and 18,413 reais, his net worth increased out of all proportion to his earnings, from 1.4 to 8.8 million reais (US\$720,000 to US\$2.42 million).¹⁷⁰

Salles has said more than once that climate change is an 'academic discussion', and is not driven by human activities.¹⁷¹ He has also said that the Brazilian government will not play an active role in international negotiations because the country 'has already done too much' for the climate, 'receiving nothing' in return.¹⁷² The Brazilian Climate Observatory, a network of NGOs dedicated to environmental issues, has described the appointment of Salles as an attempt to 'subordinate the Ministry of Environment to the Ministry of Agriculture'; by appointing someone who 'thinks and acts in the same way' as him, they argue, Bolsonaro has made a move to remove the 'obstacle' of the environmental agenda.¹⁷³



25 August, Rondônia,
9°16'54.2"S 64°13'48.89"W.
©Ligabue/Greenpeace





24 August 2019,
Porto Velho, Rondônia,
9°36'58.92"S 64°8'41.94"W.
©Moriyama/Greenpeace

BURNING ISSUE: BRAZIL'S SELF-INFLICTED FOREST FIRE CRISIS

***'The 2019 dry period has been more humid on average than the past three years. This rules out drought as the cause behind the explosion in the number of hotspots.'*¹⁷⁴**

Amazon Environmental Research Institute (IPAM), September 2019

Nearly 2.5 million ha – including significant areas of forest and recently deforested land – burned in the Brazilian Amazon during August of this year, according to data published by INPE on 3 September 2019.¹⁷⁵ Compared to the same period in 2018, the number of fires in the Brazilian Amazon biome has increased by 111% since the start of President Bolsonaro's presidency.¹⁷⁶

According to the Amazon Environmental Research Institute, deforestation – not the severity of the 2019 dry season – has driven a significant proportion of this year's fires and contributed to a particularly intense burning season.¹⁷⁷

In early August 2019, farmers and ranchers from the BR-163 area (a highway that cuts through the Amazon) announced that they were organising a 'Fire Day' on 10 August 2019; reportedly 'supported by the words of President Bolsonaro', they were coordinating the burning of pasture and deforested areas.¹⁷⁸ The goal, according to one of the leaders, was to show the president that 'we want to work and the only way to make and clear our pastures is to tear stuff down and use fire'.¹⁷⁹ 10 August reportedly saw the number of fire hotspots increase by 300% overnight in the municipality of Novo Progresso and nearly 750% in the municipality of Altamira; the following day saw a further dramatic increase to over 200 cases in each area.¹⁸⁰

Most media reports link the fires in the Amazon to the cattle industry, the main driver of deforestation in the Brazilian Amazon.¹⁸¹ However, Brazilian soya farmers are pushing for further expansion in the Amazon – Aprosoja, the association of soya farmers, has called on President Bolsonaro to end the Soy

Moratorium, with the Brazilian Minister of Agriculture joining in criticising the initiative – and the sugarcane industry has won a major concession: the government has lifted a 10-year-old ban on sugarcane cultivation in the Amazon and central wetlands.¹⁸² Meanwhile, the governor of Pará state in the Amazon claims some 25 million ha could be opened up legally to soya and cattle ranching.¹⁸³ Official Brazilian projections indicate a clear trend for agricultural expansion towards the north of the country, particularly in the Amazon states of Rondônia, Pará and Tocantins.¹⁸⁴

While the Amazon Soy Moratorium is credited with stemming direct deforestation for soya within the Brazilian Amazon, a voluntary and single-commodity approach is not on its own enough. Destruction of the Amazon continues, now with the apparent support of the government, and the rampant expansion of soya production in other areas means that soya continues to drive deforestation in Brazil and beyond.

Moreover, the Amazon is not the only ecosystem seeing an explosion of fires in Brazil. The savannahs of the Cerrado and the Pantanal, the world's largest tropical wetland area, are also burning. By 18 September 2019, 45,239 fire hotspots had already been recorded in the Cerrado this year. This represents a 65% increase over the number of hotspots recorded during the same period in 2018.¹⁸⁵

The solution is not to abandon the Soy Moratorium, as has been threatened by some. Instead, in line with NYDF commitments, any such initiatives should be strengthened and extended to end destruction of forests and critical ecosystems for all commodities – and should have government endorsement.

FUELING THE FIRES: THE EU'S OVERCONSUMPTION OF MEAT AND DAIRY

Alongside China, which according to Trase accounted for two-thirds of Brazil's soya exports in 2017,¹⁸⁶ western markets play a major role in driving demand. Overall, Europe is the world's second-largest soya importer, importing about 33 million tonnes of soya products per year.¹⁸⁷ Brazil is the second-largest supplier of soya to the EU after the US, accounting for 36% of imports in 2018,¹⁸⁸ and over a quarter of the soya exported from the municipalities through which soya from the Estrondo estate is traded is destined for countries in the EU.¹⁸⁹

Europe's high soya demand is down to the region's appetite for meat and dairy products: an estimated 87% of soya imported into the EU is used for animal feed,¹⁹⁰ and the average person in Western Europe consumes 85 kg of meat and 260 kg of dairy products every year – more than double the global average.¹⁹¹

European consumption and investment continue to drive forest destruction and human rights abuses around the world. The EU has long recognised the significance of its consumption of commodities linked to deforestation. Indeed, an analysis conducted by the EU itself found that soya imports have been the EU's number one contributor to global deforestation and related emissions, and that historically 47% of the deforestation embodied in all EU imports has come from soya alone.¹⁹²

Part of the problem is the EU's agricultural and trade and investment policies, as well as the absence of laws to ensure that EU supply chains and financial activities are not contributing to deforestation.

In December 2015 five EU member states signed the Amsterdam Declaration, committing themselves to 'deforestation-free, sustainable commodities' and pledging to 'support learning across national initiatives for trade in sustainable commodities and promote policy coordination and synergy between supply chain and landscape-level initiatives in producer countries'.¹⁹³ According to Trase analysis, through their soya

imports over the last decade, the signatories to the Amsterdam Declaration have been exposed to similar or higher relative deforestation risk per tonne of soya than countries like China; further, this risk exposure did not decline following the declaration coming into force in 2015.¹⁹⁴

In July 2019 the EU Commission published its long-awaited Communication on deforestation, 'Stepping up EU Action to Protect and Restore the World's Forests',¹⁹⁵ which recognises the need to sever the link between deforestation and European consumption.

Beyond policy, however, is regulation. The Commission has yet to translate this intent into binding legislation that requires companies that place any forest/ecosystem risk commodities or derived products into the EU market to demonstrate that those products are not linked to deforestation, forest degradation, the conversion or degradation of other natural ecosystems and human rights abuses. Further, to drive a substantial reduction of EU production and consumption of forest/ecosystem risk commodities – used, for example in the production of meat and dairy or biofuels – radical reform of the Common Agriculture Policy is essential.

Worryingly, instead of delivering on its prior commitments to end deforestation, the EU has recently finished negotiating a trade deal with the Southern Common Market (Mercosur)¹⁹⁶ that looks set to accelerate deforestation across South America. The trade agreement aims to maximise the parties' access to each other's markets and increase exports – offering Brazil, Argentina, Uruguay and Paraguay further opportunities to market forest/ecosystem risk commodities including beef, poultry meat and soya. At the same time, French regulations have removed public funding from biofuel that contains palm oil as a feedstock from the end of 2019,¹⁹⁷ this could increase demand for vegetable oils from other sources, such as soya. Use of any food crops for fuel is no solution to the climate crisis.

► 29 October 2015, Extramadura, Spain: Pigs at a meat processing facility. ©Doyle/Getty Images

► 9 September 2014, Germany: Factory farm. ©Dott/Greenpeace



**TRY ONE
BEFORE YOU TURN
VEGAN**

LET'S BE CLEAR: WE'VE SINCE THIS BACON BURGER. IT'S SURELY NOT DURING A TIME WHEN UNDESIRABLE MEATBY-PRODUCTS ARE PROHIBITED, AND REDUCING THE FOOTPRINT. THERE'S EVERYTHING YOU WANT, AT THE EXACT RIGHT TIME, AND YOU CAN ENJOY IT ALL. WE CAN'T guarantee that the I Love You Bacon Burger's creamy Mayo, which Bacon-Lovers' Fatties and credible help-better will change your mind. And that's all we need to do. If responses show you're honestly hearing. Don't do anything else, we think it might be a good forward to read.

It might be the worst possible point in history to launch this burger. But that being said, we're back at it again.

**I ♥ YOU
BACON BURGER** | **KFC**

The increased use of soya for animal feed is strongly associated with the growth of factory farming. Indeed, the system of industrial meat and dairy production is dependent on the availability of large volumes of high-protein animal feed. The major trends in the European livestock sector are the growth of dairy, pork and poultry production and an ever-increasing concentration of that production in fewer, larger and more intensive farms – with a corresponding growth in demand for concentrated feed, mainly made of soya and cereals, and associated impacts on animal welfare and antibiotic use.¹⁹⁸



DEADLY TRADE-OFF: HOW SOYA FROM ESTRONDO REACHES GLOBAL MARKETS

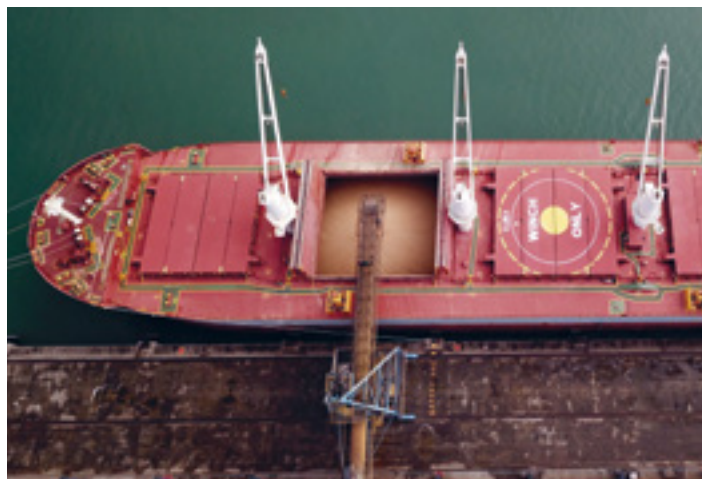
▶▶ ©Moriyama/Greenpeace

- ▶ 25 March 2019, Formosa do Rio Preto, 11°53'37.26"S 45°36'5.64"W: Bunge silo. ©Moriyama/Greenpeace
- ▶▶ 23 March 2019, Barreiras, Bahia, 12°6'59.58"S 45°44'41.16"W: Cargill processing facility. ©Moriyama/Greenpeace
- ▶▶▶ 8 June 2019, Salvador, Bahia: The Ellirea receives 50,000 tonnes of soya destined for Europe. ©Greenpeace

The Estrondo estate is located in the municipality of Formosa do Rio Preto in Western Bahia. Soya from the estate is also traded from the municipality of Luís Eduardo Magalhães, which is a major logistics hub in the area with crushing facilities – Trase data show that in 2017, 80% of the soya exported internationally from Formosa do Rio Preto was traded through Luís Eduardo Magalhães.¹⁹⁹ According to Trase, these two are amongst the 15 municipalities most exposed to deforestation risk within Matopiba.²⁰⁰

Mega-traders ADM, Bunge, Cargill and Louis Dreyfus – through the Amaggi Louis Dreyfus Zen-Noh joint venture – have silos in those municipalities and export to the global market. Although it has no silos in these two municipalities, COFCO International also exports from the area.²⁰¹ Numerous retailers and consumer goods manufacturers, as well as global brands like Burger King, KFC and McDonald's, are supplied by one or more of these traders, either directly or indirectly with soya or meat and dairy products fed on soya-based animal feed.²⁰²

Trade data show that exports from these two municipalities nearly doubled in the three years from 2016 to 2018, from 1.6 million tonnes to almost 3 million tonnes. The table below, based on Comex trade data, shows the destinations for soya from the two municipalities.²⁰³



2017 soya exports from Formosa do Rio Preto

Exporter	Destination	Volume (t)*	
Amaggi & LD Commodities (now ALZ)	China	251,530	
	Japan	9,195	
	Netherlands	9,999	
	Portugal	2,854	
	Spain	5,499	
	Vietnam	23,058	302,135
Bunge	China	46,836	
	France	76,396	
	Germany	179,125	
	Japan	4,872	
	Netherlands	15,565	
	Romania	6,062	
	South Korea	6,440	
	Spain	7,145	
	United Kingdom	484	342,925
Cargill	China	66,504	
	Japan	4,000	
	Pakistan	5,000	75,504
Horita**	China	7,648	
	France	5,960	
	India	927	
	Italy	8,100	
	Netherlands	9,349	
	South Korea	6,903	
	Spain	9,740	
	Thailand	3,378	
	United Kingdom	6,619	58,624
	Total		779,188***

Source: Trase

* Includes exports via Luís Eduardo Magalhães.

** Trase data indicate that Horita exports are imported by Cargill.

*** Domestic consumption accounts for an additional 445,900 tonnes.



Notably, five of these receiving countries – France, Germany, Italy, the Netherlands and the UK – are signatories to the Amsterdam Declaration.²⁰⁴ In the years since this declaration was signed, these countries have collectively imported over 2 million tonnes of soya from the two municipalities through which the Estrondo estate's produce is traded. Between them, they consumed about 25% of these municipalities' soya exports from 2016 to August 2019.²⁰⁵

Bunge and Cargill trade soya directly from the Estrondo estate. For example, documents²⁰⁶ show that Bunge agreed the advance purchase of 29,300 tonnes of soya worth 30.7 million reais (US\$8 million) to be received between 1 April and 30 May 2018 from the 40,000 ha Centúria farm, located within the Estrondo estate and belonging to land tenant Horita Group.²⁰⁷ Cargill agreed the advance purchase of 15,000 tonnes of soya worth 18.7 million reais (US\$4.7 million) to be received by 30 May 2019 from the same farm.²⁰⁸

Panjiva trade data show Bunge and Cargill export directly from the Estrondo estate to Europe.²⁰⁹ For example, Bunge's silo in the Estrondo estate was the exporter for the soya meal on the *Hiroshima Star*, which arrived in the port of Brake, Germany, on 4 August 2019. Cargill shipped soya meal/pellets from Horita's Centúria farm on the *Royal Maybach* to Cefetra BV in the Netherlands on 15 February 2017.

Panjiva trade data show that both Bunge and Cargill also export directly from the Estrondo estate to East Asia.²¹⁰ For example, Bunge was the carrier for a shipment of soya from Horita's Centúria farm, which departed on 2 February 2018 on the *Scythia Graeca* for delivery to Cargill International Group in Pyeongtaek, South Korea.

◀▲ 28 June 2019, France: On the day that France hit record temperatures of 45.9°C, Greenpeace France together with activists from Germany and the Netherlands blocked the arrival of the *Ellireia* into the southern French port of Sète – the vessel was carrying 50,000 tonnes of soya from Cotegipe, Salvador, in Brazil for use as animal feed in the EU industrial livestock sector, another major driver of climate change. ©Chauveau/Greenpeace

◀ 4 August 2019, Germany: Greenpeace Germany's activists block the *Hiroshima Star* on its arrival in the German port of Brake. Trade data reveal that the ship was carrying soya from Bunge's silo in the Estrondo Estate. ©Müller/Greenpeace

SCORCHED EARTH: THE COMMODITY TRADE'S LEGACY OF DESTRUCTION

We are living through a climate and ecological emergency. In August 2019, the Intergovernmental Panel on Climate Change (IPCC) issued the clearest warning yet about the link between the food system and global temperature rises.²¹¹ The IPCC's Climate Change and Land report calls for sweeping and immediate changes to the food system – both what we eat and how it is produced – to end deforestation, deliver forest restoration and tackle climate breakdown.

The IPCC also recognises that securing land rights of indigenous peoples and local communities is essential to solving the climate crisis – yet we are witnessing an epidemic of violence against land, environmental and human rights defenders, including intimidation and murder of members of traditional and indigenous communities. According to Global Witness, an NGO that investigates corruption and conflict linked to natural resource extraction, 40 people were killed worldwide in 2017 while protesting against large-scale agriculture, making it the joint most dangerous industry to oppose in that year.²¹² A further 21 deaths linked to resistance to agribusiness were recorded in 2018.²¹³ Brazil is a particularly dangerous place to be a land or environmental defender: between 2012 and 2017, Global Witness documented an average of 42 killings per year.²¹⁴ Many of the victims were disputing large-scale agricultural projects.

At the 2010 United Nations Climate Change Conference in Cancun, members of the Consumer Goods Forum (CGF) pledged to eliminate deforestation by 2020 through the 'responsible sourcing' of forest/ecosystem risk commodities – palm oil, pulp and paper, soya and cattle products.²¹⁵ These commitments to eliminate deforestation for commodities by 2020 were further reinforced by the 2014 New York Declaration on Forests, 'a partnership of governments, multinational companies, civil society and indigenous peoples',²¹⁶ and the 2015 Amsterdam Declaration 'Towards Eliminating Deforestation from Agricultural Commodity Chains with European Countries' – whose signatories include Denmark, France, Germany, Italy, the Netherlands, Norway and the United Kingdom.²¹⁷

Yet with this deadline fast approaching, it is clear that these commitments have not been met. A review published in September 2019 by the New York Declaration on Forests Assessment Partners found wholesale failure in achieving 'no deforestation' goals: it states that 'there is little evidence that goals are on track, and

- ▶ 12 August 2008, Pará: Cattle graze beneath the smoke rising from fires used to clear further land for cattle ranching. ©Beltrá/Greenpeace
- ▶▶ 23 May 2019, Riachão das Neves: Pesticide spraying. ©Cruppe/Greenpeace
- ▶▶▶ 26 April 2019, Brasília: The 15th annual Free Land Camp assembly of indigenous leaders sees over 4,000 indigenous people standing together to call for their constitutional rights, including demarcation of their lands, access to health, education and social participation for the many indigenous peoples living in Brazil. ©Braga/MNI
- ▶▶▶▶ 26 May 2019, Barreiras, Bahia, 11°54'25.14"S 45°36'52.1"W: Central pivot irrigation system in a soya plantation. ©Cruppe/Greenpeace
- ▶▶▶▶▶ 27 October 2005, Pará, Brazil. ©Beltrá/Greenpeace

achieving the 2020 NYDF targets is likely impossible. ... Serious corrective action is needed. Efforts to date have been inadequate to achieve systemic change. The private sector is not on track to eliminate deforestation from agricultural production.²¹⁸

In June 2019, a report by Greenpeace, *Countdown to Extinction*, laid bare the impact of the private sector's failure to meet this goal: by next year, at least 50 million ha of forest – an area the size of Spain²¹⁹ – will have been destroyed for commodity production in the 10 years since the members of the CGF committed to end deforestation.²²⁰ This situation will only get worse if global demand for forest/ecosystem risk commodities, notably meat and dairy, grows in line with official forecasts.

The commodities trade has proven itself unwilling to reform in time to stem the violence and prevent climate and ecological breakdown. Further, political regimes such as the current Bolsonaro government in Brazil raise the stakes even higher for companies that source forest/ecosystem risk commodities. Growing global demand for those commodities is used to justify further deforestation and the undermining of the rights of indigenous peoples and communities. Brands like McDonald's, Burger King and KFC and all consumer goods companies that use forest/ecosystem risk commodities must take a stand and publicly reject any commodities and companies linked to environmental destruction and human rights abuses in the Amazon, across Brazil and globally. This means reducing their consumption to whatever level they can demonstrate comes from producer groups and traders that comply with 'no deforestation, no exploitation' standards.

In some sectors, simply cleaning up supply chains will not be enough. Critically, the transformation that must be made in animal agriculture – the leading cause of deforestation,²²¹ responsible for some 60% of food-related greenhouse gas emissions²²² – goes beyond simply eliminating deforestation linked to the production of livestock and commodities such as soya used in animal feed. International food companies must replace the meat and dairy in their products with healthy, affordable and ecologically produced plant-based foods by 2030.

The current global food and agriculture system is broken. Companies need to fundamentally change their business models to prevent climate and biodiversity catastrophe and uphold human rights.







4 August 2019, Germany: Greenpeace Germany's activists block the Hiroshima Star on its arrival in the German port of Brake. Trade data reveal that the ship was carrying soya from Bunge's silo in the Estrondo Estate. ©Anne Werner / Weser Kurier

'While several hundred companies have committed to end commodity-driven deforestation by 2020, recent research indicates that very few companies are on track to reach this goal. Several global institutional investors have already laid out their expectations of companies with respect to eliminating deforestation from their operations and supply chains. We therefore call for business leadership to reverse the worrying deforestation trends we are witnessing.'²²³

Ceres investor statement on deforestation and forest fires in the Amazon, 18 September 2019

'The public is providing more than \$1m per minute in global farm subsidies, much of which is driving the climate crisis and destruction of wildlife.'²²⁴

Damian Carrington, The Guardian, 16 September 2019, commenting on the Food and Land Use Coalition's 'Growing Better' report



▲ 5 November 2019, Brussels: Indigenous leaders from across Brazil demonstrate at the entrance to the European Parliament, asserting the importance of recognising indigenous peoples' human rights and denouncing the Brazilian government's attacks on the environment. They urged EU politicians to stand against the ratification of an EU-Mercosur deal on current terms. ©Midia NINJA

◀ 28 August 2019, New York: Greta Thunberg arrives in New York City, having travelled across the Atlantic from the UK on the zero emissions sailboat Malizia II, to participate in the UN climate summit and the Global Youth Climate Strike on 20 September. In the week 20–28 September, some 6 million people took to the streets across cultures and generations to demand urgent action on the escalating ecological emergency. ©Keith/Greenpeace

'People are suffering, people are dying, entire ecosystems are collapsing. We are at the beginning of a mass extinction and all you can talk about is money and fairytales of eternal economic growth.'²²⁵

Greta Thunberg, UN Climate Action Summit, 24 September 2019

TIME FOR ACTION

Companies and governments must take immediate action to:

END THE ESTRONDO CONFLICT

PROTECT PEOPLE: guarantee the safety of the traditional geraizeira communities and official recognition of their land, ensuring an end to the violence against them and the removal of Estrondo's infrastructure so that they are able to exercise their land-use rights unimpeded and without further degradation of the lands

NO DEFORESTATION: ensure any plans for further clearance of natural vegetation within the estate are immediately and permanently abandoned

STOP BUYING DESTRUCTION AND VIOLENCE: suspend all purchases from companies linked to Estrondo until the criteria above are met and credible plans to address past violations, abuses and illegalities are in place

END VIOLENCE AND FOREST AND OTHER ECOSYSTEM DESTRUCTION

End all trade with forest and ecosystem destroyers and suppliers not upholding human rights, indigenous rights to self-determination and land and the principle of free, prior and informed consent.

Make supply chains fully transparent, including full disclosure of suppliers' land tenure.

Ultimately, brands and consumer goods manufacturers using forest/ ecosystem risk commodities must limit their sourcing to companies they can publicly demonstrate are not engaging in forest or other environmental destruction, violence and human rights abuses. If they are unwilling or unable to do what is needed to fix the global commodities trade they must avoid such commodities entirely, and they must establish a clear, transparent and time-bound action plan to address the issues raised above.

REVERSE THE CLIMATE AND BIODIVERSITY EMERGENCY

In order to help limit global warming to below 1.5°C, and to protect the world's population and the natural systems on which we depend, companies and governments must change the system:

HALT EXPANSION: no additional land for industrial agriculture

REDUCE DEMAND: replace meat and dairy with healthy plant-based foods and do not use food crops for fuel production

FUND CONSERVATION AND RESTORATION: conserve and restore forest equivalent to commodity footprints

JUST TRANSITION: reform trade, shift to ecological farming and support affected communities





BUNGE

27 May 2019, Bahia,
12°5'33.264" S 45°18'46.246" W:
Bunge facility,
©Cruppe/Greenpeace

ANNEX: MEET THE MEGA-TRADERS

Perhaps the most powerful companies most people have never heard of, a handful of mega-traders dominate international trade in agricultural commodities including soya. The household brands we go to for our weekly shop and our on-the-go meals rely on products sourced directly or indirectly through the mega-traders. It is through them that commodities such as soya – often produced at the expense of the environment and local communities – reach consumer markets in our bread, margarine and biscuits, and via the feed used to produce our meat and dairy.

Alongside Brazil's Amaggi, five international mega-traders – ADM, Bunge, Cargill, COFCO International and Louis Dreyfus – and a joint venture between several traders control the majority of the soya trade from the Cerrado to the global market. Their collective power in the global market for agricultural commodities means these traders play a decisive role in determining the conditions in which those commodities are produced.



Amaggi is one of the largest commodity export companies in Brazil. The company has four major business divisions – Amaggi Agro, Amaggi Commodities, Amaggi Logistics and Operations and Amaggi Energy – operating in the agricultural production of soybeans, maize and cotton, trading of grains and agricultural inputs, large-scale logistics for domestic and international outlets and the generation and sale of electricity.²²⁶

In 2009, the trading company bought 51% of the Norwegian company Denofa, which operates a soya processing plant in Norway with a crushing capacity of 430,000 tonnes per year;²²⁷ in 2013 it completed its acquisition of the company.²²⁸



The Amaggi Louis Dreyfus Zen-Noh joint venture is the second most significant exporter of soya from Formosa do Rio Preto.²²⁹ Together with Glencore, the JV also has a stake in the Tegram grains terminal at the Itaqui port in Maranhão in northern Brazil – a strategic location for shipping agricultural commodities to Asia from the northeast agricultural frontier area of Matopiba.²³⁰



The US giant ADM was founded in 1902, and is today generating revenues of over US\$64 billion.²³¹ As of 2016 it was reported to control a 7.86% share of the Brazilian soya market, exporting 5.18 million tonnes.²³²



The largest of the new influx of Asian trade houses, COFCO International – the overseas agricultural arm of Chinese state-owned COFCO – was established just five years ago, in 2014.²³⁸ It has already become a major player in the agricultural commodities scene, with total revenues of over US\$31 billion in 2018.²³⁹ By 2016, just two years after entering the Brazilian market, COFCO International was reportedly exporting 4.58 million tonnes of soya, giving it a market share of 6.96%.²⁴⁰ In a recent speech at the opening of the 18th Brazilian Congress of Agribusiness, the company's chairman announced that COFCO International 'will buy a 5% greater volume of Brazilian soya every year in the next five years'.²⁴¹



Founded in the Netherlands in 1818 and now headquartered in New York, Bunge was for many years the biggest soya trader in Brazil. The company generates overall revenues of US\$45 billion²³³ and as of 2016 reportedly held a 16.7% share of the Brazilian soya market, exporting 11 million tonnes.²³⁴



Founded in 1865, Cargill is the largest privately owned company in the US and an agricultural trade giant. It reported revenues of US\$114 billion in 2018,²³⁵ equivalent to the GDPs of Uruguay, Bolivia and Nicaragua combined.²³⁶ Cargill has been operating in Brazil since 1965 and its soya exports were reported to have totalled 8.91 million tonnes in 2016, giving it a 13.5% market share.²³⁷



Founded in 1851 and headquartered in the Netherlands, Louis Dreyfus has annual revenues of over US\$40 billion.²⁴² It has operated in Brazil since 1942, and in 2009 it set up a joint venture with Brazil's Amaggi²⁴³ in the Matopiba region of the Cerrado.²⁴⁴ As of 2016, Louis Dreyfus reportedly accounted for 5.99% of Brazilian soya exports – 3.94 million tonnes.²⁴⁵



24 August 2019, Porto Velho,
Rondônia, 9°36'58.92"S 64°8'41.94"W.
©Moriyama/Greenpeace



ENDNOTES

- 1 NYDF Assessment Partners (2019) p14
- 2 Herre R (2017)
- 3 Stauffer C (2019)
- 4 New York Declaration on Forests website 'Home'
- 5 NYDF Assessment Partners (2019) p14
- 6 As documented in Greenpeace (2019).
- 7 See eg NYDF Assessment Partners (2019) p75, Phillips D (2019a) and BBC News (2019).
- 8 Schipani A & Harris B (2019)
- 9 Phillips D (2019c)
- 10 Spring J & Eisenhammer S (2019)
- 11 Spring J (2019), INPE Programa Queimadas website 'Banco de dados queimadas', INPE Observação da Terra website 'PRODES - Amazônia' and TerraBrasilis alerts dashboard 'Analyses - Cerrado'
- 12 Henders S, Persson UM & Kastner T (2015)
- 13 MapBiomias Project v3.1 'Annual land use land cover maps of Brazil'
- 14 Sharma S, IATP & Schlesinger S (2017) p25
- 15 FAOSTAT website 'Crops'
- 16 Ministry of Agriculture, Livestock and Supply, Brazil (2019) p39, Table 11
- 17 From 35.8 million ha in 2018/19 to 45.3 million ha in 2028/29. Source: Ministry of Agriculture, Livestock and Supply, Brazil (2019) p14, Table 3.
- 18 30.5 million ha. Source: CIA website 'The World Factbook'.
- 19 Initial permit (Portaria no. 9077) issued 12 January 2015, expired 12 January 2019; renewed 22 May 2019, valid until 22 May 2023 (Portaria no. 18.440). Available at <http://sistema.seia.ba.gov.br/lai.xhtml>.
- 20 According to shipment data from Panjiva (<https://panjiva.com/data/brazil-trade-data>), which tracks companies involved in global trade, trade links include Germany in 2019, China and South Korea in 2018, India and the Netherlands in 2017 and France in 2016.
- 21 Documents held by Greenpeace. A full copy of the reply is available at <http://bit.ly/2RenmS>.
- 22 Consumer Goods Forum (2010)
- 23 Consumer Goods Forum (2019)
- 24 Dias BFS (1982)
- 25 Strassburg B, Brooks T & Feltran-Barbieri R (2017)
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- 27 MapBiomias Project v3.1 'Annual land use land cover maps of Brazil'
- 28 Critical Ecosystem Partnership Fund (2017) pp146–151
- 29 Analysis by the Brazilian National Institute of Space Research (INPE). Source: INPE (2018). São Paulo covers 152,300 ha (source: AboutBrasil website 'Top 10 largest cities in Brazil').
- 30 Instituto Centro de Vida (2019)
- 31 Lenti F (2018)
- 32 91.2 million ha. Source: CIA website 'The World Factbook'.
- 33 Critical Ecosystem Partnership Fund (2017) pp51–52
- 34 See eg MapBiomias Project v3.1 'Annual land use land cover maps of Brazil' and Tyukavina A et al (2017) p3 Table S2A.
- 35 24.4 million ha. Source: CIA website 'The World Factbook'.
- 36 MapBiomias Project v3.1 'Annual land use land cover maps of Brazil'
- 37 MapBiomias Project v3.1 'Annual land use land cover maps of Brazil'
- 38 Input Brasil website 'Regions: MATOPIBA'
- 39 USDA (2012)
- 40 Carneiro Filho A & Costa K (2016) p9
- 41 Ministry of Agriculture, Livestock and Supply, Brazil (2019) p90, Table 27
- 42 Ministry of Agriculture, Livestock and Supply, Brazil (2019) p41
- 43 The Legal Amazon covers 37% of the Cerrado Biome. Source: Instituto Socioambiental (2009).
- 44 TerraBrasilis PRODES (deforestation) dashboard 'Analyses – Legal Amazon' and 'Analyses – Cerrado'
- 45 Carneiro Filho A & Costa K (2016)
- 46 35.7 million ha. Source: CIA website 'The World Factbook'.
- 47 Ministry of Agriculture, Livestock and Supply, Brazil (2019) p14, Table 3
- 48 Source: analysis of data downloaded from Trase platform: Bulk downloads, Brazil – Soy (All Years), <https://trase.earth/data>.
- 49 Information held by Greenpeace. See also eg Neslen A (2017), Mano A (2019), Cargill (2016), Zhang M (2017), Wasley A & Heal A (2019) and Panjiva (<https://panjiva.com/data/brazil-trade-data>) trade data.
- 50 A measure of a company's or import country's exposure to the risk that a commodity it is sourcing is associated with deforestation in the region where it was produced. See Trase (2018b) pp55–56 for details of how deforestation risk is calculated.
- 51 Trase (2018b) p11
- 52 Trase (2018b) pp10–11
- 53 46 million tonnes. Source: analysis of data downloaded from Trase platform: Bulk downloads, Brazil – Soy (All Years), <https://trase.earth/data>. Note: Trase lists the source of 11% of the soya produced in Brazil as 'unknown biome', so actual production figures are likely to be higher.
- 54 Source: analysis of data downloaded from Trase platform: Bulk downloads, Brazil – Soy (All Years), <https://trase.earth/data>.
- 55 Source: analysis of data downloaded from Trase platform: Bulk downloads, Brazil – Soy (All Years), <https://trase.earth/data>.
- 56 ABIOVE (2007) p10
- 57 Trase (2018c)
- 58 Trase (2018a); see also Chain Reaction Research (2018a,b) and Chain Reaction Research (2019a)
- 59 Spring J (2018)
- 60 WBCSD (2019) and Prager A (2019)
- 61 See eg Cargill & WBCSD (2019) p10.
- 62 See eg Cargill & WBCSD (2019) and Bunge & WBCSD (2019).
- 63 38.7% from the Cerrado, of which 18% originated in the 25 'high-risk' municipalities. Source: ADM & WBCSD (2019) p14.
- 64 38.6% from the Cerrado, of which 39.3% originated in the 25 'high-risk' municipalities. Source: Bunge & WBCSD (2019) p14.
- 65 37.4% from the Cerrado, of which 23.1% originated in the 25 'high-risk' municipalities. Source: Cargill & WBCSD (2019) p14.
- 66 See eg Fearnside P (2017).
- 67 FAIRR website 'About'
- 68 FAIRR website 'About' and 'Statement of support'
- 69 See eg NYDF Assessment Partners (2019) pp13–14.
- 70 Sharma S, IATP & Schlesinger S (2017) p25
- 71 Greenpeace (2019)
- 72 Repórter Brasil (2017)
- 73 Milhorange F (2018)

- 74 Milhorance F (2018)
- 75 Formosa do Rio Preto is one of the 25 municipalities in the Cerrado region that Bunge, Cargill and other mega-traders have identified as 'priorities for engaging, monitoring and reporting'. See eg Bunge & WBCSD (2019) pp10–11.
- 76 TerraBrasilis PRODES (deforestation) dashboard 'Analyses - Cerrado / Municipalities'
- 77 TerraBrasilis alerts dashboard 'Analyses - Cerrado'
- 78 The top-producing municipalities in 2017 were: Sorriso (MT) – 2,157,600 tonnes; São Desidério (BA) – 1,395,693 tonnes; Nova Mutum (MT) – 1,348,776 tonnes; and Formosa do Rio Preto (BA) – 1,329,131 tonnes. Source: IBGE SIDRA website 'Produção agrícola municipal: Tabela 1612'.
- 79 See eg Bunge & WBCSD (2019) p22.
- 80 Trase website 'Profiles: Bunge'
- 81 Ministry of Agriculture, Livestock and Supply, Brazil (2019) p90, Table 27
- 82 Greenpeace Brazil investigation; see also Agronegócio Estrondo website 'Ações sociais'.
- 83 Documentation held by Greenpeace.
- 84 Source: Conab (<https://consultaweb.conab.gov.br/consultas/consultaArmazen.do?method=acaoCarregarConsulta>), Panjiva (<https://panjiva.com/data/brazil-trade-data>) and Trase (<https://trase.earth/data>) trade data.
- 85 See Ministry of Land Policy and Agrarian Reform, Brazil (1999) p27, Reimberg M (2009), Comissão Pastoral da Terra (2005), Comissão Pastoral da Terra (2019) and Angelo M (2019).
- 86 Personal communication with Greenpeace Brazil staff.
- 87 Initial permit (Portaria no. 9077) issued 12 January 2015, expired 12 January 2019; renewed 22 May 2019, valid until 22 May 2023 (Portaria no. 18.440). Available at <http://sistema.seia.ba.gov.br/lai.xhtml>.
- 88 Agronegócio Estrondo website 'Geografia' – see <https://web.archive.org/web/20190207123755/http://agronegociosfrondo.com.br/geografia.html>
- 89 Rio de Janeiro 126,000 ha, São Paulo 152,300 ha. Source: AboutBrasil website 'Top 10 largest cities in Brazil'.
- 90 According to the Department of Federal Revenue of Brazil (Receita Federal), Delfin Rio S/A Crédito Imobiliário (CNPJ 33.923.848/0001-41) was created on 20 November 1972 in Rio de Janeiro and Ronald Guimarães Levinsohn is the only owner. See Receita Federal website 'Consulta Quadro de Sócios e Administradores – QSA' and 'Emissão de comprovante de inscrição e de situação cadastral'.
- 91 Property number 736, acquired 30 December 1978. Originally registered in Santa Rita de Cássia and then changed to Formosa do Rio Preto. See Neto MRC (2018) pp7, 18. Copy held by Greenpeace.
- 92 See Ministry of Land Policy and Agrarian Reform, Brazil (1999) pp24, 27.
- 93 Neto MRC (2018) p6. Copy held by Greenpeace.
- 94 Agronegócio Estrondo website 'Administração'
- 95 Source: Receita Federal website 'Consulta Quadro de Sócios e Administradores – QSA'.
- 96 Receita Federal website 'Consulta Quadro de Sócios e Administradores – QSA'. The public registry profile shows Colina Paulista S/A's location.
- 97 Receita Federal website 'Consulta Quadro de Sócios e Administradores – QSA'
- 98 Movimentação do processo 0000430-97.2014.8.05.0081, issued 23 November 2014. Copy held by Greenpeace.
- 99 The registry profile shows that União de Construtoras S/A (CNPJ 43.938.885/0001-87) changed its name to Druida de Desenvolvimento in March 2011.
- 100 The three companies being sued by the communities are Cia Melhoramentos do Oeste da Bahia, Colina Paulista and Delfim [sic] Crédito Imobiliário. Source: Alvarenga MF (2017) p1. Copy held by Greenpeace. See also Associação de Advogados/as de Trabalhadores/as Rurais (2019).
- 101 Neto MRC (2018) p18. Copy held by Greenpeace.
- 102 See de Oliveira S (2018) and andamento do processo 0501563-36.2019.4.02.5101 issued 18 September 2019 (copy held by Greenpeace).
- 103 See Federal Public Ministry, Brazil (2016) and Veja (2016). For other examples, see eg Vieira L & Araújo V (2014), Schmidt S (2017) and andamento do processo 0501563-36.2019.4.02.5101 issued 18 September 2019 (copy held by Greenpeace).
- 104 Categori A (2011)
- 105 Angelo (2019), Cardozo C & Silva RD (2019), Chain Reaction Research (2019b) and TV Globo <https://globoplay.globo.com/v/8100916/programa/>
- 106 Reimberg M (2009)
- 107 Greenpeace mapping analysis May 2019, area considered available at <https://web.archive.org/web/20190207123755/http://agronegociosfrondo.com.br/geografia.html>
- 108 Comissão Pastoral da Terra (2019)
- 109 A Repórter Brasil investigation reportedly had direct access to IBAMA documents showing that the then head of the agency in Barreiras granted 69 deforestation permits for the Estrondo estate on one day in 2002, among other administrative irregularities. In relation to this case, the individual was later accused by the agency of 'using his position for personal gain' and was removed from office in 2008. Source: Reimberg M (2009).
- 110 IBAMA website 'Consulta de autuações ambientais e embargos'
- 111 Forest Code Observatory (2017) p39. Article 12 specifies that within the Legal Amazon, 80% of forested land, 35% of land located in the Cerrado, and 20% of grassland must be set aside as LR. In the rest of the country, 20% must be set aside as LR. The full text of the law is available at http://www.planalto.gov.br/ccivil_03/ato2011-2014/2012/lei/112651.htm.
- The Forest Code regulates the use of about 281 million ha of native vegetation within Brazilian rural estate properties. Of this, 69% (193 million ha, accounting for a stock of 87 billion tonnes of CO2) is legally protected from deforestation in LRs and Permanent Preservation Areas (APPs). Source: Forest Code Observatory (2017) p16.
- 112 Diário oficial do estado da Bahia, 8 March 2017, p23. Copy held by Greenpeace.
- 113 Portaria no. 9077, available at <http://sistema.seia.ba.gov.br/lai.xhtml>.
- 114 Diário oficial do estado da Bahia 8 March 2017. Copy held by Greenpeace.
- 115 See Alvarenga MF (2017), Neto JCL (2018) and Batista JPS (2019). Copies held by Greenpeace. For a history of the legal case see Associação de Advogados/as de Trabalhadores/as Rurais (2019).
- 116 Portaria no. 18.440, available at <http://sistema.seia.ba.gov.br/lai.xhtml>.
- 117 See Reimberg M (2009) and Comissão Pastoral da Terra (2005).
- 118 Associação de Advogados/as de Trabalhadores/as Rurais (2019)
- 119 Personal communication with Greenpeace Brazil staff.
- 120 Personal communication with Greenpeace Brazil staff.

- 121 Source: public registry profile, available at Receita Federal website 'Consulta Quadro de Sócios e Administradores – QSA'.
- 122 Advertisement material by the company. Copy held by Greenpeace.
- 123 Diário oficial da união, edition 29, p208, 9 February 2018, and Diário oficial da união Barreiras – Bahia, edition 2874, p7, 18 January 2019. Copies held by Greenpeace.
- 124 Movimentação do processo 0000430-97.2014.8.05.0081, issued 23 November 2014. Copy held by Greenpeace.
- 125 Documents held by Greenpeace.
- 126 Personal communication with Greenpeace Brazil staff.
- 127 Associação de Advogados/as de Trabalhadores/as Rurais (2019)
- 128 Associação de Advogados/as de Trabalhadores/as Rurais (2019)
- 129 Diário oficial da união, edition 82, p61, 30 April 2019. Copy held by Greenpeace.
- 130 Diário oficial da união, edition 110, p55, 10 June 2019. Copy held by Greenpeace.
- 131 Personal communication with Greenpeace Brazil staff.
- 132 Auto de infração no. 2018-004964/TEC/AIMU – 0388, issued 28 May 2018 by INEMA (Instituto de Meio Ambiente e Recursos Hídricos). Copy held by Greenpeace.
- 133 On 3 May 2017, a maintenance order – 'liminar de manutenção de posse' – in favour of the geraizeira communities was issued (see Alvarenga MF (2017), copy held by Greenpeace). This decision was reconfirmed on 12 February 2019 after a contested 2018 ruling reduced the area to 9,000 ha (documentation held by Greenpeace). In May 2019, the estate again sought a reduction of the communities' area, but on 27 November 2019 the case was closed without changes to the previous decision of February 2019 (documentation held by Greenpeace).
- 134 Batista JPS (2019) pp20–21. Copy held by Greenpeace.
- 135 Associação de Advogados/as de Trabalhadores/as Rurais (2019)
- 136 Milthorance F (2019) and Silva U (2019); see <https://youtu.be/VTSPwUJlqL0>
- 137 Neto J (2019a). The same article contains a report by the Association of Lawyers for Rural Workers which asserts that this community leader had been intimidated before, on the evening of 6 June 2018, when Estrela Guia – with illegal support from local police – invaded his home and detained him on the same grounds. The community leader is one of the 11 geraizeiros who represent the community in the legal action against the three companies that claim ownership of land within the Estrondo estate.
- 138 Neto J (2019b)
- 139 Associação de Advogados/as de Trabalhadores/as Rurais (2019)
- 140 Release order and terms of conduct number 0000254-45.2019.805.0081
- 141 Personal communication with Greenpeace Brazil staff, 28 May 2019.
- 142 Release order and terms of conduct number 0000254-45.2019.805.0081
- 143 NYDF Assessment Partners (2019) p75
- 144 Adario P (2016)
- 145 Greenpeace (2014)
- 146 Greenpeace (2014)
- 147 Average annual deforestation in the 95 soya-producing municipalities monitored by the Soy Moratorium between 2008/09 to 2017/18 was 5.2 times lower than between 2001/02 to 2007/08. Source: ABIOVE & Agrosatélite (2018) p20. Soya production has been directly responsible for less than 2% of deforestation in the Amazon biome since 2008. Source: ABIOVE & Agrosatélite (2018) p15 and Kastens JH et al (2017).
- 148 ABIOVE & Agrosatélite (2018) p18
- 149 Fearnside P (2017) and Gollnowa F et al (2018)
- 150 See eg Darby M (2018) and AFP & Climate Home News (2019).
- 151 Phillips D (2018)
- 152 Silva de Sousa M (2019) and Karagiannopoulos L (2019)
- 153 See Amazon Fund website 'Home'.
- 154 Karagiannopoulos L (2019)
- 155 Presidential Decree no. 9759/19, available at <https://presrepublica.jusbrasil.com.br/legislacao/697347316/decreto-9759-19>
- 156 Moraes FT (2019)
- 157 See <https://twitter.com/jairbolsonaro/status/1148217392973123584?s=20> (8 July 2019).
- 158 Mendes K (2019)
- 159 Phillips D (2019b)
- 160 Fonseca P (2019)
- 161 Spring J & Eisenhammer S (2019)
- 162 Spring J (2019)
- 163 Phillips D (2019c). The new INPE director, an air force colonel, has reportedly said he is not convinced that global warming is a man-made phenomenon (see Prazeres L (2019)).
- 164 See INPE Observação da Terra website 'PRODES - Amazônia' and TerraBrasilis PRODES (deforestation) dashboard 'Analyses - Amazon'.
- 165 Schreiber M & Fellet J (2019)
- 166 See eg Correio Braziliense (2018).
- 167 Branford S, Borges T & Torres M (2018)
- 168 São Paulo prosecutors quoted in Dias T & Lotfi R (2019)
- 169 Dias T & Lotfi R (2019)
- 170 O Globo (2019)
- 171 Schuquel T (2019) and CBN Brasil (2018)
- 172 Alencastro C (2019) and Iglesias S, Lima MS & Douglas B (2019)
- 173 Branford S, Borges T & Torres M (2018) and Observatória do Clima (2018)
- 174 Alencar A et al (2019) p1
- 175 The exact figure is 2,494,400 ha. Source: INPE Programa Queimadas website 'Área queimada km2 por bioma em Agosto de 2019'.
- 176 Between 1 January and 31 August, compared to the same period in 2018 according to data from INPE (source: INPE Programa Queimadas website 'Banco de dados queimadas').
- 177 Alencar A et al (2019)
- 178 Piran A (2019)
- 179 Piran A (2019)
- 180 Maisonnave F (2019)
- 181 According to the latest official data, over 65% of the deforested area in the Brazilian Amazon is occupied by pasture. Source: INPE & Embrapa (2016). See also MapBiomias Project v3.1 'Annual land use land cover maps of Brazil'.
- 182 See Aprosoja (2019), Walendorff R (2019), Reuters (2019a) and Teller Report (2019).
- 183 Poder360 (2019), beginning in minute 85
- 184 Ministry of Agriculture, Livestock and Supply, Brazil (2019) p375
- 185 INPE Programa Queimadas website

- 'Banco de dados de queimadas'
- 186 Trase (2018b) p35
- 187 The EU imported 33.3 million tonnes of soya products (soybeans, soya cake, soya oil, soya paste and soya sauce) in 2016. Imports consisted predominantly of soybeans (14.5 million tonnes) and soya cake (18.6 million tonnes). Source: FAOSTAT website 'Crops and livestock products'.
- 188 European Commission (2019b)
- 189 ComexStat
- 190 See Kroes H & Kuepper B (2015) pp9–11. Table 17 in this report details soya consumption in the EU embedded in different sectors in the harvest season 2013/14. The calculation here uses soybean equivalents. 'Animal feed' includes soya consumed for the production of cattle and meat, eggs and egg products, dairy products and farmed fish, totalling 23.28 million tonnes. This represents 87% of the total of 26.64 million tonnes of soybean equivalents.
- 191 Greenpeace (2018) p14
- 192 European Commission (2013) pp23–24. Between 1990 and 2008, the EU imported crop and livestock products embodying 9 million ha of deforestation. Crop products accounted for 7.4 million ha (82%) of this, with oil crops having the largest share (5.2 million ha). Soybeans and soya cake accounted for 82% of this (4.26 million ha), equivalent to 47% of the EU's total import of embodied deforestation.
- 193 The five original signatories were Denmark, France, Germany, the Netherlands and the United Kingdom. They were followed by Norway in 2016 and Italy in 2017. Source: Amsterdam Declarations Partnership website 'About'.
- 194 Trase (2018b)
- 195 European Commission (2019a)
- 196 European Commission website 'Mercosur'
- 197 French regulation no. 2019-570 comes into force on 1 January 2020. As of 31 December 2019, economic operators will no longer be allowed to include palm oil-based biofuels in their mass balances and biofuels such as palm oil methyl ester (biodiesel) and hydrogenated vegetable oil from palm oil (HVO) will not be eligible for public funding. Source: Reuters (2019b).
- 198 Greenpeace (2019)
- 199 Trase platform: Bulk downloads, Brazil – Soy (All Years), <https://trase.earth/data>
- 200 Formosa do Rio Preto, São Desiderio, Riachão das Neves, Ribeiro Gonçalves, Mateiros, Santa Filomena, Balsas, Jaborandi, Gilbues, Peixe, Correntina, Currais, Barreiras, Luís Eduardo Magalhães and Alto Parnaíba. Source: Trase & Forest 500 (2019).
- 201 Source: Conab (<https://consultaweb.conab.gov.br/consultas/consultaArmazem.do?method=acaoCarregarConsulta>), Panjiva (<https://panjiva.com/data/brazil-trade-data>) and Trase (<https://trase.earth/data>) trade data.
- 202 Information held by Greenpeace. See also eg Neslen A (2017), Mano A (2019), Cargill (2016), Zhang M (2017), Wasley A & Heal A (2019) and Panjiva (<https://panjiva.com/data/brazil-trade-data>) trade data.
- 203 ComexStat
- 204 Amsterdam Declarations Partnership website 'About'
- 205 ComexStat
- 206 Documentation held by Greenpeace.
- 207 See http://www.horita.com.br/pag_contatos.html.
- 208 Documentation held by Greenpeace.
- 209 Panjiva (<https://panjiva.com/data/brazil-trade-data>) trade data
- 210 Panjiva (<https://panjiva.com/data/brazil-trade-data>) trade data
- 211 IPCC (2019)
- 212 Global Witness (2018) p1. There were also 40 deaths linked to opposition to mining and oil operations in 2017; see Global Witness (2018) p13.
- 213 Global Witness (2019) p8
- 214 Global Witness (2018) p21
- 215 Consumer Goods Forum (2010)
- 216 New York Declaration on Forests website 'Home'
- 217 Amsterdam Declarations Partnership website 'About'
- 218 NYDF Assessment Partners (2019) pp13–14
- 219 50.5 million ha. Source: CIA website 'The World Factbook'.
- 220 Greenpeace (2019) p15; see also Consumer Goods Forum (2010)
- 221 Kissinger G, Herold M & De Sy V (2012) p11
- 222 IPCC (2014) p824. Total direct agricultural emissions amount to ~5.8 GtCO₂e/yr. Of this, animal products (all livestock emissions) account for:
 - 2.1 GtCO₂e/yr from enteric fermentation of animals
 - 0.99 GtCO₂e/yr from manure
 - 0.34 GtCO₂e/yr from fertiliser emissions (of total 0.68; at least 50% are directly for feed)
- Total direct emissions from livestock (industrial or otherwise) therefore amount to 3.43 GtCO₂e/yr, which is 59% of total direct agricultural emissions.
- 223 Ceres (2019). The statement was endorsed by 230 investors representing approximately US\$16.2 trillion in assets.
- 224 Carrington D (2019)
- 225 Thunberg G (2019)
- 226 Amaggi website 'Business areas'
- 227 Reuters (2009)
- 228 Amaggi (2013)
- 229 Trase website 'Profiles: Formosa do Rio Preto'
- 230 Teixeira M & Bonato G (2017)
- 231 Fortune website 'Archer Daniels Midland'
- 232 Trase (2018b) p34
- 233 Fortune website 'Bunge'
- 234 Trase (2018b) p34
- 235 Cargill (nd)
- 236 US\$59.6 billion, US\$40.3 billion and US\$13.1 billion, respectively. Source: World Bank website 'GDP (current US\$)'.
- 237 Trase (2018b) p34
- 238 COFCO International website 'Our story'
- 239 COFCO International website 'Who we are'
- 240 Trase (2018b) p34
- 241 Estadão (2019)
- 242 Fortune website 'Louis Dreyfus'
- 243 Originally known as Amaggi & LD Commodities, following Japanese cooperative Zen-Noh's purchase of a stake in the joint venture in 2017 it became Amaggi Louis Dreyfus Zen-Noh Grãos S.A. See Reuters (2017), Louis Dreyfus Company (2018) p82 and Bloomberg (2019).
- 244 Trase (2018b) p34
- 245 Trase (2018b) p34



23 March 2019, Cerrado,
10°4'27.3"S 45°46'9"W:
Mosaic of Conservation Units that holds
the Serra Geral do Tocantins Ecological
Station, the Jalapão State Park and
the Nascente do Rio Parnaíba National
Park, in the heart of the Cerrado. The
site is a confluence of four Brazilian
states: Maranhão, Tocantins, Piauí and
Bahia. ©Moriyama/Greenpeace



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24 March 2019, Cachoeira community, Estrondo Estate, Formosa do Rio Preto: Geraizeiro herding his cattle. ©Moriyama/Greenpeace

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