

SAVING THE CERRADO

WHY BUNGE, SUPERMARKETS AND GOVERNMENTS **MUST ACT FAST**

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SUMMARY

A new investigation from Mighty Earth, in partnership with Repórter Brasil and Instituto Centro de Vida (ICV), has found that Bunge, the main trader supplying soy to the meat industry in the European Union (EU), is directly linked to the equivalent of 15,897 soccer fields of recent deforestation in the threatened Cerrado savannah in Brazil. Our investigation confirms that Bunge's soy is used as animal feed to produce beef, pork, poultry and dairy products in France, Spain, Germany and the Netherlands. We verified that major European-based retailers such as Carrefour and Les Mousquetaires in France, or Jumbo in the Netherlands, use Bunge's soy in their meat supply chains, while others like Edeka in Germany cannot ensure that Bunge's deforestation-risk soy animal feed is not in their value chain. Nine companies, including France's leading pork producer Cooperl, stated that they do not or no longer source soy from Bunge.

The investigation published by Repórter Brasil found US-based giant Bunge recently bought soy from three suppliers responsible for 11,351 hectares of deforestation in the Brazilian Cerrado, cleared after 2021. Invoices obtained by Mighty Earth of the transported grain loads confirm the commercial operations and tie Bunge facilities directly to three farms where deforestation occurred. In 2022, Bunge announced its apparent zero deforestation policy with 2020 as the theoretical reference date after which it would not accept soy associated with deforestation; the trader publicly claims that it reached 100 percent traceability in its direct soy supply chain in priority areas such as the Cerrado.² However, Bunge's response to our allegations is quite different and clearly indicates that they do not have or enforce a deforestation cut-off date of 2020 and that they will continue to have commercial relations with the farms identified in our report.

Our partner AidEnvironment also detected another five cases linked to an additional 14,598 hectares of deforestation that took place in the Cerrado in early 2023, in high-risk municipalities where Bunge is the leading soy exporter. The exported product goes to the four main soy importing countries in Europe: Spain, France, Germany and the Netherlands. European countries, major retailers, the meat industry and animal feed companies have a key role to play in stopping the current deforestation and degradation in the Cerrado-a vast and globally significant biome which has now become a major deforestation hotspot.

Indeed, deforestation in the Cerrado is at a record high. Itreached 353,200 hectares between January and May 2023, the highest in the last five years.³ Considering only the month of May 2023, deforestation alerts in the Cerrado were 83 percent higher than in 2022. By contrast, in the Amazon rainforest, 198,600 hectares of native vegetation were lost so far this year between January and May, a decrease of 31 percent compared to 2022.4

Known as an 'upside-down forest' because its root system is immense, and a vast area containing five percent of the world's biodiversity, the Cerrado is Brazil's most threatened wooded ecosystem. Half of the Cerrado has been deforested and converted to crops or pasture.⁵ With more than 50 percent of the country's soy planted area,⁶ it is home to

Brazil's new agricultural expansion front, the Matopiba region-which includes Maranhão, Tocantins, Piauí, and Bahia states. All of this agricultural expansion is invariably accompanied by an escalation of land conflicts, land grabbing, and cases of traditional and Indigenous communities' rights violations, as evidenced by numerous interviews conducted by Mighty Earth and others in the region.

Soy coming from the deforested areas identified in our report and traded by Bunge would be non-compliant with the recently approved European Deforestation Regulation (EUDR), if the EU extends the scope of the EUDR to 'Other wooded land,' as hoped following its forthcoming one-year Review. This deforestation-contaminated soy is already noncompliant with different national European commitments, such as the French Soy Manifesto.

The world's first law of its kind, the EUDR was adopted by the EU Council in May 2023 and it requires companies to demonstrate that their agricultural products have not contributed to deforestation or forest degradation in order to sell them on the EU market. But the 'deforestation' defined in this new regulation, for the moment, only covers areas with trees taller than five metres and a canopy cover of five to ten percent. As of early 2023, the failure to include 'Other wooded land' in the EUDR may create the risk of a spillover effect that accelerates deforestation of the Cerrado: some suppliers of soy to the EU's meat and dairy industry may see this legislative gap as an opportunity to intensify production in these unprotected areas to bypass EU regulations, increasing agricultural pressures on the biome.

The EUDR's current restricted scope allows large soy traders such as Bunge, the largest supplier of soy animal feed in Europe, to continue business as usual in the Cerrado. The meat industry and major global retailers such as Carrefour, Aldi South and Ahold Delhaize, who sell meat and dairy products fed by soy linked to the destruction of natural ecosystems, are also responsible for the deforestation peak that is happening now.

Mighty Earth and DUH contacted 100 companies in the four largest European countries importing soy from the Cerrado (France, Spain, Germany and the Netherlands) and received 56 replies. Out of them, 9 percent confirmed to have commercial relations with Bunge-among them, retail giants like Carrefour in France and Jumbo in the Netherlands. In response to our findings, major retailers Carrefour, Casino, Ahold Delhaize and Aldi South confirmed that they have launched investigations into our deforestation allegations linked to Bunge. Carrefour also monitors the percentage of deforestation-free soy it uses. However, the measures it has put in place only concern some of the retailer's own brands in France, even though it is among the leading retailers in Spain and Brazil, key markets for soy.

From the responses we received, 16 percent affirmed to have totally stopped sourcing from Bunge in South America, including Cooperl in France and the German feed producer Agravis. The other 59 percent did not comment on their links to Bunge, or cannot assure they have no links to the trader. Bunge's unsustainable practices play a crucial role in making connections between the threatened Cerrado biome and EU soy consumption.

Bunge responded to Mighty Earth by confirming that they had recently been sourcing soy directly from four of the eight farms identified with deforestation in our investigation. Bunge did not name the farms and failed to indicate whether the other four were supplying them indirectly. Bunge showed no intention of stopping supplies from the four farms because, in their view, the deforestation was legal, according to Brazilian laws. Furthermore, Bunge

said clearly it does not have a deforestation cut-off date of 2020. No investigation has been announced by Bunge into whether they are sourcing indirectly from other deforestation-risk farms in the Cerrado. Bunge's response confirms that their current policy and practices are incompatible with a serious policy to combat deforestation and the destruction of natural ecosystems.

Mighty Earth urges retailers and the meat industry to:

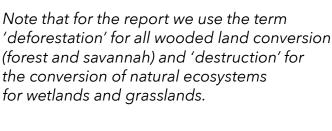
- Exclude deforesters from their supply chains by immediately ending all direct and indirect sourcing from soy farms, traders, meat and dairy companies that fail to comply with a 2020 deforestation cut-off date.
- Establish a dedicated public platform on which soy origins at the group level (including traders, ports, silos, crushers, and direct and indirect producers) is published, plus the alerts in the supply chain and the proportion of soy coming from zero-deforestation and zero-conversion supply chains.

Mighty Earth urges Bunge to:

- Adopt and implement an ambitious No Deforestation, No Conversion policy with a 2020 deforestation cut-off date for all natural ecosystems, and immediately suspend farms and suppliers confirmed to be in violation of the policy.
- Set up an open and public grievance mechanism to report on and track all deforestation and human rights alerts.
- Ban any commercial ties with farms and suppliers linked to violations against human rights, Indigenous rights or land property rights.

Mighty Earth urges the EU to:

- Expressly include the Cerrado and all other natural ecosystems in the scope of the EU Deforestation Regulation (EUDR), and reaffirm a broad post-2020 deforestation cut-off date.
- Reject any free trade agreements that threaten fragile natural ecosystems (such as the Cerrado) and that fail to protect the rights and livelihoods of traditional and Indigenous communities.







MAIN ELEMENTS OF BUNGE'S RESPONSE SENT TO MIGHTY EARTH

"We are aligned with MightyEarth that deforestation is a critical concern.

We have reviewed our database in respect to the nine farms which were identified in your letter that are implied to have a connection with Bunge: Our due diligence process identified four farms with whom we have direct relationships. (...) We note that although land clearing occurred, soybeans have not necessarily been planted after clearing.

We also identified one of the farms cited as an indirect supplier through a reseller; the farm is currently undergoing approval by the environmental agency in accordance with Brazilian environmental legislation.

(...) farms that are identified as having cleared land are investigated and undergo a due diligence process whereby they lose access to key market opportunities and programs. Between now and until the implementation of our 2025 commitment, we may continue our commercial relationship with the farms if they are able to demonstrate their legal Brazilian right to clear land, (...)

Bunge does not have a 2020 cut-off date for deforestation or native vegetation conversion specified in our voluntary commitments, (...)"

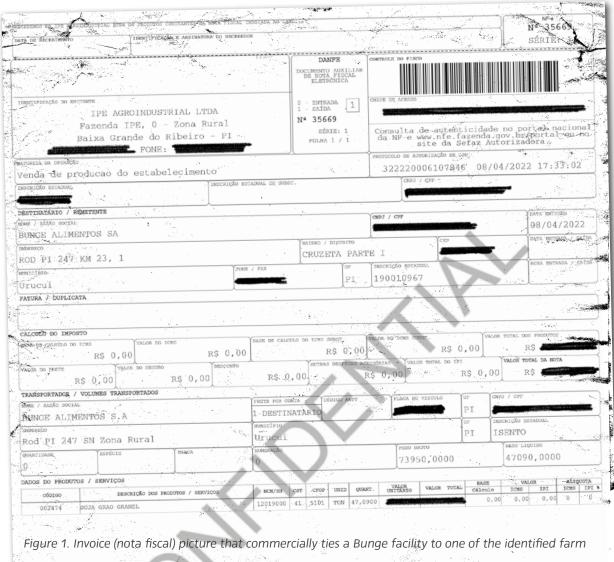




BUNGE, TRADING SOY FROM CERRADO DEFORESTATION

a) Investigations tie recent Cerrado deforestation to soy sold directly to Bunge

A new investigation by Mighty Earth, in partnership with Repórter Brasil and Instituto Centro de Vida (ICV), carried out between August 2022 and April 2023 has uncovered widespread cases of savannah deforestation across Brazil's Matopiba region in the Cerrado. Through satellite image-based analysis and the invoices of commercial operations, we identified among Bunge's direct suppliers, farms responsible for the deforestation, burning and destruction of 11,351 hectares in the Cerrado after 2021, including 94 percent of savannah deforestation.



Bunge claims that it does not buy grain from areas of illegal deforestation, but our investigation reveals that Bunge bought soybeans, from April 2022 until March 2023,

from at least two farms in the Cerrado (Santa Isabel Farm Complex and Ipê) with illegal practices. The majority of land parcels from these farms have some recent deforestation within Legal Reserves and Permanent Protected Areas (APPs), which characterises illegal deforestation. We also found parcels that did not have deforestation permits or where deforestation was taking place outside the authorised area.

To identify illegally deforested polygons, ICV conducted an analysis based on SICAR, Ibama and the state deforestation permit data. ICV crossed the spatial data of deforested areas and deforestation licences observing what is determined by the Forest Code: spatial boundaries, location and period of licence issuance. Moreover, because Legal Reserves (LR) and APPs are designed to function as sites of forest protection on the scale of rural properties, the conversion of these areas into other uses is also illegal and therefore subject of fines and other legal sanctions.



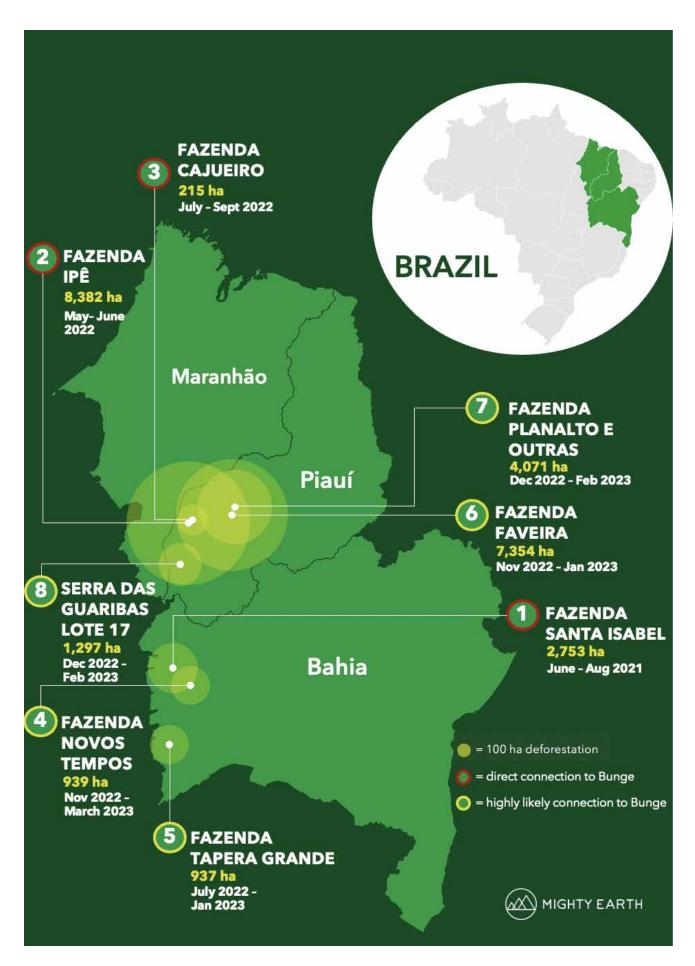


Figure 2. Map of all the eight cases of deforestation with the name of the farm, area deforested, period and level of connection to bunge. Source: Investigation Mighty Earth (2023)

Farm Name	a Isabel Farm Complex, Luis Eduardo Magalhães Fazenda Santa Isabel
	João Pedro Franciosi (Franciosi Agro group)
Ownership Farm location	Municipalities of Luis Eduardo Magalhães and Barreiras, state of Bahia, Cerrado biome, Brazil
Cleared area	2,753 hectares between June and August 2021
Vegetation destr	oyed 83 percent savannah deforestation; the rest is grassland destruction. Under the Brazilian Forest Code: Partially illegal deforestation





December 2020

Direct supplier

December 2022

Figure 3. Maps before deforestation and after deforestation of the Santa Isabel farm complex. Citation: Planet Tropical Visual Biannual Archive and Planet Tropical Normalized Monthly Mosaics; December 2019, 2022; June 2020; January 2022

Fazenda Santa Isabel is the name given to a cluster of contiguous areas with different names (and different land registers known as CARs) owned by the Franciosi family group. In the 2023 harvest season, according to Repórter Brasil's investigation, part of the soy produced at the Santa Isabel Farm Complex was destined for the Bunge unit in Luís Eduardo Magalhães.¹⁰

According to our partner ICV, illegal deforestation has taken place in 10 of the 12 plots of the Fazenda Santa Isabel farm complex, either because deforestation was not authorised or because permits do not cover the entire area cleared. Deforestation of the Legal Reserve (LR) and/or Permanent Protected Areas (APP) was also detected, characterising illegal deforestation as well (see Table 1 below).

PP ?
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2

Table 1 : Post-2020 deforestation and illegal characteristics of the twelve parcels of the Fazenda Santa Isabel complex. Source: Analysis ICV

The images analysed by ICV show that deforestation on the Santa Isabel farm complex began in June 2021. The area was burned around August 2021. Further inspection with high resolution Planet satellite imagery indicates that the areas have since been cultivated. 17 deforestation polygons were detected under 12 different land registries (CAR numbers) by PRODES Cerrado¹¹ satellite images in their boundaries, totalling 2,753 hectares.





May 2020 October 2022

Figure 4. Maps of the Santa Isabel farm complex and current status of the cleared areas.

The Brazilian Forest Code and forest protection

The Brazilian Forest Code defines all necessary procedures for a rural property to be considered environmentally legal in Brazil. Although the rules differ between biomes, this law applies to all properties within national territory. For instance, regardless of the size of the property, landowners must maintain a percentage of their properties as native vegetation, known as the Legal Reserve (LR), and preserve the vegetation alongside streams, known as the Permanent Protected Areas (APP). In the Cerrado, the percentage of Legal Reserve ranges from 20 to 35 percent, while in the Amazon biome, 80 percent of the rural property must be kept as native vegetation.

To monitor rural properties, the Forest Code requires that all rural properties must be registered in the rural environmental registering system, known as CAR (Cadastro Ambiental Rural).12 The federal government system (SICAR) and the state systems are public databases where the boundaries, Legal Reserve and APPs of every Brazilian rural property are kept. This is the most important spatial reference to monitor land use and land cover changes in rural properties, where it is possible to verify for instance whether deforested polygons overlap with Legal Reserves or APPs.

Caso 2: Fazenda	. ^	Daire	Grande d	o Ribeiro
Coso 2. Fazenda	ıbe.	Baixa	Gi alide d	0 1115

Farm Name	Fazenda Ipê
Ownership	InSolo group/Terrus
Farm location	municipality of Baixa Grande do Ribeiro, state of Piauí (also partially located in Ribeiro Gonçalves)
P Self William	Piauí (also partially reserved Type 2022, partially

8,382 hectares, between May and June 2022, illegal deforestation, according to the Brazilian Forest Code Cleared area (6,850 ha inside the Legal Reserve and Permanent Protection Areas according to AidEnvironment. 13

Vegetation destroyed

99% savannah deforestation

Links from the farm to Bunge silos

Direct supplier. Data from invoices (notas fiscais) obtained by Mighty Earth show that Ipê Agroindustrial LTDA sold 6 May 2022 multiple truck cargos of soy between 8 April 2022 and to Bunge in Uruçuí, Piauí. There are also three nearby warehouses owned by Bunge that trade with the farm.

Jan. 2022







Figure 5. Maps before deforestation and after deforestation of the Ipê farm.

Invoices (notas fiscais) obtained by Mighty Earth show that Ipê Agroindustrial LTDA sold multiple cargo trucks of soy between 8 April 2022 and 6 May 2022 to Bunge in Uruçuí, Piauí. There are also three nearby warehouses owned by Bunge that trade with the farm.¹⁴ Ipê Agroindustrial was linked to a series of negative social and environmental impacts in Piauí, reported by research groups like Grain.¹⁵ In May 2018, the Agrarian Court Judge of Piauí ruled that about half of the property was illegally acquired through the 'grilagem' process (or land grabbing);16 the farm improperly extended its boundaries, according to Chain Reaction Research.¹⁷

The company recently pointed out to Repórter Brasil that "the images used as a parameter for identification of areas designated for environmental preservation are outdated, which generates untrue information of deforestation in areas of Legal Reserve or Permanent Preservation."18 The company has also stated that it aims to achieve zero deforestation by 2023.

			Dibairo
Casa 3: Condomínio	14:11-	Daiva Grande do	Kipeiro
Cara 2. Condominio	milia.	Daixa Gi alles	

Condomínio Milla (Fazenda Cajueiro) Farm Name

Karl, Egon and Ernst Milla Ownership

municipality of Baixa Grande do Ribeiro, state of Farm location Piauí, Cerrado, Brazil

215 hectares, between July and September 2022. Partially illegal deforestation, according to the Brazilian Forest

Vegetation destroyed

100% savannah deforestation

Links from the farm to Bunge silos

Direct supplier. Fazenda Cajueiro supplied soy to Bunge's unit in Uruçuí (state of Piauí) over the last two harvest seasons (2022 and 2023). Invoices (notas fiscais) obtained by Mighty Earth confirm the supply relation.

Fazenda Cajueiro supplied soy to Bunge's unit in Uruçuí in the state of Piauí over the last two harvest seasons (2022 and 2023).¹⁹ Invoices confirm that these commercial operations originated in the same address mentioned as the address for Fazenda Cajueiro in Condomínio Milla's official website. The family farming group confirmed to Repórter Brasil that Fazenda Cajueiro is currently a Bunge supplier.²⁰ The family has strong connections to the Aprosoja association in Piauí and Paraná. Since November 2020, the Special Group for Land Regularization and Combating Land Grabbing (Gercog), of the Piauí State Public Prosecutor's Office (MP-PI), has been conducting a criminal investigation of possible fraud in the property's registration.²¹

According to our partner ICV's analysis of the SINAFLOR database,²² the deforestation not covered by the deforestation permit in Condomínio Milla exceeded 15 hectares, and another 14.8 hectares were deforested in Legal Reserve areas, totalling 30 hectares of illegal deforestation. The farm was granted a deforestation permit valid from July/August 2022 to July/August 2023, but the conversion of the area started in 2019. As such, the deforestation that took place in Condomínio Milla can be considered illegal, either in terms of space and time.



Figure 6. Maps before deforestation and after deforestation of the Condomínio Milla. © Planet Tropical Normalized Monthly Mosaic Imagery

b) Recent deforestation cases from 2023 with a high probability of being linked with Bunge

Our partner AidEnvironment also detected another five cases linked to an additional 14,598 hectares of deforestation that took place in the Cerrado in early 2023, in highrisk municipalities where Bunge is the leading soy exporter. A number of these farms have also been fined for labour conditions akin to modern-day slavery.

Farm Name	Fazenda Novos Tempos	The second second
Ownership	Nelson Astor Pooter (Dimaba)	
Farm location	Barreiras, state of Bahia, Cerrad	do, Brazil
Cleared area aft	er December 2020 cut-off date 939 hectares, between November 20	022 and March 2023
Vegetation	savannah park	He (W)
Legal or illegal d	eforestation Legal	- 8
Links from the f	arm to Bunge silos	
	It is in a municipality where Bur exporter group with a potential s	
Bunge's share of	the municipality's soy exports	
2	37 percent in 2020 and Bunge is to soy exporter.	the biggest

Nelson Astor Pooter, the farm owner, was added to Brazil's "slave labour dirty list" (*lista suja do trabalho escravo*) in March 2017. The case was identified in Fazenda Novos Tempos I (São Desidério - BA) and involved 10 workers subjected to appalling modern-day slavery conditions.²⁴



Farm Name	nda Tapera Grande, Correntina Tapera Grande	HOUSE TO SEE
Ownership	Ireneu Orth	1 Promil
Farm location	Correntina, state of Bahia, Cerr	rado, Brazii
Cleared area afte	er December 2020 cut-off date 937 hectares, between July 2022	and January 2023
Vegetation	Forested savannah	
Legal or illegal d	eforestation Partially illegal, inside Fores areas, 11 fines related to unaut	t Code's protected horized deforestation.
Links from the f	Bunge's share of the municipali Bunge is the top exporter, with total soy exports in 2020. It we exporter in the previous five-years 30 percent of the total soy exp	ty's soy exports: 12 percent of the was also the first ear period, with

Four environmental embargoes were imposed on Fazenda Tapera Grande between 2006 and 2009, which have already been lifted.²⁶ It also received 11 fines for unauthorised deforestation of native vegetation, prevention of regeneration of native vegetation and infringement of imposed embargoes. Ireneu Orth, the owner of the farm, is a local politician and a large landowner in different states such as Bahia and Mato Grosso.²⁷ Other members of the Orth family own rural properties and participate in producers' associations, such as the Associação de Agricultores e Irrigantes da Bahia²⁸ and the Association of Soy Producers of Rio Grande do Sul (Aprosoja – RS).²⁹

Bahia—the epicenter of Cerrado soy destruction

Western Bahia is the epicentre of Cerrado's deforestation. first quarter of 2023, some 47,800 hectares were deforested in the region.30 This directly affects the maintenance of local biodiversity, water resources and the rights and livelihoods of more than 600,000 people living in traditional communities in the region.31

Municipalities in Bahia also recorded significant increases in deforestation compared to the same period in 2022, according to SAD Cerrado. Six of the ten municipalities that were most deforested in the first quarter of 2023 are located in Bahia and account for 20 percent of all deforestation in the Cerrado-two of them, Barreiras and Correntina, are mentioned above (Cases 4 and 5). The state of Bahia had the highest concentration (25 percent) of new deforestation and conversion areas in the biome during this period. Converted

areas in Western Bahia have more than doubled compared to the first trimester of 2022.32

In 2020, according to TRASE data, Bunge was the top soy exporter for Bahia with 25 percent of the state's total soy exports (excluding domestic consumption and unknown importer groups, followed by Cargill and Amaggi). The four largest soy-consuming countries in the EU account for 71 percent of Bunge's soy exports from Bahia. Of these, France is the top purchaser, with 34 percent, followed by Germany, with 27 percent.



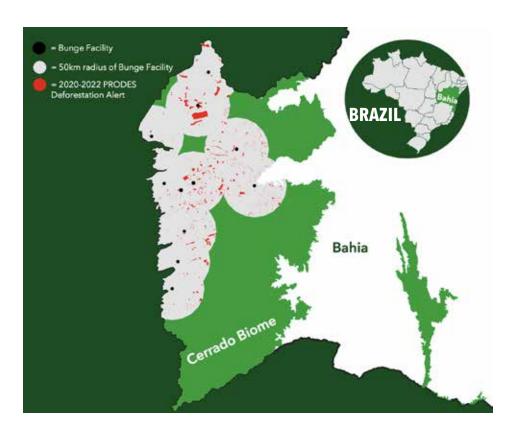


Figure 7 and 7 bis: Localisation of the Bunge facilities in Bahia and post 2020 deforestation (red) around the facilities. Description of the strong commercial relation between the port of Salvador, Bunge and European countries. Source: Mighty Earth (2023), with data from Trase and Prodes

Farm Name	Faveira
Ownership	GBE Fazendas
Farm location	Sebastião Leal, state of Piauí, Cerrado, Brazil
Cleared area after	December 2020 cut-off date 7,354 hectares, between November 2022 and January 2023
Vegetation	Wooded savannah
Legal or illegal de	forestation Legal, but there is no detailed information about the native vegetation clearance authorisation.
Links from the fa	rm to Bunge silos It is in a municipality where Bunge is the main exporter group with a warehouse owned by Bunge located in a 50km radius.

Bunge's share of the municipality's soy exports Bunge's the first one with 32 percent in 2020.



Figure 8. Maps before deforestation (November 2022) and after (January 2023) deforestation of the Faveira farm. Source: AidEnvironment (2023) Imagery © 2022, 2023 Planet Labs PBC

GBE Fazendas was established in 2008 and is linked to a land-grabbing scandal involving Harvard University's endowment fund, with a series of negative social and environmental impacts in Piauí.33 Together with Terracal, GBE purchased more than 30 properties in five states in Brazil specifically linked to the Harvard University endowment fund, totalling 168,000 hectares. Between June 2008 and June 2015, Harvard transferred more than USD 246 million to GBE for farmland acquisition in Brazil.34

		- Outros	Sehastião	Leal
Case 7: Fazenda	Planaito	e Outras,	3CDastiae	1000

Case 7. Tuz	
Farm Name	Planalto e outras
Ownership	Terrus/Serra Dourada
	Sebastião Leal, state of Piauí, Cerrado, Brazil
Farm location	Sebastiao Hear, Sebastiao 2023 and February 2023.
Cleared area	4,071 hectares, between December 2022 and February 2023.
Vegetation	Wooded savannah
	T-201

Legal or illegal deforestation Legal

Links from the farm to Bunge silos

It is located in a municipality where Bunge is the main exporter with a Bunge-owned warehouse within a 50 km radius and a potential link to its supply chain.

Bunge's share of the municipality's soy exports 32 percent in 2020



Figure 9. Maps before (December 2022) deforestation and after (January 2023) deforestation of the Planalto e Outras farm. Source: AidEnvironment (2023) Imagery © 2022, 2023 Planet Labs PBC

Serra Dourada farm is a rural venture comprised of several properties: Fazenda Jerimum, Fazenda Picos, Fazenda Planalto, and Fazenda Santa Maria in Sebastião Leal (PI). Its main activity is grain production (soy, rice, maize, cotton, and beans).³⁵ Ricardo Castellar Faria is the owner of Terrus S.A., the fifth-largest grain producer in Brazil in terms of planted area.

Farm Name	Serra das Guaribas	(B) (T)
Ownership	Nazaré Agroindustrial	
Farm location	Santa Filomena, state of Piauí, Cerrado, Brazil	arv
Cleared area 2023.	1,297 hectares, between December 2022 and Febru	ary
Vegetation	Wooded savannah deforestation All illegal inside a declared Legal Reso	OVIIA

the farm.

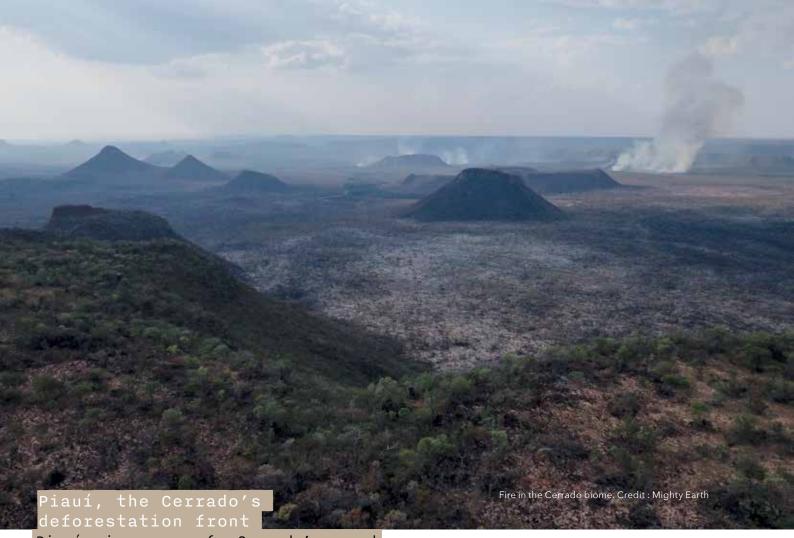
Links from the farm to Bunge silos It is located in a municipality where Bunge is the top exporter, with a Bunge-owned warehouse within a 50 km radius, and a potential supply chain link.

57 percent in 2020. Bunge's share of the municipality's soy exports:



Figure 10. Maps before deforestation and after deforestation of the Haribas. Source: AidEnvironment 2023 Imagery © 2022, 2023 Planet Labs PBC

Flávio Shuiti Inoue, the owner of Nazaré Agroindustrial,³⁶ was part of Sollus Capital from 2008 until 2013, an investment company based in Brazil and specialised in lands with agricultural potential for grains in Argentina, Brazil, Paraguay and Uruguay.³⁷ Shuiti was also a shareholder of Ipê Agroindustrial Ltda and InSolo Agroindustrial S.A., both active in soy farming and both involved in scandals related to socio-environmental impacts.³⁸ InSolo was later sold to Ricardo Castellar Faria, mentioned above. The Serra das Guaribas— Lote 17 farm is part of a list of properties, published in February 2022, that are having their land tenure registration documents reviewed for suspected land irregularities by the Piauí Land Institute.



Piauí one of Cerrado's is vulnerable ecosystems. Known as the last agricultural frontier of the country, land conflicts and social and environmental impacts from soy production are rife in this heavily deforested region. Clearing savannahs for soy crops accounted for 86 percent of the state's deforestation in January 2023.39 Four of the cases presented in this report (2, 3, 6 and 7) are located in Baixa Grande do Ribeiro and Sebastião Piaui's two most-deforested municipalities, and among Brazil's 10 most-deforested municipalities in the first quarter of 2023.40

Between 2016 and 2020, Bunge accounted for 14 percent of Piauí's soy exports. This leadership position appears to be strengthening: by 2020, Bunge was Piauí's leading soybean exporter, with more than 50 percent of market share.41 Notably, the EU's four largest soy importing countries received 59 percent of the soy Bunge exported from Piauí between 2016 and 2020, according to Trase data.

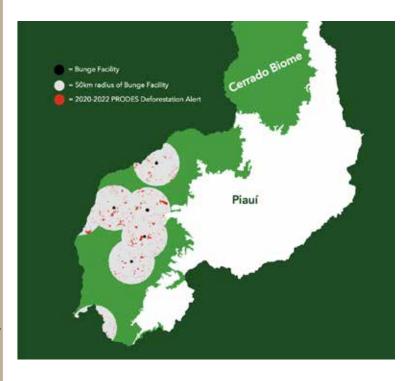


Figure 11. Localisation of the Bunge facilities in Piauí and post-2020 deforestation around the facilities. Source: Mighty Earth (2023), with data from Trase and Prodes

Eight deforestation cases related to the four largest European soy importers from Brazil

Municipalities	Luis Eduardo Magalhães (BA)		Baixa Grande do Ribeiro (PI)		Barreiras (BA)	
Level of connexion to Bunge	Case 1 : direct connexion to Bunge		Case 2/3 : direct connexion to Bunge		Case 4 : Highly probably connected	
Destinations of Bunge soy from this municipality	Total soy trade weight (t) (2016-2020)	Proportion (%) of trade	Total soy trade weight (t) (2016-2020)	Proportion (%) of trade	Total soy trade weight (t) (2016-2020)	Proportion (%) of trade
Netherlands	NC	NC	146	1 %	NC	NC
Spain	2,947	7 %	3,688	13 %	83,190	22 %
France	12,595	30 %	NC	NC	63,632	17 %
Germany	10,967	26 %	NC	NC	48,338	13 %
Other countries	15,233	36 %	24,621	87 %	181,959	48 %
Total	41,742	100 %	28,455	100 %	377,119	100 %

Municipalities	Correntina		Sebastião Leal, Piaui		Santa Filomena	
Level of connexion to Bunge	Case 5 : Highly probably connected		Case 6/7 : Highly probably connected		Case 8 : Highly probably connected	
Destinations of Bunge soy from this municipality	Total soy trade weight (t) (2016-2020)	Proportion (%) of trade	Total soy trade weight (t) (2016-2020)	Proportion (%) of trade	Total soy trade weight (t) (2016-2020)	Proportion (%) of trade
Netherlands	46,542	9 %	NC	NC	NC	NC
Spain	6,039	1 %	1216	16 %	3412	2 %
France	115,744	22 %	NC	NC	NC	NC
Germany	159,691	31 %	NC	NC	105,637	63 %
Other countries	189,802	37 %	6,289	84 %	58,183	35 %
Total	517,817	100 %	7,505	100 %	167,232	100 %

Table 2: Bunge soy exports from the six municipalities where the deforestation cases related to Bunge have taken place. Source: Trase data from 2016 to 2020, Mighty Earth calculations. Date: between 2016 and 2020

c) Bunge: Among the largest and worst soy traders

One of the most important soy traders in Brazil

With annual revenue of USD 67 billion,⁴² Bunge is one of the so-called 'ABCDs' (ADM, Bunge, Cargill and Louis Dreyfus Company),⁴³ the world's largest commodity traders that have, for decades, dominated the global grain trade and at least 70 percent of the market.⁴⁴ More than 70 percent of Bunge's commercial activities involve soy production: vegetable oils and protein meal for animal feed. Bunge say they are the leading producer and supplier of vegetable oils and oil cakes for feed.⁴⁵

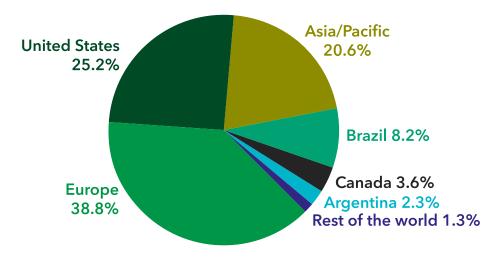


Figure 12: Bunge's shares of regional markets in 2022. Source: Zonebourse (2023)



The EU is Bunge's most important market. In 2022, 39 percent of Bunge's sales were generated in the EU, well ahead of the US and China.⁴⁶ Furthermore, for the EU and its four largest soy importers (France, Spain, Germany and the Netherlands), Bunge is also the most important trade partner, representing 27 percent of the soy sourced in Brazil during the 2016-2020 period, according to Trase.⁴⁷

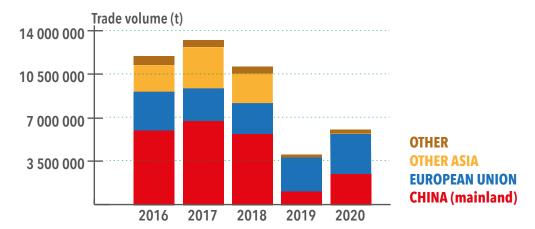


Figure 13: Where Bunge sent soy during the 2016-2020 period. The EU is a key market for Bunge. Source: Trase (2023 based on 2020 data)48

Of the 300 facilities Bunge holds in 40 countries around the world, 49 including factories, ports, distribution centres, mills and grain silos, more than 100 are located in Brazil.⁵⁰ Bunge is Brazil's fourth-largest exporter across all sectors and its largest agribusiness exporter. Bunge is the leading national soybean processor;⁵¹ more than 80 percent of Bunge's total revenue depends on soy and soy derivatives, particularly for the meat industry.⁵²

Bunge is strongly linked to deforestation risk, especially in the Cerrado

Bunge can easily be considered the soy trader with the greatest deforestation risk in the Cerrado. A summary prepared by Trase⁵³ for EU policymakers in 2021 found Bunge to be the soy exporter to the EU with the most significant deforestation risk across all South American biomes: 30.3 percent - more than twice the second next largest exporter, Cargill. Specifically in the Cerrado, Bunge's deforestation risk represents 50 percent of the biome's entire deforestation risk. In 2018 this was evaluated at 12,938 hectares out of the total 25,941 hectares of all the Cerrado traders' deforestation risk.⁵⁴ In March 2023, Trase considered Bunge to be the ABIOVE (Brazilian Association of Vegetable Oil Industries) and ANEC (National Grain Exporters Association) trade association member with the most ecosystem conversion exposure for all of Brazil. According to 2020 export data, Bunge had 60,300 hectares of risk exposure. 55 ADM, with more than 31,000 hectares of risk exposure, and Cargill (more than 25,000 hectares) came in second and third.⁵⁶

Bunge: Still one of the weakest sustainability policies

In 2022, Bunge was the first in the soy sector to announce that, as of 2025, it would be "free of deforestation and conversion of native vegetation" in its operations, but this is not vet the reality.57

According to Oxfam, Bunge was found to be one of the worst soy traders. Oxfam's 2022 Agribusiness Scorecard⁵⁸ found that Bunge was the lowest performer regarding the 'land'

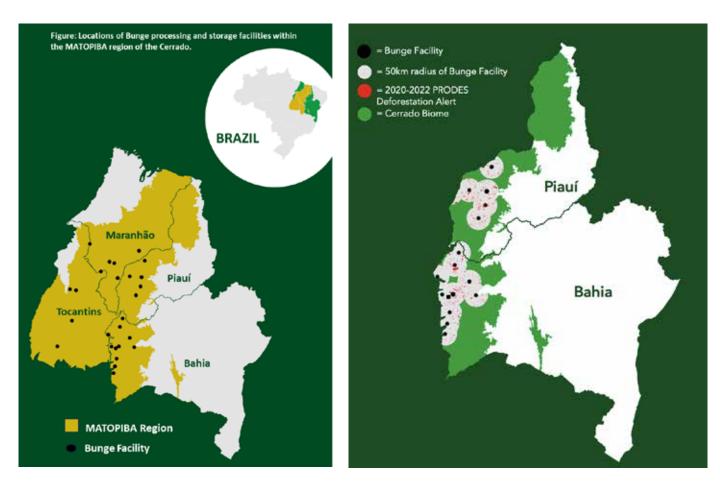


Figure 14 to 15: Localisation of the soy processing and storage facilities of Bunge in the Matopiba region and the deforestation post-2020 around the two states of the report (Piauí and Bahia). Source: Trase

criteria (which includes land rights, land use, and land inequality), scoring only 11 percent.⁵⁹ Bunge was also the Oxfam Scorecard's worst company for its relationship with small-scale producers, and tied for the worst on the transparency and accountability criteria. In all the stakeholder interviews conducted by Mighty Earth for this report, Bunge and Caraill were consistently considered as the worst soy trading companies in Brazil. Some stakeholders considered that both companies played a negative role in the elaboration of the 2022 Agriculture Sector Roadmap for soy from the COP27 UN climate summit, reducing its scope and ambition in order to continue developing facilities in deforestation frontiers.

In its Global 2022 Non-Deforestation Commitment, 60 Bunge appears to commit to implement a 2020 deforestation cut-off date, giving the impression that it will not accept soy from land deforested after 2020. Bunge's weak 2025 Zero deforestation commitment says: "We will continue to provide annual updates on our progress through 2025, at which point we will have fully implemented our policy and will adapt our disclosure accordinglyand in effect, retire our 2020 reference date." 61

But Bunge clarified its position in its response to Mighty Earth's report findings. Bunge says: "Bunge does not have a 2020 cut-off date for deforestation or native vegetation conversion specified in our voluntary commitments..." So instead, Bunge appears to simply engage farms and check if the deforestation is illegal under Brazilian environmental law. If deforestation is legal, they will continue to buy soy from deforested areas until 2025.



Some stakeholders say that in fact Bunge's policies represent an invitation to its suppliers to accelerate deforestation by 2025. And that is what we are witnessing on the ground with an explosion of deforestation in the Cerrado. The absence of a meaningful 2020 cut-off date will surely spark a race-to-the-bottom since producers will accelerate habitat destruction in advance of a commitment date three years away.

Other recent reports confirm that Bunge's policy is one of the weakest in the sector. A report by De Olho Nos Ruralistas published in April 2023 reveals that more than 500 soybean farms in Brazil were overlapping Indigenous lands.⁶² One of the cases involves Bunge with a property which overlapped an area within Guarani Mbya Indigenous territory.

Global Witness concluded in 2022 that "Bunge's implementation of its commitment to land rights and FPIC across the hundreds of thousands of hectares where it sources Brazilian soy is a mirage." 63

In May 2023, an investigation by Repórter Brasil and O Joio e o Trigo found that Bunge and others bought soy in an area where 'grain laundering' is admitted by producers and civil servants. The illegal crops came from areas on the border of the Amazon rainforest which had restrictions for production, but the real origin of the grains were concealed through paperwork.64

Indirect sourcing is also an issue for Bunge

Bunge also claims to increase the monitoring of soybeans from its indirect supply chain in Brazil, but the reality seems different.65 According to Repórter Brasil, one of the largest of Bunge's soybean suppliers has among its suppliers a farmer who illegally deforested more than 200 hectares in Mato Grosso. 66 In February 2022, Agricola Alvorada received soybean cargoes from Grauna farm at its warehouse in Primavera do Leste (MT). In September 2022, the Brazilian authorities and the owner of the Grauna farm (the indirect farm linked to Bunge through the direct Bunge's supplier Agricola Alvorada) acknowledged the illegal deforestation. Bunge did not comment on the case and merely defended its supplier.67

DESTRUCTION FOR ANIMAL FEED ON THE RISE IN BRAZIL

a) Runaway deforestation is destroying the Cerrado biome

Half of the world's most biologically diverse savannah has already been lost and converted to agricultural crops and pasture in the Cerrado.⁶⁸

Brazil's native vegetation is being destroyed at an alarming rate, making it one of the world's largest and most active deforestation fronts. Deforestation in Brazil reached a sevenyear peak in 2022: the Brazilian National Institute of Spatial Research (INPE) indicates that 1.07 million hectares was lost in 2022 (a guarter the size of the Netherlands or 10 times the area of Paris).69

Since 2019, under President Jair Bolsonaro's mandate, the rate of deforestation in the Cerrado has increased by 69 percent (see Figure 16). In 2022, 71 percent of Cerrado's conversion and deforestation occurred in the Matopiba region, the country's new agricultural frontier.70

From January to May 2023, the destruction movement continued, reaching 353,200 hectares of deforestation in the Cerrado.71





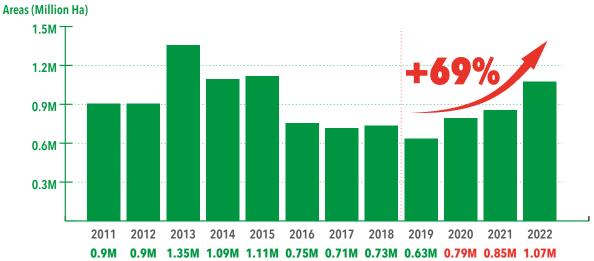


Figure 16: Yearly deforestation in the Cerrado since 2011 (in million of hectares). Source: Prodes (2023)

b) Matopiba is especially hard hit by animal feed crop expansion

From 1989 to 2019, Brazil's cultivated area increased by 44 percent; the area planted with soy jumped by 193 percent.⁷² Almost 52 percent of Brazil's soy planted area is found in the Cerrado.73

Global demand for meat and animal products – such as beef, pork, poultry and dairy products – has driven soy's outsized impact. Used principally for animal feed, soy is one of the main drivers of the Cerrado destruction, pushing pasture lands outwards into what has become the deforestation front. According to WWF and the Brazilian Association of Vegetable Oil Industries (Abiove), soy cultivation almost tripled in Brazil between 2000 and 2021, expanding from 7.4 to 21.4 million hectares.⁷⁴ During this period, soy expansion in the Cerrado averaged 624,000 hectares per year. However, it has recently accelerated to 1.17 million hectares in the 2020-2021 crop year – the largest annual increase, according to Abiove.75 The land use change associated with soy production is more significant in Matopiba than in Brazil's other states. The conversion of native vegetation accounted for 0.8 percent (0.12 million hectares between 2013 and 2021) of the soy crop area in other states, whereas in Matopiba it represented 10.5 percent (0.5 million hectares).

Soy crops encroach especially onto 'Other wooded land' and natural grasslands of the Cerrado biome, notably in the Matopiba region (figure 17).

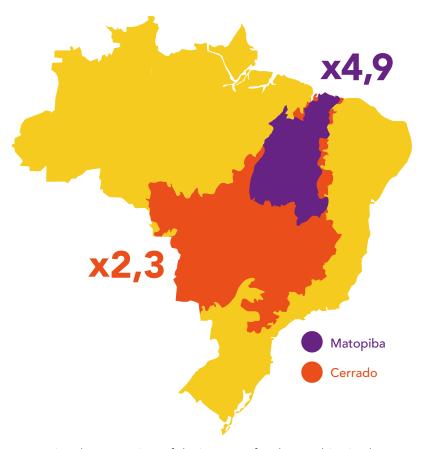


Figure 17. Map representing the comparison of the increase of soybean cultivation between the Cerrado (orange) and the Matopiba region (purple) since 2000 and the rest of Brazil (yellow). Source: Abiove (2021)



c) Protection for the Cerrado's savannah is essential

The Cerrado savannah: An unprotected, forgotten jewel

Covering more than 200 million hectares, the Cerrado savannah in central Brazil is a vast area the size of France, Italy, Germany, Spain and the UK combined. It is home to the world's richest savannah biodiversity.⁷⁶ It also stabilises the regional climate, and regulates the watersheds that provide 40 percent of Brazil's fresh water.⁷⁷ The Cerrado contains five percent of the planet's biodiversity:⁷⁸ some 12,000 plant and 1,600 animal species - including the jaquar, giant anteater and maned wolf, classified as 'Near Threatened' by the International Union for Conservation of Nature (IUCN), a unique species with legs long enough to see over the tall grass of the Cerrado.

conversion and fragmentation are taking place [in the window for biodiversity most threatened savannah," says João Paulo Vieira-Alencar, from the University of São Paulo. 🖰



Figure 18. Remarkable Cerrado fauna with a representation of the jaguar, giant anteater and the maned wolf. Credit: Atypicalist (2023)

Besides natural resources, the peoples of the Cerrado also compose its extraordinary wealth. There are about 216 Indigenous Territories and 44 Quilombola (Afro-Brazilian former slave descendents) territories⁸⁰ in the Cerrado, as well as traditional communities (i.e. Geraizeiros, Quebradeiras de coco babaçu, vazanteiros, Fundo e Fechos de Pasto communities), land reform settlers among others.⁸¹ The Cerrado's peoples are culturally very diverse, but they are all facing the impacts of agribusiness expansion (see 3.d section of this report).

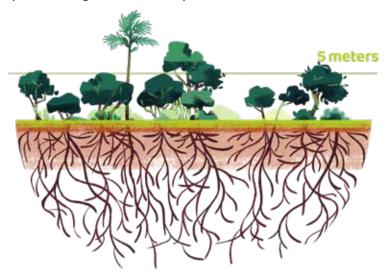


Figure 19. Representation of the upside-down forest from the Cerrado with a root system that is deeper than the height of the trees. Credit: Atypicalist (2023)

The Cerrado's deep root systems, the reason it is called 'the upside-down forest,' act as a critical carbon sink storing an estimated 13.7 billion tons of carbon underground.82 Studies indicate that its carbon storage capacity is equivalent to that of a tropical forest.83

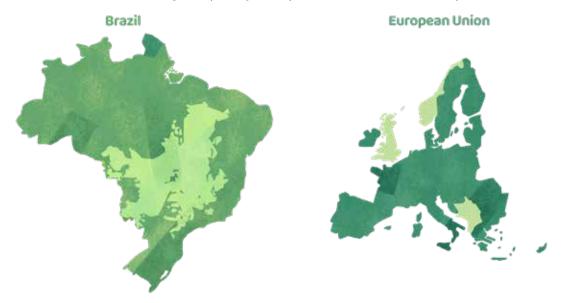


Figure 20. The size of the Cerrado biome compared to portions of western Europe. Credit: Atypicalist (2023)

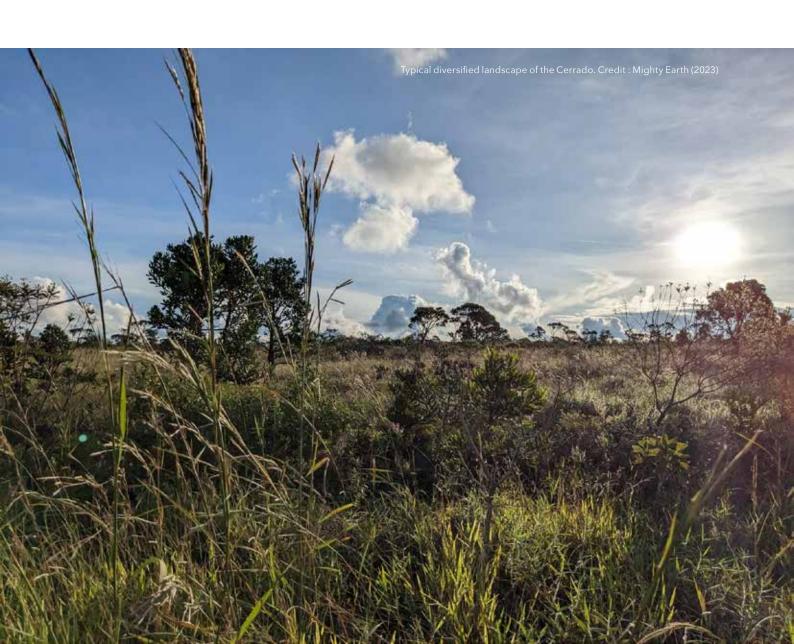
Despite the Cerrado's critical role, Brazil's Forest Code does little to protect it. Although the Forest Code requires private landowners in the Amazon to preserve up to 80 percent of their property as Legal Reserve and Permanent Preservation Areas (PPAs), in the Cerrado, landowners are required to preserve only 20 to 35 percent of native vegetation.⁸⁴

Currently only three percent of the Cerrado is under strict protection (under the form of ecological stations, parks, wildlife refuges, biological reserves and others).⁸⁵ Another five percent is 'protected' as mixed-use areas,⁸⁶ where people live, grow crops, ranch, and are legally required to conserve land – although there is little compliance or enforcement.

In the Cerrado, up to 80 percent of property can be legally deforested and converted, and there is little commitment to reducing deforestation. Even in conservation units, destruction has increased over the last four years, most significantly in the Matopiba region (Figure 17). The private sector currently holds about three quarters of land in the Cerrado, without much incentive to protect it.⁸⁷

'Other wooded land': the most threatened ecosystems

While the Brazilian Forest Code contributes to the vulnerability of the Cerrado compared to the Amazon, the new EU Deforestation Regulation (EUDR) threatens to exacerbate it. Most of the Cerrado biome – some 74 percent, amounting to 79 million hectares – is not recognised or considered as 'forest', under the current EUDR definition.⁸⁸ The FAO threshold-based definition of 'forest' (i.e. canopy cover, height, area) does not apply easily to the complex mosaics of different vegetation types that characterise the Cerrado.



In total, 56 percent of the Cerrado biome is considered 'Other wooded land' (OWL), according to Trase, and is excluded from the current scope of the EUDR's provisions. But in Brazil, this 'Other wooded land' is the most threatened ecosystem, destroyed under the pressure of meat consumption and crops for animal feed.

Savannah and forests are both 'wooded' lands. The EUDR uses the FAO's definition of 'forest': land spanning more than 0.5 hectares with trees higher than five metres and a canopy cover of more than five to ten percent, or trees able to reach those thresholds in situ, excluding agricultural plantations and land that is predominantly under agricultural or urban land use.⁸⁹ This restrictive definition excludes a rich variety of other natural ecosystems – wooded savannah, agroforestry, wetlands, shrublands and grasslands. A recent FAO study identifies 977 million hectares of 'Other wooded land' worldwide, of which 445 million are in Africa, 190 million are in Asia, 147 million are in South America, 100 million are in Europe and 90 million are in North and Central America. 90

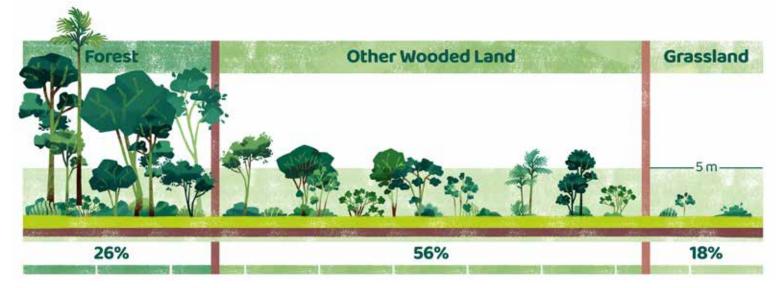


Figure 21: Proportions of natural vegetation types for biomes in the Cerrado, according to MapBiomas Brazil, based on the FAO definitions of forest and non-forest (wooded and grasslands) vegetation types. Source: Embrapa & Trase 202291

In the Cerrado, native vegetation destruction is three times greater in the savannahs (OWL) than in forests, and has risen dramatically since 2019 (see Figure 22). The destruction in OWL is clearly an issue that must be addressed immediately.

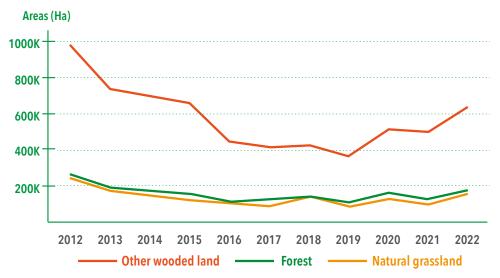


Figure 22. Destruction of the Cerrado's natural vegetation converted area by vegetation type (ha).

Source: INPE (PRODES) and MapBiomas (2022)

d) Beyond environmental impacts

In April 2023,⁹² Mighty Earth conducted several qualitative semi-structured interviews with stakeholders directly or indirectly linked to the soy production chain in the Brazilian Cerrado, especially in the Western Bahia (municipalities of Correntina, Formosa do Rio Preto, Barreiras, Luis Eduardo Magalhães), where the deforestation and conversion cases, discussed above, took place. We discussed with leaders of traditional local communities (comunidades de fecho de pasto, de fundo de pasto, geraizeiros), rural workers of soy-producing farms, inhabitants of deforestation-affected soy-producing municipalities, public prosecutors acting on land rights and property disputes, and representatives of local, national and international civil society organisations, among others. The aim was to learn how large-scale soy production impacts their way of life, rights and living conditions. It is clear that deforestation has a considerable socioeconomic impact and affects the livelihoods of local communities.

While rich in content and personal testimonies, our interviews were suddenly interrupted by the local violent reality. "Today [13 April 2023] a member of our community was surrounded by gunmen who work as 'security guards' for agribusiness farms in the Gerais, and had to leave with his cattle. Two days before [11 April], three fellows were shot," said the representative of a traditional community in the municipality of Correntina, in the Western Bahia. The local media covered the events, 93 which came as no surprise for communities that share their territory with agribusiness corporations. For security reasons, we were asked not to reveal their names and positions.

The connection with soy farmers cannot be established without a police investigation, but members of nearby communities say they are certain of the reasons for the violence: it is all about transforming natural resources (land, water, native vegetation) into inputs for soy production and export throughout the Brazilian Cerrado. "We local communities, we have lost our economic space, our geographic space, our survival strategies, our endogenous plants and our animals. We have lost family members, our fathers, our sons," says a community leader from one of the biggest soy-producing municipalities in Western Bahia. "



Correio

Polícia investiga tentativa de homicídio contra trabalhadores rurais na Bahia

Integrantes de uma associação de preservação ambiental e pequenos criadores foram alvejados por disparos nesta terça (11) A Policia Civil investiga a tentativa de homicidio contra integrantes de uma

associação de preservação ambiental e de pequenos criadores, na Fazenda Cupim, localizada na cidade de Correntina, no oeste da Bahia, na terça-feira (11). Três homens foram socorridos a um hospital da região, após serem atingidos por disparos de arma de fogo.

De acordo com a Associação de Advogados de Trat atingidos foram identificados como Gelson Neves, Alecsandro de Jesus Matos, 43 anos, ferido no bra Cerrado José dos Santos, 68 anos, baleado na clavicula.

Pistoleiros aterrorizam comunidades na Bahia e desmatam extensas áreas de

Down insmission extension areas of Certain Desde setembro a violência recrudesce contra comunidades de Fundo e Fecho de Pasto na região de Correntina e Santa Maria da

Vitória, no oeste baiano. Diante dos indícios e, por fim, da concretização da derrota eleitoral de Jair Bolsonaro, diversas violências sucederam-se nestes territórios, entre elas ameaças de morte, disparo de tiros, abertura de trincheiras na estrada, destruição de ranchos, pontes e cercas, aiém de veredas queimadas, em novas ofensivas realizadas a mundo de fazendeiros. A disputa se dá por áreas de vegetação nativa do Cerrado, repleta de veredas com nascentes conservadas pelas comunidades que há mais de dois séculos se estabeleceram na região.

Figure 23. News titles of the violence





Figure 24. Pictures showing recent violence linked to conflicts over land use in Bahia. Source: Courtesy of local respondent or partner (2023).

Large-scale monoculture soy plantations cause rural exodus. Family members move to the outskirts of big cities, 95 and sometimes, they never come back. A woman heading a traditional community association in Western Bahia says: "Many young people who left looking for hope and got lost in big cities' violence return in a coffin. This is very painful. Young people are few in the area; in the end, only the elderly will remain."96 The spread of the use of pesticides and herbicides linked to monoculture soy production also has significant health impacts, linked to water, air and soil pollution.

According to respondents, besides psychological and physical threats, and overexploitation of natural resources, the pressure from farmers, intermediaries and traders on local communities is huge in symbolic terms, with the spread of a discourse that touts large-scale agriculture production as the best solution for all. However, "wealth is only for a few, poverty is for many," says a schoolteacher from Luis Eduardo Magalhães, Bahia. 97 "They promise jobs, because besides agriculture, the only source of employment here is the city hall. In communities where all the lands were taken, there is a strong rotation of people in a limited number of secondary jobs on highly mechanised soy farms. Sometimes, it's the only employment opportunity, and it is very scarce," adds a representative from a regional civil society organisation.98

In the same week of the violent events described above, deforestation data for the first three months of 2023 were published, and Bahia had the highest concentration of newly deforested areas in the Cerrado during this period. 99 "This directly affects the maintenance of local biodiversity and the livelihoods of traditional populations. Expansion is occurring in areas of high importance for maintaining connectivity between protected areas in the region, and also within traditional territories, fostering social conflicts," says analyst Tarsila Andrade.100

In Western Bahia, the São Desidério municipality, home to Fazenda Novos Tempos, has a high GDP but a miserable human development index;¹⁰¹ it accounted for 25 percent of the deforestation in Bahia's Cerrado during the first guarter of 2023, guadrupled from the same period in 2022.¹⁰² In second place, Correntina, home to Fazenda Tapera Grande, also had a four-fold increase in its deforestation rates from 2022 to 2023, according to



Figure 25. Representation of the diversity of local and indigenous populations living in the Cerrado savannah.

Credit: Atypicalist (2023)

IPAM. The deforested area of Barreiras, where Fazenda Santo Antônio is located, grew by 439 percent in the first quarter of 2023 compared to the same quarter in 2022. Baixa Grande do Ribeiro (Fazenda Ipê and Condomínio Milla, both directly linked to Bunge) and Sebastião Leal (Fazenda Faveira and Fazenda Planalto e Outras), in Piauí are also among the top 10 municipalities that deforested the most in the Cerrado in the first quarter of 2023. Western Bahia accounts for 90 percent of the state's soy plantations.¹⁰³

Land conflicts and green land grabbing

The growth in deforestation rates in these regions in the Cerrado confirms our interviewees' perception about the intensification of land conflicts and violence: "It's like 40 years ago, when large agriculture projects started to arrive in the region... nothing changed. Actually, no - in reality, it's a lot worse," said a respondent in Correntina in Bahia. 104



Another of Mighty Earth's respondents in Correntina, representing an association of traditional communities in the region, alleged that Bunge receives soy linked to farms that engage in "green land-grabbing." This is a form of illegal land appropriation boosted by a change in Brazil's Forest Code. Since 2019, the Forest Code establishes that the Legal Reserve can be within the same hydrographic basin.

The respondent explains: "So when a farm cleans all of its area, it can buy or grab other areas that are farther away to be in compliance with the law. And they do it precisely in the fundos and fechos de pasto [see box] areas, where land prices are lower and availability is considerable, even with great extensions of lands belonging to the Brazilian State. They [land grabbers] fence the land off and place guards; sometimes for Legal Reserve, sometimes simply to convert native vegetation to soy, corn and cotton, although traditional communities have been using these spaces for decades." The connections between soy companies involved in "green land-grabbing" disputes in Correntina region and Bunge, among other global grain suppliers, was reported in 2022 by Repórter Brasil. 106

Who are the traditional communities of Geraizeiros, Fundos and Fechos de Pasto?

The Geraizeiros, Fundos and Fechos de Pasto are traditional communities in the transitional region between the Cerrado (which locals call "Gerais") and the semi-arid Caatinga biome. They live in Western Bahia, in high and lowlying areas of the Cerrado, known as chapadas and grotas. These communities are characterised by common land use for extensive farming (such as goats, sheep and cattle), as well as traditional agro-silvopastoral practices. They form small rural producer groups based on kinship and reciprocity, and set up community structures to regulate the use and management of natural resources of the shared areas (communal pastures).107 "One of the biggest impacts of soy plantations is on the lifestyle and cultural

context of the Geraizeiros: the raising and feeding of 'free' cattle in the Gerais areas is the most important part of their way of life, and they are struggling to keep it," said a Geraizeiro interviewee. 108 The region has eight months of drought per year. This is when traditional communities take their cattle to graze in the areas of fundos and fechos de pasto, sometimes 100 to 120 km away from their homes, which is for them a manageable distance. But they cannot manage the presence of armed agribusiness-linked gunmen blocking their access to areas they have traditionally used for generations.

Invisible to the law the Brazilian Constitution (1988) states that the land rights of Indigenous peoples and Quilombolas (Afro-Brazilian descendants of slaves) are guaranteed and protected by the Brazilian State under federal jurisdiction. But traditional communities fall into a legal vacuum between federal, state and municipal legal responsibilities, to a Public Prosecutor interviewed for this report. 109

Since the mid-1980s, Fundos and Fechos de Pasto communities have organised themselves to guarantee formal rights to their lands. Most of these properties were constituted through the occupation of vacant areas (belonging to the Brazilian State) many decades - even centuries - ago. Most families formally own their houses, but they have no legally secure tenure for the common spaces they use. A main demand of these communities is the regularisation of a collective land title to the pastureland areas.



Cattle from members of Fundos and Fechos de Pasto communities. Credit: Courtesy of local respondent or partner, 2023.

Corruption and environmental authorisations

In the soy-planting regions of Western Bahia in the Cerrado, agribusiness farms are often granted legal authorisation for water use and removal of vegetation without conducting suitable assessments of the environmental and social impacts that these activities may provoke, according to multiple respondents. A Public Prosecutor further clarified that, by law, environmental authorities in Bahia are not required to consider the social consequences of an investment project. Instead, they can examine the environmental impacts of a project based on an analysis provided by the company seeking the licence. 110

In 2021, a coalition of Fundos e Fechos de Pasto communities sent a letter (carta de repudio¹¹¹) to local and state authorities in Bahia denouncing deforestation with 'legal authorisations' given out by INEMA (Bahia's environment agency) and INCRA's (the Brazilian land management institute) 'legal' register of grabbed lands. 112

"Land grabbing doesn't come peacefully. It's necessary to adapt contracts, to buy judges and police officers, to buy land-registration officers, to pay for gunmen and security guards to protect farms. My brother and my brother-in-law – they both had a gun pointed at their heads. They lost their lands and left the Gerais to stay alive," said one respondent, a member of a *Fundo de Pasto* community.¹¹³

Bunge was linked as a buyer of soy to one of the biggest recent cases of land grabbing and corruption in Western Bahia. In 2019, the federal police initiated an investigation (Operação Faroeste) into widespread corruption and the sale of judicial decisions 'legalising' property titles of stolen lands. The scheme involved judges, the president of the Bahia State Court of Justice, lawyers and rural producers grouped in a 444,000-hectare condominium of rural properties, Condomínio Estrondo. 114 Bunge owned a silo in it, and bought and housed soybeans from Estrondo's farms.¹¹⁵ Recent studies by Mighty Earth found over 15,000 hectares of deforestation on the Estrondo estates. 116



How does a silo shape its surroundings?

Bunge owns silos for housing and processing soybeans in several municipalities in the Cerrado where deforestation cases were discovered: Barreiras, Correntina, Formosa do Rio Preto, Luis Eduardo Magalhães, São Desidério, all in Bahia¹¹⁷; and Santa Filomena, in Piauí.¹¹⁸ Our respondents indicate that the presence of a Bunge silo in the region has a significant impact. An international environmental organisation representative explains further.¹¹⁹ A silo's economic aspect is important: smaller freight distances between farm and buyer translate to lower logistical costs and higher profits for the soy producer, thus increasing the farmer's interest in dealing with this buyer. But the symbolic aspect is no less important. "A silo is a structure of power. It calls the attention of mayors and other authorities, because it can generate more jobs and taxes in the municipality. The soy traders' teams go to the farms, negotiate purchases and facilitate technical support. This ends up mobilising other actors in the supply chain, in the input sector. For instance, the area planted with grains tends to expand," he says.







Bunge facility in the municipality of Luís Eduardo Magalhães, Bahia. This facility is connected to the Santa Isabel Farm Complex (case 1); it is also linked to the French market, according to Panjiva. Credit: Mighty Earth (2022)

Drying out rivers, polluting watersheds

The land is not the only source of conflict between soy producers and local communities in the Cerrado. Many respondents from Western Bahia also point to damages to local water quality and supply. One Correntina interviewee says: "Soy farms 'dry up' the rivers, pollute them and, in the end, communities can't get water for domestic use and production."120 Many river springs are located in fundos and fechos de pasto, where conflicts for land multiply. And the problem is not only local.



River in the Cerrado. Credit: Courtesy of local respondent or partner (2023).

The Cerrado is the largest water reservoir in South America, hosting three large aguifers: the Guarani, the Urucuia (one of the most important in Brazil), and the Bambuí.¹²¹ Brazil's main rivers originate in this biome; among them, the Amazon, Paraná, Parnaíba and Rio Grande. The Cerrado also concentrates 78 percent of the area where centre-pivot irrigation systems are found in Brazil. Centre-pivot irrigation systems are particularly wasteful and harmful.¹²² Researchers detected in 2017 decreasing flows and levels of superficial and subterranean waters in Western Bahia, and said: "No other enterprise or equipment consumes as much water as the irrigation systems of agribusiness companies". 123 São Desidério and Barreiras, where Bunge suppliers operate, are among the five largest municipalities using centre pivots in Brazil.¹²⁴ Between 2000 and 2017, Bahia's irrigated area grew by 182 percent, largely because of soy expansion.¹²⁵



Growing agribusiness-led rural conflicts in Brazil

The 2022 Comissão Pastoral da Terra (CPT) report Conflitos no campo, published in April 2023,127 clearly shows the intensification of agribusiness-led conflicts. The data support the argument that rural conflicts grow alongside deforestation and agriculture expanding frontiers. Among the report's main results: 128

Land conflicts:

- 2,018 cases of conflict occurred in rural areas, a ten percent increase compared to 2021; on average, one case of conflict occurred every four hours.
- 1,572 occurrences related to land tenure, an increase of 17 percent over 2021; approximately 80 million hectares of land were in dispute throughout Brazil.
- Other conflicts concerned disputes over water; workers rescued from conditions analogous to slavery; contamination by pesticides; murders, deaths and other cases of violence.
- 909,000 people were affected.
- In all, 181,304 families lived in the crosshairs of such conflicts in Brazil in 2022.

Slave labour:

- 207 cases of labour conditions analogous to slavery were notified in rural areas in 2022, a 32 percent increase compared to 2021.
- 2,615 people were victims in slave labour complaints, the highest number in the last 10 years.
- Agribusiness is the main commercial actor responsible for abysmal working conditions: 62 percent of the people rescued worked in monoculture plantations (mainly sugarcane and soy).
- Piauí in the Cerrado had 23 cases of slave labour, with 180 people rescued by authorities from these conditions in rural areas.

Agrochemicals

- 193 people were contaminated by pesticides in 2022, a 172 percent increase compared to 2021.
- 6,831 families were affected by the application of agrochemicals on crops, an 86 percent increase over 2021, and the highest number recorded by CPT since 2010.

THE EUDR WILL PUSH DESTRUCTION TOWARDS **OTHER NATURAL ECOSYSTEMS**

a) An opportunity to protect only dense forests

The EU is the world's third-largest importer of agricultural commodities linked to tropical deforestation and climate change, such as soy, beef and palm oil, surpassed only by China and India. Trase analysis shows that EU commodity imports were associated with 2.7 million hectares of deforestation in 2018.¹²⁹

The EU institutions recently adopted the historic EU Deforestation Regulation (EUDR) on deforestation-free products, 130 calling for companies to ensure due diligence on deforestation and degradation. It requires companies trading in cattle, cocoa, coffee, palm oil, rubber, soy and timber to demonstrate that their products are not sourced from deforested land or land with forest degradation, or risk heavy fines, blacklisting and other sanctions.¹³¹ Companies will have to submit 'due diligence' reports showing that they took proper steps to verify the origins of their products while also complying with producer countries' local laws and regulations.

This is the first forest law of its kind in the world; it nonetheless falls short on several key points. Although forests and savannahs are both wooded lands, the current EUDR¹³² bases its definition of 'forests' on the FAO definition.¹³³ The EUDR defines 'deforestation' as the conversion of forest to agricultural use, and applies only to land defined as 'forest' by the FAO and does not currently apply to 'Other wooded land'.





Figure 26: Representation in green of the ecosystems considered as forest by the FAO that are within the scope of the EUDR and in orange the other ecosystems notably savannah, other wooded lands and grasslands or wetlands that are not included yet. Credit: Atypicalist (2023)

However, tropical regions subject to deforestation are complex mosaics of ecosystems that do not fall neatly into this definition. For example, the Cerrado comprises a mix of forest, savannah and other types of land. An imminent 1-year Review will consider whether to extend the scope of the EUDR to include 'Other wooded land,' such as the Cerrado. 134 Pending their possible inclusion within the EUDR's provisions, the EU regulation may have the unintended effect of encouraging a shift in agricultural expansion from 'forests' to other unprotected natural ecosystems; indeed, pressures on the Cerrado are already intensifying, destruction is accelerating and our research finds products linked to this deforestation are currently sold on the EU market.

b) Soy from the Cerrado: the EU's largest embedded deforestation import

The EUDR, intended to reduce the EU's role in commodity-driven deforestation, fails to include large swaths of wooded savannah and grassland; for example, those composing three guarters of the Cerrado, or some 79 million hectares. 135 This is a highly significant omission, as soy from the Cerrado represents a considerable proportion of the EU's embedded deforestation. Between 2005 and 2017, more than 80 percent of tropical deforestation was concentrated in just six commodities; of these, soy for animal feed was the single most destructive, according to WWF.¹³⁶

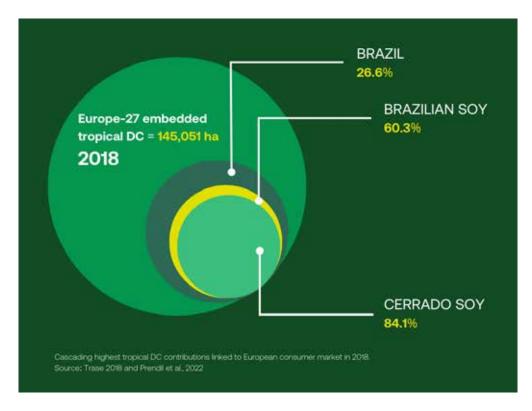


Figure 27. The weight of the Cerrado in the EU 27's embedded tropical deforestation. Source: Trase (2018) and Pendrill et al (2022)

Brazil accounted for 27 percent of the EU's embedded tropical deforestation in 2018. Of this, soy from the Cerrado biome made the greatest contribution, accounting for 13.5 percent of all tropical deforestation linked to agricultural commodities imported by the EU.¹³⁷

c) Soy traders' weak policies align with EUDR loopholes

Experts and CSOs in Brazil are extremely concerned that the current exclusion of 'Other wooded land' (OWL) from the scope of the EUDR sends a clear message to the



Transfer of soymeal from a cargo to a warehouse in the French port of Montoir. Credit: Audrey Durand Vigneron/Canopée Forêts Vivantes

agribusiness sector to expand into non-forest ecosystems, intensifying pressures on the Cerrado's already besieged savannah. This omission needs to be addressed urgently. The private sector has been calling to include OWL in the EUDR in different countries in Europe.¹³⁸ However, they also need to send strong market signals and urgently cut ties with meat coming from soy livestock feed linked to Cerrado deforestation.

Only 17 percent of Brazil's recent soy expansion into natural habitats took place in 'forested' areas;¹³⁹ traders sourcing soy from Brazil are much more likely to have contributed to encroachment into the Cerrado's savannah and pampas grasslands. The EUDR does not currently address this soy expansion. Neither do soy traders' voluntary commitments - and they do not appear poised to remedy the situation.

The soy commitment in the Agriculture Sector Roadmap to 1.5°C ¹⁴⁰ was announced at the COP27 UN climate change summit in 2022.¹⁴¹ It commits 14 firms, including Cargill, Bunge, Archer Daniels Midland, Louis Dreyfus Company and COFCO International, to reduce emissions from land-use change and limit global temperature rises, as agreed in the Paris Agreement. However, the Soy Roadmap is extremely weak and unambitious, with minimal commitments that even fail to include a sectoral deforestation cut-off date that aligns with the EUDR's cut-off date of 31 December 2020 or France's zero-deforestation strategy cut-off date of 1 January 2020.¹⁴² Instead, companies need only "undertake best efforts to establish individual cut-off dates for deforestation no later than 2025," according to the Roadmap. As a result, major soy traders – such as Cargill and Bunge – have made little effort to modify their highly damaging business-as-usual practices, a message shared during meetings and interviews with stakeholders and experts in Brazil.

But this is not the Roadmap's only weakness in relation to soy. Supply chain traceability is not implemented for all soy origins (permitting blending soy from legal and illegal sources, a practice known as 'grain-laundering');¹⁴³ deforestation can continue after the 2025 target date, as no consequences are attached to non-compliance; 'natural ecosystem conversion' is not defined, allowing for a multitude of offences; and significantly, no public grievance mechanism or information about remediation is required – as the palm oil sector does with the Golden Agri Resource grievance platform, for instance.¹⁴⁴



Chicken fed with soymeal. Credit: Istock



The major soy traders contend that the Roadmap¹⁴⁵ helps put the world on track to limit global warming to below an increase of 1.5°C above pre-industrial levels, the threshold beyond which scientists say climate change is likely to spin out of control.¹⁴⁶ However, to remain below 1.5°C, widespread deforestation and the destruction of natural ecosystems must be banned immediately, and agricultural activities limited to amply-available alreadydegraded land. The Roadmap completely fails to do so. At present, nothing indicates that 'Other wooded land' will be included in a revised Roadmap. Soy traders will continue to lobby at the European Commission, notably through feed sector industry associations, to exclude non-forest ecosystems from legislation and resist plans to halt natural destruction, according to Greenpeace Europe. 147

d) The Netherlands, Spain, Germany and France: the main importers of the highest deforestation-risk commodity in Europe

According to the last five years of available data from the Trase platform (2016-2020), the Netherlands is the world's third largest importer of soybeans from the Cerrado biome, followed by Spain (fourth), Germany (sixth) and France (seventh).¹⁴⁸ Bunge shows up as the main importer of soybeans from this region during this period. Analysing only Bunge's soybean imports from the Cerrado biome over the same period, Spain becomes the second-largest importer from the Cerrado after China, followed by France and Germany, according to Trase. Mighty Earth analysed the footprint of these four countries, and their dependence on Bunge, specifically.

COUNTRY	Soy (beans and cake) imports from Brazil (millions tons)	Origin from the Cerrado biome (2016-2020)	Origin from Bunge (2016-2020)	Proportion of soy from the Cerrado traded by Bunge (2016-2020)	
Netherlands	3.96	55% first biome	9% sixth trader	8% fifth trader	
Spain	2.62	49% first biome	49% first trader	54% first trader	
France	1.95	47% first biome	33% first trader	47% first trader	
Germany	1.83	56% first biome	26% second trader	43% first trader	

Table 3. Cerrado, Bunge and Europe: level of dependency on the Cerrado biome and on Bunge of the EU's four biggest soy importers from Brazil. Source: Trase 2020 data

The Netherlands: The EU's largest importer of soy from the Cerrado

The Netherlands is the largest importer (and exporter) of soy in the EU.¹⁴⁹ It is also the top soy importer from Brazil (3.96 million tons in 2020) of which 55 percent came from the Cerrado. In 2021, the Netherlands imported a record number of soybeans from Brazil, despite a price hike of 39 percent. 150 Almost a quarter of all soybeans imported by the Netherlands are directly re-exported to other countries, such as Germany, for processing. More than three quarters are processed within the Netherlands, mainly by the animal feed industry, and to a lesser extent by the food industry and for nonfood production.¹⁵¹ Most of the soybeans leave the Netherlands, one way or another: as beans, as intermediate products, or as finished products. This includes the indirect contribution to exports of meat, dairy and eggs that comes from feeding animals with soy. The embedded soy entering the Netherlands is also noteworthy. In 2021, the Netherlands was also the largest EU importer of Brazilian meat, with a total value of €311 million. 152

Bunge: a strategic role in the Netherlands

Bunge is a major player in the soybean market in the Netherlands, where it has several facilities, including a soybean crushing plant in Amsterdam (one of only two in the Netherlands), an oil refining facility in Wormerveer, and a refinery it leases in Rotterdam; ¹⁵³ Bunge's soy crushing facility is likely the most important in the Netherlands. 154 It is currently investing more than €300 million in the construction of a new oil-refining plant in the Port of Amsterdam, intended to replace the facilities in Wormerveer and Rotterdam (likely late 2024).¹⁵⁵

Bunge does not report exactly the origin or destination of the soybeans it processes, but the CSO Milieudefensie (Friends of the Earth Netherlands) recently tracked barges leaving the Amsterdam plant upriver to facilities owned by international animal feed giants ForFarmers, De Heus and Agrifirm.¹⁵⁶ These three companies account for 56 percent of the Netherlands' 'compound animal feed' market share: ForFarmers, 30 percent; De Heus, 16 percent; Agrifirm, 10 percent.¹⁵⁷ Together, they used an estimated 593,000 tons of Brazilian soybean meal in compound feed production in 2018. These companies are not only the largest animal feed companies in the Netherlands, but they top the EU list in terms of volume produced as well.¹⁵⁹



Soymeal. Credit: Audrey Durand Vigneron/Canopée Forêts Vivantes

Farmers (both Dutch and abroad) buy soy animal feed from these companies, creating a link with large dairy and meat companies such as Friesland Campina, Vion¹⁶⁰ and Plukon¹⁶¹ in the Netherlands, and likely other international companies. The meat, dairy and eggs produced by these companies link them directly to big retailers like Albert Heijn (owned by Ahold Delhaize), Jumbo and Plus and their consumers in the Netherlands and across the EU.

Dutch retail sector

The Dutch grocery retail market is dominated by a small group of large players: Albert Heijn (Ahold Delhaize), Jumbo, Lidl (Schwarz Group, Germany), Plus/Coop and Aldi (Aldi Nord, Germany) accounted for a combined 84 percent of market share in 2021.¹⁶² Supermarkets play a pivotal role as the primary sales channels for livestock products in the Netherlands. Approximately 80 percent of meat is bought in the supermarket, and only 20 percent are sold by butchers and specialised food stores. 163 In recent years, the market share of supermarkets has grown while that of butchers and specialised food stores has declined. Furthermore, livestock product sales (including meat, dairy, eggs, and fish) constitute roughly a quarter of total sales and more than half of perishable sales for Dutch supermarkets.

The Netherlands has one of Europe's largest livestock industries with more than 100 million cattle, chickens, and pigs.¹⁶⁴ In 2021, the Netherlands was the largest meat exporter in the European Union. A total of 3.6 billion kilograms was exported with a total value of €8.8 billion. 165 Dutch supermarkets source most of their meat and dairy products from the Dutch livestock sector. Companies like Friesland Campina (Dairy), Vion (Pork), Plukon (Poultry) and VanDrie Group (Beef/Veal) are important suppliers of Dutch supermarkets.

The intensive livestock sector in the Netherlands relies on compound feed using soy. A 2020 Profundo study estimates that out of the 3 million tonnes of soy imported in 2018 around 1 million tonnes of Brazilian soy meal was processed into compound feed for the Dutch market and fed to the livestock reared on Dutch farms.¹⁶⁶

Cautious commitments by Dutch supermarkets

Dutch supermarkets have recognised that there is a risk that the meat and dairy products they sell are connected to deforestation through the soy in compound feed. Efforts in the past have been focused on certification schemes such as RTRS (Round Table on Responsible Soy). However, these schemes mostly rely on a credit system using a book and claim system. These systems are supposed to be transitional systems which, if maintained over a long period of time, simply perpetuate the system. The soy used can still come from unsustainable sources and suppliers.

In October 2017, retailer Ahold Delhaize was one of the founding companies of the Statement of Support for the Cerrado Manifesto (SoS).¹⁶⁷ The SoS supports the objectives defined in the Cerrado Manifesto and signatories "commit to working with local and international stakeholders to halt deforestation and native vegetation loss in the Cerrado." Not long after, the Dutch retail association, CBL, expressed its support for the Cerrado Manifesto on behalf of all its members.¹⁶⁸

In March 2022, the Dutch supermarkets, through their retail association CBL, published a new Manifesto in which Dutch supermarkets expressed their ambition to achieve a deforestation and conversion-free soy chain by 2025, using a cut-off date of January 1, 2020. This commitment is not binding. In the manifesto, supermarkets admit that the certification schemes have been insufficient to curb unsustainable practices and expedite the transition to a sustainable soy chain. The manifesto, however, also stresses that supermarkets wish to collaborate with the supply chain and have no intention to exclude countries or suppliers to achieve their goals, even if traders like Bunge are still connected to non-compliant soy production.

In December 2022, Ahold Delhaize together with Patagonia and Ecosia sent a letter to the EU Commission and European Parliament urging them to include 'Other wooded land' in the EUDR. This letter was also co-signed by the Dutch retail association CBL.¹⁷⁰

Do Dutch supermarkets walk the walk?

Dutch supermarkets are aware of the risk that soy embedded in their products could originate from recently destroyed areas in the Cerrado and have expressed concern and called on governments and suppliers to take action. However, they have also expressed their reluctance to ban suppliers that have been proven to be associated with deforestation and land conversion.

Poultry. Credit : Istock



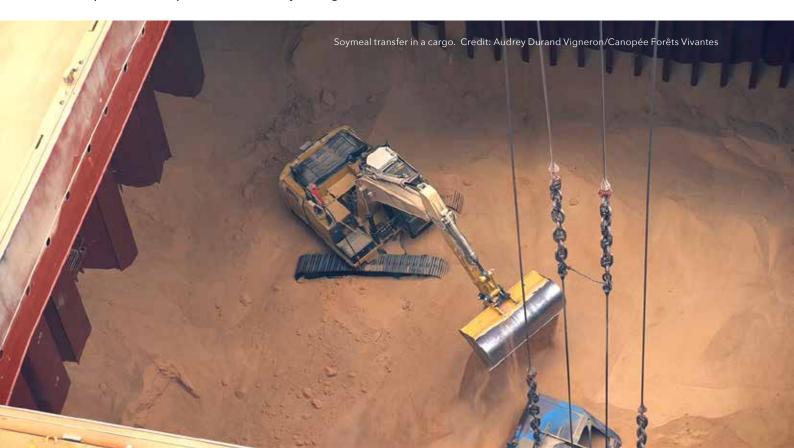
Response from Dutch Retail sector

In response to the findings of this report, all nine contacted retailers in the Netherlands reiterated their commitment to making their soy supply chain deforestation and conversion-free. However almost none of them confirmed nor denied that Bunge was part of their supply chain or that they were willing to suspend them based on our claims. Notable exceptions are Albert Heijn (Ahold Delhaize) and Jumbo, both of which were transparent about Bunge being part of their supply chain. Jumbo stated that they would investigate our claims and would use them to engage with their suppliers. Albert Heijn stated that they contacted Bunge about our findings. They praised Bunge for their quick response in which Bunge stated that they were looking into our claims. In their response to Mighty Earth, Albert Heijn will engage with Bunge about the fact that Bunge continues with legal deforestation in the Cerrado, something that is at odds with Ahold Delhaize's policies. They made no mention of any willingness to suspend or drop Bunge over its continued deforestation of the Cerrado, whether legal or illegal.

Spain, the second-largest EU importer of soy from the Cerrado

In Spain, the second-largest EU importer of soy from the Cerrado, the soybean supply chain develops hand in hand with a highly intensive livestock industry that relies on foreign imports, notably from Brazil, and is mainly oriented to the export of feed and meat. The industry pursues accelerated animal growth by reducing production costs as much as possible, to the detriment of the animals' welfare and with profound damage to their health.

In 2019, Spain was Europe's largest producer of animal feed, with more than 24 million tons.¹⁷¹ Multinational soy giants such as Bunge and Cargill control the world grain market; in Spain, they transform vast quantities of imported soy to supply the huge demand for soybean cake. According to Trase, of the 2.62 million tons of soybean and soy cakes Spain imported from Brazil in 2020, 49 percent originated in the Cerrado. Half of the soy imported to Spain is traded by Bunge (see Table 3).



Soy imports into Spain

Spain is geographically strategic for companies importing soybeans from South America. The seaports play a decisive role in the soybean supply chain, and from them emerge powerful logistical platforms and commercial interests involved in the distribution of soybeans throughout the country. For example, 13 percent of the soybeans imported to the EU enter through Catalonia; its port of Barcelona alone imports 40 percent of Spain's soybeans.¹⁷² In the port of Barcelona, the bulk agri-food industry is a key player, as it accounts for 19 percent of cargo traffic. The port facilitates the economic activity of its concessionaires, as with the construction of a rail line to the dry port of Zuera, Aragón, to consolidate the soybean supply chain for animal feed production. As a result, the animal feed sector has grown significantly in Zuera.¹⁷³

Three of Spain's main ports have their own crushing facilities (Barcelona, Cartagena and Bilbao), while three can also process soybean cake (Barcelona, Tarragona and Huelva). Notably, Bunge and Cargill own the crushing facilities closest to the ports; at their Barcelona facilities, Bunge and Cargill process half of the soybean cake produced in Spain.¹⁷⁴



Figure 28. Localisation of the main feed producers close to the six ports where Bunge has facilities in Spain.

Source: adapted from Ecologistas en Acción, (2022).¹⁷⁵

In total, Bunge has facilities in six ports that are geographically close to all the main animal feed producers as shown in Figure 28. Bunge plays a key role for the feed sector in Spain. Animal feed supplies a highly intensive livestock production, organised under a model of vertical integration. This model requires a constant input and output of raw materials and products. The main business groups control the whole chain from the animal feed production to the final user brands.¹⁷⁶

Main meat business integrated groups:

- Nutreco, which markets chicken meat under brands such as CUK or Pimpollo
- Grupo Fuertes, with meat brands such as El Pozo



- Costa Foods Group, with meat brands such as Casademont, is also a supplier of one of the most important Spanish retailers, Mercadona, under the brand Avinatur
- Vallcompanys, which through the company Agrocesa sells its meat products under the brand Campofrío
- Other important meat companies are Bonárea or Coren.

All these brands are available in the country's supermarkets and many of these meat groups are also suppliers of meat under the retailer's brand. As shown in Figure 28, the main feed companies are located near to Bunge facilities, possibly sourcing soy from this trader, one of the leaders in Spain. Mighty Earth contacted the main retailers in Spain – Carrefour, El Corte Inglés, Aldi, Lidl and Mercadona – to find out about their policies to prevent their meat from containing raw materials coming from deforestation and the possible relationship of their meat suppliers with soy traders such as Bunge. To date, none of these five retailers replied to Mighty Earth.

France, the third-largest EU importer of soy from the Cerrado

Protection of the Cerrado is included in the French Government's strategy and the meat industry's Roadmap...

Soy for the meat and dairy industry is the most significant deforestation risk in France's natural ecosystem footprint. It represents half of France's overall deforestation footprint. In 2022, France continued to import massive quantities of soy for animal feed: 3.31 million tons (soybean cake: 2.85 million tons, soybean, 0.462 million tons); of this, 59 percent came from Brazil. And of Brazilian-sourced soy, 47 percent originated in the Cerrado, based on Trase's most recent data (see Table 3).



Accounting for 14 percent of France's overall deforestation footprint, soy from the Cerrado must be a key focus of efforts to halt deforestation. In France, six ministries (Ecological Transition and Territorial Cohesion, Foreign Affairs, Agriculture and Food, Higher Education, Research and Innovation, and Finance), cooperated to draw up a National Strategy to Combat Imported Deforestation (SNDI) in November 2018.¹⁷⁹ It aims to halt imports of forest or agricultural products that contribute to deforestation abroad – such as soy, palm oil, cocoa, beef and its co-products, rubber, timber and its derivatives – by 2030.

This strategy is clear for 'Other wooded land: "The SNDI will take into account deforestation, forest degradation, conversion of natural ecosystems and indirect land use change," specifically mentioning, "for example the Brazilian Cerrado ecosystem, which is particularly threatened by the expansion of soybean crops."180 Two years after the adoption of this groundbreaking text, the results have been meager. The government and large retailers wanted to target soy imports.¹⁸¹ But in 2020, Mighty Earth urged French stakeholders to stop importing deforestation-tainted soy from traders such as Bunge. 182

At the end of 2020, the largest French retailers made a joint commitment to end deforestation and ecosystem conversion practices for soy production, and signed a Soy Manifesto to mobilise French stakeholders to fight against imported deforestation linked to soy from land deforested or converted after 2020.183

The SNDI platform also published a Scorecard assessing the risks of deforestation linked to French soy imports. In December 2022, the French Government updated its deforestation-risk platform, assessing that 34.8 percent of Brazilian soy has a high deforestation-exposure risk.¹⁸⁴ Most of the exposure is related to the Cerrado region, and especially the state of Bahia - France's second-largest source of soy, according to the French government platform. All the soy from Bahia is considered high risk.

... but dependence on Bunge prevents implementation of an operational strategy to combat deforestation

To give meaning to the SNDI provisions, French stakeholders would do well to prioritise the deforestation of savannahs embedded in soy traded by Bunge. Bunge is France's main soy trader, accounting for an average 33 percent of soy imports over the last five years; 47 percent of which comes from the Cerrado (see Table 3), according to Trase data. About 80 percent of Bunge's soy trade is considered to be at high risk of deforestation.¹⁸⁵

Bunge is an extremely important actor in France, operating in more than ten French ports, including Brest, where Bunge owns a soy crushing facility. 186 Most of France's animal feed, meat and dairy industry rely on Bunge to supply protein-rich raw materials essential to animal nutrition – for example, LDC, 187 France (and Europe's) leading poultry company, and Carrefour, the retail giant. 188 Other retailers like Les Mousquetaires have confirmed to Mighty Earth that they source soy from Bunge too, but all of the other main stakeholders including the retailers are not transparent and still do not publicly acknowledge their dependence on Bunge, even if they are definitely connected to it – since they work with the same suppliers. Almost three years after the signing of the French Soy Manifesto, this level of commitment is disappointingly low.

Such heavy dependence on Bunge, an actor with a flawed sustainability policy and which now agrees to source from farms participating in post-2020 deforestation, means that France is still very much embroiled in imported deforestation in violation of its own zero deforestation commitments.



On a more hopeful note, in late 2022, a monitored cargo of Brazilian soybean cake arrived in the port of Montoir-de-Bretagne in western France. Its traceability was guaranteed by the Earthworm Foundation that it had not generated deforestation or savannah destruction - a first in France and Europe. 189 Bunge has no involvement with this more 'ethical soy' initiative, named ZDC cargos.

In addition, following correspondence with the main actors in the sector, leading French pork producer Cooperl, Loeul & Piriot, the rabbit specialist, and the Alsace Lait dairy cooperative informed Mighty Earth, Envol Vert and Canopée Forêt Vivantes that they do not source soy from Bunge.

Germany, the EU's fourth-largest importer of soy from the Cerrado

Germany's consumption of soy and soy-based products was linked to 23,600 hectares of deforestation risk between 2016 to 2018.¹⁹⁰ Soybean cake is used almost exclusively as animal feed, more than 85 percent of which goes to fattening three livestock categories: poultry, pigs (more than 60 percent) and dairy cattle.191

In recent years, most of the soy deforestation risk has come from Brazil (around 74 percent).¹⁹² Commodity flows are difficult to trace. However, from November 2020 to October 2021, Germany imported approximately 933,786 tons of soybeans and 893,442 tons of soybean cake directly from Brazil.¹⁹³ But large quantities of soy enter Germany via Dutch ports. Based on EUROSTAT figures, Profundo estimates that in fact Germany imported some 30-40 percent more from Brazil.¹⁹⁴

Some 56 percent of the soy came from the Cerrado, which reflects a shift in German sourcing away from protected areas such as the Amazon, towards biomes that are minimally protected under the Brazilian environmental law. A 2022 study by Deutsche



Umwelthilfe (DUH) and Repórter Brasil shows that, in the past two decades, soybean cultivation has destroyed 4.2 million hectares of the Cerrado, an area twice the size of the German federal state of Hessen.¹⁹⁵

Bunge, one of the most important soy traders in Germany

Bunge Deutschland GmbH, a subsidiary of the multinational Bunge multinational, has six locations in Germany. Its Hamburg-based trading branch, Bunge Handelsgesellschaft mbH, trades proteins, vegetable oils, biodiesel and cereals. After Coamo, 196 Bunge is the second-largest trader of soybeans in Germany;197 customs data analysed by DUH and Repórter Brasil indicates that Bunge shipped 443,800 metric tons to Germany in 2021.¹⁹⁸

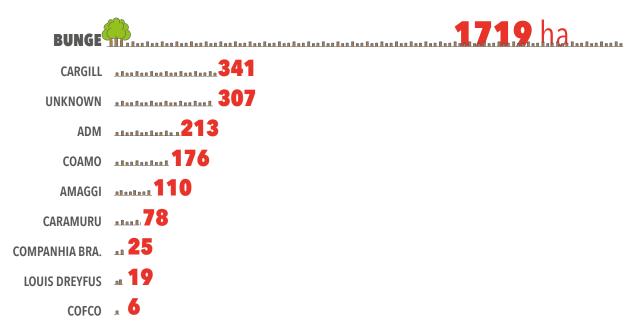


Figure 29. Biggest exporting companies for Brazilian soy in Germany, ordered by soy deforestation exposure. Data filtered for importing countries. Source: Trase (2020)

Of all major suppliers to Germany, Bunge has - by far (see Figure 29) - the most soy deforestation exposure: almost all the soy that Bunge ships to Germany is sourced in the Cerrado, underscoring Bunge's increasing pressure on this key biome.¹⁹⁹ Trade statistics show that most of the soy Bunge shipped to Germany in 2019, and again in 2020 originated and transited through ports in the Matopiba region of the Cerrado.²⁰⁰ But again, Bunge is critical in delivering soy to Germany's major livestock producers, such as, Rothkötter, Germany's second-largest poultry producer, whose highly integrated value chain ranges from feed mixing plants (for pork and poultry) to hatcheries, poultry-fattening farms, slaughterhouses and distribution plants.²⁰¹ Data from a maritime analytics provider confirmed several shipments from the Bunge soy silo in Amsterdam, in the Netherlands, to the Rothkötter silo in Europort Emsland, Haren, in Germany, between April 2022 and April 2023²⁰² - a regular occurrence since 2018.²⁰³

Rothkötter supplies poultry to large German retailers Lidl, Netto Marken-Discount and ALDI Süd, as well as to McDonald's. These companies regularly point out that they only purchase poultry that has been fed with 'certified' and GMO-free soy from Rothkötter.²⁰⁴ Non-certified poultry products from Rothkötter presumably flow into other sectors such as the food service industry. However, Rothkötter has not commented for years on the origin of its soy and how it eliminates risks.

While large German retailers such as Lidl, REWE or Aldi and restaurant chains such as McDonald's are making progress with poultry, there is still a lot of catching up to do, especially when it comes to feeding pigs. Not a single one of the 11 major German retailers and system caterers contacted by Mighty Earth partner Deutsche Umwelthilfe (DUH) can currently guarantee segregated conversion-free soy feeding for their entire pork supply chain. Although parts of the retail sector are already explicitly asking for this, pork producers have so far been unable to supply sufficient quantities. Only Tönnies and Vion, the two biggest meat producers in Germany, responded to our inquiries. Both have, according to their own statements, no overview of which soy feeds their numerous pork supply fatteners use.

The feed industry is the most sluggish in responding to the increased demand for conversion-free soy feed. Of the eight companies contacted, only Agravis has excluded the purchase of Bunge soy from Brazil. Overall, the level of ambition among retailers varies widely. The retailer EDEKA has not yet been able to secure sustainable soy feed for a single entire animal product line (dairy products, meat products, eggs).²⁰⁵



SOLUTIONS TO SAVE THE CERRADO

To help tackle the climate emergency and slow greenhouse gas (GHG) emissions sufficiently to retain any hope of limiting global warming to the 1.5°C foreseen in the Paris Agreement, deforestation and destruction of natural ecosystems must immediately be cut out of the supply chains of key forest-risk commodities. There is no time to waste.

Retailers and the meat industry must act on its soy footprint, and enhance transparency

Meat industry manufacturers and retailers must exclude deforesters from their meat and dairy supply chains by immediately ending all direct and indirect business relationships with companies that source from soy traders that have failed to comply with the 2020 deforestation cut-off date.

Adopt a strong Zero Deforestation and Conversion (ZDC) policy explicitly including the January 2020 cut-off deadline applicable to all natural ecosystems, including the Cerrado; this ZDC soy target is to be achieved by 2023.

Establish a dedicated **public and transparent platform** on which to publish soy origins at the group level – including information on traders, ports, list of silos and crushers, direct and indirect producers, and the proportion of soy coming from a ZDC supply chain.

Encourage a 50 percent reduction of meat and dairy sales by 2030 at the group level with a corresponding increase in plant-based sales.

Publicly disclose plans to reach net zero emissions in line with the 1.5°C Paris Agreement, including disclosure of all Scope 3 emissions and reduction targets and a commitment to reduce methane emissions by at least 30% by 2030.



Figure 30. European retailers must stop indirectly sourcing soy from deforestation. Credit: Atypicalist (2023)

Bunge must end its destruction in the Cerrado

- Bunge should update its soy policy immediately and exclude all farms not complying with the cut-off date of 1 January 2020.
- ◆ Bunge should immediately **investigate the different outlined cases** from the Cerrado, inform Mighty Earth and others of the level of ties between Bunge and these farms, and ban those confirmed to be in violation of the 2020 deforestation cut-off date.
- Bunge should outline if its flagging system, which is supposed to analyse and engage farmers when land use change is identified, has detected these specific cases of deforestation and explain what actions Bunge will take to avoid soy grown on newly deforested or degraded areas further into its supply chain.
- ◆ A public grievance mechanism must be set up to report and allow all grievances to be publicly tracked and communicated transparently, including mitigation measures, as in the palm oil sector.

- ◆ Bunge should commit to **not invest in further infrastructure development in sensitive** zones and key deforestation frontiers.
- ♦ In support of the Paris Agreement, Bunge should urge other soy traders to update the Agriculture Sector Roadmap soy agreement by adopting an immediate 2020 deforestation cut-off date that is applicable immediately to all natural ecosystems, covering direct and indirect farms, and applied to both legal and illegal destruction.
- ♦ No violence, human rights violations or crimes linked to Indigenous rights or land property rights or land grabbing can be tolerated in the soy supply chain. Where allegations have been proven, or even a preponderance of evidence exists, commercial ties must be cut.



Figure 31. The European Union and the countries that import soy must ensure that their legislation protects all natural ecosystems. Credit: Atypicalist (2023)

The EU must ensure 'Other wooded land' and all natural ecosystems are added to the **EU Deforestation Regulation**

- The EU must send a strong public message that in addition to forests, all other natural ecosystems are also critical for biodiversity and climate to redress the harmful message that soybean expansion can continue in biomes like the Cerrado. For this, it is essential to broaden the scope of the EUDR to include 'Other wooded land' and all other natural ecosystems during forthcoming reviews.
- ◆ The four largest soy-importing Member States in Europe shall lead a decrease in the meat industry's negative environmental impacts.
- Set up and make operational ambitious zero-deforestation strategies that expressly include the Cerrado and all other natural ecosystems within their scope, and reaffirming a broad post-2020 deforestation cut-off date.
- ◆ Reject any trade agreements that threaten fragile natural ecosystems, such as the Cerrado, and that fail expressly to protect the livelihoods and rights of local, traditional and Indigenous communities.

BUNGE'S RESPONSE SENT TO MIGHTY EARTH



Tuesday, June 6, 2023

We acknowledge receipt of your letter on May 26, 2023. In response to your letter, we would like to provide the following comments and clarifications.

We are aligned with MightyEarth that deforestation is a critical concern. As described in our most recent Corporate Sustainability Report, we devote considerable effort and resources to ensuring that we promote sustainable agriculture, disincentivize native vegetation conversion, and promote the uptake of certified products that guarantee no deforestation or vegetation conversion.

Since we established our non-deforestation commitment in 2015, we have developed the industry's most expansive and transparent system of traceability and monitoring, giving us unprecedented insight into our supply chain and strengthening relationships with our suppliers. As a result of our efforts, over 97% of our soybean volumes from Brazil are deforestation and conversion-free.

To implement our commitment in 2025, we are focused on accelerating progress across three major approaches:

- 1. Increasing our indirect traceability The majority of our sourcing in Brazil is direct, to which we have already achieved 100% traceability and monitoring, audited every year by a third-party. Last year we announced that we overperformed our interim target for indirect traceability and have now reached 82% in the regions related to the cases you have identified. This is being accomplished through the Sustainable Partnership Program, a pioneering initiative to support grain resellers in the adoption of socioenvironmental verification systems, traceability and monitoring, enabling them to improve visibility into their supply chains.
- 2. Disincentivizing legal native vegetation conversion Even before the implementation of our commitment in 2025, we are taking extensive measures to disincentivize deforestation and native vegetation conversion. This includes the use of technology, financial incentives, partnerships and other initiatives made available to our suppliers in order to encourage and promote sustainable agricultural expansion over previously-cleared areas. Sustainable soybean production is achieved through multiple levers, such as certifications (Round Table on Responsible Soy [RTRS], Biomass Biofuel Sustainability Voluntary Scheme [2BSvs], ProTerra, and more); regenerative agriculture; financial incentives to resellers of the Sustainable Partnership Program; and our recently announced initiative FinCrop.
- 3. Driving sector-wide transformation While we believe our non-deforestation approach is leading, a real transformation of the industry can only be achieved through collaboration and engagement with the value chain. This includes pre-competitive partnerships and initiatives that can enable scalability for sustainable





agriculture. Our Sustainable Partnership Program is an example of this: by engaging resellers in the program - some of whom may also be selling to our competitors - we're helping to accelerate the uptake of practices to increase traceability beyond our own supply chain.

Further, we do not tolerate any supplier who violates Brazilian laws regarding deforestation, and we will address the requirements of the coming EU Deforestation Regulation and other applicable due diligence laws with equal seriousness.

Regarding the specific allegations in your letter:

- We have reviewed our database in respect to the nine farms which were identified in your letter that are implied to have a connection with Bunge:
 - o Our due diligence process identified four farms with whom we have direct relationships. It was determined they cleared land in accordance with Brazilian environmental legislation and have been duly authorized by the respective environmental agency. We note that although land clearing occurred, soybeans have not necessarily been planted after clearing. All supply of product to Bunge must be in accordance with all applicable laws. Past commercial relationships with these farms do not necessarily imply future purchases.
 - We also identified one of the farms cited as an indirect supplier through a reseller; the farm is currently undergoing approval by the environmental agency in accordance with Brazilian environmental legislation. Our direct suppliers are required to ensure that all indirect purchases are likewise in accordance with applicable law.
 - o Regarding the remaining four farms referenced in the MightyEarth letter, Bunge reviewed its traceability database and determined that there is no data suggesting that these farms are in Bunge's supply chain.
- As part of our engagement process which we describe on pages 36-37 of our 2022 Corporate Sustainability Report, farms that are identified as having cleared land are investigated and undergo a due diligence process whereby they lose access to key market opportunities and programs. Between now and until the implementation of our 2025 commitment, we may continue our commercial relationship with the farms if they are able to demonstrate their legal Brazilian right to clear land, although they would still lose access to privileges available to farms without recent deforestation. Failure to engage with Bunge during the due diligence process results in the farm being blocked (we publicly disclose the number of blocked farms annually in our non-deforestation progress reports). We further note that while we view continued engagement as critical to encouraging nondeforestation and responsible practices, compliance with applicable law, including the coming EU Deforestation Regulation, will always be paramount.
- We have already begun implementing an enhanced grievance process for soybeans from South America. Using Bunge's Global Ethics & Compliance Helpline, stakeholders can notify us of potential land-use change or other violations of our sourcing policies. We publicly disclose the number of farms blocked every year – whether they are found through our grievance process or through our own due diligence measures - and it includes those that do not comply with our due diligence process when land-use change has been identified. In 2022, 56 farms in Brazil were blocked for these violations.



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- Your letter references data from the TRASE platform. We note that that data acquired through TRASE should not imply a connection between farms and Bunge. It is an imprecise tool that does not necessarily reflect actual commercial relationships, but references generalized data. Multiple other companies may also be sourcing directly or indirectly in given regions that are not captured by TRASE findings.
- Bunge does not have a 2020 cut-off date for deforestation or native vegetation conversion specified in our voluntary commitments, preferring to work through associations, initiatives and in direct partnership with our value chain peers to ensure industry-wide success on the establishment of a suitable cut-off date to be defined, as this is something that requires collective agreement and appropriate consultation of local communities. We are pleased that our peers have accelerated their non-deforestation deadlines to align with our own 2025 commitment, and will continue to urge further alignment on our collective goals through platforms such the Soft Commodities Forum, the Agri-Trader Soy Roadmap, and Abiove. However, we are fully aware of the December 31, 2020 cut-off date specified in the EU Deforestation Regulation (EUDR) and will take steps to ensure compliance with this and other applicable laws.
- Credible allegations of human rights abuse or other forms of exploitation are not tolerated. Farms that have been identified by the authorities to have engaged in human rights abuse are promptly blocked from our supply chain. At a minimum, we conduct daily checks of the public list drawn up by the Ministry of Labor and Employment of businesses that have subjected workers to conditions analogous to slavery. We continue to enhance our governance and practices on human rights matters, including establishing a global human rights team in 2022, and issuing our global human rights policy in early 2023.
- The strong relationships and trust we have built with farmers have enabled Bunge to become one of the largest suppliers of certified deforestation-free volumes of soybean in the world, often going beyond market demand. We also pioneer unique commercial services that comply with some of the most demanding markets and emerging legislation, such as the EUDR.

We would like to also remind you that farmers in Brazil that forego their legal right to clear land are not typically compensated by the market for their environmental services. To address economic drivers of deforestation, the industry and concerned stakeholders - including policymakers and civil society - must provide farmers with the tools and incentives to produce more food on already arable land. At Bunge, we strive to connect farmers to markets that will pay them to make changes in their operations and demonstrate the long-term financial benefits of these investments.

We welcome participation from organizations and partners like you to urge such action among customers and governments in key destination markets.

If you have any further questions or concerns, please feel free to reach out by emailing sustainability@bunge.com.

Bunge

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