



WHO BOUGHT APYTEREWA'S ILLEGAL CATTLE?

How cattle raised illegally in an Indigenous Territory in the Brazilian Amazon were laundered into the supply chains of JBS and Frigol

May 2024

Photo: streetsfilm/hr

SUMMARY

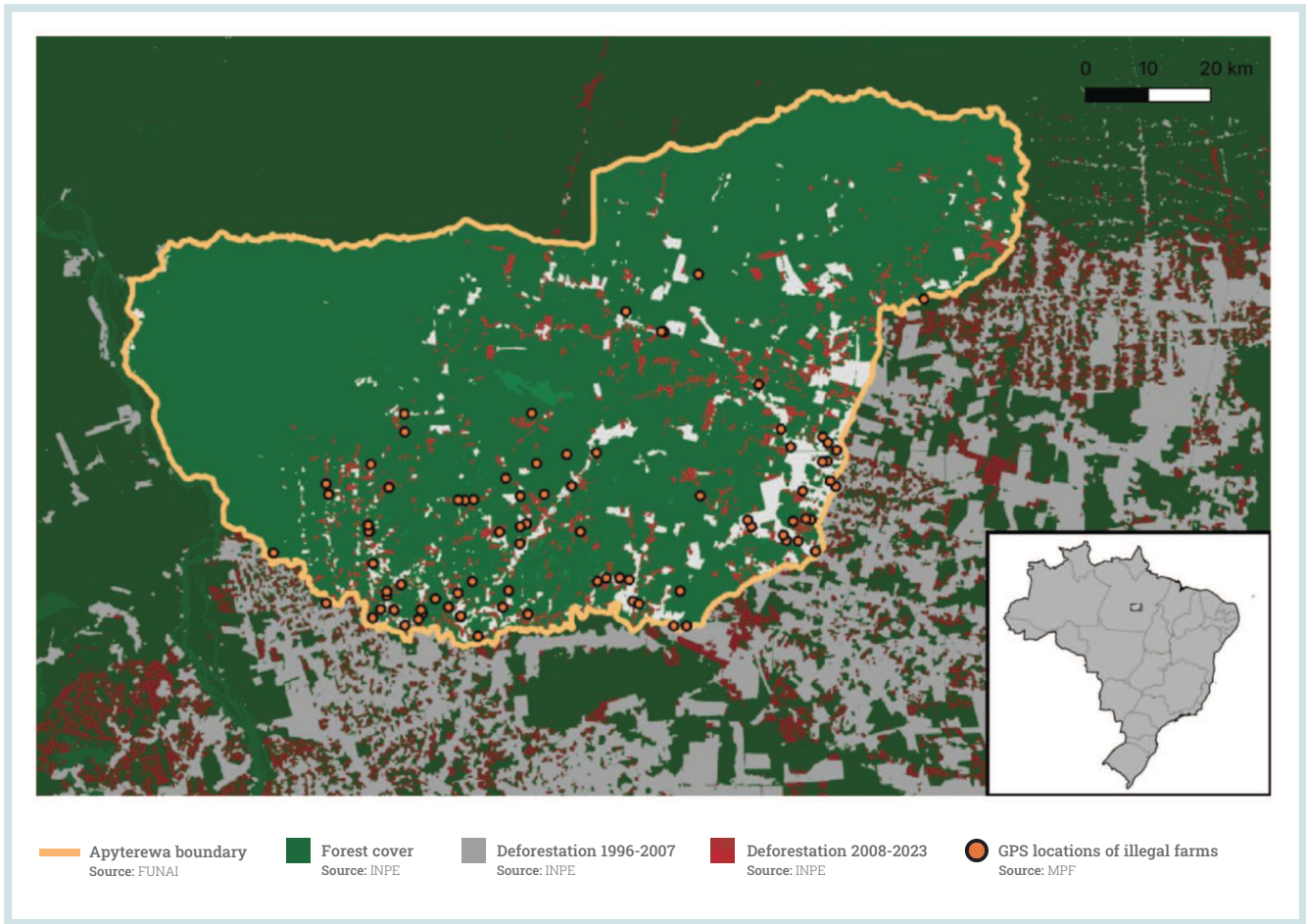
- The Apyterewa Indigenous Territory has seen the most deforestation of any Indigenous Territory in the Brazilian Amazon in recent years, mainly driven by illegal cattle ranching.
- EIA followed the paths of cattle from 58 illegal farms inside Apyterewa that were issued permits by the state government to move animals to farms outside the Territory.
- The farms receiving these illegal cattle regularly sold to major slaughterhouses in the region, in particular facilities run by JBS and Frigol, raising the likelihood that cattle raised illegally in Apyterewa entered these companies' supply chains.
- Case studies of intermediary farms that received cattle raised in Apyterewa and sold cattle to JBS and/or Frigol show how weaknesses in government and meat company traceability systems allow illegal cattle to enter supply chains.
- Many cattle raised in Apyterewa went to two or more farms before being sold to a slaughterhouse, underlining the importance of full life cycle traceability for cattle originating from high risk areas to ensure they are not associated with crime and deforestation.

INTRODUCTION

The health of the planet and its inhabitants is closely tied with the fate of the Amazon rainforest, home to more than 10% of terrestrial plant and animal species, vast sink and reservoir for carbon, and modulator of regional rainfall and climate.¹ But despite its critical importance, the Amazon is being destroyed at a staggering pace, driven in large part by the production of agricultural commodities, timber and minerals to feed global trade and consumption.²

Brazil holds around 60% of the Amazon forest and recently saw deforestation rates reach 15 year highs during the Bolsonaro administration.³ The vast majority of this deforestation violates Brazil's own laws protecting the environment and the rights of Indigenous Peoples and traditional communities.⁴ The tide appears to be shifting under President Luiz Inácio Lula da Silva, who has pledged to halt Amazon deforestation by 2030, but he faces stiff resistance from a system of production, trade and finance that prioritizes profit above all else.⁵

Most of the deforested land in the Brazilian Amazon is being converted to cattle pasture.⁶ As the Brazilian cattle industry has expanded and competition for land outside the Amazon has increased, particularly with the expansion of soy production, large slaughterhouses and tanneries have sprung up across the region. These facilities supply cattle products to Brazilians and the rest of the world, led by the world's largest meat and leather producer, JBS.⁷



Map 1
 Deforestation inside the Apyterewa Indigenous Territory, home to the Parakanã Indigenous Peoples, and the location of 86 illegal farms identified by the Federal Prosecutor's Office (MPF).

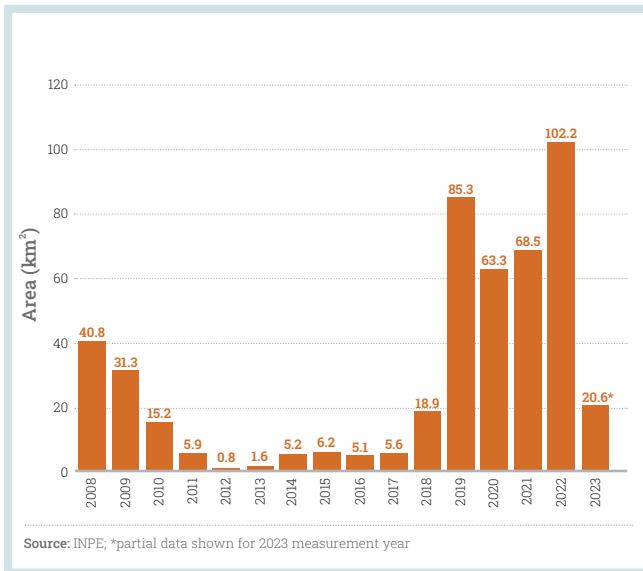


Figure 1
 Annual deforestation in the Apyterewa Indigenous Territory since 2008 shows a dramatic spike during the term of President Jair Bolsonaro from 2019 to 2022.

One of the most blatant examples of environmental crime commonly seen in Brazil is the invasion and deforestation of Indigenous Territories. Between 2008 and 2023, the most deforested of these in the Brazilian Amazon was the Apyterewa Indigenous Territory, the traditional lands of the Parakanã Indigenous Peoples first legally recognized by the Brazilian government in 2007.⁸ More than 476 km² (about 6%) of Apyterewa's forests were razed during this period, with a significant spike during the years President Jair Bolsonaro was in office (see Figure 1 and Map 1).⁹ Indigenous residents have faced increasing threats to their safety and traditional livelihoods.¹⁰ Commercial cattle ranching, which is illegal in Indigenous Territories designated under federal law, was the main driver of the invasions. By late 2023, when law enforcement began a crackdown on illegal ranching, an estimated 60,000 cattle were being illegally raised on nearly 900 km² of pasture inside the Territory.¹¹

Farmers raising cattle inside Apyterewa had no problems finding buyers for their animals. The state phytosanitary agency even registered farms in the Territory and issued transport permits for moving cattle

to and from many of them. In October 2023, the federal government initiated a major enforcement operation to remove illegal settlers and cattle from Apyterewa.¹² At the same time, the Federal Prosecutor's Office (Ministério Público Federal, or MPF) released a report identifying 86 illegal farms in Apyterewa that received cattle transport permits (Guias de Trânsito Animal, or GTAs) between 2012 and 2022 and farms outside the Territory that received cattle from them (see Map 1).¹³ Soon after, prosecutors announced lawsuits against many of the farmers involved.¹⁴

Notably, the MPF analysis found that there were no direct sales of cattle from illegal farms in Apyterewa to slaughterhouses in the region after 2019. To understand which slaughterhouses were the ultimate recipients of Apyterewa's illegal cattle, EIA carried out an analysis of the movements of thousands of cattle across multiple farms using a large dataset of GTAs (see Methodology). The results, detailed in this brief, show how cattle were moved from farms inside Apyterewa to farms outside the Territory that regularly, and in some cases primarily, sold their cattle to nearby slaughterhouses operated by JBS and Frigol.

FINDINGS

EIA analyzed a large dataset of GTAs issued by the Pará state phytosanitary agency (Agência de Defesa Agropecuária do Estado do Pará, or ADEPARA) between 2020 and early 2023 to track cattle originating from 86 illegal farms inside Apyterewa, as identified by MPF, into supply chains.¹⁵ The results are summarized in Figure 2. EIA identified more than 200 GTAs for the transfer of nearly 12,000 cattle from 58 of the farms in Apyterewa to farms outside the Territory. This is a conservative estimate of the total number of cattle leaving Apyterewa over this time period, as MPF has reported that cattle are often moved out of the Territory without GTA records (also see Case Study 1).¹⁶

Just over half of the cattle (6142 animals) moved from Apyterewa were sent to 43 intermediary farms outside the Territory that sold cattle to JBS during the same time period. Overall, about 17% of the animals leaving these intermediary farms went to JBS, but some of the farms sold primarily to JBS, increasing the likelihood that cattle raised in Apyterewa were sold to the company. (see Case Study 2). The majority of the animals in EIA's analysis

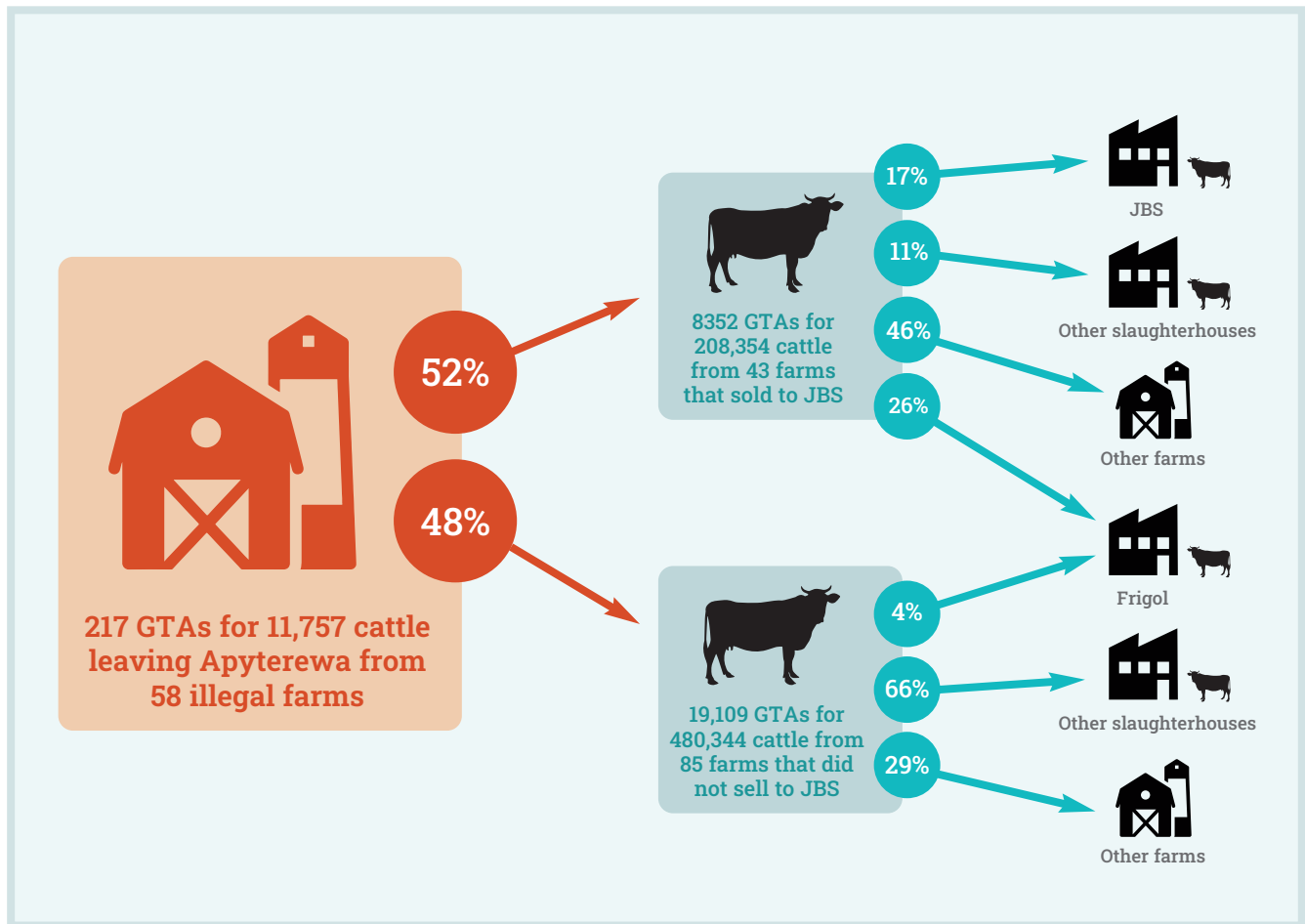


Figure 2
GTA analysis of supply chains for cattle raised illegally inside the Apyterewa Indigenous Territory.

were sent to the company's slaughterhouse in Tucumã (~91%), with the remainder going to its facilities in Redenção (~6%), Santana do Araguaia (~1.4%) and Marabá (~1.3%).¹⁷ Most of the hides from these slaughterhouses are processed at the JBS wet blue tannery in Marabá.¹⁸

Of the 43 intermediary farms that sent cattle to JBS, 31 farms also sold cattle to Frigol, another major meat company that operates two large slaughterhouses in Pará (see Case Studies 1 and 3). An additional 22 intermediary farms that received cattle from Apyterewa sold animals to Frigol but not JBS. Transfers to Frigol – mostly to its facility in São Félix do Xingu – accounted for about 30% of the animals leaving these 53 intermediary farms, but some of these farms sold primarily to Frigol, increasing the likelihood that the company received cattle raised in Apyterewa (see Case Study 3).

Many of the intermediary farms in our analysis also sold cattle to other slaughterhouses, but the farms that received the most cattle from Apyterewa tended to sell primarily to JBS and/or Frigol. About a third of the cattle leaving intermediary farms that received cattle from Apyterewa were transferred to other farms, showing the importance of full traceability from birth to slaughter where the risks of crime and deforestation in supply chains is high.

CASE STUDY 1: Undocumented cattle transport and laundering by a JBS supplier

EIA's analysis of GTAs and other evidence involving two farms bordering Apyterewa uncovered a scheme to launder cattle raised illegally inside the Indigenous Territory and sell them to JBS and other slaughterhouses.

Based on analysis of GTAs, EIA identified a farm bordering Apyterewa in the São Félix do Xingu municipality named Fazenda Boi Branco, registered to Farmer A, from which nearly 3000 cattle were transferred between January 2020 and early 2023. The farm only received 270 animals over this period, raising the possibility that cattle were being moved onto the farm without transport permits or the farm was given as the origin farm in GTAs for cattle that were in fact being moved from inside Apyterewa. EIA received information from a confidential source corroborating that Farmer A raised cattle inside Apyterewa and regularly sold cattle to JBS.¹⁹ GTA data shows that around 80% of the nearly 3000 animals leaving Fazenda Boi Branco were transferred to a small, adjacent farm also bordering Apyterewa named Fazenda Vaca Baia II, registered to the brother of Farmer A. In addition, there was one instance in the GTA data analyzed by EIA of a

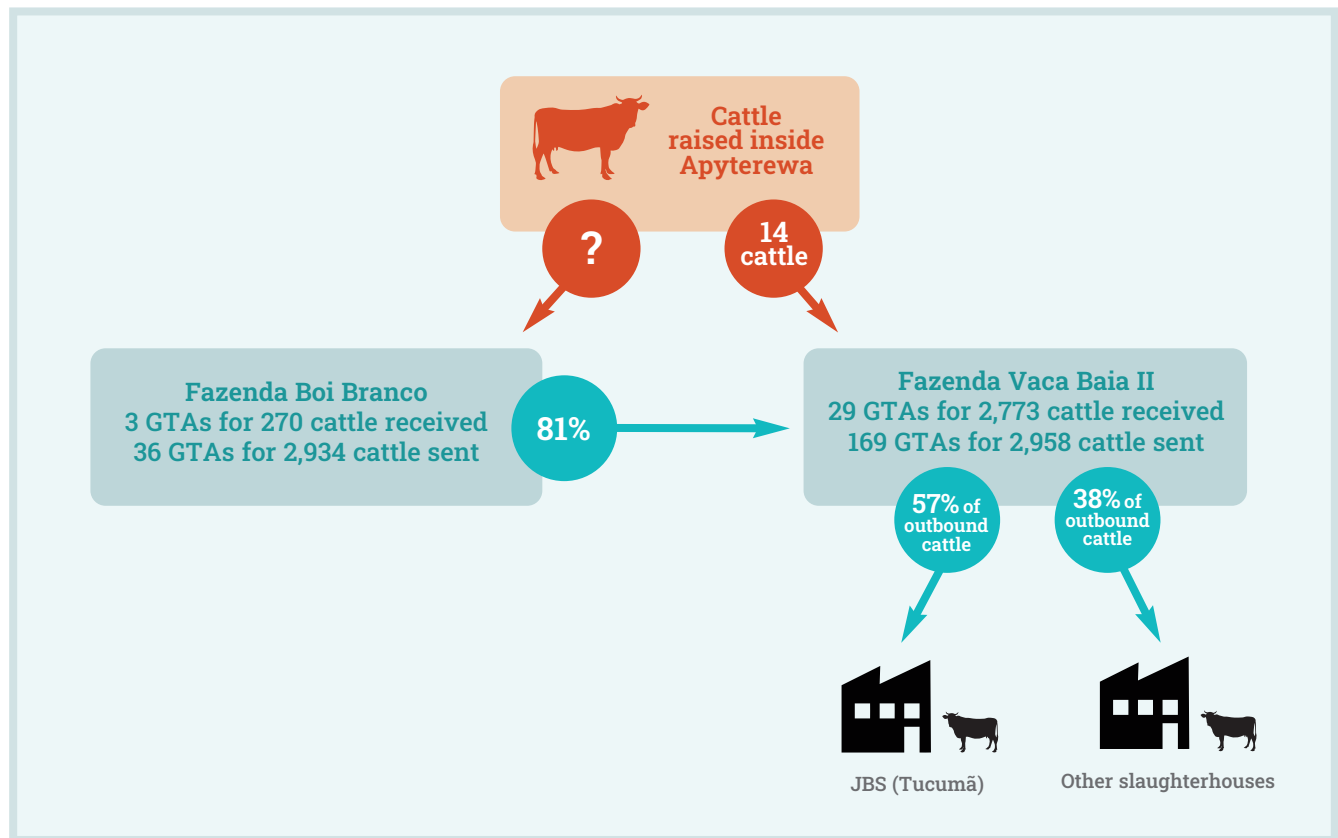
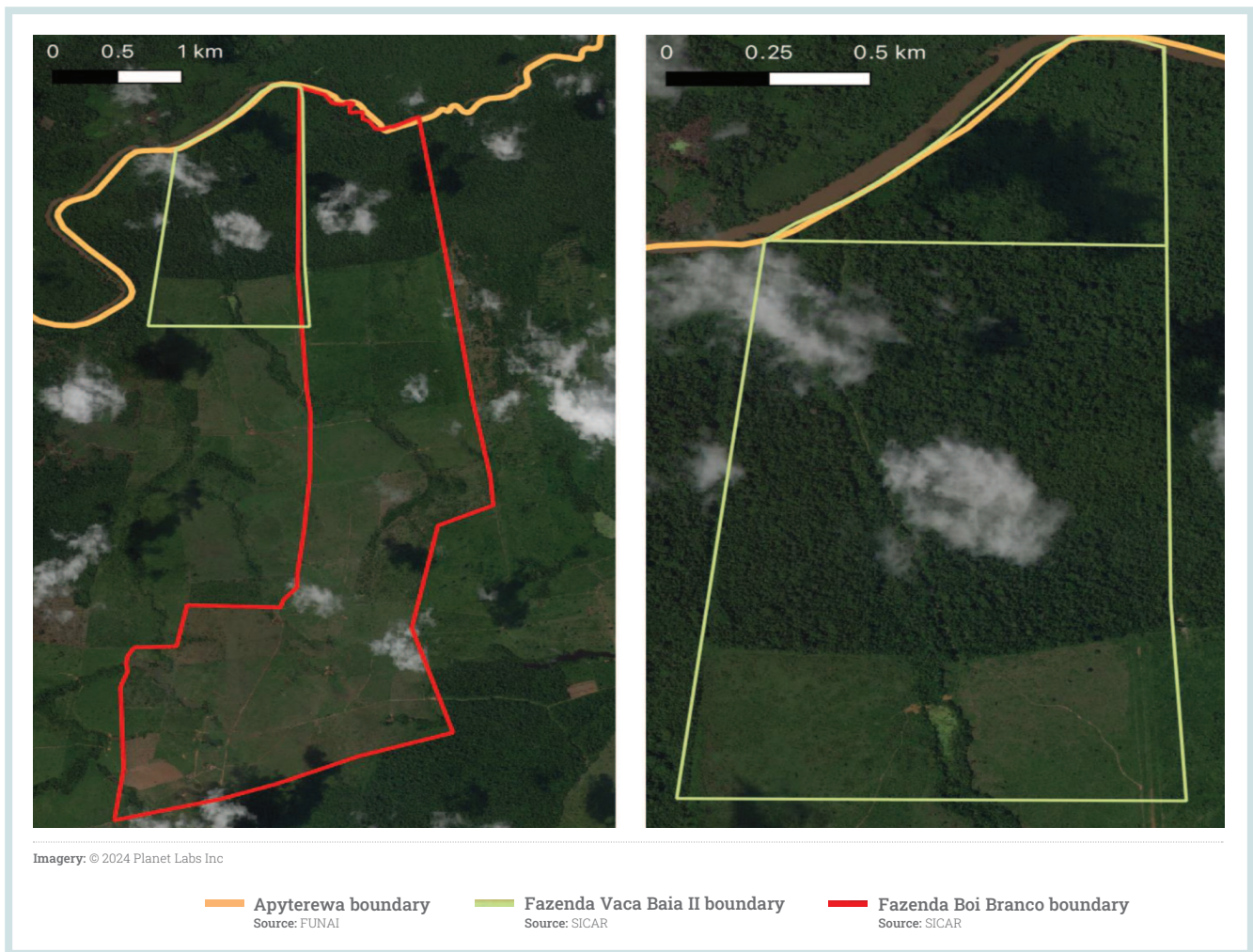


Figure 3
Schematic diagram showing how cattle raised illegally inside Apyterewa were laundered into the supply chain of JBS.



Map 2

Left panel: boundaries of Fazenda Vaca Baia II and Fazenda Boi Branco, as given in the Pará state rural property registry (SICAR), and the southern boundary of the Apyterewa Indigenous Territory, overlaid on a Planet Skysat high-resolution satellite image collected in January 2024; **Right panel:** enlargement of Fazenda Vaca Baia II shows the property contains around 50 ha of pasture with the remainder largely forested, estimates confirmed by land-use analysis published by Mapbiomas and contradicting the self-declared land classification information given in the CAR registration.

permit being issued for the transfer of cattle directly from a farm inside Apyterewa to Fazenda Vaca Baia II.²⁰ The boundaries of both farms as given in current registrations with the Pará state rural property registry (SICAR), and the border they shared with Apyterewa, are shown in Map 2 (left panel).²¹

Land-use analysis published by Mapbiomas and satellite imagery analyzed by EIA show that Fazenda Vaca Baia II has only around 50 hectares of pasture and no evidence of cattle concentration facilities, with the remainder largely forested (Map 2, right panel). This data clearly contradicts the information given in the SICAR registration.²² Despite this, GTAs for the transfer of nearly 3000 animals from the farm were issued between January 2020 and March 2023.²³ Most of the cattle were sent to slaughterhouses, with about 57% going to JBS's Tucumã slaughterhouse and 38% to other slaughterhouses, including Frigol.²⁴

The Monitoring Protocol for sourcing cattle from the Amazon biome followed by JBS and Frigol states that a farm exceeding a “productivity index” of 3 head of cattle / hectare of production area / year should be deemed non-compliant in the absence of evidence of cattle concentration infrastructure.²⁵ By this criteria, Fazenda Vaca Baia II would be expected to supply at most around 150 head of cattle / year based on the area of pasture on the property. Anything more than this should have been a red flag for cattle laundering, according to the Monitoring Protocol. Yet, GTA data shows that JBS received cattle at rates many times higher than this over a period of more than three years. While EIA only had access to GTA data up to March 2023 for Fazenda Vaca Baia II, direct supplier data made public by JBS shows that its Tucumã facility continued to regularly receive cattle from the farm until November 2023.

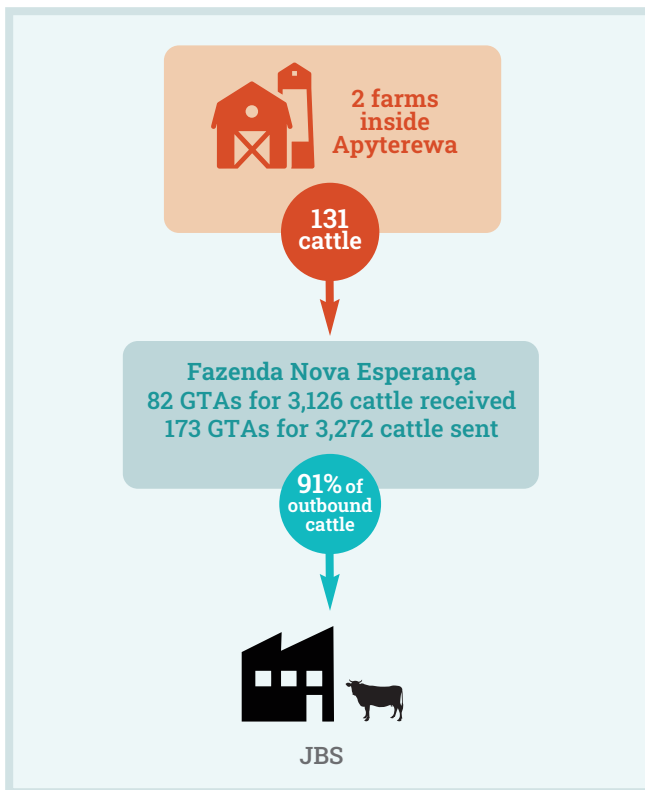


Figure 4
Schematic diagram showing links between illegal farms in Apyterewa and JBS.

JBS's purchase of large numbers of cattle from a small farm adjacent to Apyterewa over a period of several years, at a time when the Indigenous Territory was subject to widespread deforestation driven by illegal cattle ranching, and despite clear red flags for cattle laundering, calls into question the effectiveness of the company's due diligence protocols.

When asked for comment, JBS stated that it has blocked Fazenda Vaca Baia II and, prior to this, its purchases were in compliance with its supply chain monitoring commitments and internal sourcing policy. Frigol stated that "socio-environmental criteria for direct suppliers were monitored" for purchases from the farm and no "irregularities" were detected, but it is not possible using public information to know from whom the farm purchased.

CASE STUDY 2: Fazenda Nova Esperança, a JBS supplier

Between 2020 and early 2023, a farm in the São Félix do Xingu municipality named Fazenda Nova Esperança, attributed to Farmer B, received 131 animals from two illegal farms inside Apyterewa, according to GTAs.²⁶ Around 91% of the more than 3200 cattle leaving Fazenda Nova Esperança over the same time period were sent to JBS (see Figure 4), nearly all to the company's Tucumã slaughterhouse.

While GTA data was only available up to May 2023 for Fazenda Nova Esperança, according to direct supplier data made public by JBS, the company regularly bought cattle from a farm of this name in the same municipality through the end of 2023.²⁷ A search for Farmer B in Pará's CAR database yields one property that does not match Fazenda Nova Esperança. When asked for comment, JBS stated that it has blocked the farm and, prior to this, its purchases were in compliance with its supply chain monitoring commitments and internal sourcing policy.²⁸

CASE STUDY 3: Largest buyer of illegal cattle from Apyterewa is a major supplier of Frigol and JBS

Between 2020 and early 2023, a farm in the São Félix do Xingu municipality named Sítio 2 Irmãs, registered to Farmer C, received 1075 animals from seven illegal farms inside Apyterewa, according to GTAs.²⁹ This represented around 5% of all the cattle received by the farm over this time period. Sítio 2 Irmãs is located a few kilometers away from the small town of Taboca, which in May 2023 was described by Brazil's federal environmental law enforcement agency (Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis, or IBAMA) as "a base for land grabbing and the illegal trade of clandestinely raised cattle" from Apyterewa.³⁰ Around 65% of the more than 23,000 cattle leaving Sítio 2 Irmãs over the same time period were sent to Frigol and another 12% to JBS (see Figure 5).

While GTA data was only available up to April 2023 for Sítio 2 Irmãs, according to direct supplier data made

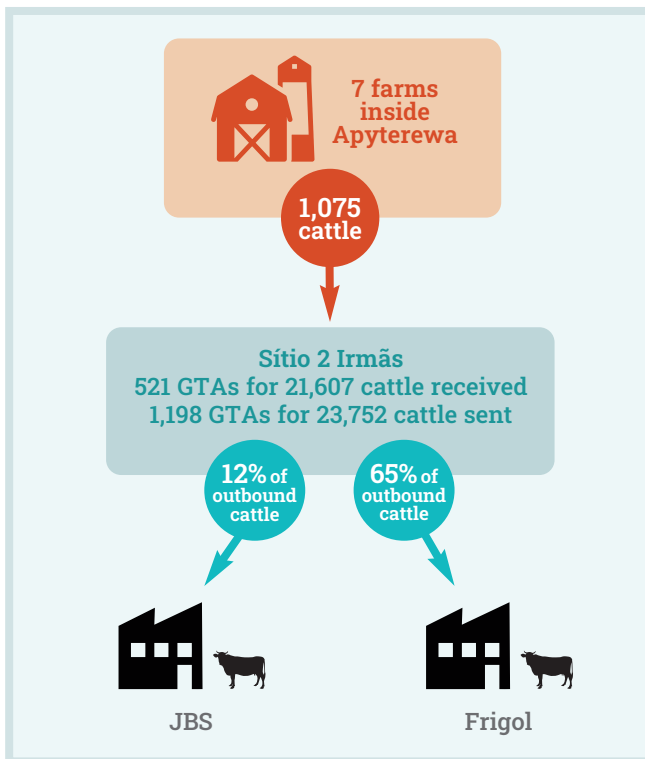


Figure 5
Schematic diagram showing links between illegal farms in Apyterewa and the supply chains of JBS and Frigol.

public by JBS, the company regularly bought cattle from a farm of this name in the same municipality through September of 2023.³¹

Farmer C has a single property registered in Pará's CAR database under the name Sítio Duas Irmãs, located near the border with Apyterewa.³² The registration states that the total area of the property is 70 ha, with at most 47 hectares available for production, yet this property sold more than 18,000 animals in total to Frigol and JBS during the period analyzed.

CONCLUSIONS

EIA's investigation shows how cattle raised illegally in an Indigenous Territory in the Amazon entered the supply chain of meat companies operating slaughterhouses in the region, with JBS's Tucumã facility and Frigol's São Félix do Xingu facility particularly exposed. All the cattle in our analysis were first moved to one or more farms outside the Territory before being sold to a slaughterhouse, demonstrating the necessity of birth to slaughter traceability when sourcing from high risk areas to ensure cattle were not associated with crime and deforestation at some stage in their life cycle.

While both companies have signed legally-binding Terms of Adjusted Conduct (TACs) with federal prosecutors committing not to buy cattle from Amazon farms containing illegal deforestation, or overlapping protected areas or Indigenous Territories like Apyterewa, neither has a system in place to monitor and ensure compliance in their indirect supply chains.³³ Further, EIA's analysis shows how JBS and Frigol failed for years to respond to clear red flags for cattle laundering among the companies' direct suppliers.³⁴ When asked for comment, JBS stated that all purchases from the farms named in this report prior to blocking them *"followed the criteria established in the Supplier Monitoring Protocol of Federal Public Attorney and NGO Imaflora (Boi na Linha) and the rules of the Company's Raw Material Purchasing Policy."*

JBS and Frigol have committed to monitoring one step into their indirect supply chains – the "suppliers of their suppliers" – by 2025, but this would not have been sufficient to keep cattle raised in Apyterewa from reaching the company's slaughterhouses in the relatively common scenario where animals were transferred to two or more farms before being sold for slaughter (see Figure 2).³⁵ Indeed, JBS's CEO recently acknowledged that Brazil needs a mandatory national traceability system that allows tracking of individual animals.³⁶ In comments on EIA's findings, Frigol stated that *"the only way to eliminate indirect deforestation in all links of the livestock chain is to create a public policy for individual monitoring of animals for socio-environmental purposes, which is mandatory for everyone involved in the production chain."* Until this is

When asked to comment, Frigol stated that over the last four years the farm provided a self-declaration accompanied by photographic evidence attesting to its status as a feedlot and such declarations are acceptable to MPF. High-resolution satellite imagery from 2022 and 2024 examined by EIA shows no evidence of a feedlot or other infrastructure on the property that could justify a productivity index of well over 100 cattle / hectare / year, taking into account Frigol's purchases alone. JBS stated that it has blocked the farm and that, prior to this, its purchases were in compliance with its supply chain monitoring commitments and internal sourcing policy.

the case, EIA's findings reinforce the need for downstream companies – from food retailers to manufacturers of leather goods – sourcing cattle products such as beef and leather from JBS and Frigol facilities in high risk areas to demand this level of traceability as a condition for purchase and carefully verify any information provided.

The vast majority of hides produced in Brazil are exported, with automotive leather one of the biggest end uses.³⁷ While the buyers of hides produced by Frigol are not known, EIA's previous investigation into the links between JBS's leather production in Brazil and Lear Corporation, the world's largest leather car seat manufacturer, revealed the supply chain risks posed to many of the world's largest automakers.³⁸ The evidence presented in this report further highlights these risks. Car companies must improve their due diligence on the leather products they buy, including full life cycle cattle traceability if sourcing from high risk areas like the Brazilian Amazon, to ensure they aren't contributing to environmental crime or violations of the rights of Indigenous Peoples.

Ultimately, the governments of major importing countries have a critical role to play in reducing deforestation driven by their trade in agricultural commodities. Frigol exports half of the beef it produces, with China being the largest destination, while JBS is Brazil's largest exporter of beef and leather products.³⁹ The EU has led the way in passing the ground-breaking EU Deforestation Regulation,⁴⁰ which will apply traceability, legality and zero deforestation standards to key beef and leather products placed on its markets, and member states must ensure the law is fully implemented when it comes into effect at the end of 2024.⁴¹ China and the U.S., as the first and second largest buyers of cattle products (primarily beef and hides) from Brazil by value, must quickly follow suit in enacting regulations to ensure their trade is not contributing to crime and deforestation in the Amazon or other key biomes.⁴² In an important first step, federal lawmakers in the U.S. have proposed legislation – the FOREST Act – that would regulate U.S. trade in key commodities driving illegal deforestation, while state legislatures, led by New York, are considering state government procurement rules that would require deforestation-free products.⁴³

RECOMMENDATIONS

Federal and state governments in Brazil:

- Ensure accountability for meat companies, farmers and financiers – in particular the Brazilian National Development Bank (BNDES) – that profited from illegal cattle ranching in Apyterewa and provide compensation to the Parakanã to support their efforts to reforest and monitor their territory⁴⁴
- Adequately resource state and federal agencies to monitor and fully enforce existing laws, particularly those protecting the environment and the rights of Indigenous Peoples and traditional communities
- Implement a mandatory birth to slaughter traceability system for cattle with strong independent oversight mechanisms, including public access to information, to prevent fraud and abuse
- Put in place a robust verification process for validating all CARs that includes field verification, and apply deterrent penalties for the provision of false or inaccurate information by registrants
- Strengthen oversight of and publish GTAs to ensure routine review and verification of information provided by farmers, and apply deterrent penalties where fraud or abuse is identified.

Demand-side governments:

- Provide financial and technical assistance to the Brazilian government to support its efforts to implement full cattle sector traceability, strengthen protections for the rights of Indigenous Peoples and traditional communities, and improve rule of law
- EU member states must fully implement the EUDR for covered cattle products, including collection and verification of information demonstrating full life cycle traceability and compliance with legality and zero deforestation standards
- U.S. lawmakers must pass the FOREST Act to prevent products from cattle raised on illegally deforested land from entering the U.S. market and unfairly competing with legal products
- Governor Hochul of New York must swiftly sign into law the TREES Act, which was recently passed by the state legislature, to ensure that NY government procurement of beef and other commodities do not contribute to tropical deforestation. Other U.S. states must follow suit.

Companies in meat and leather supply chains:

- Support adoption by the Brazilian government of a mandatory system for tracing individual animals from birth to slaughter and measures to strengthen oversight, validation, and transparency of CAR and GTA data
- Immediately adopt zero tolerance policies and practices for sourcing, whether directly or indirectly, cattle raised in Indigenous Territories or protected areas, on illegally deforested land, or involving human rights abuses
- Require full traceability back to the birth farm of individual animals for all purchases from high-risk areas like the Amazon
- Commit to and support the broad adoption of a moratorium on the expansion of cattle ranching into native ecosystems in the Amazon, Cerrado, and other biomes.

METHODOLOGY FOR SUPPLY CHAIN ANALYSIS

EIA used the unique property codes assigned to registered farms by the state of Pará to search a large database of cattle transport permits (Guias de Trânsito Animal, or GTAs) issued by the Agência de Defesa Agropecuária do Estado do Pará (ADEPARA) between January 2020 and May 2023 for GTAs involving farms located inside Apyterewa, as identified in MPF's October 2023 report *Boi Pirata: a pecuária ilegal na Terra Indígena Apyterewa*.⁴⁵ The GTA database contains nearly all of the permits issued in 2020-2022 and a portion of those issued in the first five months of 2023. All analyses of GTAs discussed in this report were carried out using this dataset.

EIA identified 58 farms inside Apyterewa that received GTAs for the transfer of cattle to farms outside of Apyterewa. EIA then analyzed the GTAs for all inbound and outbound cattle for the farms receiving cattle from Apyterewa, as summarized in Figure 2. Since the GTA dataset only contained data for permits issued up to May of 2023, EIA also used direct supplier data made available by JBS to assess more recent transfers from the intermediary farms in the case studies. Leather traceability data made available by JBS online was also used to confirm the connection between the company's slaughterhouses in the region and its wet blue tannery in Marabá.

REFERENCES

1. See, for example: <https://www.nature.com/articles/s41586-023-06970-0>
2. See, for example: <https://iopscience.iop.org/article/10.1088/1748-9326/acd408>
3. <https://www.cnbc.com/2021/12/30/why-deforestation-in-brazils-amazon-has-soared-to-its-highest-level-in-15-years.html>
4. <https://alerta.mapbiomas.org/en/rad-2022-desmatamento-nos-biomas-do-brasil-cresceu-223-no-ano-passado>
5. <https://www.reuters.com/world/americas/brazils-lula-launches-plan-stop-deforestation-amazon-by-2030-2023-06-05/>
6. See, for example: <https://www.sciencedirect.com/science/article/pii/S0959378021000595>
7. See, for example: <https://pulitzercenter.org/stories/how-big-beef-fueling-amazons-destruction>; <https://www.washingtonpost.com/world/interactive/2022/amazon-beef-deforestation-brazil/>
8. See, for example: <https://reporterbrasil.org.br/2022/09/gado-criado-ilegalmente-em-terra-indigena-no-para-abastece-jbs-e-frigol/>; <https://news.mongabay.com/2022/12/in-brazils-amazon-land-grabbers-scramble-to-claim-disputed-indigenous-reserve/>
9. Based on official deforestation data published by INPE, available here: https://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal_amazon/increments
10. See, for example: <https://sumauma.com/en/como-se-fez-guerra-na-terra-indigena-mais-desmatada-do-brasil/>
11. https://www.mpf.mp.br/pa/sala-de-imprensa/documentos/2023/copy_of_RelatrioImprensaBoipirata_apecuriailegalnaTerraIndgenaApyterewa.pdf
12. <https://www.independent.co.uk/news/brazil-ap-amazon-sao-paulo-supreme-court-b2422729.html>
13. https://www.mpf.mp.br/pa/sala-de-imprensa/documentos/2023/copy_of_RelatrioImprensaBoipirata_apecuriailegalnaTerraIndgenaApyterewa.pdf
14. <https://www.mpf.mp.br/pa/sala-de-imprensa/noticias-pa/mpf-move-48-acoos-contra-responsaveis-por-venda-ilegal-de-quase-50-mil-cabecas-de-gado-em-terra-indigena-do-pa>
15. See MPF report for list of illegal farms: https://www.mpf.mp.br/pa/sala-de-imprensa/documentos/2023/copy_of_RelatrioImprensaBoipirata_apecuriailegalnaTerraIndgenaApyterewa.pdf
16. Informal and undocumented transfers are common, according to MPF: <https://www.mpf.mp.br/pa/sala-de-imprensa/noticias-pa/mpf-move-48-acoos-contra-responsaveis-por-venda-ilegal-de-quase-50-mil-cabecas-de-gado-em-terra-indigena-do-pa>
17. Transfers between intermediaries that sold to JBS are not included in outbound proportions
18. Based on data made available by JBS: <https://jbs360.com.br/en/leather-id/>
19. Confidential source
20. Supplying farm Fazenda 4 Irmãos is located inside Apyterewa, according to MPF's October 2023 report
21. SICAR data accessed by EIA on 14 April 2024, available at: <http://car.semas.pa.gov.br/#/consulta/mapa>
22. The CAR registration states that the property contains 34.7 ha of native vegetation and 180.57 ha available for other land use (the "area consolidada"), out of a total property area of 216.44 ha
23. GTAs issued to second farmer for the movement of cattle to and from Fazenda Vaca Baia II were included in EIA's analysis. These GTAs used the same unique state property code (codigo) for the farm
24. The transfers to Frigol occurred in 2020-21
25. <https://www.beefontrack.org/wp-content/uploads/2022/10/Monitoring-Protocol-Cattle-Suppliers-Amazon.pdf>
26. Supplying farms Fazenda Onda Verde and Fazenda Canaã are located inside Apyterewa, according to MPF's October 2023 report previously cited
27. JBS only publishes the farm name and municipality of its direct suppliers
28. SICAR data accessed by EIA on 14 April 2024, available at: <http://car.semas.pa.gov.br/#/consulta/mapa>
29. Supplying farms Sítio 7 Corações, Sítio Boa Vista, Sítio Capanema, Sítio Cipó Cortado, Sítio Neves, Sítio Terra Boa, and Sítio Bom Sossego are located inside Apyterewa, according to MPF's October 2023 report, previously cited
30. <https://www.gov.br/ibama/pt-br/assuntos/noticias/2023/ibama-desativa-mais-de-20-acampamentos-de-invasores-na-terra-indigena-apyterewa-pa>
31. JBS only publishes the farm name and municipality of its direct suppliers
32. SICAR data accessed by EIA on 14 April 2024, available at: <http://car.semas.pa.gov.br/#/consulta/mapa>
33. JBS committed not to buy cattle from breeding, rearing or fattening farms in the Amazon with illegal deforestation; Frigol committed to not buying from Amazon farms with illegal deforestation. Copy of Frigol TAC on file with EIA. JBS TAC available at: <https://www.beefontrack.org/transparency/>
34. Also see EIA's 2022 report Deforestation in the Driver's Seat: <https://us.eia.org/report/deforestation-drivers-seat/>
35. JBS commitments: <https://jbsesg.com/our-environment/responsible-sourcing/>; Frigol commitments: <https://www.frigol.com.br/en/sustainability/>; Frigol states that 77% of the suppliers of its direct suppliers were compliant with its commitments in 2023, see <https://api.mziq.com/mzfilemanager/v2/d/48f6609f-056d-4f42-9d80-1a6acee769c1/ca6a3efc-93df-1ce5-3da8-e3a87d6178bc?origin=2>
36. <https://www.reuters.com/sustainability/jbs-says-brazil-needs-mandatory-cattle-tracking-stop-deforestation-2023-09-21/>
37. See, for example: <https://cicb.org.br/brazilian-leather/en/news/a-message-from-brazilian-leather>; <https://www.mdpi.com/1999-4907/13/2/233>
38. <https://us.eia.org/report/deforestation-drivers-seat/>
39. See, for example: <https://essfeed.com/brazils-top-10-largest-meat-supplier-powerhouses/>; <https://portaldbo.com.br/frigol-registra-lucro-liquido-de-r-545-milhoes-em-2023/>
40. https://environment.ec.europa.eu/topics/forests/deforestation/regulation-deforestation-free-products_en
41. <https://www.clientearth.org/media/5tqprryd/the-game-changing-eu-deforestation-regulation-will-only-work-if-member-states-start-implementation-now.pdf>
42. Based on 2023 trade statistics accessed through UN Comtrade
43. FOREST Act: <https://www.schatz.senate.gov/news/press-releases/schatz-braun-blumenauer-fitzpatrick-introduce-bipartisan-legislation-to-help-stop-illegal-deforestation-around-the-world-fight-climate-change; NY TREES Act: https://www.lizkrueger.com/trees-act-passes-both-houses-of-the-legislature/0>
44. <https://reporterbrasil.org.br/2024/04/parakana-cobra-bndes-reflorestamento-apyterewa/>
45. MPF, October 2023 report, previously cited



EIA US

PO Box 53343
Washington DC 20009 USA
T: +1 202 483-6621
E: info@eia-global.org
us.eia.org

EIA UK

62-63 Upper Street,
London N1 0NY UK
T: +44 (0) 20 7354 7960
E: ukinfo@eia-international.org
eia-international.org