Nowhere to Hide: How the Fashion Industry is linked to Amazon Rainforest Destruction

November 15, 2021
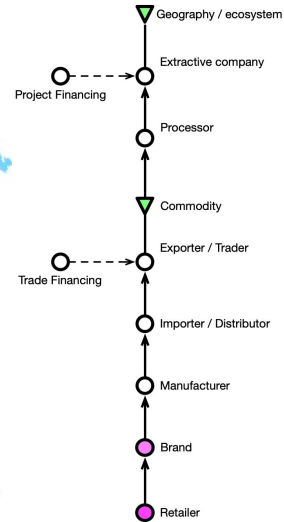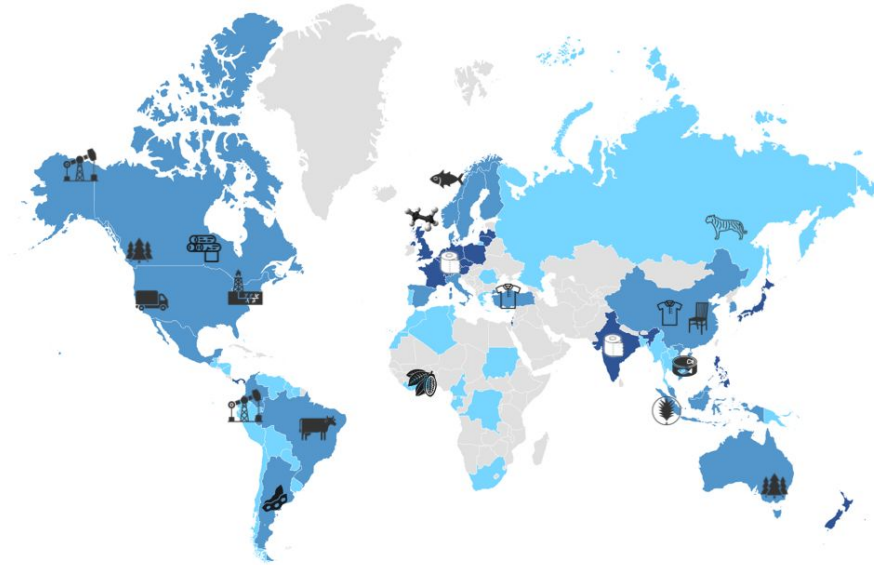
CONFIDENTIAL

EMBARGOED UNTIL NOVEMBER 15, 2021

Disclaimer

This database has been prepared using best practices and due diligence using information available at the date of publication. All information is subject to change. All data is obtained from public or government sources including but not limited to customs data, company websites, annual reports. If you represent a company that appears in this database that you believe is not sourcing Amazon leather, supplemental information can be sent to SRG@Stand.earth.

Stand.earth Research Group specializes in chain of custody research, identifying and tracking raw materials as they move through complex supply chains and eventually become consumer products. We trace environmental destruction and human rights violations all the way from source to end use. Armed with this powerful data, our partners and clients are able to hold corporate actors accountable and, ultimately, change corporate practices.

Our work has helped to shift the practices or procurement policies of some of the biggest forest products companies in the world, including Kimberly-Clark, Limited Brands, Staples, Disney and Nestlé.

Geography / ecosystem

Extractive company

Project Financing

Processor

Commodity

Exporter / Trader

Trade Financing

Importer / Distributor

Manufacturer

Brand

Retailer

THE AMAZON RAINFOREST

The Amazon Biome

Biogeographic boundaries of the Amazon (in green), the full extent of the Amazon biome (green) and the hydrographic basin (blue dotted region).

Source: RAISG "Amazonia Under Pressure", 2020, https://www.amazoniasocioambiental.org/en/publication/amazonia-under-pressure-2020

Forest Loss

Deforestation (in red, orange and yellow) through the Amazon biome (purple outline) from 2001-2018.

Source: RAISG, https://www3.socioambiental.org/geo/RAISGMapaOnline

Brazilian Amazon Forest Loss

Deforestation in the Brazilian Amazon rainforest biome, 2000-2020.
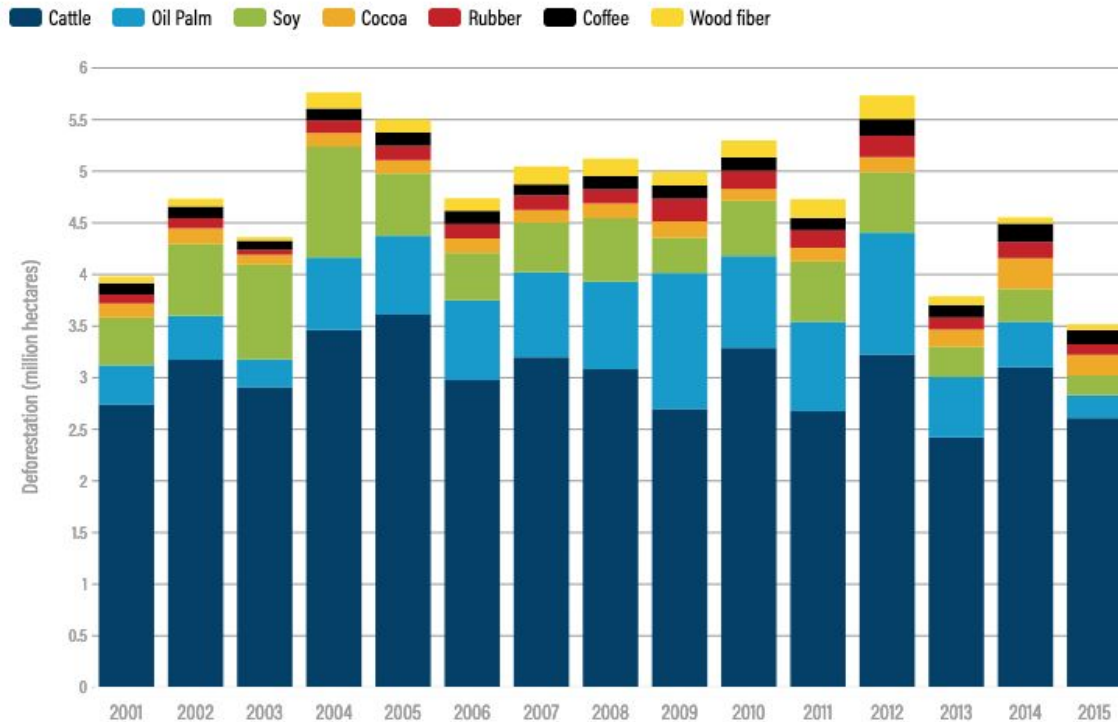
Source: MapBiomas, https://plataforma.brasil.mapbiomas.org

THE CATTLE INDUSTRY

The cattle industry is the single largest driver of deforestation of the Amazon rainforest and of tropical forests globally
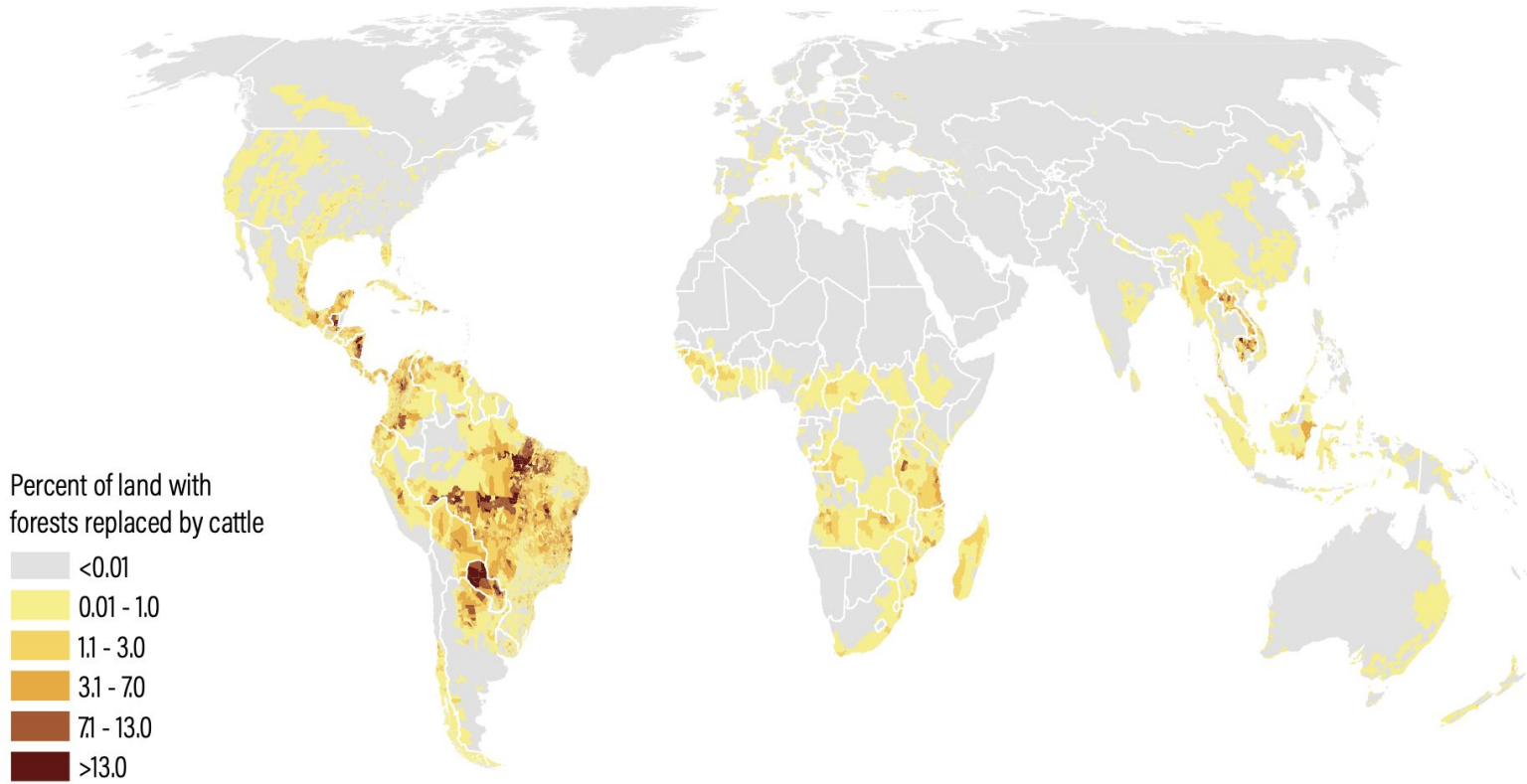
Cattle Industry and Forest Loss

Forest area replaced by analyzed commodities

Legend: Cattle, Oil Palm, Soy, Cocoa, Rubber, Coffee, Wood fiber

Deforestation (million hectares) vs. year (2001–2015)

GLOBAL FOREST WATCH — WORLD RESOURCES INSTITUTE

The cattle industry is the largest contributor to deforestation. A study by World Resources Institute found that from 2001-2015, cattle accounted for 36% of tree cover loss globally, and cattle replaced nearly twice as much forest as all other commodities combined.

Source: World Resources Institute, "Deforestation Linked to Agriculture", https://research.wri.org/gfr/forest-extent-indicators/deforestation-agriculture

Global Forest Loss From Cattle

Map showing percent of land with forests replaced by cattle globally. 45% of the total area of forests lost to cattle industry occurred in Brazil (21.8 million hectares from 2001-2015).

Source: World Resources Institute, "Deforestation Linked to Agriculture", https://research.wri.org/gfr/forest-extent-indicators/deforestation-agriculture

Percent of land with forests replaced by cattle

- <0.01
- 0.01 - 1.0
- 1.1 - 3.0
- 3.1 - 7.0
- 7.1 - 13.0
- >13.0

Cattle in the Amazon

Map of cattle herds in each of the 771 municipalities of the Brazilian Legal Amazon (Amazônia Legal brasileira), based on 2018 data from Instituto Brasileiro de Geografia e Estatística (IBGE). Note that this map includes the Amazon biome as well as some of the Cerrado biome to the east.

Source: InfoAmazonia, "Mapa do Gado na Amazônia" *www.infoamazonia.org/project/po rtugues-mapa-do-gado-na-amazo nia/*
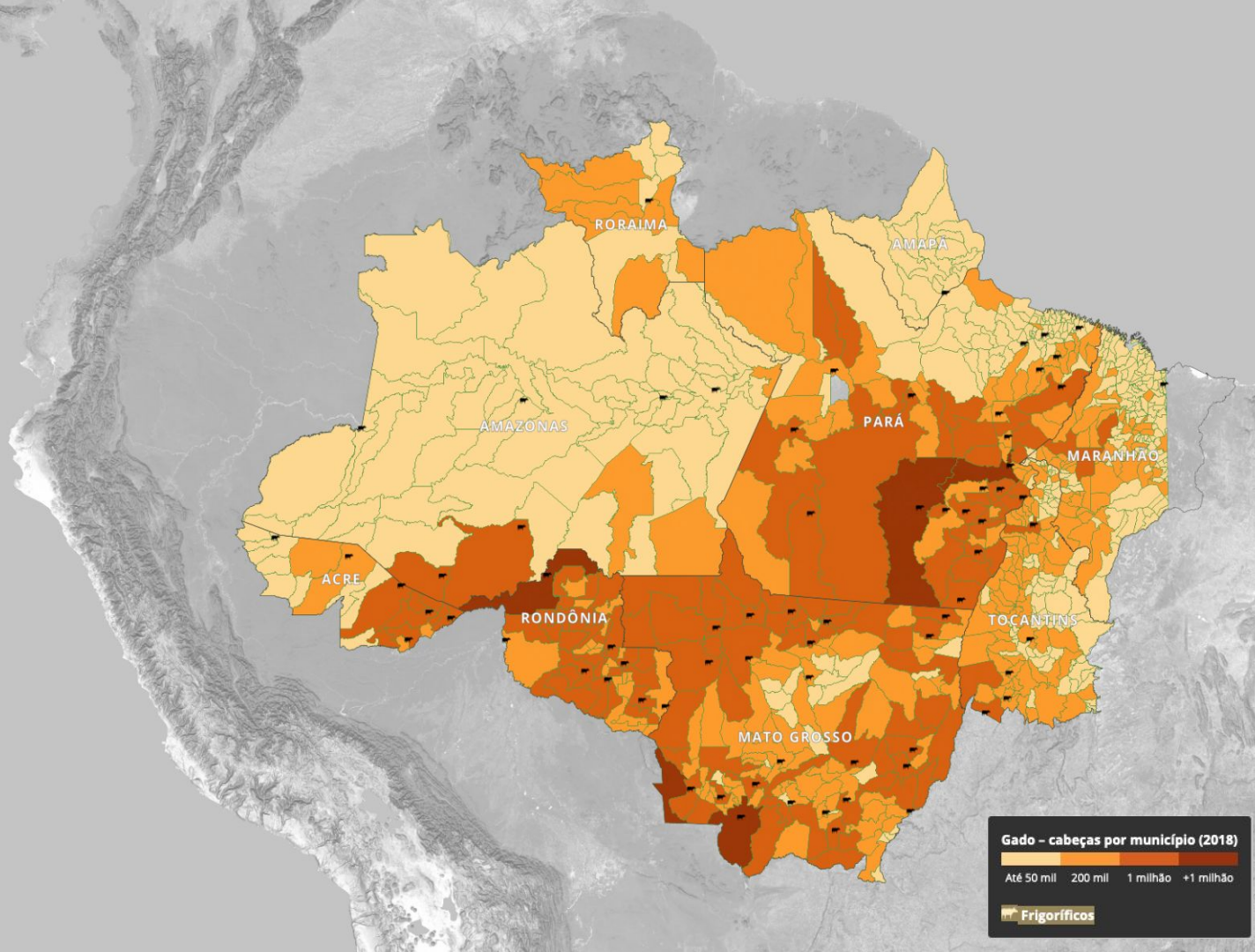
Deforestation caused by cattle ranching in the Amazon rainforest accounts for almost 2% of global CO_2 emissions,

equivalent to the annual emissions from all airplane flights globally.

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Some facts about the Brazilian cattle and leather industry:

- Brazil has the largest cattle herd in the world, 215 million animals [1]

- In the Amazon biome deforestation is mainly linked to the cattle sector

- Deforestation caused by cattle ranching in the Amazon accounts for almost 2% of global CO_2 emissions, equivalent to the annual emissions from all airplane flights globally [2]

- Evidence suggests that most deforestation in Brazil is conducted illegally [3]

- 80% of bovine leather produced in Brazil is exported

- Leather is a lucrative industry for Brazil. Leather accounted $1.1 billion USD of slaughterhouse revenue in 2020 [4]

[1] Rainforest Foundation Norway, www.regnskog.no/en/news/silk-bidrar-bilindustrien-til-avskoging-i-amazonas
[2] Deforestation linked to cattle pastures in the Amazon results in at-least .62 GTCO2/yr which corresponds to roughly 2% of gross CO_2 emissions per year. Derived by Stand.earth Research Group based on data from Harris et al (2021), Goldman et al (2020) and Hansen et al (2013); Aviation emissions from Air Transport Action Group, www.atag.org/facts-figures.html
[3] MapBiomas, Annual Report of Deforestation in Brazil 2020
[4] Brazilian Beef Exporters Association (ABIEC), Beef Report 2020 and Beef Report 2021, http://abiec.com.br

EVIDENCE OF DEFORESTATION

Countless studies and investigations over the years have demonstrated that JBS, the largest beef/leather company in Brazil, is the largest contributor to Amazon rainforest destruction, despite the company having a policy to not do so.

Some facts about JBS and deforestation:

- JBS' supply chains were exposed to over 2.8 million hectares (7 million acres) of deforestation over the last decade.[1]

- Based on satellite data, one case study linked JBS to 91,000 hectares (over 200,000 acres) of deforestation in the Amazon rainforest, of which 81% was possibly illegal, from March 2019-March 2021.[2] The total amount of JBS-linked deforestation over this time period is undoubtedly much higher.

- Examples of protected areas where cattle were illegally grazed and in turn supplied to JBS include the Rio Ouro Preto Reserve, the Rio Jacy-Paraná Reserve, and the Uru-Eu-Wau-Wau Indigenous territory.[3]

[1] These figures represent the total area of rainforest has been permanently destroyed for cattle ranching within the "economic acquisition zone" of each JBS slaughterhouse. This includes 1.15 million hectares from 2019-2020 (Rainforest Foundation Norway, Driving Deforestation, 2021) plus 1.65 million hectares from 2010-2015 (Imazon, Will Meat-Packing Plants Help Halt Deforestation in the Amazon?, 2017).
[2] Mighty Earth, Soy & Cattle Deforestation Tracker website, 2021. The figures presented here are based on an analysis of raw data documented by and available on the Mighty Earth website.
[3] Amnesty International, From Forest to Farmland: Cattle Illegally Grazed in Brazil's Amazon found in JBS's Supply Chain, 2020.
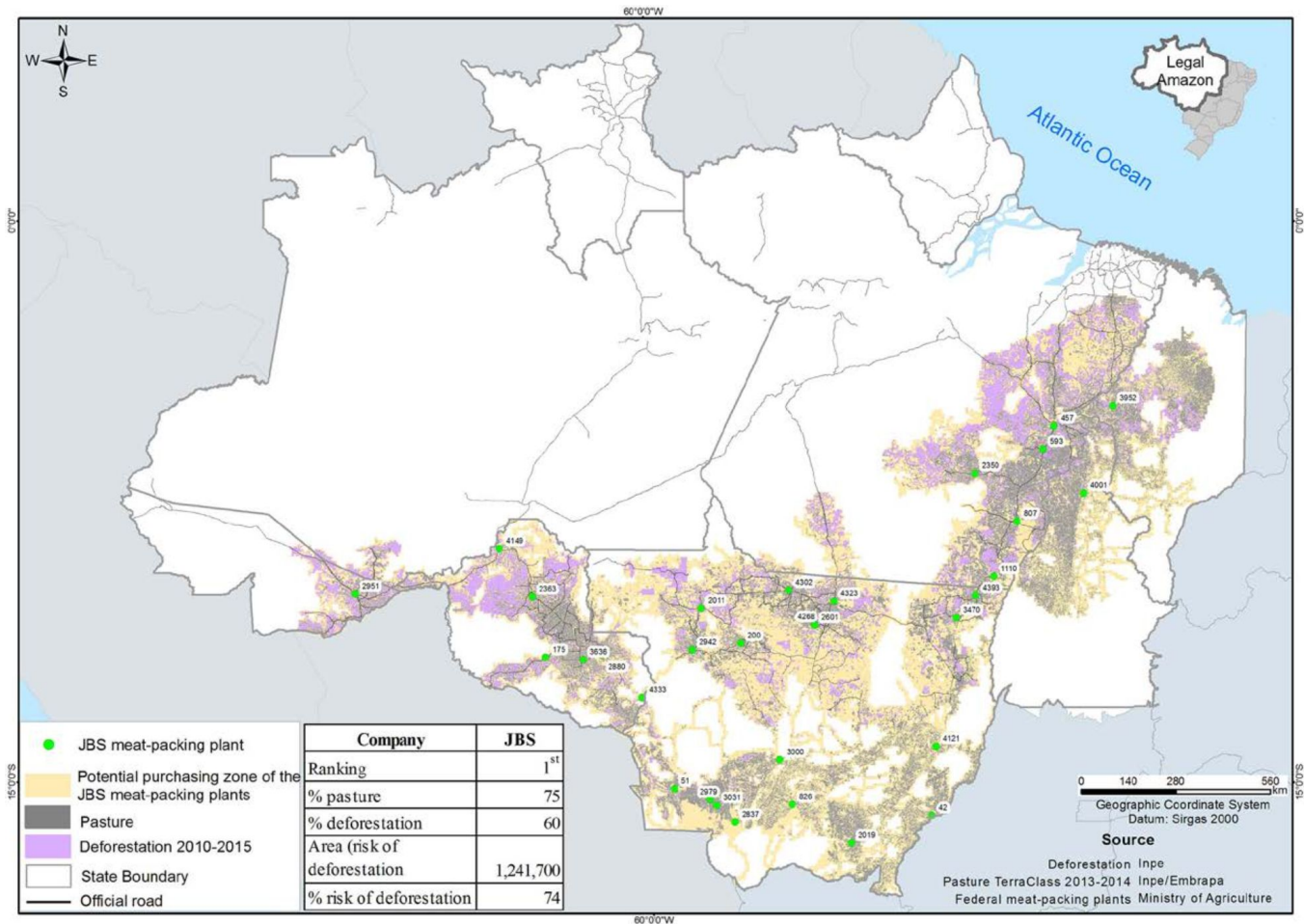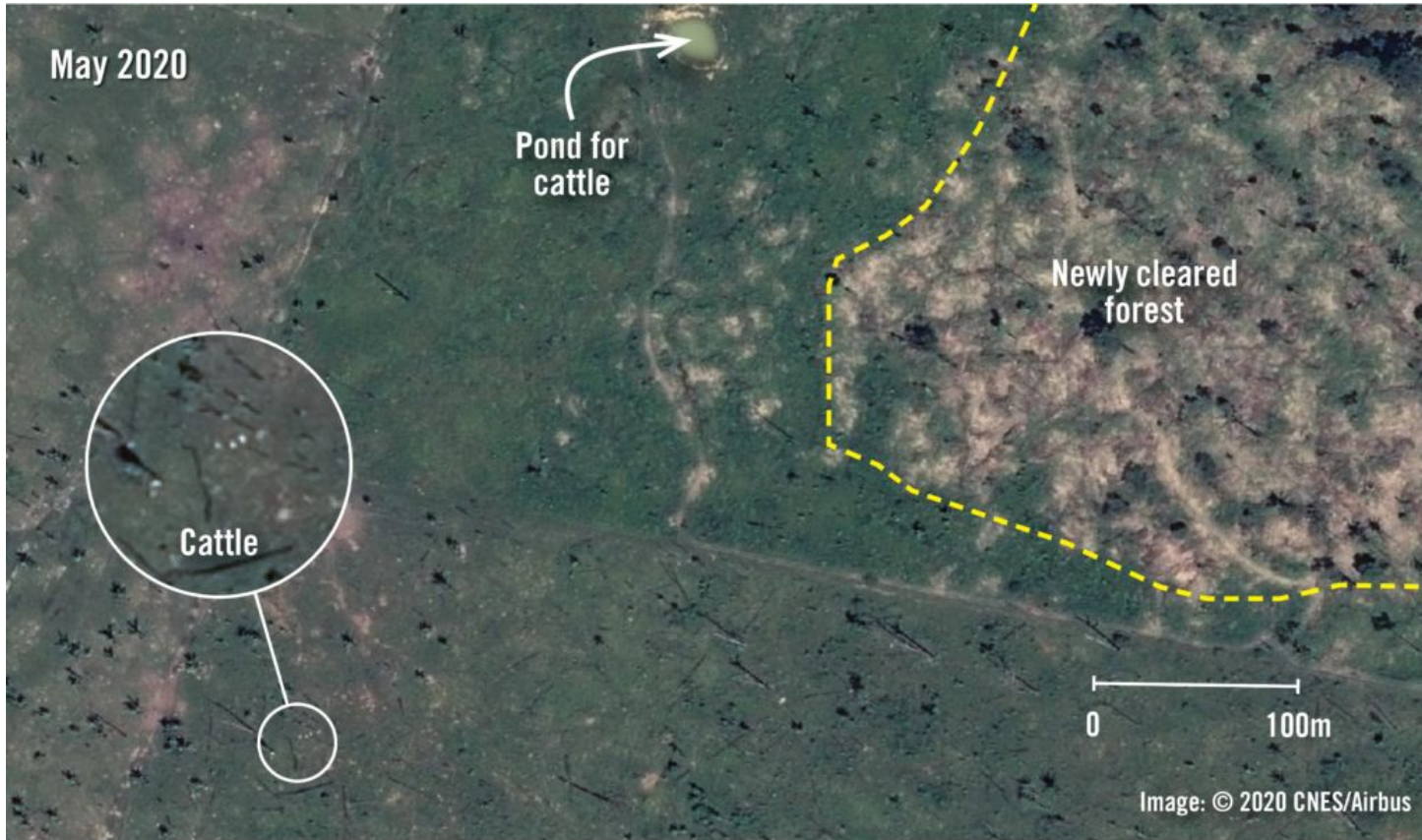
JBS: case study #1

Map showing potential zones for purchasing cattle of 32 JBS plants located in the Brazilian Legal Amazon region in 2016 and their overlap with recently deforested areas.

Source: Imazon, "Will Meat-Packing Plants Help Halt Deforestation in the Amazon?", 2017. Based on data from Inpe, Embrapa and Ministry of Agriculture.

Company	JBS
Ranking	1st
% pasture	75
% deforestation	60
Area (risk of deforestation)	1,241,700
% risk of deforestation	74

- JBS meat-packing plant
- Potential purchasing zone of the JBS meat-packing plants
- Pasture
- Deforestation 2010-2015
- State Boundary
- Official road

Geographic Coordinate System
Datum: Sirgas 2000

Source

Deforestation Inpe
Pasture TerraClass 2013-2014 Inpe/Embrapa
Federal meat-packing plants Ministry of Agriculture

Legal Amazon

Atlantic Ocean

JBS: case study #2

Satellite imagery from May 2020 showing cattle adjacent to an area illegally cleared inside the Rio Jacy-Paraná Reserve.

Source: Amnesty International website, www.amnesty.org/en/latest/press-release/2020/07/brazil-cattle-illegally-grazed-in-the-amazon-found-in-supply-chain-of-leading-meat-packer-jbs/

All companies sourcing directly from JBS or indirectly from JBS via leather processors are therefore linked to deforestation of the Amazon rainforest.

These studies also show that while JBS is the largest leather exporter and the most implicated in deforestation, this problem is endemic of the entire Brazilian leather industry - not just JBS.

Some companies hide behind the Leather Working Group (LWG) or other voluntary commitments they may have made, but none of these guarantee deforestation free leather supply chains.

The LWG only traces leather from tanneries back to slaughterhouses, not back to farms, nor does it provide any information on whether or not the slaughterhouse is linked to deforestation.

LEATHER SUPPLY CHAINS

Stand.earth Research Group analyzed nearly 500,000 rows of customs data obtained from multiple data providers, and cross-referenced this with data collected from other sources listed below to uncover hidden supply chains linking shoe and fashion brands to Amazon rainforest deforestation.

- Brazilian export customs data (700 shippers/consignees)
- Vietnamese customs data
- Other import/export customs data (China, India, Indonesia, Pakistan, Philippines) and US vessel manifest data
- Statistical data (UN Comtrade, Comex Stat, ABIEC)
- Leather processor websites, annual reports (mostly in Chinese), investor presentations and ESG reports
- Leather processor social media postings (Facebook and YouTube)
- Fashion brand voluntary supplier disclosure lists (19,000 rows)
- Internet archive (www.archive.org)
- Bespoke SRG database of parent-subsidiary-brand relationships

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supply chain research

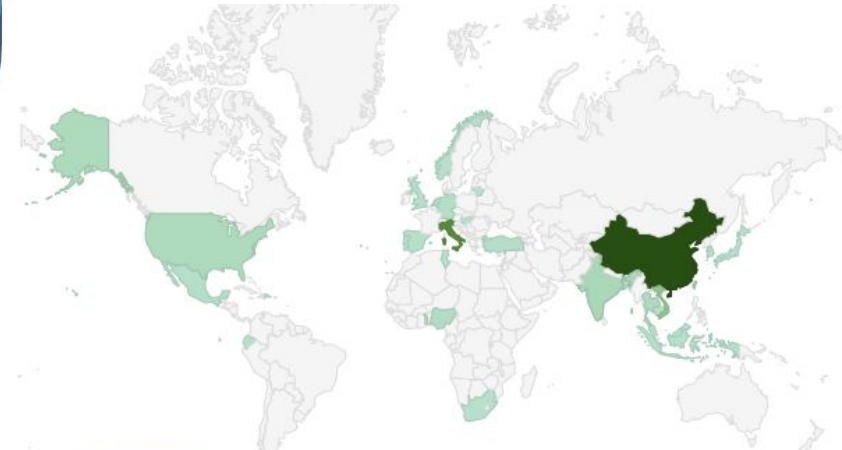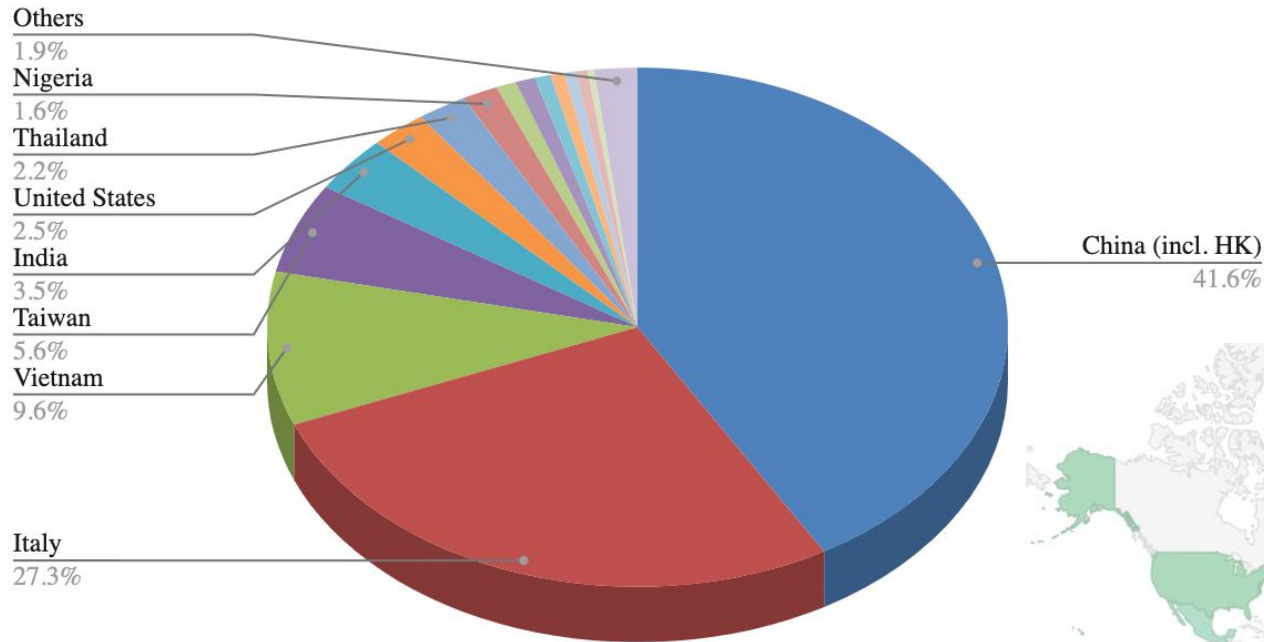Deforestation → Cattle → Slaughterhouse → Leather tannery → Leather processor → Manufacturer → Brands

ASICS
Clarks
MERRELL
ZARA
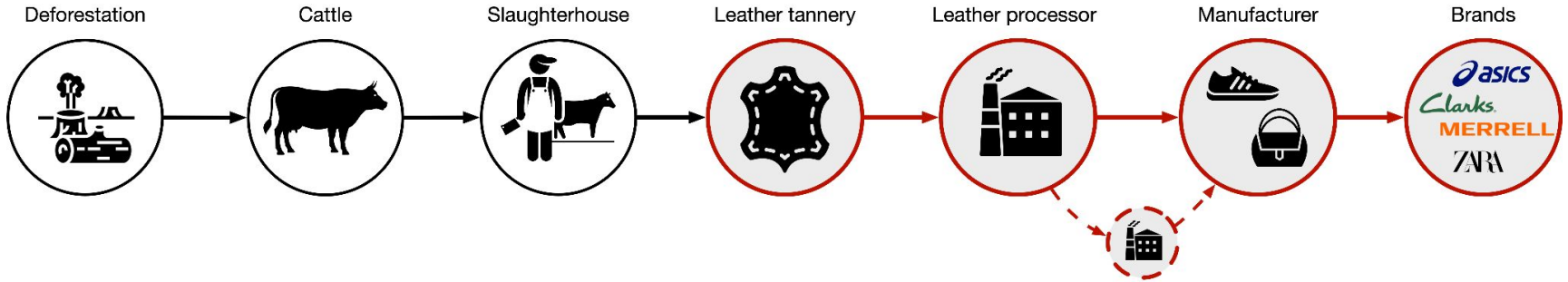
Some supply chains involve
multiple leather processors

Brazilian leather exports by weight (all exporters, 2020)

Our research focused on tracking leather exported by JBS from Brazil, starting with JBS' first-tier customers (i.e. leather processors).

The analysis also captured leather exports from all of the top-6 exporters (excluding logistics companies) to these same processors.

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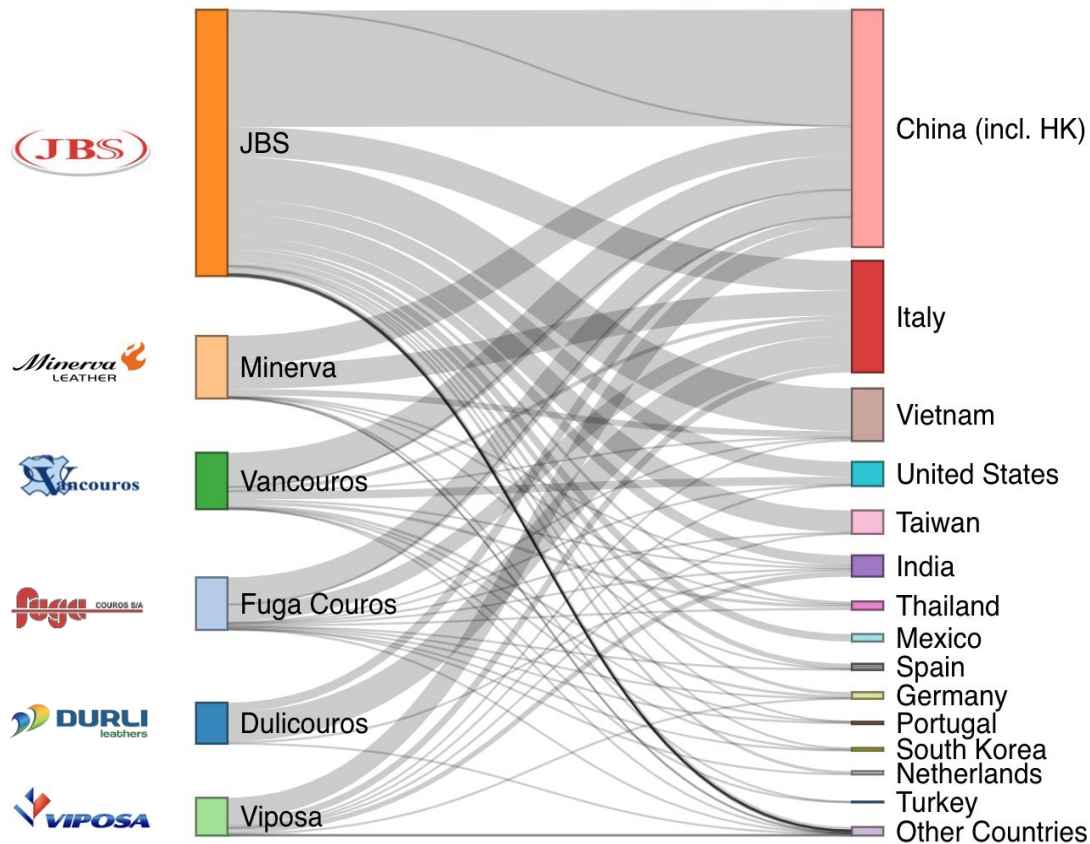
Brazilian Leather Exporters

JBS plus five other major leather exporters (leather tannery companies). Note that all six companies have similar export profiles, with the majority of leather going to China, Italy and Vietnam.

THE FASHION BRANDS LINKED TO AMAZON RAINFOREST DESTRUCTION ARE...

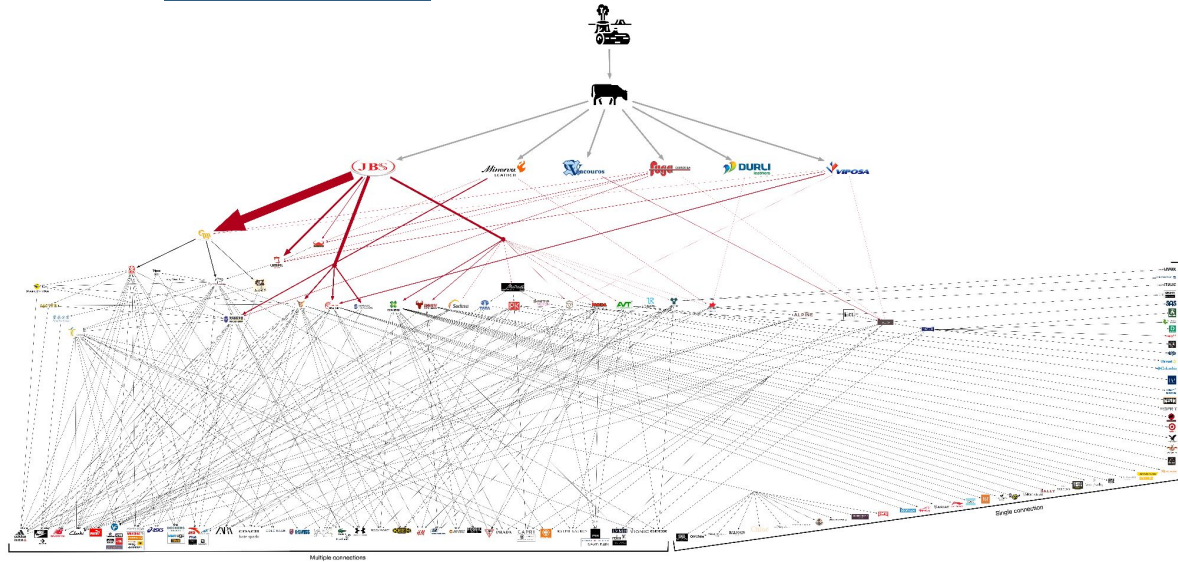**Brands with multiple connections to Amazon deforestation = highest risk**

Brands with a single connection to Amazon deforestation

This investigation is ongoing and has thus far resulted in over 400 individual supply chain connections between various companies (leather tanneries in Brazil, leather processors in various countries, product manufacturers, and shoe/fashion brands around the world). At the time of publication of this document, these linkages connect to 103 brands owned by 74 companies.

While each individual connection is not absolute proof that any one brand uses deforestation leather, it demonstrates that many brands are at very high risk of driving the destruction of the Amazon rainforest.

Brands with multiple connections to Amazon deforestation. These brands are at highest risk of driving deforestation.
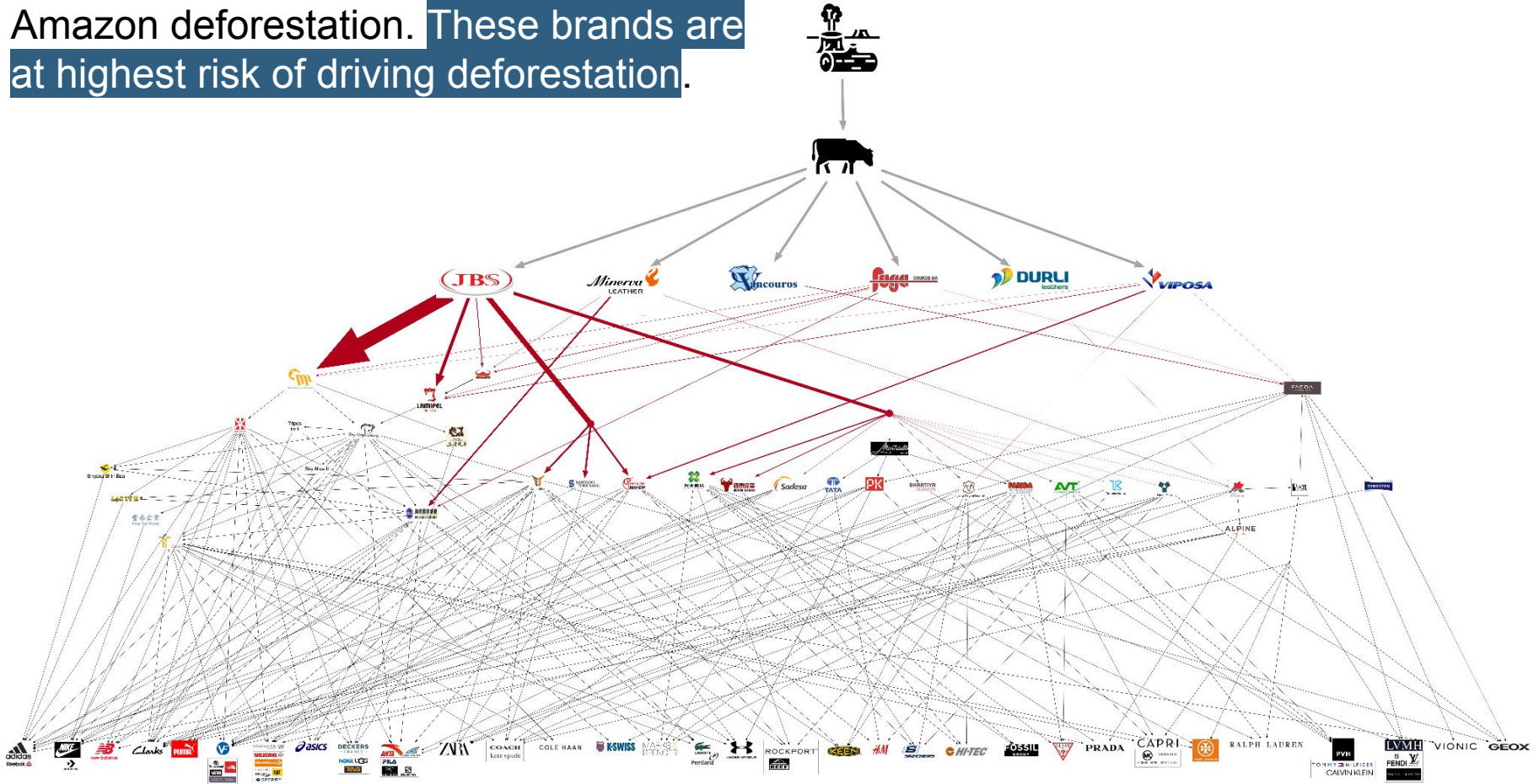
Brands with a single connection to Amazon deforestation. These brands are also at risk, though the evidence is still emerging and more subject to change.
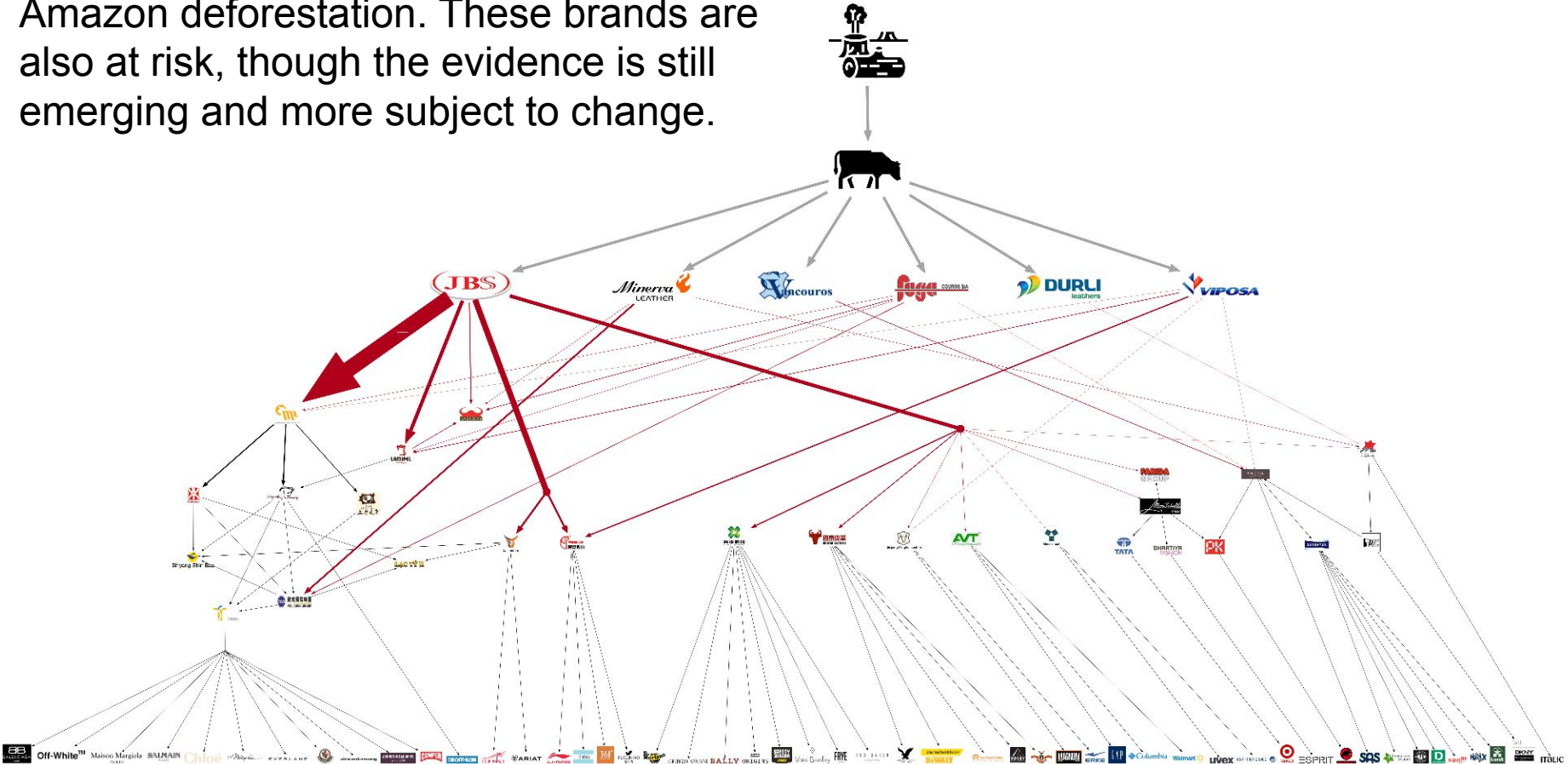
22 of these 74 companies (30%) are potentially breaching their own policies against sourcing leather from deforestation

The other two-thirds have no relevant policies in place at all.

Multiple connections:

Parent	Brands	Is there a policy on sourcing leather from deforestation?	Does their policy explicitly prohibit them from buying leather from the Amazon?
Adidas AG	Adidas, Reebok	Yes	Yes
Anta Sports	Anta, FILA, DESCENTE, Sprandi, Kolon Sport, KingKow, Amer Sports (Atomic, Demarini, Louisville Slugge, Armada Skis, Wilson, Sports Tracker, Evoshield, Arc'teryx, Suunto, Mavic, Salomon)	No	No
Apax Partners	Cole Haan	No	No
Apex Global Brands	Hi-Tec, Magnum	No	No
Asics Corp	ASICS, ASICS Tiger, Onitsuka Tiger	No	No
C&J Clarks	Clarks	Yes	Yes
Capri Holdings	Michael Kors, Jimmy Choo, Versace	No	No
Deckers Brands	UGG, Hoka One One, Teva, Sanuk, Koolaburra	Yes	No
Fossil Group	Fossil	No	No
GEOX SpA	Geox	Yes	Yes
Guess, Inc	Guess	No	No
Hennes & Mauritz AB	H&M	Yes	Yes
Inditex	Zara, Massimo Dutti, Pull & Bear, Bershka, Stadivarius, Oysho, Zara Home, Uterque	No	No
Keen Inc	Keen	No	No
LVMH	Louis Vuitton, Fendi, Dior, Berluti, Celine, Emilio Pucci, Givenchy, Kenzo, Loewe, Loro Piana, Marc Jacobs, Moynat, Nicholas Kirkwood, Patou, Rimowa, Tiffany & Co.	Yes	No
Marks and Spencer Group plc	M&S	Yes	Yes
Lacoste SA	Lacoste	No	No
New Balance Inc	New Balance	Yes	Yes
Nike Inc	Nike, Converse, Hurley, Null	Yes	Yes
Prada SpA	Prada, Miu Miu, Church's, Car Shoe	No	No
Puma Group	Puma	No	No
PVH Group	Calvin Klein, Tommy Hilfiger, Warner's, Olga, Ture & Co	Yes	Yes
Ralph Lauren Corp	Ralph Lauren	No	No
Rockport Group	Rockport, Reef	No	No
Skechers USA, Inc	Skechers	No	No
Tapestry	COACH, Kate Spade, Stuart Weitzman	Yes	No
Tory Burch LLC	Tory Burch	No	No
Under Armour Inc	Under Armour	No	No
VF Corp	The North Face, Altra, Icebreaker, Jansport, Smartwool, Supreme, Timberland, Vans, Eagle Creek, Eastpak, Kipling, Napapijri, Dickies	Yes	Yes
Wolverine Worldwide	Bates, CAT, Chaco, Harley-Davidson (footwear), Hush Puppies, HYTEST, Keds, Merrell, Saucony, Sperry, Stride Rite, Wolverine	No	No
Xtep International	K-Swiss, Xtep, Palladium	No	No

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Click here for full summary of policies across all brands.

Case study: Coach / Tapestry
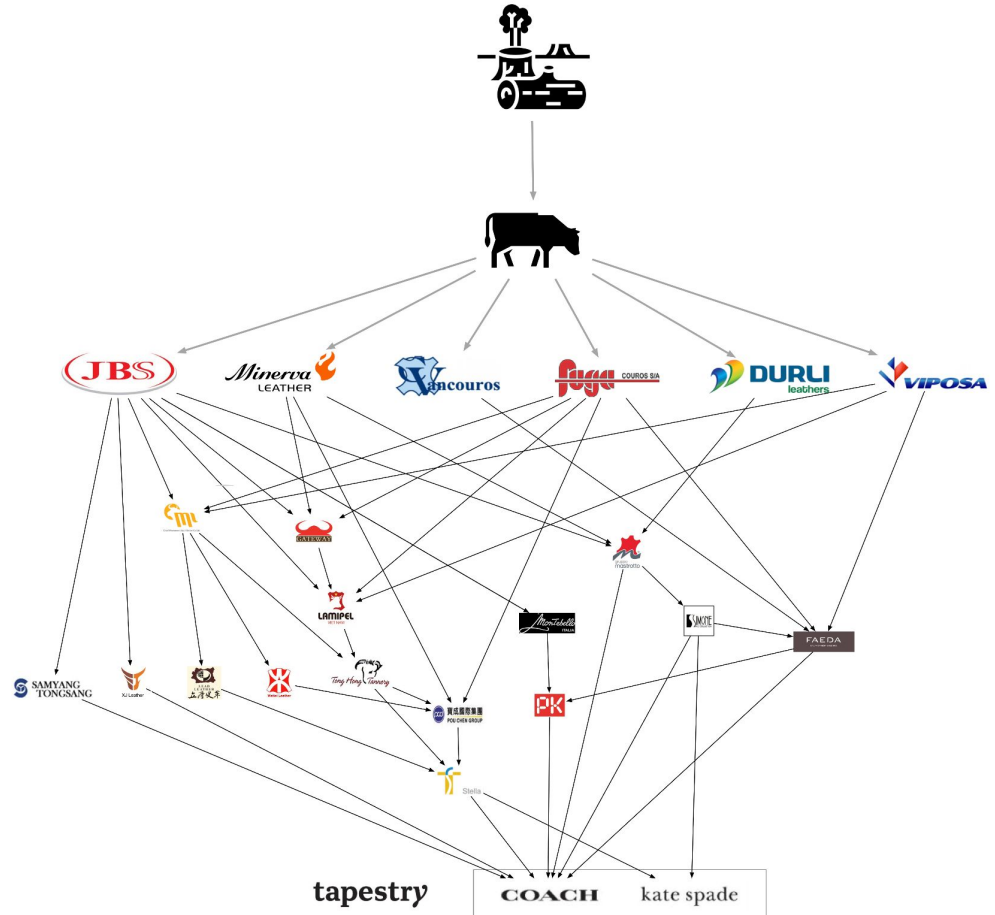
Number of identified connections to Amazon deforestation: 9

Is the company at high risk of driving deforestation: Yes

Does the company have a policy on the sourcing leather from deforestation? Yes *

Evidence: Brazilian customs data, Indonesian customs data, Vietnamese customs data, US vessel manifest data, Annual Report (Lead Leather), Investor Presentation (Stella), Company websites (Gruppo Mastrotto, Pungkook, Samyang Tongsang, Simone, Wei Tai Leather, XJ Leather).

   * Potentially in violation of their own policy

Case study: Wolverine Worldwide

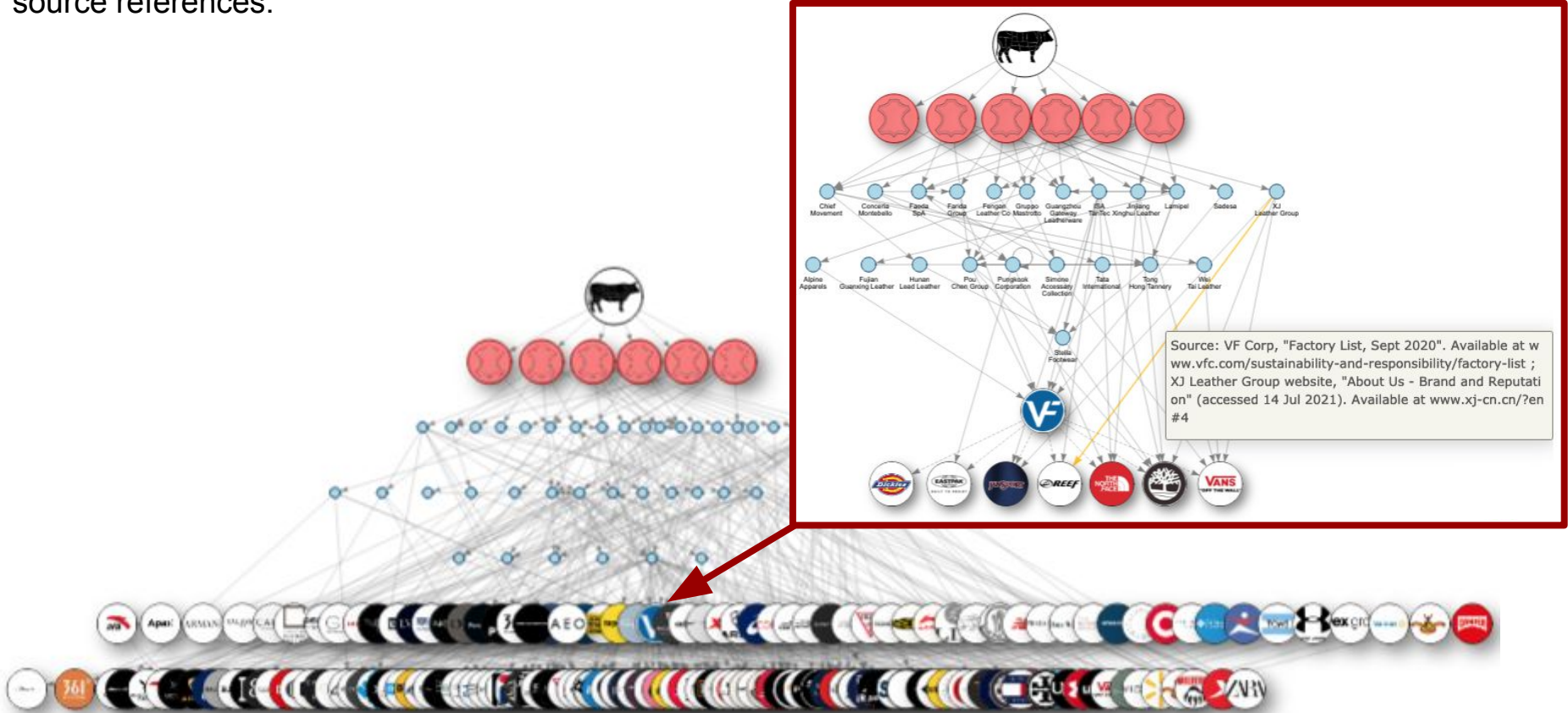Number of identified connections to Amazon deforestation: 11

Is the company at high risk of driving deforestation: Yes

Does the company have a policy on the sourcing leather from deforestation? No

Evidence: Brazilian customs data, Vietnamese customs data, Indonesian customs data, Annual Report (Lead Leather), Facebook (Guotai Leather), Investor Presentation (Stella), Company websites (Fengan Leather, Wei Tai Leather, XJ Leather).
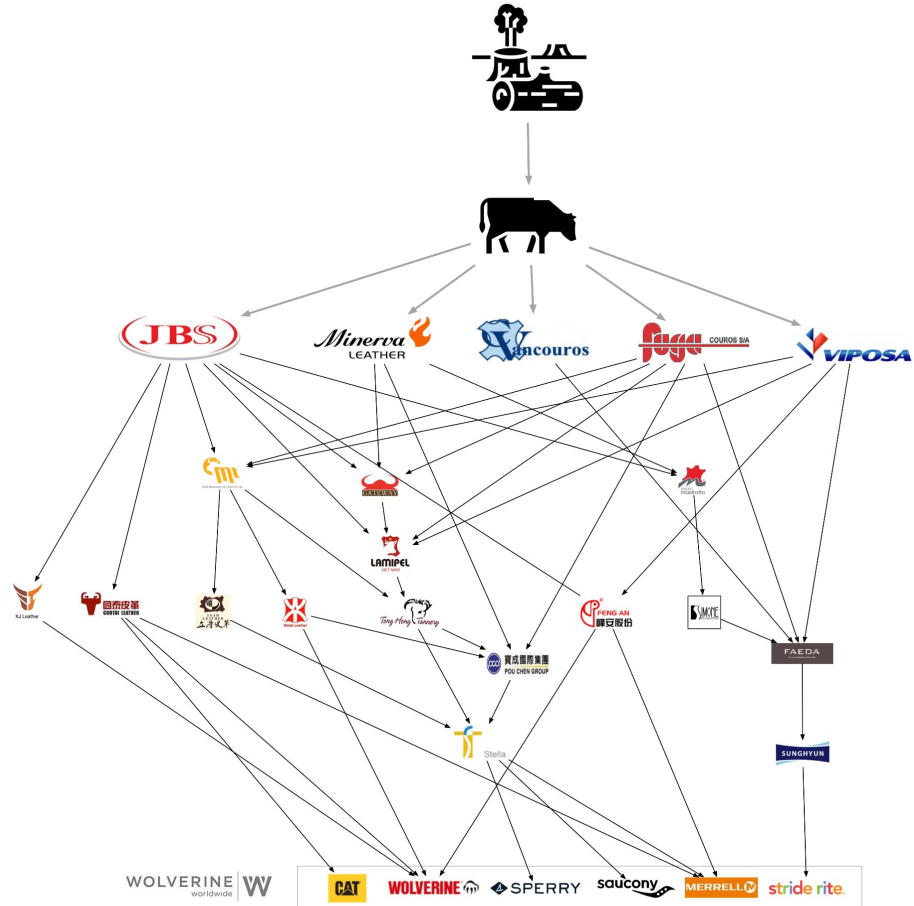
An interactive website will soon be released that includes all 130 brands, their parent companies, and full supply chain data and source references.

Source: VF Corp, "Factory List, Sept 2020". Available at www.vfc.com/sustainability-and-responsibility/factory-list ; XJ Leather Group website, "About Us - Brand and Reputation" (accessed 14 Jul 2021). Available at www.xj-cn.cn/?en #4

Thank you!