



CONVERSION-FREE SOY: unique opportunity for reversing global nature loss from 2021.

Launch event FEFAC Soy Sourcing Guidelines 2021 – 3 Feb 2021

Jean-François Timmers
WWF Policy and Advocacy manager
DCF Supply Chains

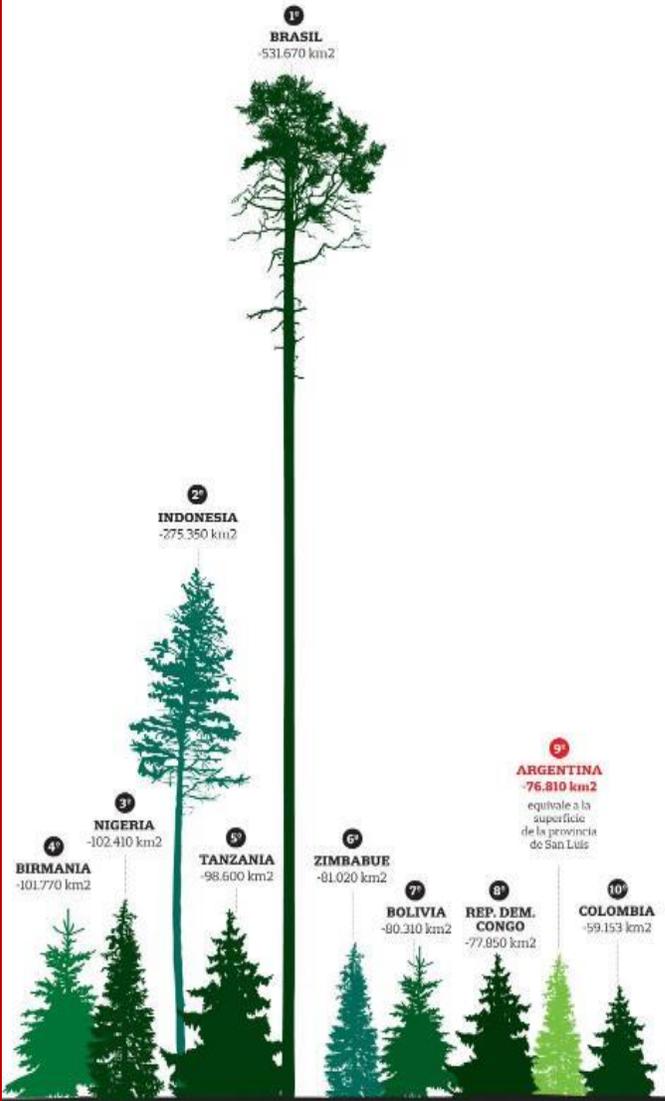


10 countries with largest deforestation 1990 – 2015

Source:

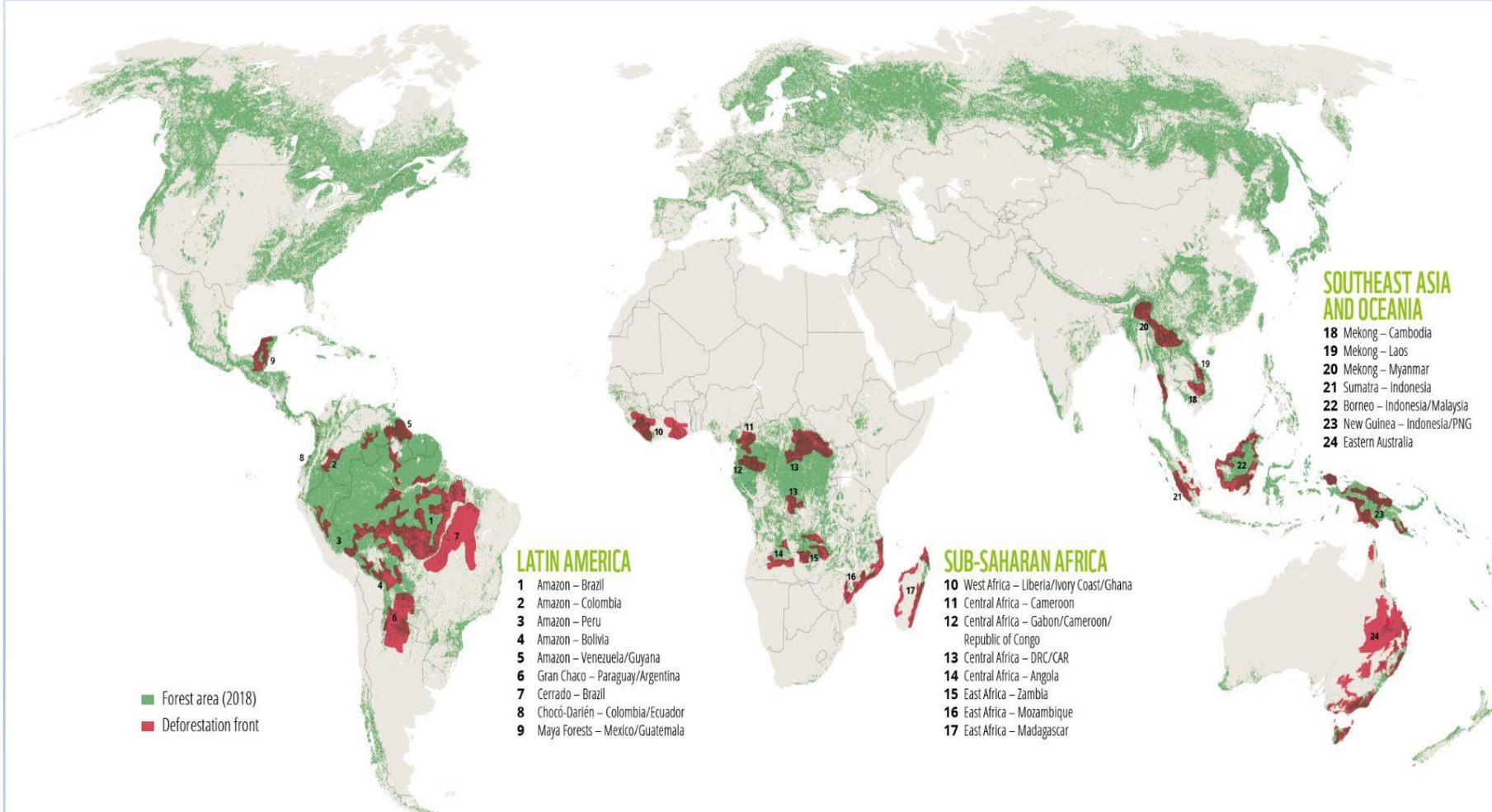
<http://unstats.un.org/unsd/environment/qindicators.htm>

Infografía: Florencia Abel / Informe: LNDATA
— LA NACION —



An estimated 23% of total anthropogenic greenhouse gas emissions (2007-2016) derive from Agriculture, Forestry and Other Land Use (IPCC, 2020)

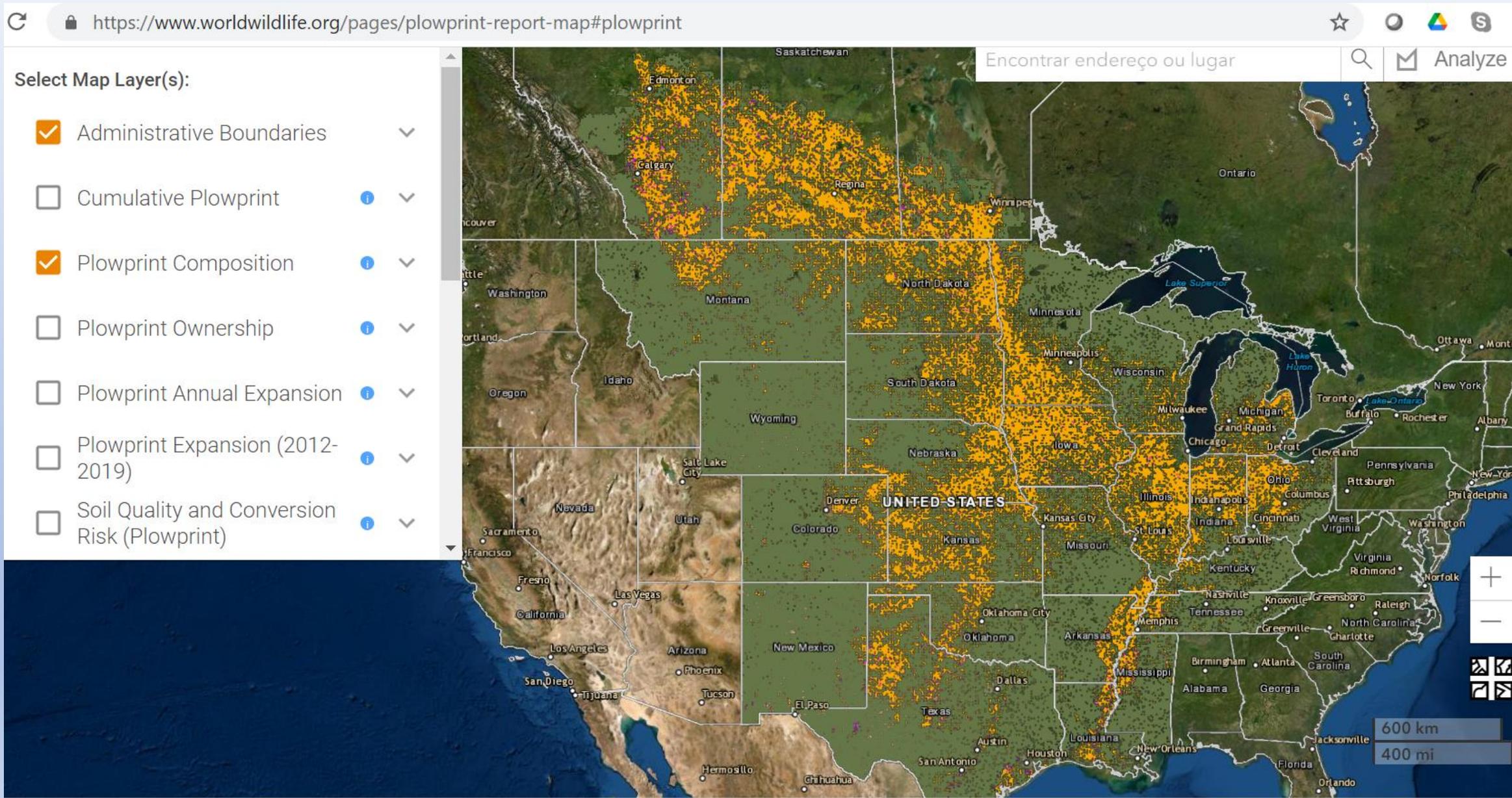
WWF 2021: [Deforestation fronts: drivers and responses in a changing world](#)



Fuente: Indicadores Ambientales de la División de Estadísticas de Naciones Unidas (UNSD).
Excluye bosques de parques urbanos, jardines y producciones agrícolas.



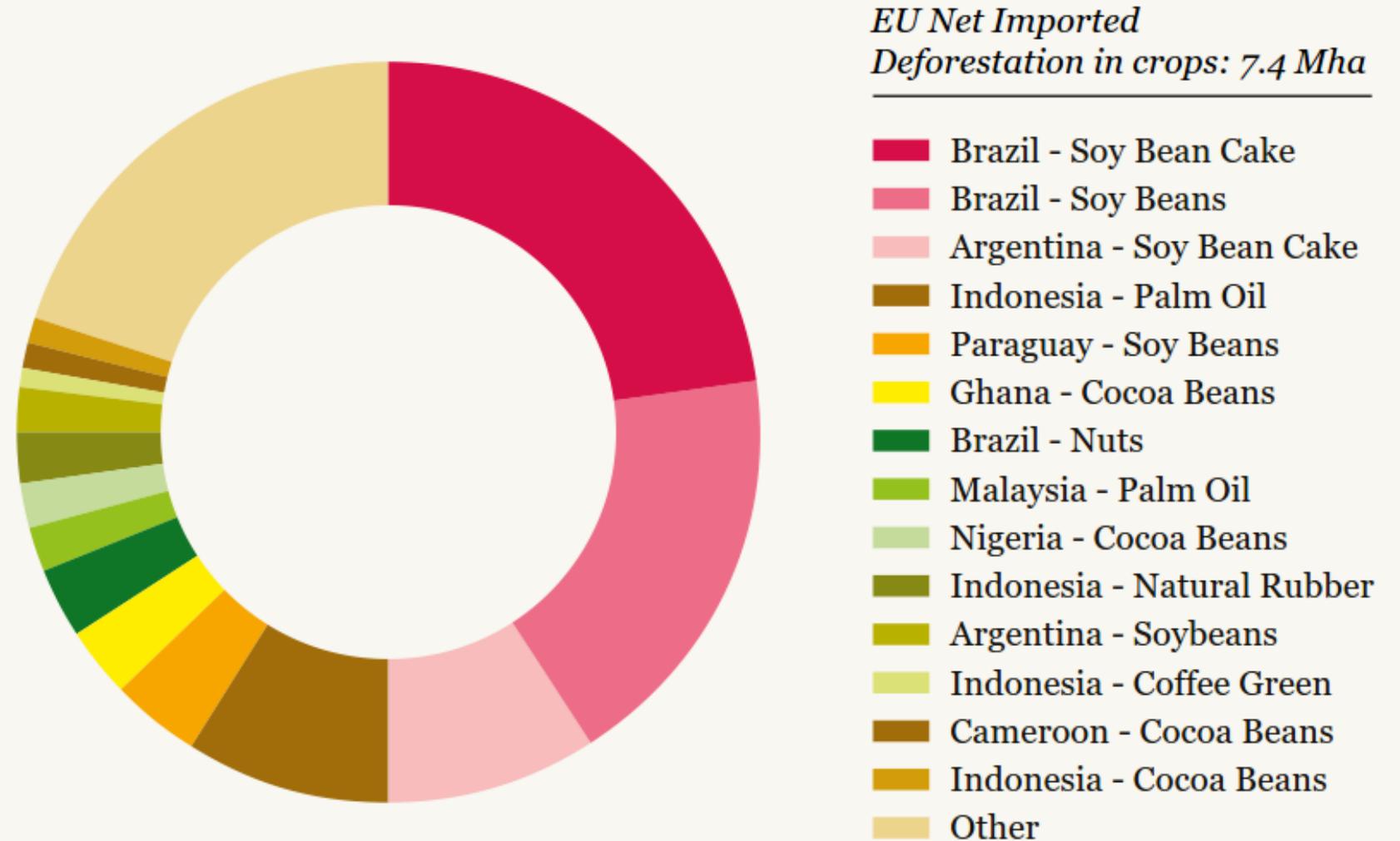
An overlooked crop conversion frontier: the North American Great Plains





Cumulative impact of Europe (1990 – 2008)

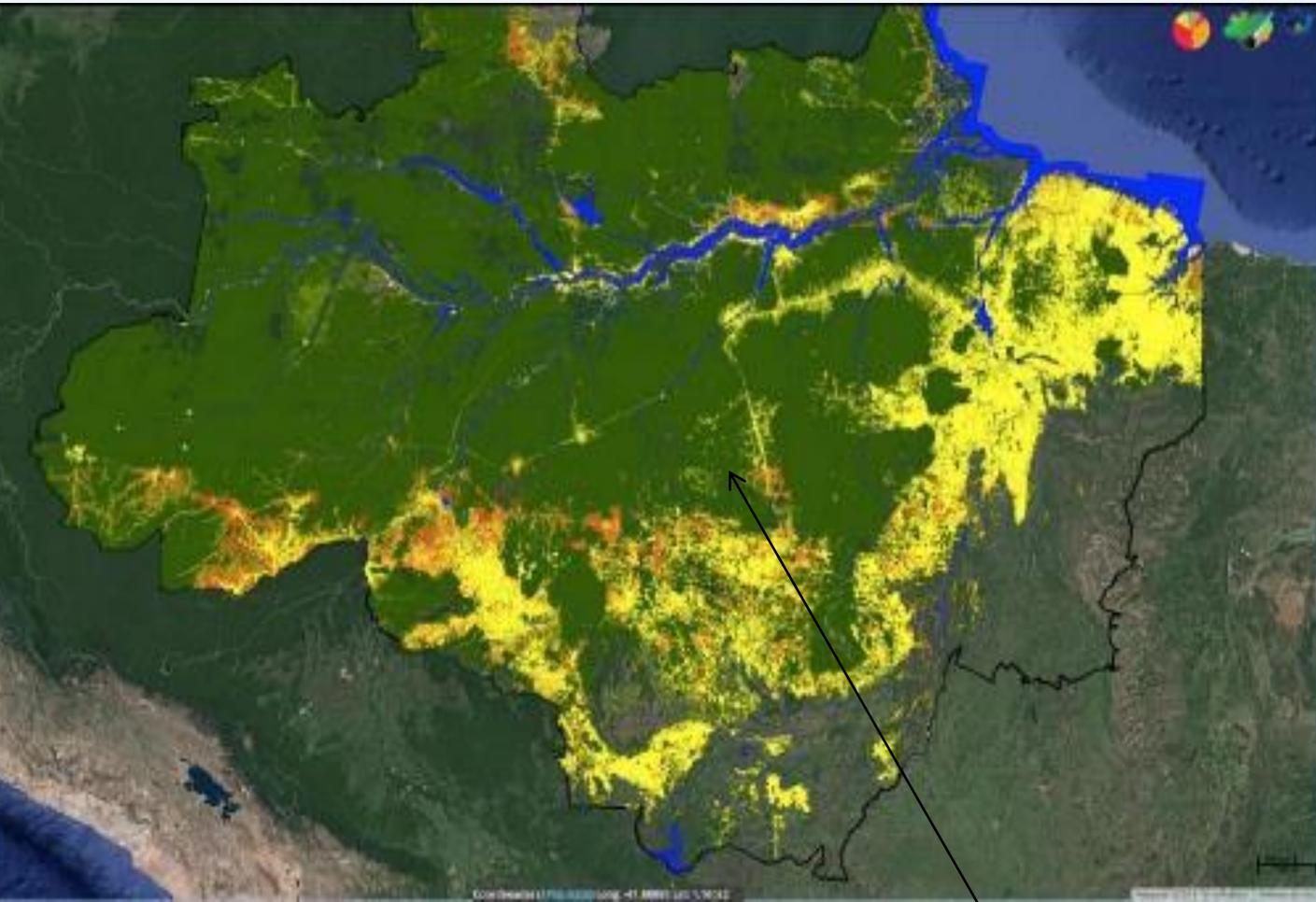
Figure 4: Most important crop commodities and countries of origin for deforestation embodied in crop imports into the EU27 (1990-2008)



[EC 2013 Study "The impact of EU consumption on deforestation"](#)

Source: European Commission. 2013. *The impact of EU consumption on deforestation.*

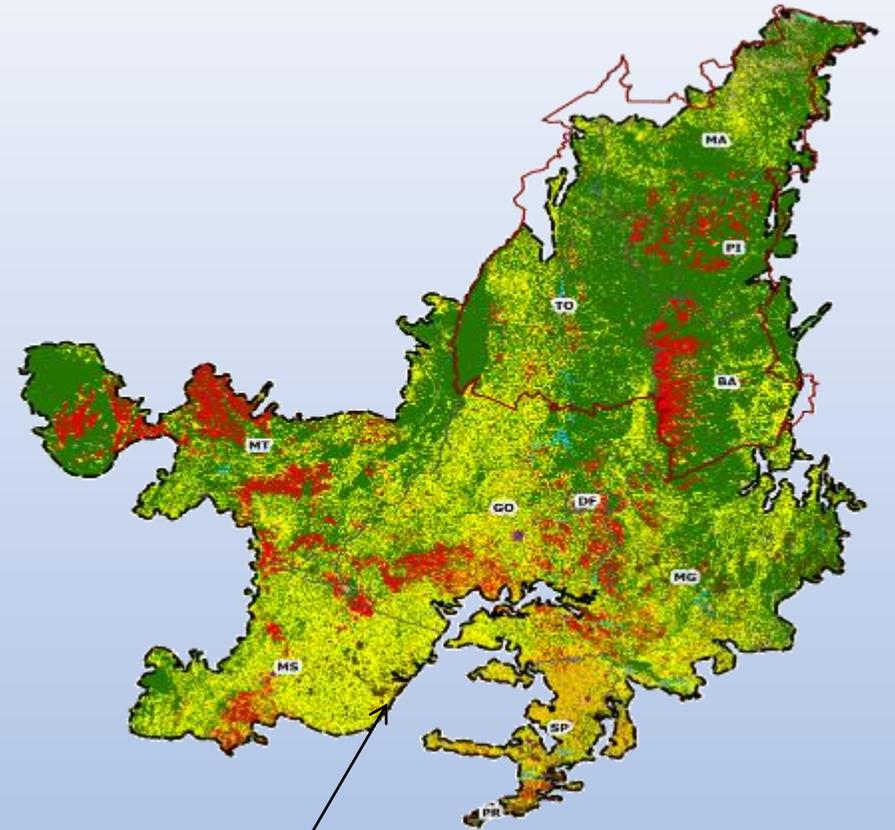
THE AMAZON



- 12% CONVERSION
- ~ 650.000 ha/year
- LIVESTOCK AS MAIN DRIVER
- MOSTLY **ILLEGAL** DEFORESTATION



CERRADO



- 48% CONVERSION
- ~ 1,000.000 ha/yr
- LAND SPECULATION linked to SOY
- MOSTLY **LEGAL** CONVERSION





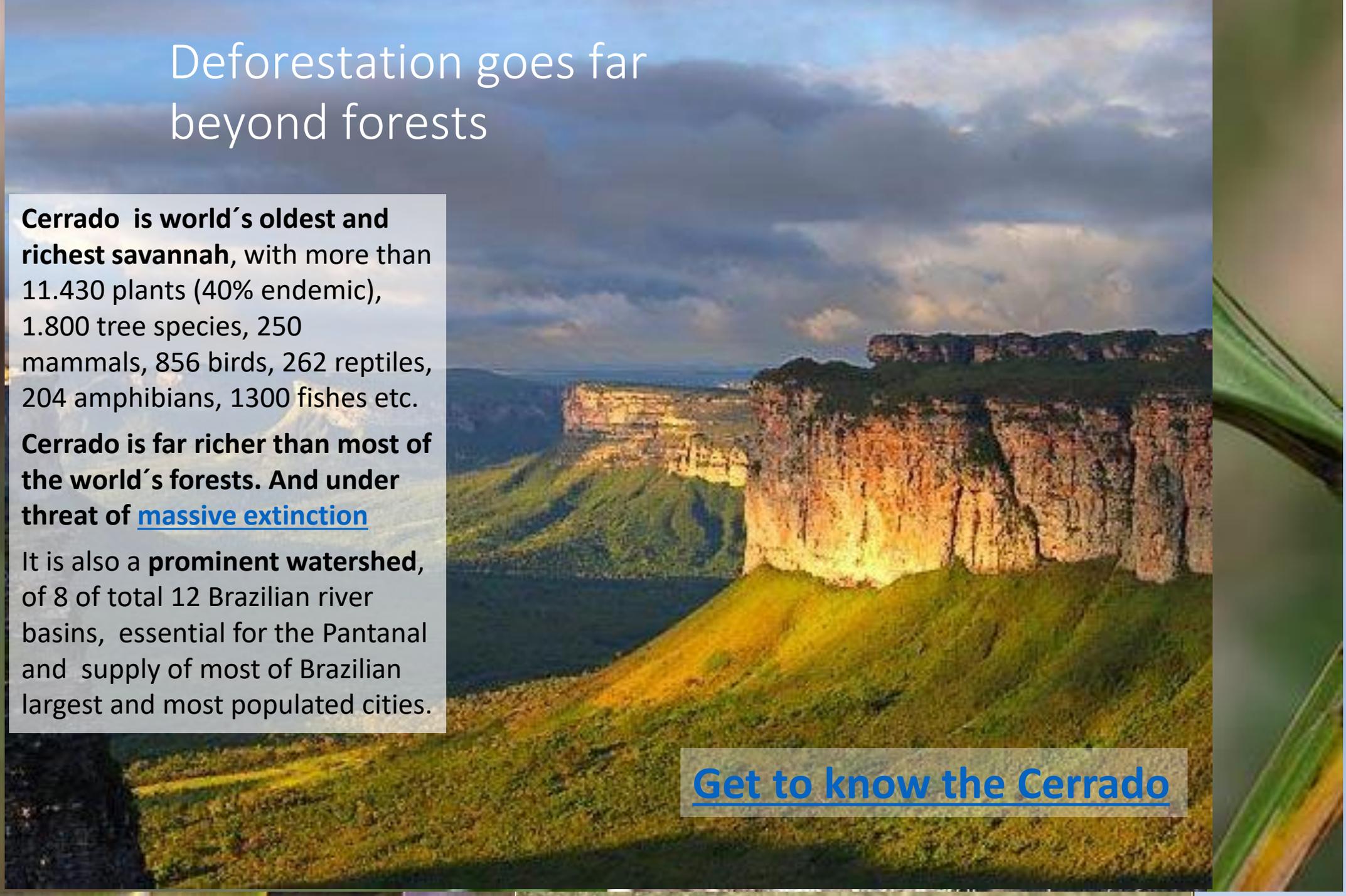
Deforestation goes far beyond forests

Cerrado is world's oldest and richest savannah, with more than 11.430 plants (40% endemic), 1.800 tree species, 250 mammals, 856 birds, 262 reptiles, 204 amphibians, 1300 fishes etc.

Cerrado is far richer than most of the world's forests. And under threat of [massive extinction](#)

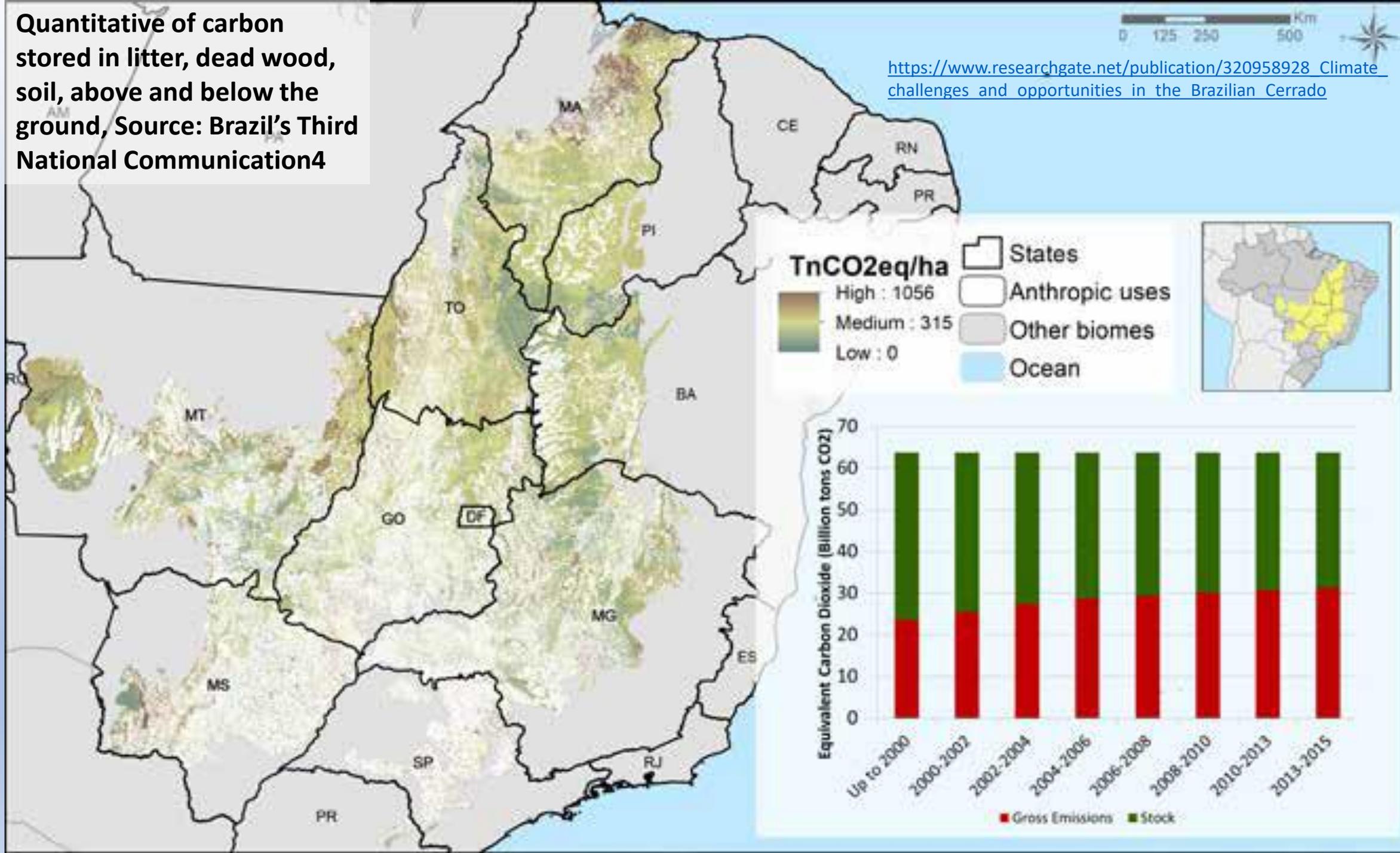
It is also a **prominent watershed**, of 8 of total 12 Brazilian river basins, essential for the Pantanal and supply of most of Brazilian largest and most populated cities.

[Get to know the Cerrado](#)

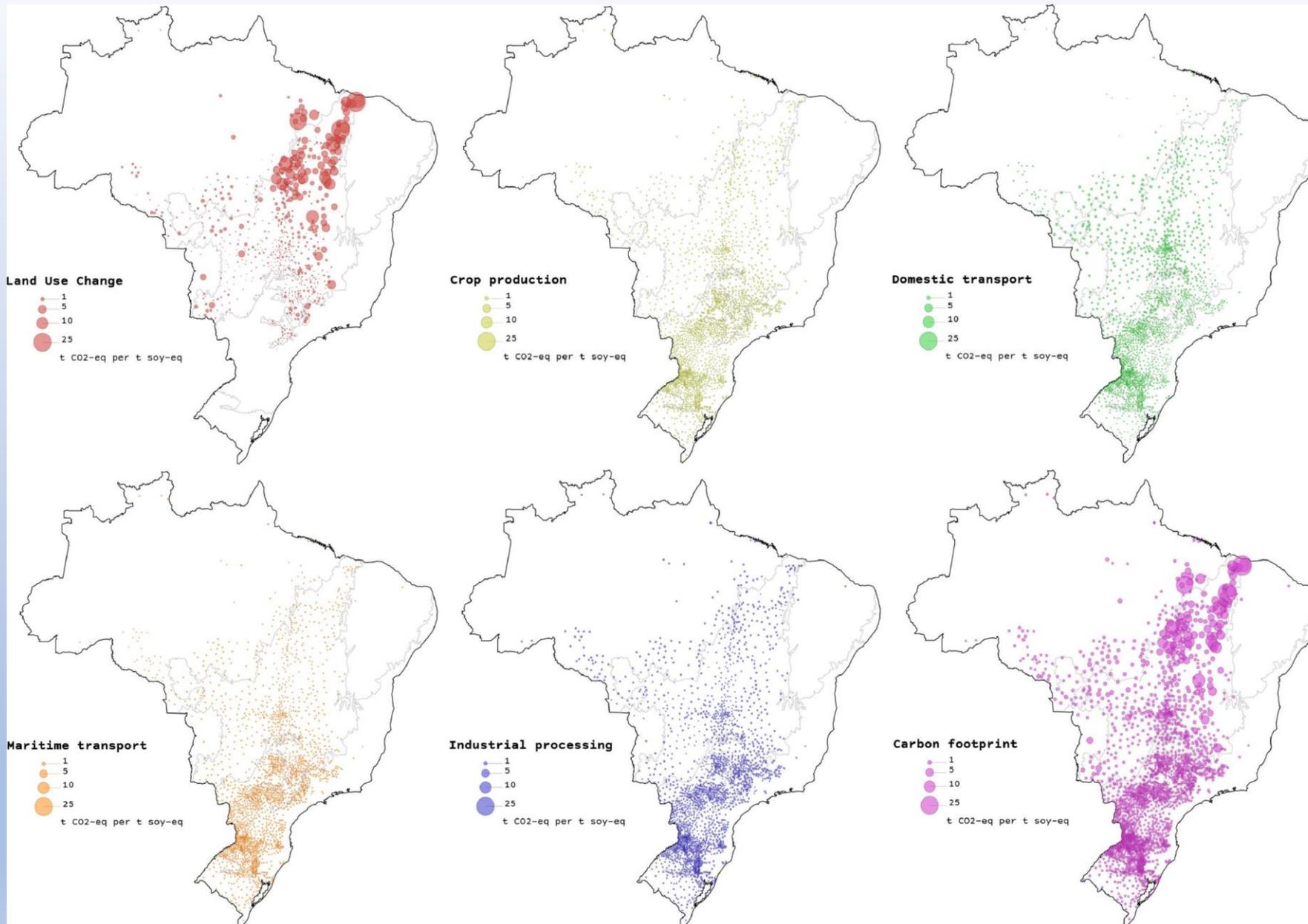


Quantitative of carbon stored in litter, dead wood, soil, above and below the ground, Source: Brazil's Third National Communication⁴

https://www.researchgate.net/publication/320958928_Climate_challenges_and_opportunities_in_the_Brazilian_Cerrado



Carbon emissions embodied in Brazil's soy exports [Escobar et al. 2020](#)

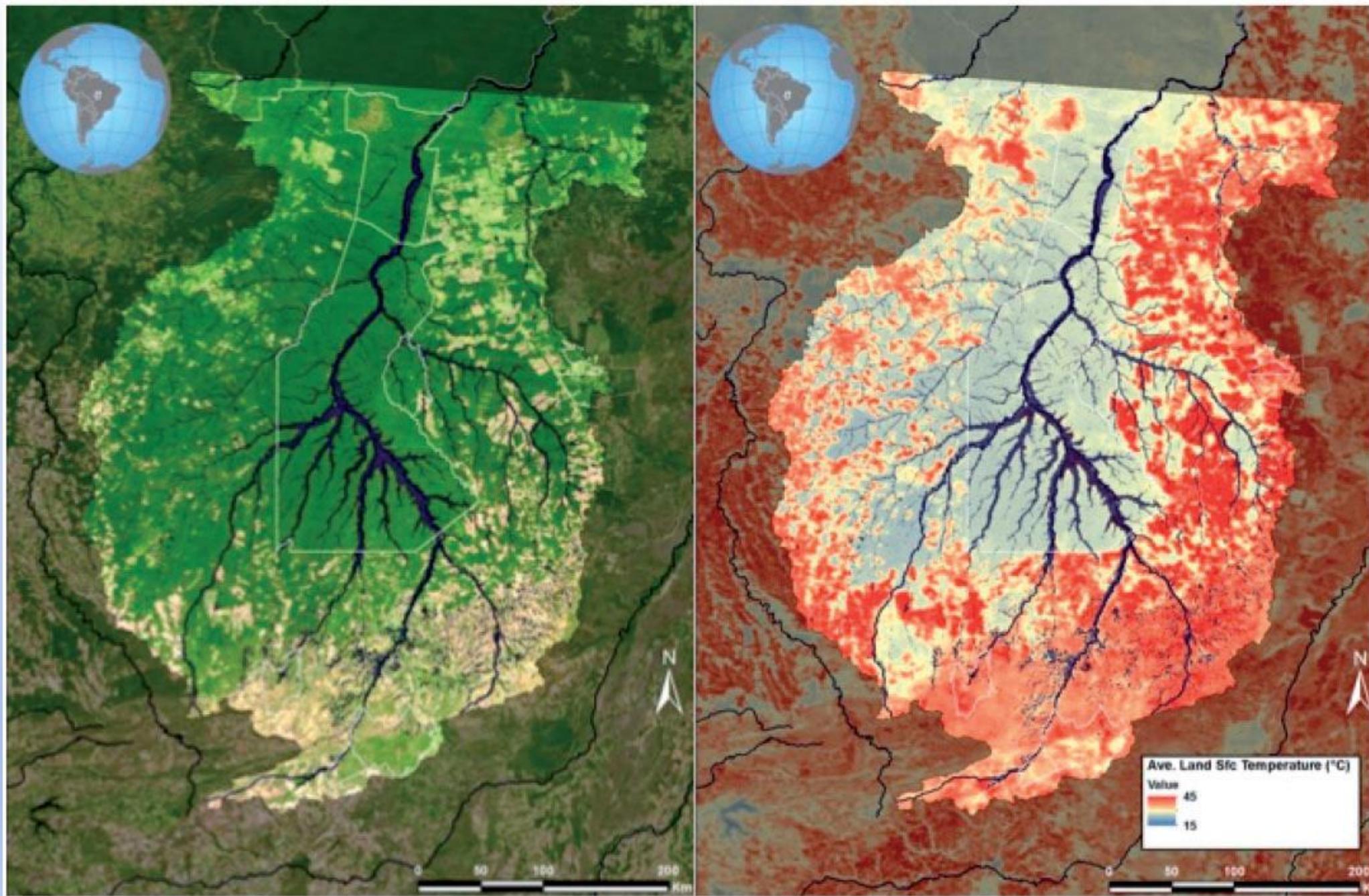


- Cerrado has the largest footprint ($1.00 \text{ tCO}_2\text{-eq.t}^{-1}\text{soy-eq.}$) followed by the Amazon.
- Carbon footprint of EU ($0.77 \text{ tCO}_2\text{-eq.t}^{-1}\text{soy-eq.}$) is 13.8% larger than China's.
- Total CO₂ emissions are 223.46 Mt in 2010–2015.

Carbon footprint of the soy exporting municipalities in the period 2010–2015, as CO₂-eq. per soy-eq. (t t^{-1}).



Direct Impact of Deforestation and Conversion on regional climate: shift of rain system





Impacts of Deforestation and Conversion on Agriculture

Flying Rivers:

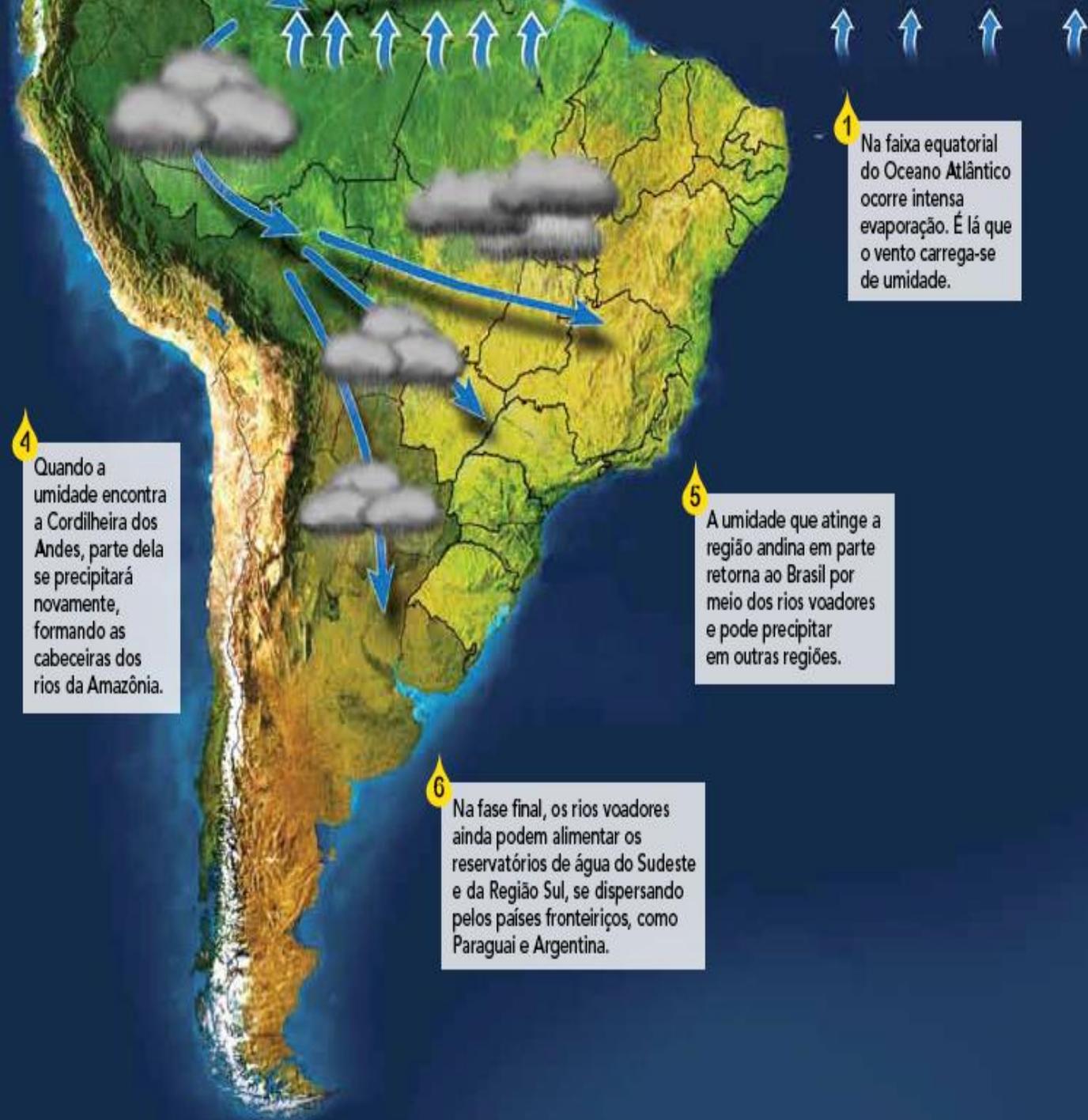
Deforestation of the Amazon may reduce by 50% the rains southwards,

Impacts on crop production in Brazil, Argentina and Paraguay
+ water supply of half of population
+ 80% of Brazilian energy.

<http://riosvoadores.com.br/english/the-flying-rivers-phenomenon/>

<http://www.bbc.com/future/story/20130326-amazons-invisible-flying-rivers>

<http://news.nationalgeographic.com/news/2009/12/091217-amazon-flying-rivers-climate/>





By Frits Ahlefeldt

Impacts of soy expansion on traditional communities

- Land grabbing
- Forced eviction
- Threats and violence
- Loss of livelihood
- Loss of culture, identity, references
- Pain and shame
- Loss of traditional knowledge on sustainable land-uses and biodiversity

| 04-07-2018

Land speculation is leading to human rights violations and eco-destruction in Brazil

A new report uncovers how international pension funds, foreign investments and institutions are tearing down any future for rural communities in Northeastern Brazil.



The advance of agribusiness in the MATOPIBA region (an area of around 73 million hectares expanding across the Brazilian States of Maranhão, Tocantins, Piauí, and Bahia), backed by international capital, is destroying the livelihoods of rural communities and significantly eroding local biodiversity.

The MATOPIBA region is situated in the northern part of the Cerrado, an ecoregion, which is home to 5% of the biodiversity on Earth. Although it is less known than the Amazon, it is just as vital for both the country's and the planet's ecology. The indigenous and traditional communities living there have developed strategies of survival and

coexistence with this ecosystem and their practices and knowledge are indispensable for the survival of the

<https://news.mongabay.com/2018/07/cerrado-traditional-communities-win-back-land-from-agribusiness-firm>

<https://news.mongabay.com/2018/03/cerrado-u-s-investment-spurs-land-theft-deforestation-in-brazil-say-experts/>

https://www.fian.org/en/news/article/land_speculation_is_leading_to_human_rights_violations_and_eco_destruction_in_brazil/

<https://www.globalwitness.org/en/campaigns/environmental-activists/their-faces-defenders-frontline/#chapter-4/section-1>

<https://www.cptnacional.org.br/component/jdownloads/send/60-dados-2017/14076-en-suggested-guideline-murders-in-the-countryside-hit-a-new-record-and-reach-the-highest-number-since-2003-cpt-communication-office?Itemid=0>

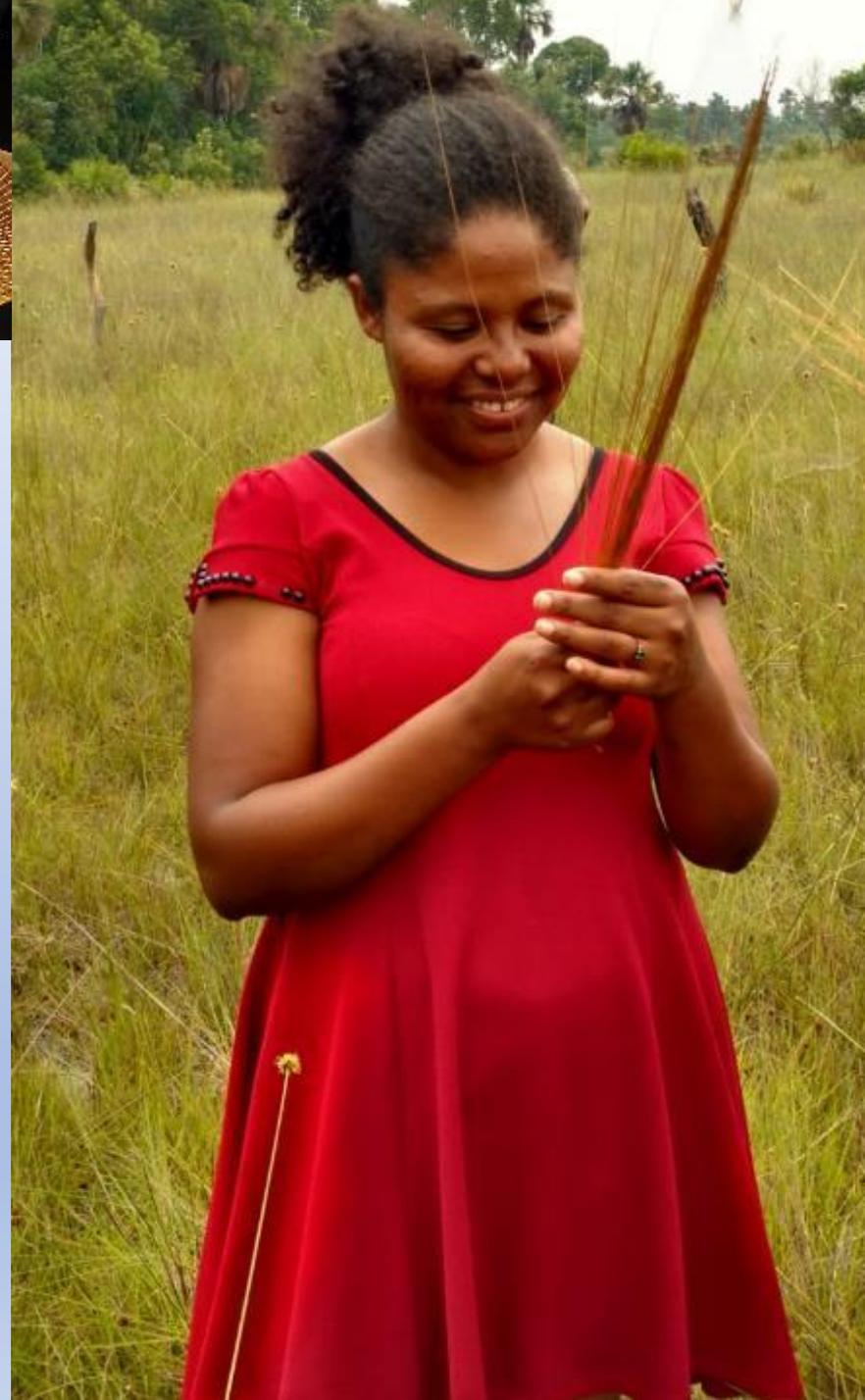
<https://news.mongabay.com/2018/09/connect-the-dots-cerrado-soy-drives-inequality-to-provide-eu-with-chicken/>



Golden Grass, Mumbuca TO

Zé Batata, a subsistence farmer stands by the grave of his mother which has been covered entirely by corn.

<https://news.mongabay.com/2018/09/connect-the-dots-cerrado-soy-drives-inequality-to-provide-eu-with-chicken/>



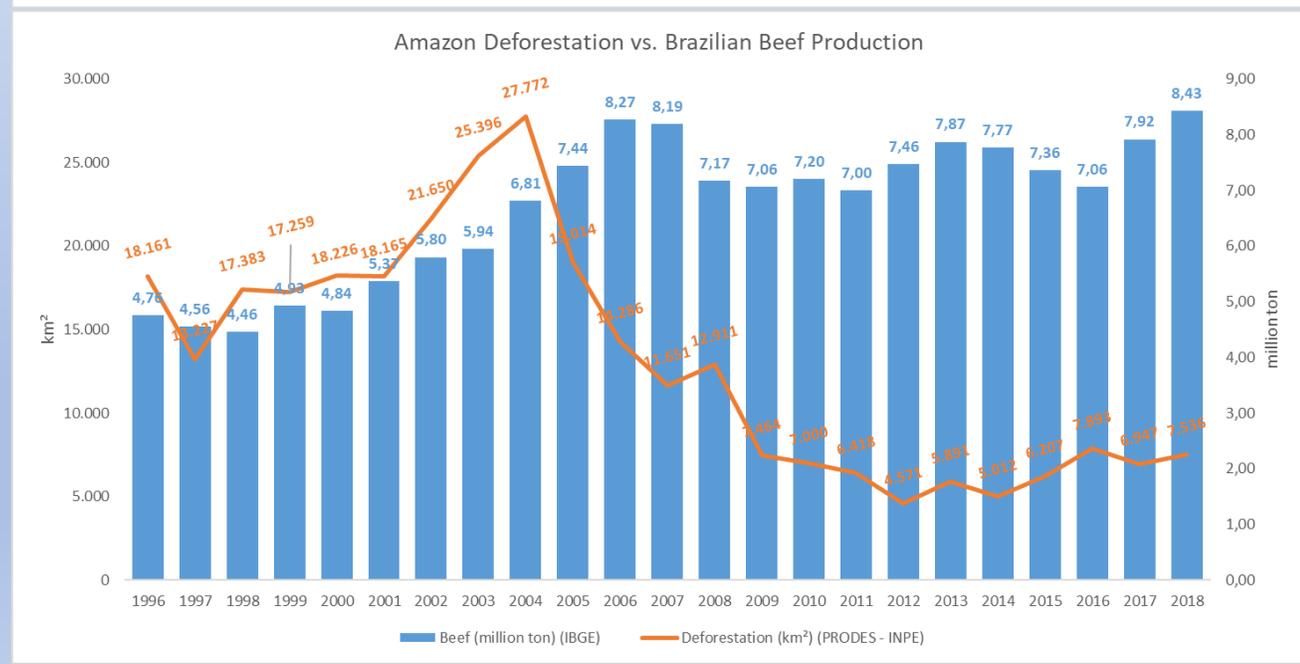
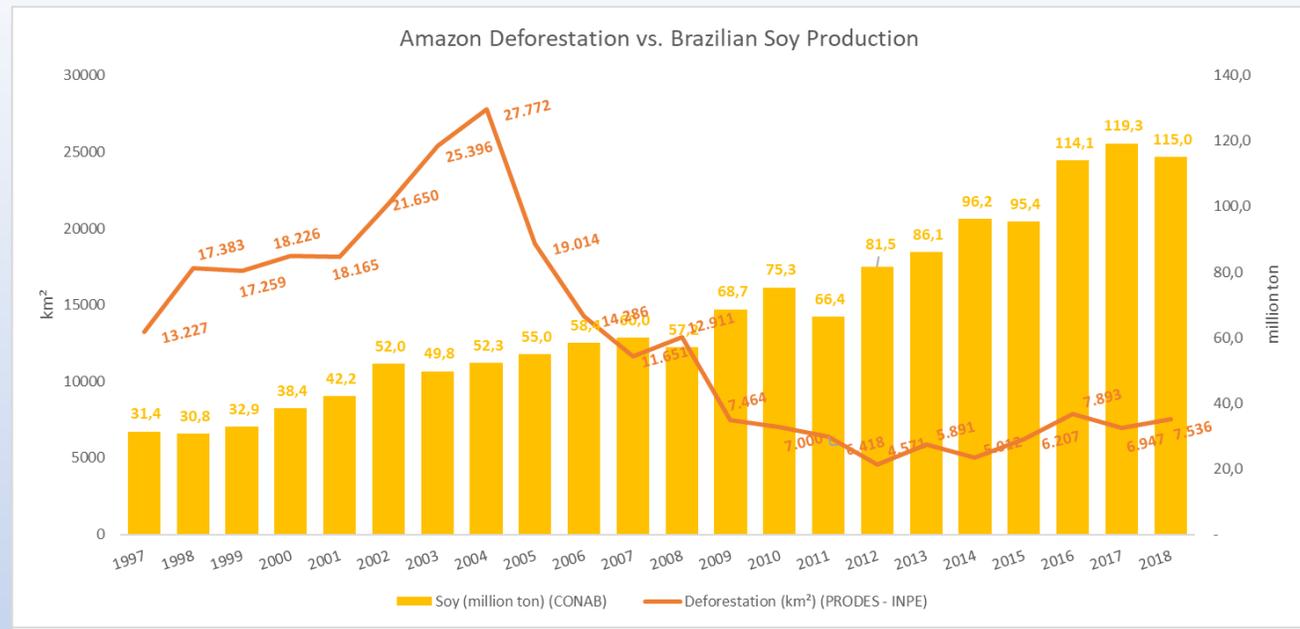
Home of 7.000 Kalungas for centuries (threatened by private hydrodam project)





Development does NOT require deforestation or conversion

- Deforestation decreased 80% since 2004
- During the same period Beef and Soy production increased
- Deforestation back on the rise for 2015 (24%), 2016 (29%) and, 2018 (30%)



Source IBGE, elaborated by WWF

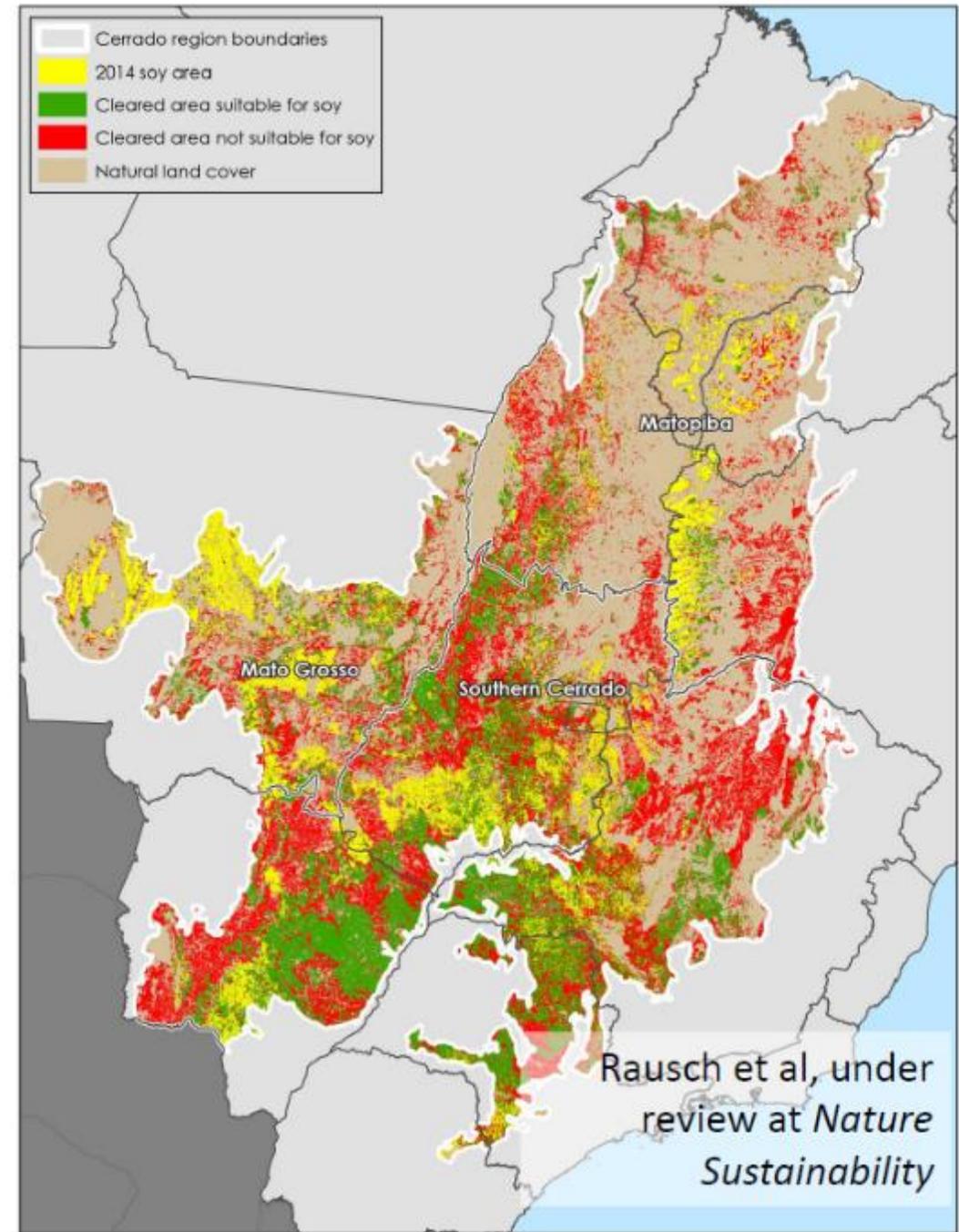


Other approach, considering all land:
38 million hectares of highly suitable, already cleared land available in the Cerrado, **to triple Cerrado soy production** without cutting one single native scrub (or tree).

There is enough cleared and suitable land to triple soy area in the Cerrado – up to 38Mha

Cleared and suitable area is concentrated in the Southern Cerrado

70% of highly suitable, cleared area is currently used as pasture



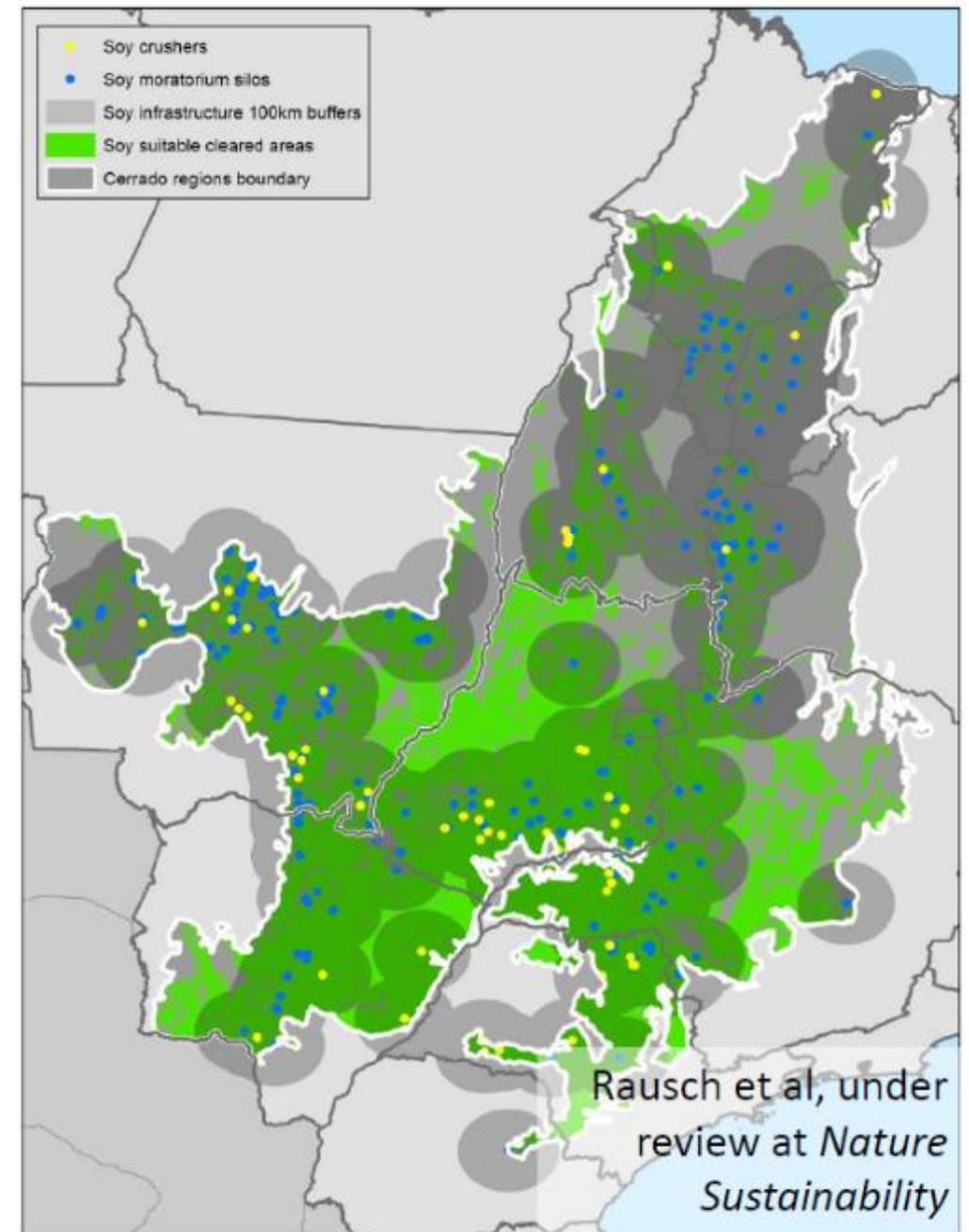


Cleared and suitable land is accessible

78% of cleared and suitable land is within 100km of a major soy trader silo

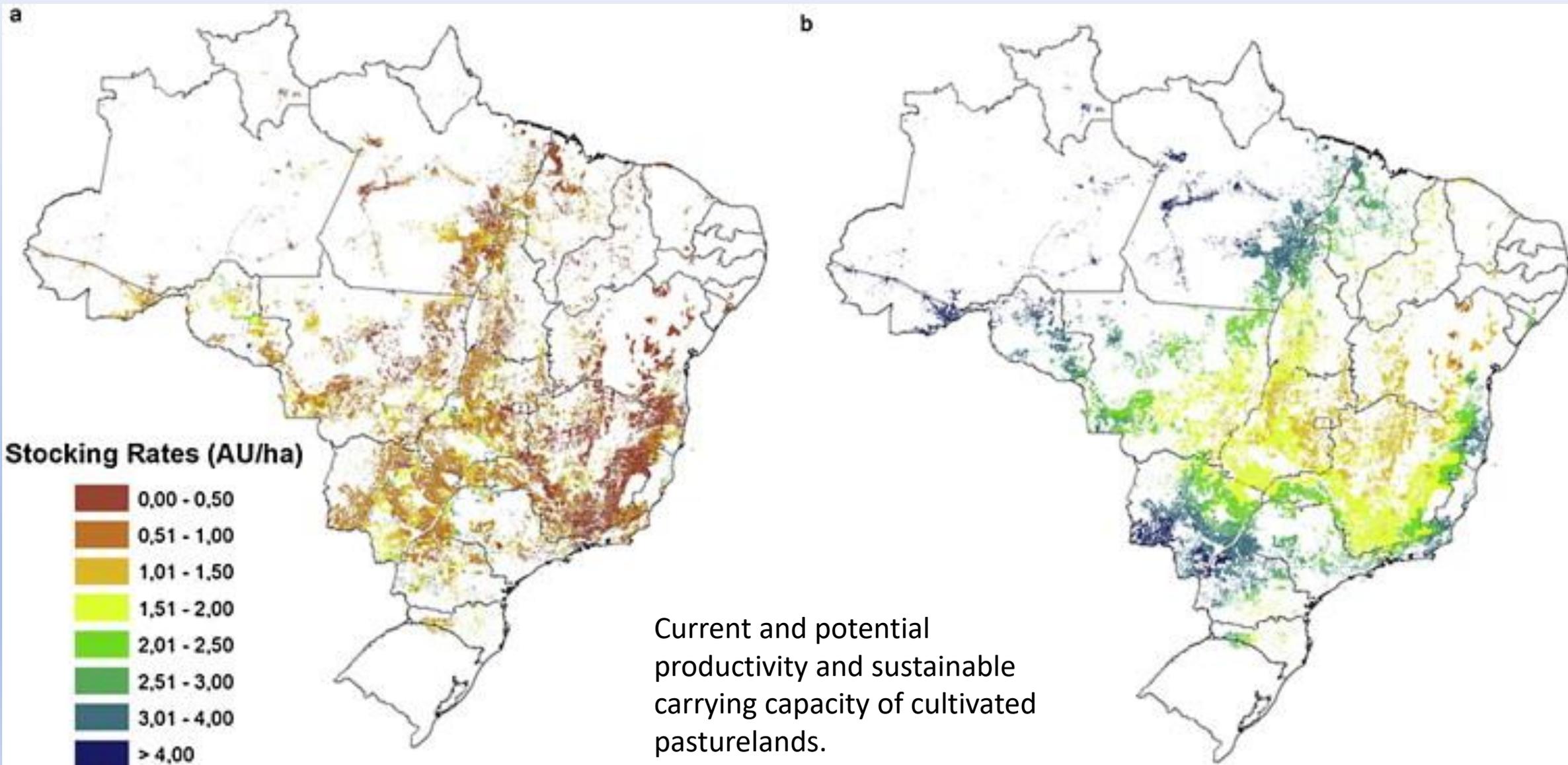
99% of cleared, suitable area is within 25Km of a major road

What is needed to encourage soy expansion in these areas?

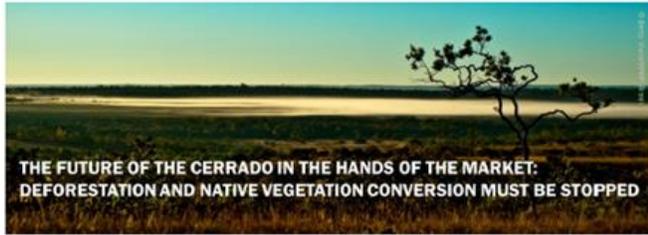




[Strassburg et al. 2014](#): There is enough space for deforestation-free crop expansion until at least 2040, through better pasture management



Brazilian Civil Society & The Cerrado Manifesto



**THE FUTURE OF THE CERRADO IN THE HANDS OF THE MARKET:
DEFORESTATION AND NATIVE VEGETATION CONVERSION MUST BE STOPPED**

September 11th, 2017

Brazil destroyed 18,962 km² of the Cerrado between 2013 and 2015¹. In other words, every two months during that time, an area of the Cerrado the size of São Paulo city disappeared. Deforestation rates of the Cerrado have exceeded those of the Amazon for over 10 years. This pace of this destruction makes the Cerrado one of the most threatened ecosystems on the planet.

Considered the birthplace of many of Brazil's great water systems, the Cerrado – the world's most biodiverse savannah – has already lost 50% of its original area. According to a recent article published in *Nature Ecology & Evolution*², the rate of destruction in the Cerrado will result in a catastrophic extinction of species.

Moreover, continued destruction of the Cerrado will cause changes in the region's rainfall patterns, impacting agricultural productivity³, as already occurs in the Amazon⁴. The Cerrado stores the equivalent of 13.7 billion tons of carbon dioxide (CO₂)⁵, and the greenhouse gas emissions resulting from native vegetation conversion will impede Brazil's international commitments under the climate and biodiversity conventions.

The main cause of conversion in the Cerrado is the expansion of agribusiness. Between 2007 and 2014, 26% of agricultural expansion in the Cerrado occurred directly on areas of native vegetation⁶. In Matopiba alone – located in the states of Maranhão, Tocantins, Piauí and Bahia, and is the main frontier of vegetation conversion – 62% of agricultural expansion replaced native vegetation⁷. Recent analyses suggest that, between 2000 and 2016, 49% of pastureland expansion in Matopiba occurred on the Cerrado⁸. It should be noted that an area that is converted for grazing is often later used for crops such as soy⁹.

It is unnecessary for the livestock and plantation sectors to continue expanding into natural habitats in the Cerrado, especially considering there are around 40 million hectares already cleared in Brazil suitable for cultivating soy – the main crop associated with the destruction of native vegetation¹⁰. Modest gains in cattle-raising efficiency would free millions of hectares for other types of land use¹¹.

Responsibility for this problem – and the search for solutions that can quickly stop the destruction of the Cerrado – is shared by all parts of the production and supply chains, from the producers to

¹ INPE & Functate, 2017. Data from the National Institute for Space Research (INPE) for the period between August 2013 and July 2015. Available at <http://combateadeforestamato.mma.gov.br/pt-br/area/cerrado>

² Strassburg et al., 2017.

³ Iñaverio et al., 2015; Spera et al., 2016; Coeta & Pires, 2009.

⁴ Mayrroit et al., 2014.

⁵ CEPF, 2016.

⁶ Carneiro Filho & Coeta, 2016.

⁷ Ibidem.

⁸ IPAM, unpublished. 49% of the existing pasture area in Matopiba in 2016 was a result of native vegetation conversion since 2000. Data for this analysis is available on the Mapbiomas platform at <http://mapbiomas.org/pt-br/area/cerrado>

⁹ Carneiro Filho & Coeta, 2016.

¹⁰ Carneiro Filho & Coeta, 2016.

¹¹ Strassburg et al., 2014.

consumers, including traders, meat-packing companies, retailers, investors, agricultural producers, and land developers.

It should be noted that, although enforcement of environmental legislation, including the Forest Code, is important, it is not enough to ensure conservation of the biome, since it allows legal conversion of up to 80% of rural properties.

The private sector has learned that it is possible to produce commodities while avoiding supply chains being directly associated with further conversion of natural ecosystems, as the success of the Amazon Soy Moratorium shows. Collaboration between different links of the production chain, together with government support and civil society monitoring, was the path taken by the Soy Moratorium, and it should now inspire similar solutions in the Cerrado.

The undersigned civil society organizations call for immediate action in defense of the Cerrado by companies that purchase soy and meat from within the biome, as well as by investors active in these sectors. This includes the adoption of effective policies and commitments to eliminate deforestation and conversion of native vegetation and disassociate their supply chains from recently converted areas.

The Brazilian government also needs to ensure that the law and international commitments are met by putting instruments and policies in place that can improve governance of agricultural production in the Cerrado. It is essential that protected areas be created, and that the right of access to the land is guaranteed for indigenous people, traditional communities, and small farmers in the region. It is also crucial that official data on deforestation and native vegetation conversion in the Cerrado be published annually, as is already the case for the Amazon.

Incentives and economic instruments need to be developed by both the government and the private sector to reward farmers' efforts to conserve areas of native vegetation, even when they are not required for legal clearance.

This collective and multisectoral effort will enable production to continue while a diversified economy is developed in the region, guaranteeing rights and income for local communities and adequate protection for the Cerrado's valuable natural ecosystems.

**THE FUTURE OF THE CERRADO IN THE HANDS OF THE MARKET:
DEFORESTATION AND NATIVE VEGETATION CONVERSION MUST BE STOPPED**

MANIFESTO COSIGNERS

- WWF-Brazil
- Greenpeace Brazil
- Amazon Environmental Research Institute (IPAM)
- Institute of Agricultural and Forest Management and Certification (Imaflores)
- The Nature Conservancy (TNC)
- Earth Innovation Institute (EII)
- Institute for Society, Population and Nature (ISPAN)
- Conservation International – Brazil (CI-Brasil)

- *In September 2017, over 60 Brazilian NGOs, scientific institutions and other civil society organisations released the Cerrado Manifesto.*
- *The Manifesto calls for:*
- **“Immediate action by companies that purchase soy and meat as well as investors to eliminate deforestation in the Cerrado”**

Last updated: 9 May 2018

Signatories to the Cerrado Manifesto

Current SoS signatories (63)

Ahold Delhaize NV
Ajinomoto Co Inc
Aldi NL *
Auchan Retail
AVRIL SCA
Barry Callebaut
Bel Group (Fromageries Bel SA)
Bidfood NL *
BioMar
Boni Markten *
Boon Sliedrecht *
Carrefour
Casino Group
Colgate-Palmolive Company
Co-operative Group Ltd
Coop Switzerland
Coop Supermarkten NL *
Cooperl
Danone
Deen Supermarkten NL *
Detailresult *
De Weker *
EMTE Supermarkten *
Groothandel in Levensmiddelen Van Tol *
GPA
Grupo Bimbo
Grupo Exito
Hoogvliet Supermarkten *
ICA Gruppen AB
Inter IKEA Group
J Sainsburys Plc
Jan Linders *
Jumbo Supermarkten *
Kellogg Company
L'Oréal SA
Lekkerland *
Lidl UK GmbH
Lidl Nederland *
Makro Nederland *
Marks & Spencer Group Plc
Mars Inc
McDonald's Corporation
METRO AG
Migros

Statement of support for the objectives of the Cerrado Manifesto

We, the undersigned companies, are committed to halting forest loss associated with agricultural commodity production and to working with industry, producers, governments and civil society to protect globally important natural landscapes within a framework of good governance and land planning policy.

We recognise the critical importance of the Cerrado for its role in climate change mitigation, as a repository for biodiversity, as the source of many of Brazil's fresh water systems, and additionally as a production region for the agricultural commodities used in our products. However, we also recognise the extent and pace of native vegetation loss resulting from cattle and soy expansion in the Cerrado poses a significant threat to these social, environmental and economic values.

The Brazilian Forest Code is designed to ensure agricultural production and environmental protection are balanced. It is an important legislative mechanism requiring, for example, land registration and compensation for historical forest loss, however it offers little protection in the Cerrado where only 20% of each private property is required by law to be set aside for conservation.

This wide gap between tackling 'illegal' deforestation and achieving zero net deforestation goals is a cause for major concern. 85%¹ of the conversion of native vegetation for soy in the Cerrado is legal under the Forest Code. So while compliance with regulation is essential, at the same time, regulation on its own is currently insufficient for the protection of the Cerrado.

Recent research indicates the availability of substantial areas of already cleared land. Incentivising expansion onto these areas rather than further conversion of native vegetation, alongside the improvement of the cattle sector's current low productivity (to make room for soy expansion), offers a viable and more sustainable pathway forward for agricultural production in the Cerrado. It is increasingly clear that development need not be incompatible with the protection of globally important landscapes.

The companies below support the objectives defined in the Cerrado Manifesto and commit to working with local and international stakeholders to halt deforestation and native vegetation loss in the Cerrado.

Market-facing companies cannot achieve this on our own and we call on other supply chain actors, government, investors and civil society to share our goal. We seek to collaborate to develop the policies needed to steer all actors towards a more sustainable land use pathway, and the monitoring and verification systems to give us confidence that our actions are having the desired outcome of protecting the unique landscape of the Cerrado.

¹ Rausch et al. submitted

Business responds with the SoS Cerrado Manifesto

- *October 2017: 23 global companies published a business Statement of Support (SoS) for the Manifesto.*
- *2020: Over 150 companies and institutional investors now committed to:*

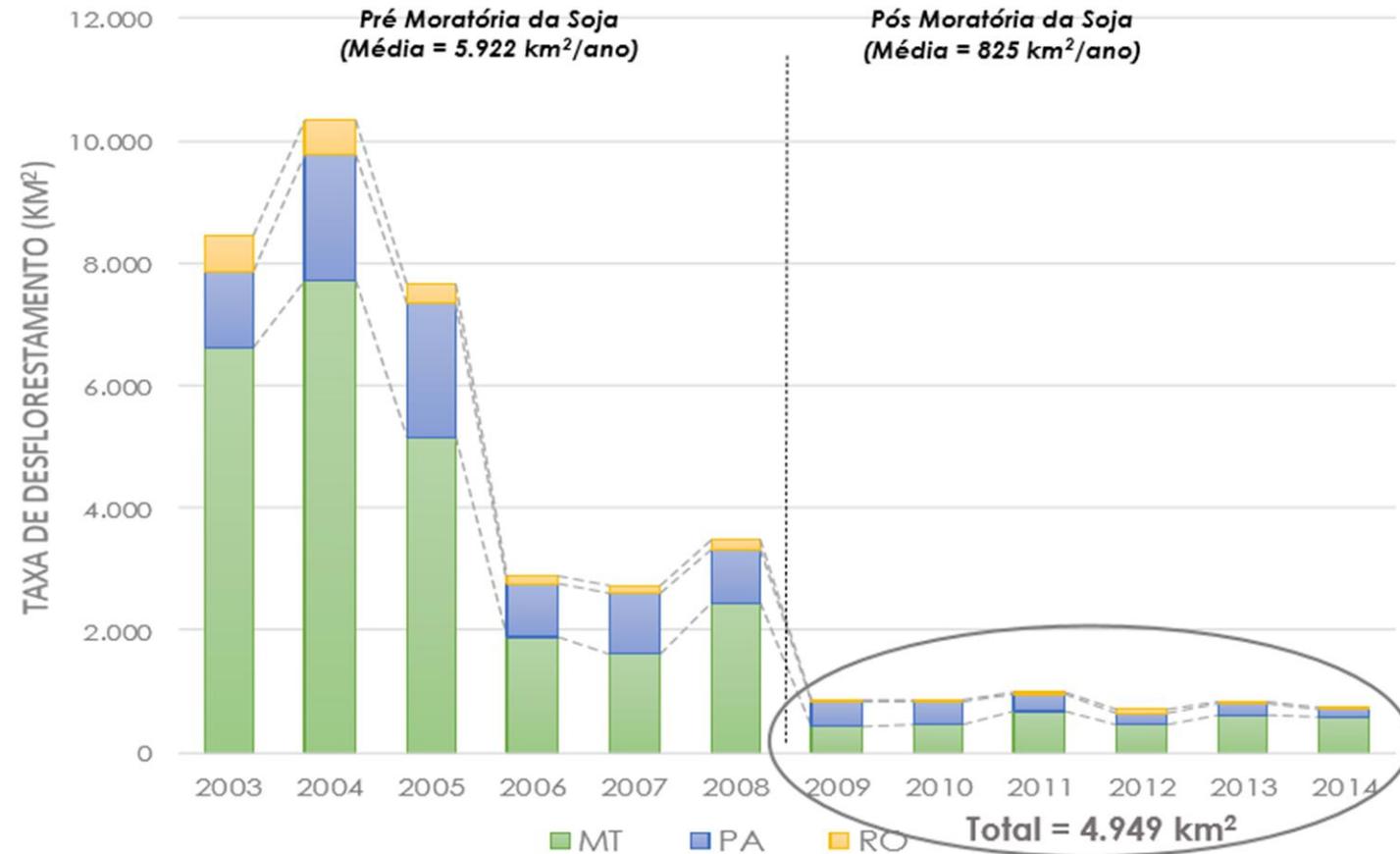
“working with local and international stakeholders to halt deforestation and native vegetation loss in the Cerrado”

Is it possible? Yes!

- **Yes**, after the traders agreed to the Amazon Soy Moratorium deforestation from soy in the Amazon decreased 30% to less than 1 %
- At the same time, production of soy has also increased 400% in the Amazon (through using only existing agricultural land)

Result: immediate deforestation curb.

Taxa de desflorestamento nos 76 municípios monitorados



Desflorestamentos estaduais no bioma Amazônia de 2009 a 2014 = 26.571 km²

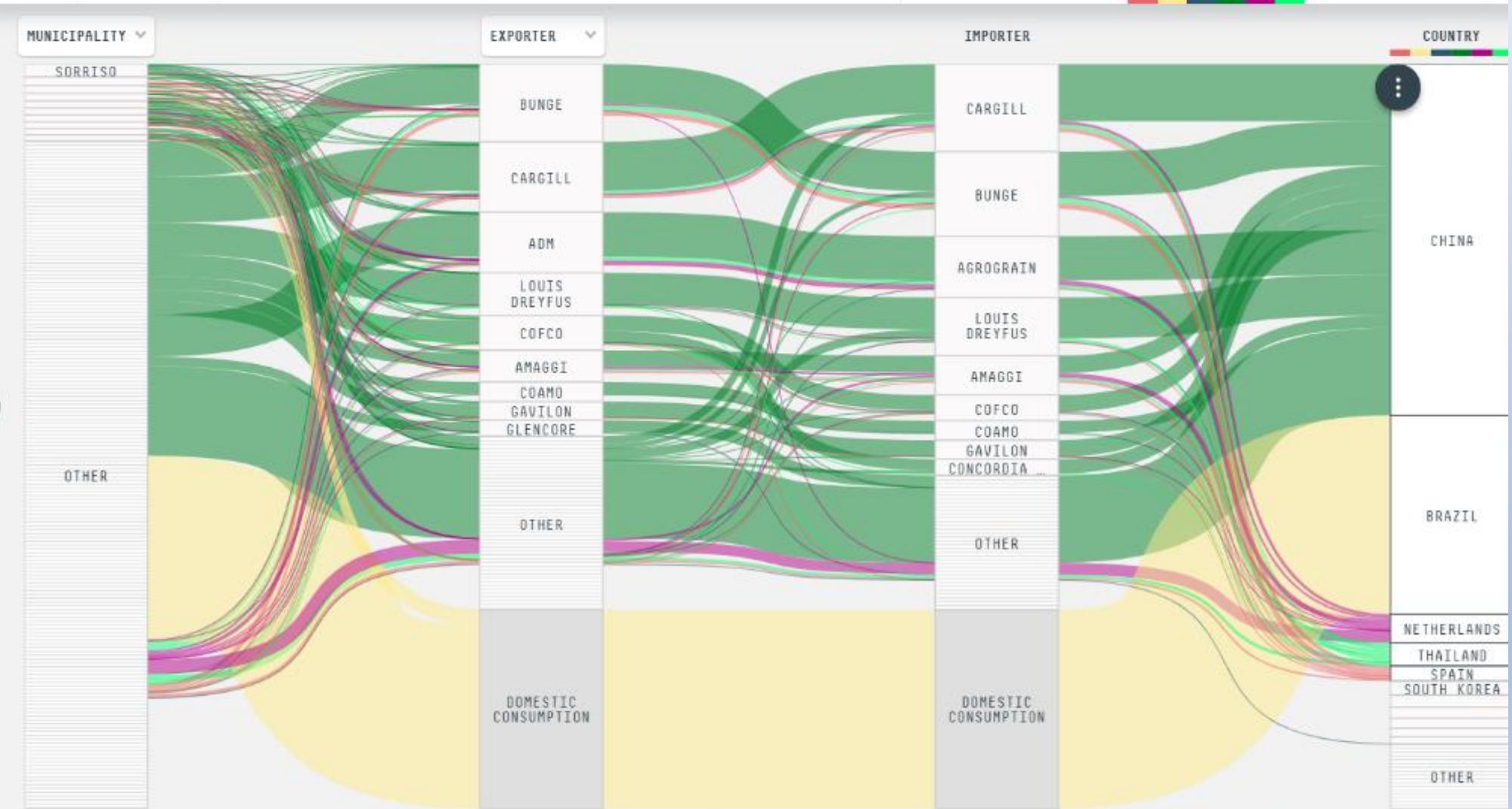
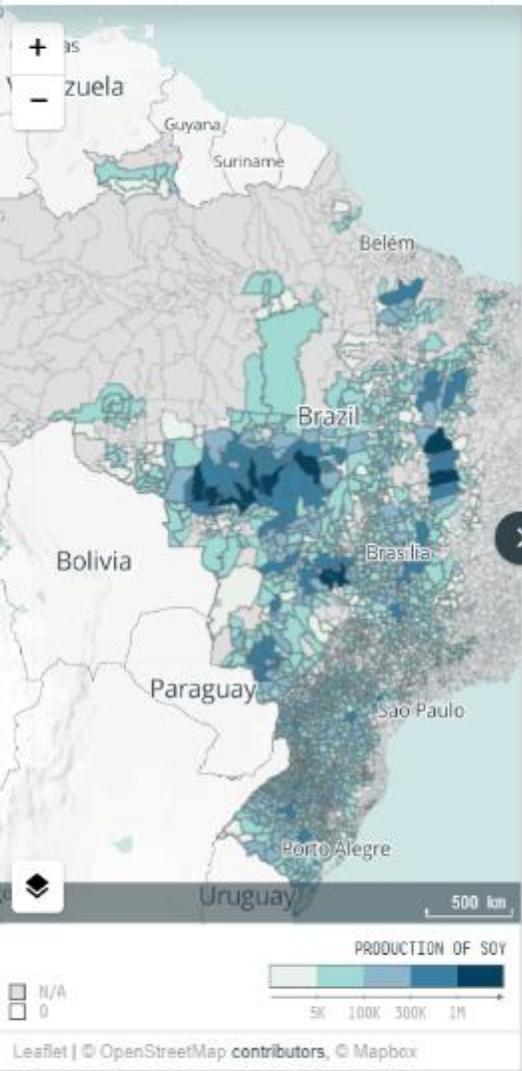
RO=4.155 km²; MT=5.441 km²; e PA=16.975 km²

Transparent traceability



Browser address bar: <https://trase.earth/flows?state=eyJzZWxlY3RIZENvbnRleHRJZCI6MSwic2VsZWN0ZWRZZWFycyl6WzlwMTcsMjAxN10slmRldGFpbGVkVmlldyI...>

Navigation and filters: **BETA** | COUNTRY - COMMODITY: **Brazil - Soy** | BIOME: **All** | YEAR: **2017** | RESIZE BY: **Trade Volume** | RECOLOUR BY: **Selection** | CHANGE VIEW: **Summary**



Bottom navigation: COUNTRY TRADE VOLUME (repeated for multiple countries)

Chinese Meat Declaration

Continuously move to conserve nature and resources by avoiding land degradation, deforestation and conversion of natural vegetation in the livestock production and feed value chains.



中国肉类可持续发展宣言 Chinese Sustainable Meat Declaration

2017.10.17·青岛·Qingdao

日益增长的人口对肉产品的需求给环境、社会和经济带来了前所未有的压力和机遇。肉类生产对自然资源造成的生态影响非常深远。正对肉类的压力越来越大，我们必须在地球代留下一个可以满足未来世代健康发展的环境。

我们选择将肉生产作为全球经济、社会与环境可持续发展的关键组成部分，努力使其成为完全有益于民生的产业。整个肉类供应链的透明度和可持续性，是可持续发展的关键。我们致力于推动肉类生产，社会和环境发展生产知识能力基于重要地位。

世界自然基金会和中国肉类协会联合发布倡议，中国肉类产业从业者共同承诺致力于其供应链的可持续发展，通过我们的共同努力，提高肉类生产、贸易与消费的可持续性。

我们代表_____声明，并在此郑重承诺，以开展从社会、经济、环境等多方面考虑，进一步全面提升肉产品的可持续发展。承诺如下内容：

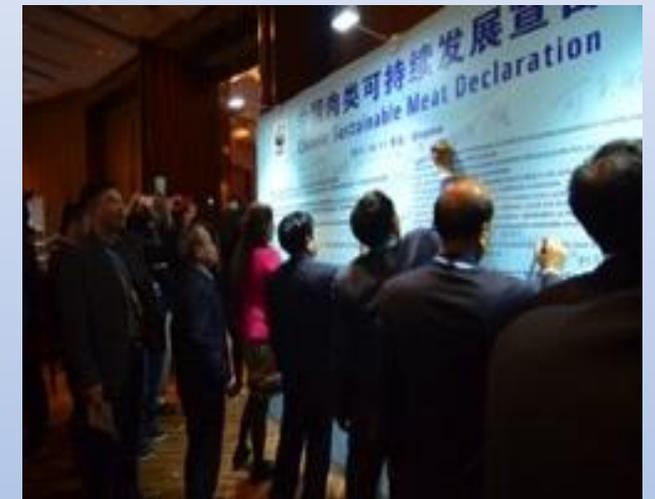
1. 在畜牧业饲料种植过程中，加强土壤保护和环境维护，防止土壤肥力退化、酸化和生物多样性丧失问题；
2. 在畜牧业、肉类生产供应链中，不砍伐森林和转换用途；
3. 持续提高节水、能源、土地等在内的资源利用效率，提高肉类产品使用价值和利用率，减少温室气体与污染物的负面排放；
4. 持续提高肉类产品供应链管理过程的透明度和可追溯性；
5. 持续提升肉类产品供应链中小企业、小农户的经营管理水平；
6. 改善畜牧业、饲料业等过程中动物的福利；
7. 加强供应链各方之间的对话与协作，建立共识，平衡供应链中各方利益诉求的矛盾，实现供应链的良性与推广；
8. 制定长期规划计划，建立定期汇报、监测评估和不断改进的工作机制，逐步推进中国肉类可持续发展目标的实现。

The growing global demand for meat products to feed an increasing population is creating unprecedented pressures and opportunities on the environment, society and the global economy. Impacts to natural resources and ecosystems associated with meat production are causing serious challenges to our ability to have a healthy planet able to meet the needs of future generations. The vital positive role that meat production plays in providing to the global economy, society and to the environment must be developed and supported to ensure livestock is a net positive contributor to humanity. The entire meat value chain plays a major role in creating a more sustainable and positive livestock sector and supporting the promotion of production and trading practices that provide economic, social and environmental benefits now and into the future. Jointly endorsed by WWF and China Meat Association, stakeholders in the Chinese meat industry jointly declare our commitments and call other stakeholders to support concerted efforts to promote sustainable meat production, trade and consumption.

On behalf of _____ we commit, and agree to promote, sustainable meat with integrated efforts in social, economic, and environmental dimensions through taking the following actions:

1. Continuously move to conserve nature and resources by avoiding land degradation, deforestation and conversion of natural vegetation in the livestock production and feed value chains.
2. Continuously avoid and eliminate deforestation during animal husbandry, meat production and trade.
3. Continuously increase resource efficiency including water, energy and land, increase product value and utilization, and reduce negative impacts such as GHG emissions and pollution.
4. Continuously improve transparency and traceability in supply chain management.
5. Continuously improve the practices of rights and benefits for small & medium companies and smallholders in the supply chain of meat products.
6. Continuously improve animal welfare throughout livestock production, transportation and slaughtering.
7. Strengthen multi-stakeholder dialogue and build consensus for continuous dissemination, sharing and extension of sustainability concepts, best practices and lessons learnt in meat production.
8. Develop long-term plans, and establish the regular reporting, overall assessment and continuous improvement mechanisms to progress the sustainable meat project in China.

联合发起单位 / Co-initiators

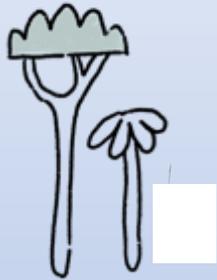





- The [Accountability Framework](#) is a common reference for setting commitments, taking action, and monitoring results related to ethical supply chains.
- The Framework aims to bring greater clarity, consistency and accountability for supply chain commitments.
 - Core principles
 - Common definitions
 - Comprehensive guidance

Scope of the Accountability Framework

Topical scope



Halt deforestation



Protect other natural ecosystems



Respect human rights



Support producer and community livelihoods

Supply Chains

Palm Oil

Soy

Cattle

Pulp/paper/timber

Cocoa

Rubber

Other commodities
(coffee, etc.)

Geographies

South America

Southeast Asia

West/Central Africa

Other producing regions

Contents of the Accountability Framework

Set and strengthen goals

Implement ethical supply chains

Report progress

1



Protection of forests and other natural ecosystems

2



Respect for human rights

3



Specification of commitments

4



Company systems and processes to drive effective implementation

5



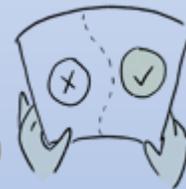
Supply chain assessment and traceability

6



Managing for supply chain compliance

7



Land acquisition, land use planning, and site development

8



Land management and long-term protection

9



Access to remedy and environmental restoration

10



Collaboration for landscape and sectoral sustainability

11



Monitoring and verification

12



Reporting, disclosure, and claims

A unique coalition to support progress at scale

Steering Group:



Backbone Team:



Supporting Partners:



Regional Teams & Partners:

SE Asia; West & Central Africa; Colombia; Brazil/Paraguay/Argentina

Consensus
Capacity
Coordination

A scenic landscape featuring a vibrant pink flower in the foreground, slightly out of focus. The background shows a vast valley with rolling hills and mountains under a cloudy sky. The text is overlaid on the right side of the image.

Thank you

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Supply Chains

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