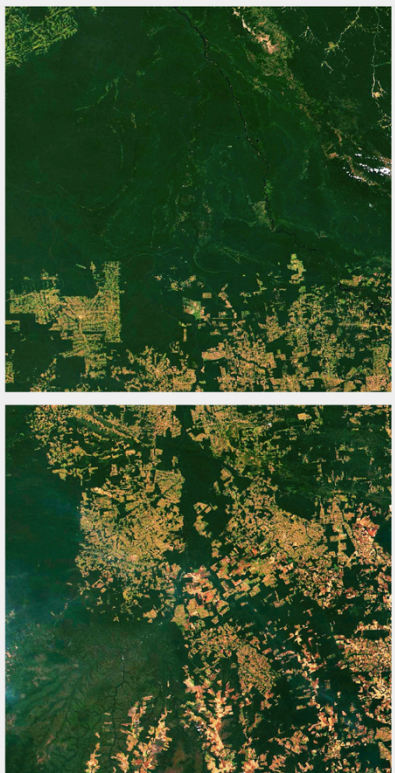
Future Horizons Institute

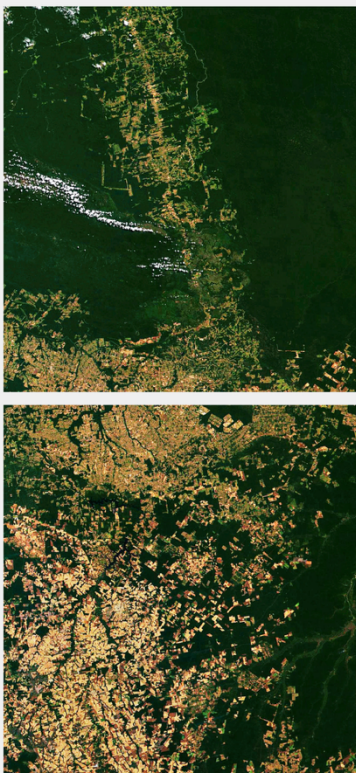
Strengthening Sustainable Trade for Food Security:

Pathways towards sustainability in the China-Brazil soy trade

April 2026

Knut Lakså
Claudia Melim-McLeod





DOI: 10.5281/zenodo.20330353

Suggested citation:
Lakså, K. and Melim-McLeod, C. (2026). *Strengthening sustainable trade for food security: Pathways towards sustainability in the China–Brazil soy trade*. Future Horizons Institute. https://doi.org/10.5281/zenodo.20330353

Future Horizons Institute
info@futurehorizonsinstitute.org | futurehorizonsinstitute.org

Acknowledgements

The authors wish to thank the many stakeholders who contributed to this report, including representatives from government institutions, regulatory bodies, private enterprises, trade associations, researchers, and civil society groups. Their insights enriched our understanding of the challenges and opportunities for sustainable transition pathways.

We also appreciate the review provided by Peng Ren, Carlos Augusto Klink, Niels Søndergaard, João Shimada and Arnaldo Carneiro, whose substantive feedback strengthened the report. We would also like acknowledge Paloma Paiva for editorial and design support.

All errors and interpretations remain solely the responsibility of the authors.

Design by Paloma Paiva.

Acronyms and abbreviations

ABIOVE	Associação Brasileira das Indústrias de Óleos Vegetais (Brazilian Association of Vegetable Oil Industries)
ADM	Archer Daniels Midland Company
APEC	Asia-Pacific Economic Cooperation
APP	Áreas de Preservação Permanente (Permanent Preservation Areas)
Aprosoja	Associação Brasileira dos Produtores de Soja (Brazilian Association of Soybean Growers)
BCB	Banco Central do Brasil (Central Bank of Brazil)
BRI	Belt and Road Initiative
BRICS	Brazil, Russia, India, China and South Africa
CADE	Conselho Administrativo de Defesa Econômica (Administrative Council for Economic Defence)
CAR	Cadastro Ambiental Rural (Rural Environmental Cadastre)
CDB	China Development Bank
CFNA	China Chamber of Commerce for Import and Export of Foodstuffs, Native Produce and Animal By-Products
CGF	Consumer Goods Forum
CIIE	China International Import Expo
CNA	Confederação da Agricultura e Pecuária do Brasil (Confederation of Agriculture and Livestock of Brazil)
COFCO	China Oil and Foodstuffs Corporation
COP	Conference of the Parties
CSDDD	Corporate Sustainability Due Diligence Directive
CSRD	Corporate Sustainability Reporting Directive
ESG	Environmental, Social, and Governance
EU	European Union
EUDR	EU Deforestation Regulation
FAMATO	Federação da Agricultura e Pecuária do Estado de Mato Grosso (Mato Grosso Agriculture Federation)
FPA	Frente Parlamentar da Agropecuária (Parliamentary Agricultural Front)
FUNAI	Fundação Nacional dos Povos Indígenas (National Indigenous Peoples Foundation)
GACC	General Administration of Customs of China
GEI	Global Environmental Institute
GMO	Genetically Modified Organism
IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Brazilian Institute of Environment and Renewable Natural Resources)
IBGE	Instituto Brasileiro de Geografia e Estatística (Brazilian Institute of Geography and Statistics)
ICA	Institutional and Context Analysis
ICS	Instituto Clima e Sociedade (Climate and Society Institute)

IPAM	Instituto de Pesquisa Ambiental da Amazônia (Amazon Environmental Research Institute)
IPCC	Intergovernmental Panel on Climate Change
IPLC	Indigenous Peoples and Local Communities
ISGA	International Soybean Growers Alliance
LDC	Louis Dreyfus Company
MAPA	Ministério da Agricultura e Pecuária (Ministry of Agriculture and Livestock)
MARA	Ministry of Agriculture and Rural Affairs (China)
MDIC	Ministério do Desenvolvimento, Indústria, Comércio e Serviços (Ministry of Development, Industry, Trade and Services)
MMA	Ministério do Meio Ambiente e Mudança do Clima (Ministry of Environment and Climate Change)
MOFCOM	Ministry of Commerce (China)
MoU	Memorandum of Understanding
MPF	Ministério Público Federal (Federal Public Prosecutor's Office)
MRE	Ministério das Relações Exteriores (Ministry of Foreign Affairs)
NGO	Non-Governmental Organisation
PCI	Produzir, Conservar e Incluir (Produce, Conserve and Include)
PPCDAm	Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal (Action Plan for the Prevention and Control of Deforestation in the Legal Amazon)
PPCerrado	Plano de Ação para Prevenção e Controle do Desmatamento e das Queimadas no Bioma Cerrado (Action Plan for the Prevention and Control of Deforestation and Fires in the Cerrado Biome)
R$	Real brasileiro (Brazilian real)
RCPs	Representative Concentration Pathways
RMETS	Royal Meteorological Society
RTRS	Round Table on Responsible Soy
SAMR	State Administration for Market Regulation (China)
SEMA	Secretaria de Estado de Meio Ambiente (State Secretariat for the Environment)
SICAR	Sistema Nacional de Cadastro Ambiental Rural (National Rural Environmental Registry System)
SRCCL	Special Report on Climate Change and Land
STC	Soy Transparency Coalition
UNDP	United Nations Development Programme
USD	United States Dollar
USDA	United States Department of Agriculture
WRI	World Resources Institute
WTO	World Trade Organisation
WWF	World Wide Fund for Nature

Executive Summary

China's expanding global footprint is reshaping the geography of food, trade and environmental governance. Despite its leadership in clean energy and industrial transformation, China remains structurally dependent on agricultural imports - above all, soy. The Brazil–China soy trade is one of the most strategically important commodity relationships in the global economy, linking food security, climate risk and land use governance. China relies on imports for most of its soybean demand, sourcing close to three quarters from Brazil. At the same time, soy production underpins Brazil's export economy, rural development and political dynamics.

This interdependence creates both opportunity and risk. Soy expansion remains a key driver of deforestation, ecosystem degradation and greenhouse gas emissions, particularly in the Cerrado biome. These dynamics are increasingly feeding back into production systems. Climate variability, water stress and soil degradation are already affecting yields and increasing financial risk, with implications for both Brazil's competitiveness and China's long-term supply security.

A central finding of this report is that sustainability outcomes are shaped less by technical standards than by misaligned incentives across governance systems. Brazil has a relatively robust legal framework, centred on the Forest Code, but enforcement remains uneven due to slow *Cadastro Ambiental Rural (*Rural Environmental Cadastre*,* CAR*)* validation, institutional fragmentation and political contestation. China is strengthening green finance and climate disclosure frameworks, but procurement of agricultural commodities remains primarily driven by price, volume and supply stability, with sustainability criteria largely voluntary.

This divergence between regulatory regimes is contributing to the emergence of differentiated supply chains. Higher-compliance flows are increasingly directed towards the European Union (EU), while lower-conditionality exports continue towards China and other markets. As a result, companies operate across overlapping systems combining Brazilian national law, voluntary commitments and different sets of international regulations.

The political economy of the sector reinforces these dynamics. Large traders and producers capture most economic benefits, while environmental and social costs are borne locally. Smallholders, Indigenous Peoples and Local Communities (IPLCs) face limited access to finance and decision-making processes, despite managing territories critical for climate regulation. At the same time, producer perceptions of sustainability requirements as externally imposed constraints contribute to increasing polarisation and weaken coordination across the value chain.

The report identifies two broad trajectories:

- **Status quo:** Continued expansion into particularly climate-sensitive regions, rising environmental and financial risks, and further fragmentation of global supply chains.
- **Coordinated transition:** Alignment of trade, finance and land use governance, enabling a shift towards deforestation-free production, improved resilience and more stable long-term supply.

Achieving the latter requires moving beyond voluntary approaches. A credible transition depends on aligning incentives across the system. This includes strengthening enforcement of existing legal frameworks in Brazil, integrating deforestation and climate risk into financial and trade decisions, and improving coordination between major markets.

The report proposes four priority areas for action:

- **Brazil–China cooperation:** Develop a bilateral framework linking food security, climate resilience and traceability, and recognise ecosystems such as the Cerrado and Amazon as strategic ecological infrastructure.
- **China:** Integrate deforestation and land use risk into green finance, disclosure and procurement practices, and pilot low-risk sourcing models.
- **Brazil:** Strengthen enforcement of the *Código Florestal Brasileiro* (Forest Code), accelerate CAR validation, and align credit and fiscal incentives with verified compliance and climate resilience.
- **Traders and finance:** Embed traceability and climate risk into lending, sourcing and investment decisions, while supporting producer inclusion through finance and technical assistance.

Without such alignment, sustainability will remain economically marginal. With it, the Brazil–China soy relationship could evolve into a model for climate-resilient agricultural trade.

Contents

Tables and figures

1. Introduction

The Brazil–China soy trade is a central feature of the global food system, linking agricultural production in Brazil to rising demand for animal feed in China. Over the past two decades, this relationship has become a key driver of land use, trade dynamics and rural development, while reflecting broader shifts in global demand, geopolitics and resource pressure.

This report examines how governance systems, market structures and institutional dynamics shape outcomes in the soy sector. Rather than focusing on technical solutions alone, it adopts a political economy perspective to analyse how incentives, power relations and competing interests influence production patterns and sustainability trajectories.

Particular attention is given to the interaction between domestic governance in Brazil and external market drivers – especially China. While Brazil has established an extensive legal framework for environmental regulation, implementation remains uneven. At the same time, international demand is increasingly differentiated, with varying expectations regarding traceability, deforestation and sustainability. These dynamics shape incentives across the value chain and contribute to evolving supply chain structures.

The analysis draws on stakeholder interviews, policy review and secondary data, incorporating perspectives from government, industry, finance and civil society.

The report is organised as follows:

- **Chapter 1** introduces the study and outlines the research design and methodology.
- **Chapter 2** examines the strategic importance of soy within the Brazil–China relationship, including its geopolitical, economic and environmental dimensions.
- **Chapter 3** analyses regulatory frameworks in Brazil, China and key international markets, highlighting areas of convergence and divergence.
- **Chapter 4** explores enforcement gaps and political economy dynamics, including institutional constraints, stakeholder interests and recent developments such as the suspension of the Amazon Soy Moratorium.

- **Chapter 5** assesses pathways towards more sustainable soy trade, focusing on incentives, risk distribution and future scenarios.
  The final chapter presents targeted recommendations for governments, industry actors and financial institutions, outlining entry points for aligning trade, finance and land-use governance with climate and sustainability objectives.

1.1. Methodology

The report applies a mixed-methods research design combining fieldwork, semi-structured interviews, document analysis, and secondary data review. The approach was chosen to capture the complex political economy dynamics shaping soy production, land use change, and Brazil–China trade relations. The methodology is based on the United Nations Development Programme's Institutional and Context Analysis Guidance Note (Melim-McLeod, 2012).

Primary data was gathered through interviews conducted between October and November 2025. Fieldwork and interviews took place in Cuiabá, Mato Grosso - a key soy-producing state - São Paulo and Brasília, where governmental, civil society, and private sector organisations are concentrated. Additional interviews with Chinese stakeholders were carried out online. Due to confidentiality requirements and the sensitivity of ongoing policy and market discussions, specific locations and affiliations are not disclosed. The interviews provided essential insight into China's procurement practices, sustainability expectations, and geopolitical framing of soy imports.

Interviewees included representatives from Brazilian federal ministries, state authorities, producer associations, trading companies, financial institutions, non-Governmental Organisations (NGOs), researchers, and international cooperation agencies. Interview material was thematically coded according to recurring themes.

The analysis draws on deforestation and land use datasets, policy and legal documents, sustainability standards, corporate commitments, academic literature, and global trade data. These materials helped contextualise field observations and clarify historical and structural drivers of current trends.

1.2. Limitations

The political sensitivity of soy governance, particularly related to the Amazon Soy Moratorium, restricted the level of detail some interviewees were willing to share. Confidentiality constraints also limit direct attribution of insights from Chinese stakeholders. To maintain transparency while respecting confidentiality, institutions are referenced in the report, but individual names and identifying details are anonymised where requested. Secondary datasets contain uncertainties, especially in deforestation classification and legality assessments, which may affect comparability across sources. The rapidly changing policy landscape portrayed in this report may also rendersome of the findings quickly outdated.

2. The importance of soy

This chapter situates Brazil's soy sector within a rapidly changing global landscape where trade, climate, and geopolitics intersect. It examines how the Brazil–China soy relationship has evolved beyond simple commodity exchange to become a central component of South–South cooperation and a topic of sustainability debates. Drawing on interviews and literature, the analysis explores how shifts in power, regulatory pressures such as the EU Deforestation Regulation (EUDR), climate risks, and domestic governance challenges shape production and trade.

2.1. Geopolitical context

The global soybean trade has become increasingly complex due to heightened geopolitical tensions, new regulations, and environmental concerns. Continued U.S.–China tensions have intensified China's shift towards Brazil and other South American suppliers. Since the U.S. imposed tariffs on Chinese goods in July 2018, China has diversified its agricultural imports, making Brazil its main soybean supplier (Oliveira & Schneider, 2021). Agricultural commodities have thus become central to tariff disputes and geopolitical manoeuvring.

Within the BRICS framework, China positions agricultural trade as a pillar of food security, supply-chain resilience, and geopolitical diversification. Brazil's status as China's largest soy supplier, combined with efforts to build "green supply chains," supports China's long-term strategy to reduce exposure to U.S. exporters.

Brazil's dual BRICS/COP30 presidencies in 2025 elevated agricultural trade tensions in global climate diplomacy. BRICS issued its first climate finance recommendations ahead of COP30, and expressing concerns about unilateral climate measures and reiterating support for multilateral trade frameworks (Governo do Brasil, 2025).

The EU regulatory push, notably the EUDR, has also shifted soy geopolitics, as Brazilian exporters recognise that Europe now demands traceability and deforestation-free guarantees. The EU–Mercosur Partnership and Interim Trade Agreements, signed in 2026 - pending ratification, mark a significant step for EU–South America relations. This is expected to continue current access for raw soy while improving tariff terms for processed products (European Commission, 2026).

2.2. The role of soy production in Brazil

Soy production significantly shapes politics, economics, and regional development in rural Brazil, especially in Mato Grosso. Large, capitalised producers dominate, with soy serving as both an economic driver and social reference point. Soy sacks are often used as units of value for local transactions and investments, demonstrating the crop's central role in sector financing.

Brazil is projected to produce 177.6 million tonnes in 2025/26 (36% of global production) across 49.1 million hectares. Export revenue remains strong, while domestic demand has grown due to increased need for animal feed and biodiesel (Exame, 2025; Ministério da Agricultura e Pecuária, 2026). In the first half of 2025, agribusiness exports totalled USD 82 billion, largely fuelled by soy and its derivatives. These exports continue to be major contributors to Brazil's foreign exchange earnings and trade surplus (Governo do Brasil, 2025a; 2025; Cargosapiens, 2025).

Brazil's soy industry consists of an integrated system of advanced technologies, suitable ecological conditions, and market competitiveness. This value chain stimulates various sectors, including inputs, machinery, logistics, and agro-industry. Within this system, global requirements for traceability and deforestation-free sourcing create tensions, in particular between traders and producers (further discussed in chapter 4). See figure below.

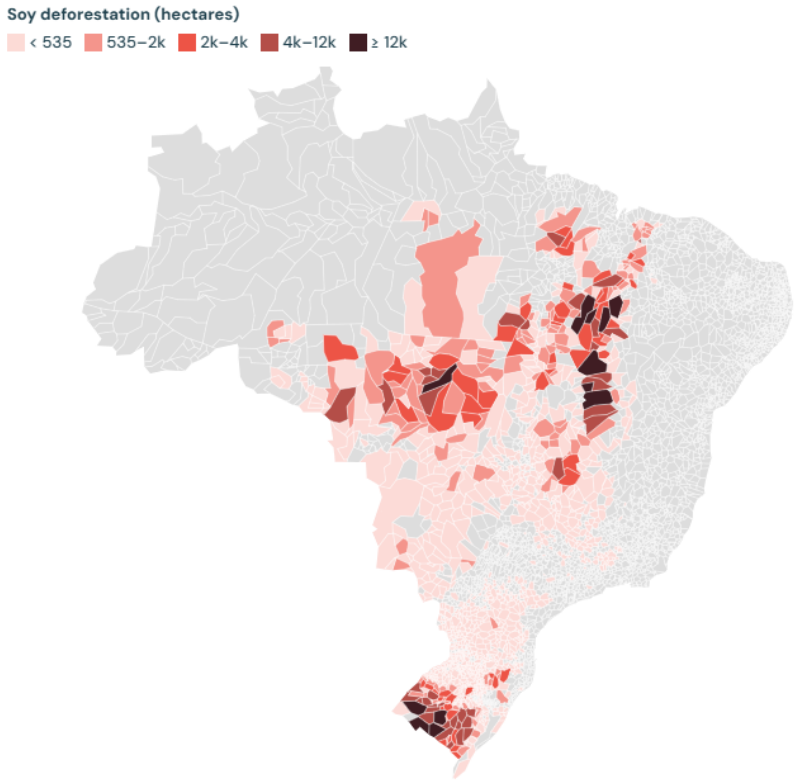
Figure 1: Simplified overview of the soy ecosystem (authors' own elaboration)

Financing of the soy sector consist of a mix of public credit via Plano Safra[1], farmers' capital, and funding from traders and multinationals. Traders and banks provide 66% of financing, as high interest rates restrict Plano Safra uptake (IMEA, 2018).

Soybean cultivation delivers wider economic benefits beyond exports, boosting local economies and jobs. While sustainability concerns focus on the Amazon and Cerrado biomes, soy farming and agro-industries generate significant income, particularly in Mato Grosso, Rio Grande do Sul, and Paraná. Mato Grosso alone accounts for roughly one-third of national output (IBGE, 2025).

The map below displays municipality-level deforestation and land conversion linked to soy production. (Pereira, O., & Bernasconi, P. 2025). Darker shades indicate higher levels of soy-associated deforestation, with the darkest category representing ≥12,000 hectares. It shows that soy-linked deforestation is geographically concentrated, primarily occurring in frontier municipalities and the Cerrado, where expansion continues to drive land-use changes.

Figure 2: Deforestation and conversion linked to soy production in Brazil per municipality in 2022 (Source: Trase)



[1] Plano Safra is Brazil's main federal agricultural policy, renewed every year, that sets the rules, budget, and interest rates for rural credit used to finance agricultural production, investment, and marketing for the upcoming harvest cycle. In English, it is often translated as the Crop Plan or Harvest Plan. For more details, see https://www.gov.br/agricultura/pt-br/assuntos/politica-agricola/plano-safra/2025-2026/ .

Large producers capture the bulk of profits and political influence, while smallholders face major barriers to credit, technology, and market access. There are also regional disparities, in which soy not only drives growth in states like Mato Grosso and Paraná, but also has contributed to land concentration, displacement of diversified farming, and rising land prices (IBGE, 2025; Nepstad et al., 2021). With climate variability, producer indebtedness has also become a systemic concern, as drought-related losses lead to rising insolvency rates, particularly in Mato Grosso (GC Notícias, 2025; Canal Rural, 2023). Balancing growth with environmental stewardship remains critical to ensure long-term sustainability and social equity across Brazil's diverse regions.

2.3. China's demand drivers

China's soybean demand is driven primarily by structural factors: rapid growth in livestock production, the consolidation of feed and processing industries, and resource constraints that limit expansion of domestic soybean cultivation. Since the country joined the World Trade Organisation (WTO) in 2001, China's imports have consistently outcompeted domestic production, prompting a long-term shift toward a trade-dependent supply model. The structure of China's domestic soybean cultivation and processing industries also limits the potential for expanding domestic production. Planting scales in the Northeast region are relatively small, and yields per hectare are constrained. Meanwhile, the domestic oil and protein feed processing sectors are highly dependent on imported soybeans as raw materials, creating a strong reliance on imports.

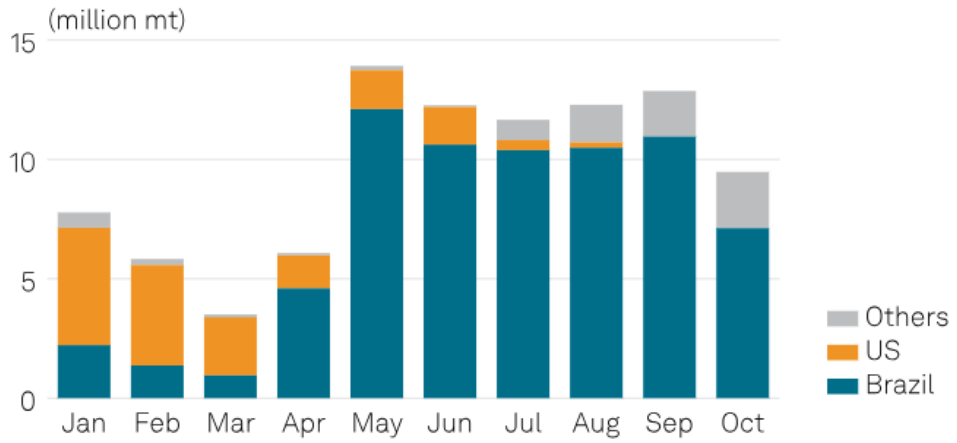
Rising incomes and consumption upgrading have driven continued growth in demand for animal protein, vegetable oils, and dairy products, further reinforcing import dependence. China's large-scale livestock sector, particularly pig and poultry production, increasingly relies on high-protein feed. Imported soybeans remain the primary source to meet this demand, steadily driving import volumes.

Efforts to expand imports from Argentina, Uruguay, and new trade partners, as well as investments in feed substitution technologies and increased domestic soybean acreage, reflect a strategy aimed at reducing vulnerability to geopolitical shocks. However, these shifts have not altered China's core purchasing logic, described by stakeholders as "pragmatic and cost-oriented". Chinese buyers prioritise volume, stable supply, and logistical efficiency over sustainability attributes. Several persons interviewed noted that China will likely not introduce EUDR-like requirements, as sustainability is not part of the Chinese purchasing criteria.

From January to November 2025, Brazil exported soy to China for a total of USD 33.4 billion, constituting 35.9% of all Brazilian exports to China (MDIC, 2025), further consolidating its position as China's leading soybean supplier. Brazil supplied 74% of

China’s soybean imports between January and October, totalling 70.8 million tons, an increase of 4.5% compared with 2024 (S&P Global Commodity Insights, 2025).

Figure 3: China's imports of Soy 2025 (Source: S&P Global Commodity Insights)



This demand pattern has important implications in Brazil. Because China absorbs over 70% of Brazil’s soy exports without imposing environmental conditions, producers perceive little incentive to invest in costly traceability or certification systems. This dynamic reinforces producer narratives portraying European regulations as intrusive and unnecessary. As one interviewee put it: “If China buys everything we produce, why should we change our model?”

In effect, China’s demand drivers generate powerful political signals. By providing a high-volume market with minimal sustainability conditionality, China is shaping producer incentives and weakening pressure for environmental compliance. This dynamic also reinforces differentiated market incentives across export destinations.

2.4. Social Impacts

Soy expansion has generated substantial economic gains for Brazil, but these benefits have been unevenly distributed. Large-scale mechanisation has lowered labour demand, leading to rural displacement and increasing vulnerability among agricultural workers. IBGE (2017) showed a 1.5 million job loss in 2017 (9% decline since 2006), driven by a 50% increase in establishments with tractors/harvesters. This displaced workers from large monoculture farms toward urban migration or informal labour, while smallholders (less than 100 ha) faced income volatility, debt traps, limited scale, and ecosystem service dependence (CPI, 2023). In frontier regions such

“If China buys everything we produce, why should we change our model?”

as Matopiba [2] and northern Mato Grosso, soy expansion has coincided with land appropriation, unresolved tenure disputes, and conflicts between producers and local communities (Buainain, 2025; Nepstad et al., 2021; Pereira, 2021). Initiatives such as the PPCerrado (further explained in section 3.1) seek to reconcile agribusiness growth with conservation, while the *Ministério do Meio Ambiente e Mudança do Clima* (Ministry of Environment and Climate Change, MMA) is negotiating with Matopiba states to standardise legal vegetation suppression licensing. However, progress remains uneven as 75% of deforestation in the Cerrado (2023) occurred despite controls (CPI/PUC-Rio, 2025).

Land governance challenges (further discussed in section 5) have further allowed illegally cleared areas to enter formal supply chains, perpetuating tensions and insecurity. The impacts differ markedly across social groups, creating layered inequalities that shape local political dynamics:

Smallholders often face limited access to credit, technology, and stable markets. Several interviews noted that small farmers are "priced out of the soy market," as high input costs and exposure to climate and price volatility undermine their viability. Many rely on cattle or diversified crops for subsistence and stability, making them more vulnerable to land speculation and displacement pressures in soy frontier areas.

Mid-sized farmers occupy an increasingly precarious position. While more capitalised than smallholders, they lack the scale advantages of large agribusinesses. Many mid-sized producers have entered cycles of indebtedness due to climate shocks and high loan exposure, with one financial actor noting that "mid-sized farms are the bottleneck - too big for social programmes, too small to absorb risk."

Traditional communities such as *quilombolas, ribeirinhos*[3] and IPLC experience the most acute impacts. Soy expansion has intensified land conflicts, restricted access to water and traditional territories, and contributed to cultural and livelihood disruptions. Civil society organisations and state actors repeatedly referenced rising disputes in Matopiba and northern Mato Grosso, where unresolved land tenure and weak state presence create what one interviewee described as "a permanent state of insecurity." Multiple interviewees observed that soy has "emptied out rural communities," leading to demographic changes and diminished local food production.

[2] *Matobipa* is a major agricultural frontier in Brazil encompassing parts of Maranhão, Tocantins, Piauí, and Bahia, characterised by large-scale soy expansion and rapid land-use change, particularly in the Cerrado biome.

[3] *Quilombolas* are Afro-Brazilian communities descended from enslaved Africans, with distinct cultures and legally recognised collective rights to traditional territories. *Ribeirinhos* are traditional communities whose livelihoods and culture are closely linked to rivers through fishing and small-scale agriculture.

Labour conditions also differ across regions. While formal labour violations are less common in mechanised soy than in cattle or sugarcane production, several NGOs flagged concerns related to subcontracted labour, pesticide exposure near rural communities, and insufficient oversight by labour authorities. The health effects on local populations from large-scale soy plantations are a particular concern (see box below).

Figure 4: Pesticide use in soy-producing regions

Health impacts of pesticide use in soy-producing regions

Soy cultivation in Brazil depends heavily on chemical inputs, particularly glyphosate-based herbicides. Since the adoption of genetically modified soy, pesticide application rates have risen sharply, making soy one of the crops with the highest chemical intensity per hectare. Although Brazil has regulations governing agrochemical use, enforcement remains uneven.

Studies and interview evidence point to increasing concerns about contamination of water sources, vegetation, and rural settlements. Pesticide drift and runoff frequently affect households, schools, and traditional communities located near large soy farms. Scientific research links chronic exposure to elevated risks of childhood cancers, congenital malformations, neurological and endocrine disorders, and respiratory problems, highlighting a growing public-health challenge in major soy-producing regions.

Sources: Interviews and literature: Skidmore et al., 2023; Pesquisa Fapesp, 2024; Almeida et al., 2017

2.5. Environmental Impacts

Soy expansion in Brazil has generated significant environmental impacts, driven less by technical production choices than by political dynamics. Direct soy-driven deforestation accounted for an estimated 3.4 million hectares - about 5% of Brazil's total forest loss (2001-2016), mainly in the Cerrado biome (Pereira, O., & Bernasconi, P., 2025). While the Amazon Soy Moratorium (See figure below) and other measures such as conditional rural credit and enforcement of the PPCDAm [4] have curbed Amazon deforestation, they displaced pressure toward the Cerrado, where legal frameworks and enforcement have been weaker (CPI 2016; CPI 2025). The Cerrado has now surpassed the Amazon in annual deforestation rates, with over 1.1 million hectares lost in 2023 (IPAM 2024). Indirect deforestation also persists as soy expands into pastures previously cleared for cattle ranching.

In January 2026, major traders represented by *Associação Brasileira das Indústrias de Óleos Vegetais* (Brazilian Association of Vegetable Oil Industries, ABIOVE) withdrew from the Moratorium following Mato Grosso's decision to eliminate tax incentives for

[4] Brazil's Action Plan for Deforestation Prevention and Control in the Legal Amazon (see chapter 3).

participating companies. The move was widely interpreted as undermining the credibility of corporate sustainability commitments. NGOs such as World Wide Fund for Nature (WWF) and Greenpeace described the withdrawal as an environmental setback, while *Associação Brasileira dos Produtores de Soja* (Brazilian Association of Soybean Growers, Aprosoja) framed it as a correction of what it viewed as an unfair market restriction (Reuters, 2026).

Figure 5: The Amazon Soy Moratorium (Moratória da Soja na Amazônia)

The Amazon Soy Moratorium (the Moratorium) is a voluntary industry agreement launched in 2006 by major soy traders, processors, and NGOs in response to soy-driven deforestation concerns. Signatories commit not to purchase soybeans from areas deforested in the Brazilian Amazon after July 22, 2008 (cut-off date), using satellite monitoring and traceability systems to enforce compliance. It is widely recognised for reducing Amazon deforestation rates significantly.

In August 2025, Brazil's CADE (antitrust authority under the Ministry of Finance) suspended the Moratorium, declaring it an "anticompetitive cartel" that harms producers by restricting market access, ending it from 1 January 2026. In parallel, the states of Mato Grosso, Rondônia, and Maranhão revoked fiscal incentives for moratorium-compliant companies, suspending tax breaks and effectively reducing the economic payoff for companies to maintain strict sourcing controls.

Opponents have challenged these decisions in the Supreme Federal Court arguing that these three states have overstepped their authority. Moreover, environmental groups and other market actors argue that removing incentives undermines the economic logic supporting zero-deforestation. Some analysts estimate that the policy reversal could expose millions of hectares of forest to renewed clearing. Yet large producer associations such as Aprosoja and their supporters argue that the Moratorium has created de facto market barriers, and that revoking fiscal advantages for compliance removes these constraints.

This illustrates the deepening divide that shapes Brazil's soy sector and tensions between sustainability commitments vs. antitrust regulation and demands by producers, which may increase market fragmentation between soy exports destined for Europe and China.

Source: IPAM (2025), Moitinho (2025), interviews

The Cerrado now faces Brazil's highest conversion risk, as soy expansion replaces native vegetation at approximately three times the Amazon rate (Pereira, O., & Bernasconi, P., 2025), releasing ~121 million tons CO_2 annually (9% of Brazil's land use emissions). This disrupts critical hydrological cycles, regional rainfall patterns, while threatening biodiversity hotspots (Strassburg et al., 2019). In sum, this contributes to a negative feedback loop, in which declining water availability and soil fertility undermine long-term agricultural productivity (Soterroni et al., 2019; Flach et al., 2021).

There is broad agreement among stakeholders consulted that climate change poses a structural risk. Brazil's Plano Clima (MMA, 2026) explicitly identifies agriculture (68% of national emissions) as the primary concern. Climate variability is already disrupting

planting calendars, degrading soils, and amplifying financial volatility through irregular rainfall and prolonged droughts. RCP4.5/RCP8.5 models project significant yield declines, especially in the Cerrado.

Figure 6: Representative Concentration Pathways (RCPs)

RCPs are greenhouse gas concentration trajectories used in climate modelling to project future climatic changes based on different emission scenarios:

RCP 4.5 represents a medium stabilization scenario where global emissions peak around 2040 and then decline, limiting warming to about 1.7 to 3.2°C by 2100. This pathway assumes considerable mitigation efforts, including reforestation and lower energy use growth.

RCP 8.5 is a high emission "business as usual" scenario with rapidly increasing emissions throughout this century, leading to a warming range of approximately 3.2 to 5.4°C by 2100. It assumes continued reliance on fossil fuels with minimal climate policies.

Source: IPCC (2019)

Recent harvests illustrate mounting climate exposure. Climate-deforestation feedbacks reduced Cerrado soybean yields by 34 million tonnes (2013-2023) (Zero Carbon Analytics 2025). The 2023/24 season forced widespread replanting across Mato Grosso and southern Amazon amid erratic rains, contributing to rural insolvency pressures (Canal Rural 2023). La Niña delayed 2025/26 Mato Grosso planting to 78% completion (vs 83% prior year), with soil degradation driving higher input costs (IMEA 2026).

Brazilian models project 20-40% Cerrado yield losses under RCP8.5 (Esalq/USP 2024). Marcos Costa (UFV) shows Cerrado deforestation disrupts "flying rivers" supplying 70% of agricultural rainfall, while José Marengo (Cemaden) documents 15-20 day planting delays now systemic in Mato Grosso (Costa 2023; Marengo 2025). BCB climate stress tests confirm 25-40% higher agricultural credit default risk from physical shocks (BCB 2025).

Under these conditions, Indigenous territories and protected areas function as strategic climate infrastructure, conserving native vegetation at scale and – in effect - sustaining agricultural production beyond their boundaries.

Figure 7: Cerrado and regional water stability

The Cerrado's role in regional water stability

The Cerrado is often framed primarily as a frontier of agricultural expansion or as a zone of displacement from Amazon protection measures. However, its systemic importance extends far beyond regional land-use dynamics.

The Cerrado functions as one of South America's principal hydrological engines. Its deep-rooted vegetation and porous soils regulate groundwater recharge and sustain the headwaters of eight of Brazil's major river basins, including the São Francisco, Tocantins-Araguaia and Paraná systems. These basins underpin irrigation, hydropower generation, urban water supply and agricultural production across central, southeastern and southern Brazil.

Large-scale land conversion in the Cerrado alters evapotranspiration patterns, reduces moisture recycling and disrupts rainfall distribution. Scientific evidence increasingly indicates that deforestation and degradation in the Cerrado can weaken precipitation systems not only locally but also in downwind agricultural regions. In this sense, Cerrado degradation does not simply represent a regional biodiversity concern, it introduces systemic hydrological risk into Brazil's agricultural core and, by extension, into global soy supply chains.

From a climate and food security perspective, the Cerrado should therefore be understood not merely as an expansion frontier, but as critical ecological infrastructure underpinning long-term agricultural resilience in Brazil and supply stability for China.

Source: Salmona et. al, 2023

3. Regulations and emerging trends

This chapter examines how evolving regulatory frameworks are reshaping the governance of the global soy trade and the terms of Brazil–China agricultural cooperation. It discusses how trade rules, sustainability standards, and domestic legal systems increasingly overlap, creating a complex regulatory environment where market access, environmental protection, and geopolitical strategy intersect.

3.1. Brazilian legal frameworks

Legislation governing Brazil's soy sector spans a complex framework of environmental, trade, and social regulations. President Luiz Inácio Lula da Silva's pledge at COP27 to achieve zero deforestation and ecosystem degradation by 2030 is being operationalised through existing instruments rather than new legislation. Key among these are the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm, 2023–2027) and its Cerrado counterpart (PPCerrado), which combine satellite monitoring, enforcement by IBAMA [5], CAR-linked compliance, fines, and credit restrictions, alongside coordinated federal–state efforts, low-carbon agriculture incentives under the ABC+ programme, and strengthened licensing and monitoring systems.

At the core of this framework is the Forest Code, Law No. 12.651/2012 (Brasil, 2012), which mandates Legal Reserves and Areas of Permanent Protection (APPs) and links compliance to the CAR (See figure below). Institutional responsibilities are distributed across agencies: states validate CAR registrations; IBAMA enforces environmental law; the Federal Public Prosecutor's Office litigates environmental crimes and land grabbing; and Fundação Nacional dos Povos Indígenas (National Indigenous Peoples Foundation, FUNAI) safeguards Indigenous territoiries. Broader governance is supported by the MMA, Ministério da Agricultura e Pecuária (Ministry of Agriculture and Livestock, MAPA), and Ministry of Foreign Affairs (MFA/Itamaraty) Ministério das Relações Exteriores (Ministry of Foreign Affairs, MRE). The Banco Central do Brasil (Central Bank of Brazil, BCB) promotes the integration of environmental criteria into agricultural finance. Rural credit is increasingly used as a policy tool to curb deforestation by linking access to finance with environmental compliance, including CAR validation and screening for illegal deforestation (Banco Central do Brasil, 2024; Eco Braziliense, 2026). A 2024 regulation, Resolução CMN nº 5.193, requires financial institutions to incorporate environmental,

[5] The Brazilian Institute of the Environment and Renewable Natural *Resources (Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* -IBAMA) is a federal environmental agency under the Ministry of Environment responsible for enforcing national environmental laws, regulating natural resource use, and combating environmental crimes.

social and climate risks into governance, credit analysis, internal controls and stress testing. This broadens the central bank's sustainability agenda beyond disclosure towards risk management, although it does not impose direct constraints on lending decisions.

Yet the scale of this system is significant. Plano Safra mobilises approximately R$400–500 billion annually, making it one of the largest agricultural financing systems globally (Ministério da Agricultura, 2024). While these measures strengthen incentives for legal compliance, their effectiveness ultimately depends on enforcement.

Social considerations are addressed through labour laws, indigenous rights, and certification schemes. Article 149 of the Penal Code prohibits slave-like labour, and producers are encouraged to adopt socioenvironmental certifications and good agricultural practices to ensure ethical supply chains (Brasil, 2003). In addition, the *Ministério Público Federal* (Federal Public Prosecutor's Office, MPF) monitors labour conditions and respect for human rights (Ministério Público Federal, 2022). Environmental legislation is anchored in the Forest Code (Law No. 12.651/2012), which requires rural properties to maintain Legal Reserves and Areas of Permanent Preservation. CAR is a mandatory tool for monitoring compliance, as explained in the box below.

Figure 8: The Brazilian Forest Code (Código Florestal Brasileiro - Lei nº 12.651/2012)

The Brazilian Forest Code is Brazil's main national law governing forest protection and land use on rural properties, originally enacted in 1965 and substantially revised in 2012 to balance conservation with agricultural production. It requires landowners to keep a portion of their property as Legal Reserves and to protect Permanent Preservation Areas, e.g. riparian strips, steep slopes, and hilltops, with reserve size varying by biome and property location (varying from 20- 35% in the Cerrado up to 80% of rural properties in the Legal Amazon).

The code's implementation relies on the Rural Environmental Cadastre (CAR), a mandatory georeferenced cadastre of rural properties used to monitor compliance and support environmental regularization. CAR registration limits land conversion, supports carbon sequestration and watershed protection, and can enable producers to access markets, including incentives for restoration, and sustainable finance.

Proper implementation of the Forest Code can help reduce deforestation-related emissions, stabilize local hydrology (which benefits crop resilience), and provide the legal basis for linking environmental compliance to green finance and trade measures. However, inconsistent enforcement, delays and funding shortfalls for CAR validation, unresolved land-tenure issues, and uneven state-level capacity weaken its effectiveness.

Source: Brasil (2012), interviews

While full implementation of the Forest Code would curb illegal deforestation, legal compliance does not guarantee climate alignment. Unlike the Amazon, where over two-thirds of the land is public and largely designated for conservation or Indigenous Peoples, the Cerrado is predominantly under private ownership. Only 7.5% of the Cerrado is protected. In much of the Cerrado, landowners may legally convert up to 80% of native vegetation outside protected areas. This has historically facilitated extensive deforestation for agriculture and pasture, resulting in the loss of more than half of the Cerrado's native vegetation - much of it converted to soy production (Strassburg et al., 2019).

Yet, even if legally allowed, clearing up to 80% of native vegetation would weaken rainfall recycling, carbon storage and long-term agricultural resilience. This reveals a structural gap between legality and climate goals. As climate risks intensify, the adequacy of the Forest Code also depends on how the remaining legal conversion space is managed.

3.2. Chinese legal frameworks

Although official policies increasingly reference green development and ecological civilisation, sustainability remains largely aspirational when it comes to agricultural imports. Companies such as China Oil and Foodstuffs Corporation (COFCO) and Yihai Kerry, part of the Wilmar Group, have piloted traceability and deforestation-risk screening in Brazil. Chinese firms also participate in selected sustainability platforms and pilot initiatives. But these efforts remain voluntary, limited in scale, and not integrated into bulk procurement criteria.

China's soybean import regime has evolved from a quota-based control system into a market-oriented framework supported by strong regulatory oversight. While trade in soybeans is comparatively liberalised, unlike wheat or corn, it remains closely governed through quarantine access systems, automatic import licensing, Genetically Modified Organism (GMO) biosafety approvals, and industrial policy regulating processing capacity. This balance has enabled China's rapid rise as the world's largest soybean importer, now exceeding 100 MT annually.

Institutionally, soybean import governance involves the General Administration of Customs of China (GACC), the Ministry of Agriculture and Rural Affairs (MARA), and the State Administration for Market Regulation (SAMR). Together, these agencies regulate phytosanitary inspections, GMO approvals, maximum residue limits, and digital customs systems.

These controls are binding and operational. However, they focus on biosafety, quality control, and import stability, rather than environmental performance in producing countries. China does not currently impose sustainability requirements comparable to

the EUDR, nor does it require farm-level geolocation data unless specifically mandated by government authorities.

Green trade and climate disclosure architecture

Although agricultural procurement remains primarily volume-driven, China's broader regulatory framework is gradually shifting towards risk-oriented and carbon-aware trade governance.

The Implementation Opinions on Expanding Green Trade (MOFCOM, 2025) call for strengthening the green and low-carbon capabilities of foreign trade enterprises, including carbon-footprint accounting, renewable energy use, and green logistics. The document encourages the development of carbon-accounting standards for key traded products and revision of the Catalogue of Encouraged Imported Technologies and Products to align incentives with green trade priorities. It also promotes participation in international negotiations on carbon-related trade rules through the G20, BRICS, and Asia-Pacific Economic Cooperation (APEC), and mutual recognition of low-carbon standards.

These measures create an institutional opening for future differentiation among imports, including soy, based on carbon intensity and traceability. However, they remain framework-setting rather than prescriptive.

At the same time, corporate climate disclosure requirements are expanding. In 2024, the Shanghai and Shenzhen stock exchanges issued sustainability disclosure guidelines for over 400 listed companies, which are mandatory from 2026.[6] These are based on the 'double materiality' principle, meaning that companies must report not only on how climate change affects them, but how the goods and services they purchase contribute to climate change, as well as "the potential impact of the disclosure entity on the economy, society and environment" (Shanghai Stock Exchange, 2024, April 12).

Although these regulations apply to *listed* companies only, in December 2025, the Chinese Ministry of Finance released its Climate Disclosure Standard for all companies, including state-owned, based on the international GreenHouse Gas (GHG) Protocol (MOF, 2025). Article 11 of the Climate Disclosure Standard states:

> *When disclosing climate-related risks and opportunities that can reasonably be expected to affect its development prospects, an enterprise shall [...] disclose the current-period and expected effects of these risks and opportunities on the enterprise's business model and value chain, and the areas within the business*

[6] The Beijing exchange issued similar guidelines, but they are voluntary.

model and value chain where climate-related risks and opportunities are concentrated (e.g., specific activities, business relationships, geographic regions, facility and asset types, etc.).

Disclosure of how climate change will impact soy imports is therefore mandated in the Standard, whereas Article 28 stipulates that

(...) enterprises shall categorize and disclose the absolute total greenhouse gas emissions (expressed in tonnes of CO2 equivalent) generated during the reporting period according to Scope 1, Scope 2, and Scope 3 greenhouse gas emissions. [7]

As with many Chinese regulations, the Standard was initially issued as voluntary reporting guidance (Ministry of Finance, 2025).[8] In short, it provides guidance for Chinese companies sourcing soy from Brazil to consider emissions from land use change in their reporting. It is expected that it will eventually become mandatory for all companies from 2030. This is an important shift, meaning that climate-related risks, including land-use emissions of soy imports, will be disclosed and integrated into corporate risk management, signalling a strengthening of climate risk governance within China's financial and corporate systems.

However, it has not yet been translated into binding deforestation-related procurement criteria for imported soy.

Technological substitution and strategic risk reduction

Alongside regulatory evolution, China is pursuing technological substitution to reduce its structural dependence on imported soy - primarily driven by food security concerns and exposure to volatile global markets.

MARA and the Chinese Academy of Agricultural Sciences are supporting national programmes to promote alternative protein sources, e.g. fermented microbial proteins, synthetic amino acids, and high-protein corn under the Biomanufacturing and Feed Reduction Initiative (MARA, 2023). And major livestock companies, including Muyuan Foods, have begun testing low- or zero-soy feed formulas, marking a gradual transition towards reduced import reliance.

[7] The GHG Protocol Corporate Standard classifies a company's GHG emissions into three 'scopes'. Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions. (World Resources Institute & World Business Council for Sustainable Development, n.d., p. 1).

[8] Translated automatically from the web site of the Chinese Ministry of Finance https://kjs.mof.gov.cn/zhengcefabu/202512/t20251225_3980202.htm

Government planning documents, including the Plan for Building an Agricultural Power 2024 to 2035, reinforce this trajectory (Central Committee of the Communist Party of China and State Council, 2025). They emphasise expanding domestic protein crop cultivation, building redundancy in import channels, and accelerating innovation to strengthen endogenous feed capacity. While the transition is gradual, the direction is clear: China aims to mitigate vulnerabilities from global market volatility, including climate risks in Brazil, and geopolitical tensions.

Implications for sustainability governance

Overall, China's regulatory evolution reflects a shift from trade facilitation towards broader risk governance. However, this governance is differentiated across domains. Import controls are binding but focus on safety and stability. Green finance and disclosure frameworks are strengthening, but primarily target domestic climate risk management and corporate transparency.

This differentiation is central to understanding China's role in the Brazilian soy system. While climate risk is increasingly recognised within financial and corporate governance, environmental conditionality for agricultural imports remains largely voluntary.

3.3. Comparative note on EU regulations

The EUDR represents a significant shift in global agricultural commodity trade governance, which for Brazil implies prohibiting imports of soy linked to post-2020 deforestation and creating significant market-access risks for Brazilian exporters without verified, farm-level traceability. Although enforcement has been delayed to 2026–2027 due to implementation challenges and political lobbying by trade partners, business groups and European right-wing parties (Schmid, 2025; Euronews, 2025), traders report that the main cost lies in segregating compliant from non-compliant soy, a change likely to reshape export logistics and spark tensions with producers.

While many Brazilian farmers and their supporters in the Brazilian National Congress view the EUDR as external interference, several traders, NGOs, and research organisations interviewed see it as unavoidable and essential for maintaining access to the EU-market. Parallel EU regulations such as the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD), also postponed under the 2025 Omnibus package, will intensify demands for ESG data and due diligence on deforestation, land rights, and labour conditions. Collectively, these regulations signal a structural transformation in market expectations; large exporters may adapt, but smaller producers risk exclusion without targeted financial and technical support.

4. Enforcement gaps and limitations

This chapter examines the institutional, political, and market factors that constrain effective enforcement of social and environmental standards in the Brazil–China soy trade. Drawing on interviews and secondary data, it analyses how governance systems, political alignments, and market incentives shape compliance outcomes in both countries. The discussion focuses on three dimensions: (1) Brazil's domestic enforcement challenges, (2) political tensions within the soy sector, and (3) the implications of Chinese policies for producer behaviour in Brazil.

4.1. Enforcement constraints

Brazil's environmental governance framework is legally robust, with the Forest Code and CAR forming the basis for compliance monitoring. However, there are persistent gaps between legislation and practice. Slow CAR validation creates a grey zone where irregular or illegal clearing of forests can enter supply chains. State-level capacity varies widely, and enforcement by agencies such as IBAMA is affected by funding and staffing variations according to the government in power.

Registering properties in the CAR and securing state validation is essential for Forest Code compliance, but progress remains slow due to manual geospatial analysis identifying overlaps with Indigenous lands/protected areas, limited state agency capacity, incomplete submissions, and land tenure disputes. CAR validation remains low at 9% nationally (November 2025), with 9 states below 1% of properties validated via SICAR[9] to date (CPI/PUC-Rio 2025).. Validation has often been done manually because most states lack automated systems. Limited staffing and resources in state environmental agencies further exacerbate delays, while frequent regulatory changes and land tenure disputes create legal uncertainty. Additionally, many CAR submissions contain errors or incomplete data, requiring corrections before validation.

Once property owners register their property in the CAR, states must validate it. However, state budgets for environment management may vary and hence the ability of states to perform validation. Political choices also permeate resource allocation for CAR validation. While the state of São Paulo has the highest budget allocation for the environment at BRL 1 billion, the state of Amazonas has the highest per capita expenditure, followed by Mato Grosso and Pará (see table below). However, it is

[9] SICAR is Brazil's National Rural Environmental Registry System, the federal electronic platform that integrates and manages all CAR registrations from state systems to enable nationwide monitoring, validation, and Forest Code compliance checks.

important to note that states may select expenditure items under its environment budget differently.

Table 1: Overview state budget allocations for environment

State	Environmental Budget 2025 (R$ million)	Population 2025 (IBGE)	Per Capita (R$)
São Paulo	~1,000	46,081,801	~21.7
Pará	674.8	8,711,196	77.46
Minas Gerais	~600	21,393,441	~28.0
Amazonas	~500	4,321,616	~115.7
Mato Grosso	354	3,893,659	90.92

Source: IBGE (2025)

Although the state of Amazonas has the highest environmental budget per capita and Mato Grosso, the second highest (BRL 115 million and BRL 90 million, respectively), it has the lowest percentage of properties with validated CARs, according to the sources below. This indicates that either capacity remains an important hurdle or the state has chosen to allocate resources for its environment budget to other areas. Since capacity is linked to manpower and technology, it signals that CAR validation is not only about resources, but rather, political will.

Table 2: Validated vs Registered CARs (2025) – Key states

State	Registered CARs	Validated CARs	Validation %	Source
Pará	~361,404	~51,400	**14.2%**	SICAR-Pará (Dec 2025); SEMAS (Aug–Sep 2025)
Mato Grosso	~156,000	~14,000	**9%**	SEMA-MT (Jun 2025)
Amazonas	~94,551	~848	**0.9%**	Trust Carbon (Nov 2025); IPAAM (2025)

Sources: Federal and state-level agencies in Pará, Mato Grosso and Amazonas

4.2. Political polarisation in Brazil

Under the government of Jair Bolsonaro, Amazon deforestation increased by nearly 60% in relation to the four previous years (Observatório do Clima, 2022), while under the current government of Luis Inácio Lula da Silva, deforestation fell by 50% in 2025 compared to 2022 (Governo do Brasil, 2025). This is an indication of how much political dynamics influence environmental management.

Institutional weaknesses intersect with these dynamics. While a full assessment of the government agencies mentioned above is beyond the scope of this report, all of them are affected by political appointments, which vary depending on the party of the government in power. This means that implementation of legislation is uneven and support for climate action and environmental protection is highly polarised along ideological lines.

"For the ruralists, sustainability is a political struggle, not a technical issue."

Furthermore, the composition of the National Congress matters. In the current legislature (2023-2027), out of 513 Members of Brazilian National Congress Lower House, 324 belong to the ruralist caucus *Frente Parlamentar da Agropecuária* (Parliamentary Agricultural Front, FPA*)* as well as 50 out of 81 senators. On the other hand, 138 Members of the Lower House belong to the environmentalist caucus *Frente Parlamentar Ambientalista (*Parliamentary Environmental Front)*,* and 10 senators belong to or have supported environment-friendly legislation on various occasions.

This means that in the Brazilian Congress, 63% of the Lower House and 62% of the Upper House will typically support legislation that undermines efforts to limit deforestation and promote climate action.

Examples include oil drilling in sensitive areas in the Amazon in June 2025, with support from President Lula (France 24, 2025), and the adoption in August 2025 of the General Law of Environmental Licensing (law 15.190/2025) dubbed "Devastation Bill" by NGOs (Mongabay, 2025a). The Law exempts agribusiness and infrastructure activities considered "strategic" from any kind of environmental licensing.

Ruralist caucus members often have political ties with state governors, producer associations and lobbyists, and often own large agricultural properties themselves. This explains why much of the enforcement for "pro-environment" legislation is inconsistent, and why most existing public technical and financial support is aimed at large landowners but not small holders.

Given these dynamics, any agreements signed by one government may not be implemented by the next, if there is a strong ideological difference between the two. This means that actions based on memoranda of understanding between Brazil and China, such as *the Memorandum of Understanding on Exchange and Cooperation in Pesticide Technology and Regulatio*n (Ministério das Relações Exteriores, 2024), which seeks to align maximum residue limits in agricultural exports may be discontinued, depending on the outcome of the 2026 presidential elections.

4.3. Soy at the centre of a polarised landscape

Soy governance is at the centre of broader ideological disputes over sovereignty, development, and environmental protection. Producer associations such as Aprosoja, *Confederação da Agricultura e Pecuária do Brasil* (Confederation of Agriculture and Livestock of Brazil, CNA), and *Federação da Agricultura e Pecuária do Estado de Mato Grosso* (Mato Grosso Agriculture Federation, FAMATO)

represent a conservative approach to agriculture - and generally do not support the need to limit deforestation for climate change mitigation. These associations are strongly linked to the ruralist caucus in Congress and contribute to shaping the political discourse around sovereignty, property rights, and "foreign interference." This narrative resonates strongly among ruralist legislators, who often champion legal reforms weakening licensing or challenging voluntary agreements. Their lobbying power, amplified through alliances with the ruralists in Congress, has been decisive in weakening voluntary sustainability mechanisms like the Amazon Soy Moratorium and resisting external market pressures such as the EUDR. Yet, it should also be mentioned that emerging producer-led initiatives like the *Grupo de Agricultura de Baixo Carbono/Sustentável* (Agricultural Group for Low-Carbon Agriculture GAAS) signal a different narrative where intensification delivers sustainability without sacrificing competitiveness (GAAS, 2025).

Conversely, Abiove, representing major soy processors and exporters such as Archer Daniels Midland Company (ADM), Amaggi, Bunge, Cargill, COFCO International, Louis Dreyfuss, Selecta, and Viterra, has aligned more closely with global sustainability standards. Abiove's partnerships with NGOs, donor agencies, and subnational governments have fostered data transparency, traceability initiatives, and jurisdictional monitoring. These traders see sustainability compliance as integral to maintaining access to key markets – in particular the EU.

However, traceability technology is not the main barrier; the challenge lies in logistics. Segregating EUDR compliant and non-compliant soy throughout interior storage, transport, and port operations imposes significant costs and is expected to reshape Brazil's logistics networks. It may also drive regional differentiation within Brazil, with EUDR-compliant soy concentrated in areas suited for stringent traceability, while production for less demanding markets shifts toward regions where sustainability demands are lower.

Figure 9: A house with ten rooms

A house with ten rooms

Interviews with key stakeholders revealed that from the perspective of producers, compliance with the soy moratorium clashes with the concept of "economic resilience" understood as the ability of producers to be able to maintain profit margins and their "right to produce". The term "injustice", "unjust" and "producer rights" were mentioned several times by producer representatives, government officials and organisations that supported the end of the Soy Moratorium.

The following metaphor was used to describe the perspective of producers, in reference to the obligation to preserve 80% of the land they own according to the Forest Code: "I have a house with ten rooms and I am already responsible for the costs and maintenance of eight rooms I cannot rent. Why can't I use the remaining two rooms?", or in other words: "Why shouldn't I be able to produce more if I have preserved more than 80% of my property since 2008?"

The suspension of the Amazon Soy Moratorium illustrates the growing divide between producers on one side and traders and NGOs on the other. At the same time, Indigenous Peoples have limited influence over land use and credit allocation decisions, highlighting a structural imbalance between ecological stewardship and market power. NGOs and researchers continue to emphasise the risks of weakening governance mechanisms and the need for robust monitoring.

These contrasting perspectives have contributed to increasing mistrust. Civil society representatives interviewed noted that even routine processes such as land tenure regularisation and community consultations have become politicised, complicating efforts to reduce conflict and improve legal certainty and property rights.

Interviews further suggest that this divide is widening. While large companies and NGOs tend to view international regulations and sustainability standards as important for long-term competitiveness, many farmers perceive them as externally imposed constraints not aligned with domestic legislation. This misalignment weakens coordination across the value chain and limits the development of incentive-based pathways for sustainable production.

4.4. China's influence on legislative enforcement in Brazil

As discussed in Section 4.2, domestic political polarisation undermines enforcement capacity. This dynamic is further influenced by external market signals, particularly from China. Despite a commitment to climate action both internationally and domestically, China's regulatory approach to soy imports is still mainly driven by food security, price stability, and supply reliability – not sustainability.

Key state-owned enterprises, especially COFCO Group, function as both commercial and policy instruments - implementing state directives on “responsible sourcing” and representing China’s green trade agenda abroad. Multinationals such as Yihai Kerry (Wilmar Group) and Cargill China operate under dual accountability frameworks, balancing Chinese food security mandates with global zero-deforestation commitments. At the same time, Chinese ports including Ningbo, Qingdao, and Guangzhou are also integrating green logistics and digital traceability systems, boosting operational capacity in China’s stated green trade aspirations.

Despite this, sustainability enforcement in China’s overseas soy value chains remains largely voluntary. Green finance and ESG initiatives are expanding rapidly, but their implementation abroad depends on voluntary adherence. While Chinese institutions recognise deforestation as a reputational and supply risk, Chinese buyers rarely request certification or traceability beyond phytosanitary requirements. The fact that China remains the largest buyer of Brazilian soy, means that incentives are strongly shaped by Chinese requirements, thus weakening incentives for producers to invest in compliance systems for the European market.

In practice, China’s soy governance relies heavily on informal state–business coordination, where policy signals from central ministries shape the behaviour of state-owned enterprises and provincial authorities. Agencies such as MARA, the Ministry of Commerce (MOFCOM), and the GACC prioritise biosafety, import stability, and quality control, but do not require deforestation-free sourcing. Green finance and ESG frameworks are expanding, yet these remain voluntary. Local-level incentives in China - particularly at ports - continue to favour throughput and efficiency over sustainability criteria.

Within the current institutional landscape, the China Chamber of Commerce for Import and Export of Foodstuffs, Native Produce and Animal By-Products (CFNA) plays a quiet but influential role. As a quasi-governmental industry association under MOFCOM, CFNA operates at the interface between government policy and corporate practice, representing state-owned enterprises such as COFCO as well as private agribusinesses. It has collaborated with GEI (now through the Evergreen Environment Institute), WWF China, and European partners to develop voluntary guidelines for responsible soy sourcing and to pilot traceability and deforestation-monitoring initiatives aligned with China’s “ecological civilisation” agenda. The memorandum of understanding signed with Abiove at COP30 to promote sustainable soy, represents a positive signal (Globo Rural 2025). According to interviews, there was an attempt by World Resources Institute (WRI) at promoting sustainability protocols for Chinese soy imports with Abiove and CFNA, however, it was never implemented due to strong opposition from producer groups such as FAMATO.

CFNA's influence, however, is facilitative rather than regulatory. It relies on voluntary coordination, and participation remains concentrated among major exporters, with smaller traders largely absent. Even so, CFNA exemplifies China's hybrid governance model, translating state priorities into sectoral practice. Its expanding engagement positions it as a potential bridge for advancing responsible Brazil–China soy trade, especially if its convening role becomes linked to emerging green finance criteria or bilateral cooperation frameworks.

4.5. Limits of voluntary governance

Over the past two decades, voluntary governance mechanisms have played a central role in attempts to decouple soy production from deforestation. These include private certification schemes such as Round Table on Responsible Soy (RTRS) and ProTerra, and corporate zero-deforestation commitments by major traders. The table below shows the most widely used mechanisms.

Table 3: Overview of main voluntary mechanisms and certifications for sustainable soy in Brazil

Mechanism	Core Focus	Strengths	Limitations	Relevance for Brazil–China Trade
Round Table on Responsible Soy	Certification of responsible soy (zero deforestation & conversion; labour; legal compliance).	Clear standards; credible third-party audit; accepted in EU markets.	Small share of global volume; limited uptake in Brazil; no price premium in China.	Low. Chinese purchasers rarely request RTRS-certified soy; used mainly to meet EU/NGO expectations.
ProTerra	Non-GMO, deforestation-free supply chains; social and labour standards.	Strong non-GMO identity; preferred by some EU feed markets.	Even smaller scale than RTRS; high segregation costs.	Low. Non-GMO not a priority in China's market.
Selo Verde (Pará/Minas Gerais)	State-level traceability platform for cattle/soy/coffee EUDR compliance	Public data cross-checks direct/indirect suppliers; low-cost for smallholders	State-limited; data quality issues (CAR fraud); early stage	Medium. Demonstrates compliance for China ISSB[10] Scope 3; pilots traceability

[10] International Sustainability Standards Board, see: https://www.ifrs.org/groups/international-sustainability-standards-board/

Mechanism	Core Focus	Strengths	Limitations	Relevance for Brazil–China Trade
Green Seal Program (Federal)	National certification for sustainable products/services	Standardises criteria across commodities; government-backed	Recent launch (2024); certification capacity	Medium. Emerging premium label for China corporate sustainability reporting
Consumer Goods Forum Sustainable Soy Guidelines	Corporate commitments to deforestation-free sourcing; global brands.	Influences large multinational buyers; supports traceability pilots.	Voluntary; implementation varies widely; not specific to soy.	Medium. Chinese members participate in CGF-China initiatives, but effects on soy purchasing remain minimal.
Soy Transparency Coalition	Benchmarks traders on ESG and deforestation performance.	Strong transparency driver; investor influence.	Voluntary; relies on public data; no enforcement mechanism.	Indirect. Shapes trader behaviour globally, but Chinese procurement decisions remain cost-driven.

Corporate zero-deforestation commitments by major traders, including ADM, Bunge, Cargill, COFCO International and Amaggi, have advanced farm-level monitoring and geolocation systems. Caramuru maintains comparable standards, although with less publicly available detail (Caramuru, 2023; Amaggi, 2024). Most large exporters now possess the technical capacity to screen suppliers for deforestation risk. Global buyers such as Cargill, Unilever and PepsiCo, which supply soy to China, engage with RTRS and Consumer Goods Forum (CGF) commodity roadmaps. Adoption of Soy Transparency Coalition (STC) benchmarks and other standards is less direct, with participation mainly occurring through global exporters and producer representation rather than through formal engagement by Chinese stakeholders. Even so, Sinograin Northern Agriculture Development Company obtained RTRS certification in 2014 (RTRS, 2016), while several Chinese companies, including Alibaba Group, Bailian Group, Mengniu Group, Nestlé Greater China and Procter & Gamble Greater China, are members of the Consumer Goods Forum or participate in CGF-China sustainability initiatives (CGF, 2025).

Certification schemes such as RTRS and ProTerra align closely with European sustainability expectations, incorporating traceability, environmental criteria and social safeguards. Yet uptake remains limited, covering only a small share of Brazil's total soy production, estimated at below 5% (RTRS, 2024b; ProTerra Foundation, 2024). Despite their proliferation, such mechanisms remain voluntary and unevenly enforced (Garrett

et al., 2019). In the absence of binding import conditionality, financial leverage or price premiums, implementation frequently defaults to minimum legal compliance rather than stricter voluntary standards.

The ownership structure of major traders introduces an additional layer of governance influence. Concentration of ownership among large institutional investors (see table below) has increased the relevance of financial risk management and ESG expectations – although not yet translated into uniform sourcing practices across markets.

Table 4: Major soy traders in Brazil and shareholders[11]

Name	Description (key roles)	Main Owners / Shareholders
Amaggi	Brazilian agribusiness and grain trader with integrated production, origination, processing, export logistics and energy assets; consistently ranked among Brazil's largest soybean exporters.	Privately held, founded by the Maggi family; controlled by Blairo Maggi and family members with multi-generational shareholders. No public breakdown available.
Archer Daniels Midland (ADM)	U.S. multinational agricultural commodities trading and processing company, active in sourcing, storage, processing, and export of soy and other grains.	Public (NYSE: ADM). Top institutional holders: Vanguard (~12%), State Street (~7%), BlackRock (~7-9%), Wellington (~5.6%)
Bunge	Global agribusiness and food company engaged in agricultural origination, processing (including oilseeds), trading, and distribution; one of the largest global oilseed processors.	Public (NYSE: BG). Top holders: Capital World Investors (~13%), Vanguard (~12%), BlackRock (~11%), State Street (~5%)
Cargill	One of the largest global agricultural traders, sourcing and exporting soy, corn and other commodities; involved in processing, risk management and supply chains.	Privately held; Cargill-MacMillan families own ~88% (14 billionaires among 100 heirs).
COFCO International	China's state-linked agricultural trading arm handling soy and other commodities globally, with major export operations from Brazil to China.	Wholly owned subsidiary of COFCO Corporation (state-owned enterprise)

[11] Public companies (ADM, Bunge) from Yahoo Finance Q4 2025; private firms from company reports/Forbes (Amaggi, Cargill, COFCO, LDC); Olam Agri, Viterra (pre-merger Bunge), Caramuru. Ownership percentages data on 30 January 2026.

Louis Dreyfus Company (LDC)	Dutch-based global merchant company trading soy, grains, cotton and other commodities, with processing and logistics operations worldwide.	Private; Louis Dreyfus Holding B.V. owned ~45% by ADQ (Abu Dhabi Developmental Holding), balance by family trusts and institutions
Olam Agri	Global agri-trader (soy, grains) with Brazil operations.	Majority-owned by SALIC (Saudi PIF arm, ~80% post-2025 deal); Olam Group minority (~20%)
Viterra	Major grain trader with Brazil soy export focus.	Acquired by Bunge (July 2025 merger); pre-merger: Glencore PLC (~49%), CPP Investments (~30%), others
Caramuru	Major Brazilian soy processor/exporter; non-Abiove member maintaining moratorium.	Privately held; Borges de Souza family ownership

Beyond formal certification schemes, major traders have sought to reinforce supply-chain governance through zero-deforestation commitments, often aligned with Amazon and Cerrado oversight frameworks and EUDR requirements (Mongabay, 2025b).

As an example, during COP27 in 2022, fourteen major agricultural commodity traders and processors released a joint Agriculture Sector Roadmap to 1.5°C, committing to enhanced supply-chain action consistent with a 1.5°C pathway (AFI, 2022). While symbolically important, NGOs argued that implementation still remains insufficient.

In February 2025, COFCO signed a 2025–2030 commitment for 1.5 million tonnes of deforestation-free Brazilian soy (COFCO International, 2025). As discussed in Chapter 3.2, China's 2026 Corporate Sustainable Disclosure Standard may incrementally increase expectations regarding climate-related reporting in soy supply chains. Although unlikely to alter procurement behaviour immediately, it signals gradual upward pressure on climate transparency (ESG Today, 2026).

And lastly, during COP30 in 2025, Abiove and the CFNA signed a memorandum of understanding (MoU) to promote good practices in Brazil–China soy trade, based on Brazilian socio-environmental legislation. While politically significant, the MoU remains symbolic rather than binding.

5. Roadmap towards sustainable soy trade

Soy governance is shaped by overlapping regulations, fragmented institutions and competing interests. While Brazil's Forest Code is legally robust, enforcement gaps limit its effectiveness in practice. China is signalling growing interest in sustainability, but this is yet to materialise in changed procurement practices.

Diverging regulatory approaches are contributing to differentiated supply chains. European frameworks emphasise traceability and deforestation free sourcing, while Chinese requirements remain largely voluntary. As a result, companies operate across three overlapping governance regimes: national law, voluntary corporate commitments and international market requirements.

Climate change is intensifying these pressures by increasing volatility in yields and production conditions. More erratic rainfall, rising temperatures and ecosystem degradation affect both Brazil's competitiveness and China's food security, reinforcing efforts to diversify supply and reduce dependence on soy.

Pathways towards sustainable soy remain contested. Stakeholders differ in their preferred approaches, from intensification and integrated systems to agroecological transitions, but broadly agree that scalable solutions require a combination of productivity gains, restoration, traceability and sustained technical support.

Institutional constraints in both countries further complicate this transition. In Brazil, fragmented governance, political dynamics and slow CAR validation weaken enforcement. In China, sustainability criteria remain largely voluntary and are addressed mainly through green finance and disclosure frameworks. This asymmetry reinforces differentiated market incentives across export destinations.

Efforts to better align production, trade and sustainability objectives, particularly through bilateral or incentive based mechanisms, also introduce governance and market risks related to environmental integrity, climate alignment and market structure. Table below summarises these risks.

A credible transition pathway therefore depends not only on technical solutions, but also on aligning incentives, strengthening enforcement and improving coordination across financial, regulatory and trade systems.

Table 5: Potential risks associated with transition and bilateral incentives

Risk category	Description	Implications	Mitigation considerations
Environmental integrity risk	Incentive or compensation mechanisms may reward legal compliance or avoided deforestation without ensuring additionality or preventing leakage, particularly where monitoring systems (e.g. CAR) remain incomplete.	Risk of limited real emission reductions and reduced credibility of sustainability claims.	Strengthen satellite-based monitoring, accelerate CAR validation, and link incentives to verified outcomes.
Climate alignment risk	Legal compliance does not necessarily align with climate objectives, especially in the Cerrado where conversion may remain permissible.	Potential misalignment with Paris Agreement goals and exposure to transition risk in global markets.	Align incentives with zero-conversion or science-based thresholds rather than legal minimum standards.
Market fragmentation risk	Diverging regulatory approaches (e.g. EU vs China) may lead to parallel supply chains with different sustainability requirements.	Increased transaction costs, logistical complexity, and uneven incentives for producers.	Promote interoperability across traceability systems and greater alignment between regulatory frameworks.
Distributional risk	Compliance and monitoring requirements may favour large, capitalised producers.	Risk of exclusion of small and medium-sized producers and reinforcement of existing inequalities.	Expand access to transition finance, technical assistance, and inclusive certification or jurisdictional approaches.

5.1. Political Economy Dynamics

Brazil's soy sector is characterised by a high concentration of political and economic power. Multinational traders, large scale producers and their political allies exert strong influence over land use regulation and rural credit, while smallholders, Indigenous Peoples and traditional communities remain marginalised, with limited access to finance, technical support and representation.

A key constraint is the gap between climate science and farm level perceptions. Many producers interpret changing weather patterns as cyclical, while NGOs and researchers emphasise structural climate risks and the role of deforestation. Bridging these perspectives is essential to reduce polarisation and improve policy uptake.

Economic incentives continue to favour expansion, where short term returns outweigh long term ecological and social costs. However, these dynamics are shifting. Environmental governance has strengthened under the current administration; investors are increasingly attentive to deforestation risk and international regulations such as the EUDR are reshaping expectations. Emerging initiatives, including the MoU between Abiove and China's CFNA and state level programmes such as Mato Grosso's *Produzir, Conservar e Incluir* (Produce, Conserve and Include, PCI), suggest potential for more coordinated and incentive-based approaches. See box below.

Figure 10: The PCI Initiative (Produce–Conserve–Include), Mato Grosso

Launched in 2015 at COP21, Mato Grosso's PCI Initiative is one of Brazil's most prominent jurisdictional sustainability programmes, designed to reconcile agricultural production with forest conservation and social inclusion. It sets state-level targets to increase agricultural productivity, reduce deforestation, and expand socioeconomic inclusion for smallholders and traditional communities.

The initiative operates through a multi-stakeholder governance structure involving the state government, private sector (including major soy traders), civil society organisations, and international partners. Interviewees emphasised that PCI has helped strengthen data transparency, CAR registration support, and monitoring capacity, particularly in frontier municipalities. Some companies now channel technical assistance and finance through PCI-aligned programs to reduce forest-risk exposure in their supply chains.

PCI's goals include restoring degraded areas, improving livestock productivity, expanding low-carbon agriculture, and supporting smallholders with market access and technical training. Progress has been uneven, largely due to fluctuating political commitment and limited public resources, but PCI remains one of the few state-level governance models suggesting that production and conservation targets can be coordinated under certain conditions.

Source: Instituto PCI.

5.2. Incentives and Distribution of Costs and Benefits

The distribution of costs and benefits in soy trade remains uneven. Large traders capture most of the economic gains, while environmental and social costs, including deforestation, land conflicts and pesticide exposure, are borne locally. At the same time, compliance costs related to traceability, certification and licensing are largely transferred to producers.

Brazil's relationship with China adds a further asymmetry. While Brazil depends heavily on Chinese demand, China can diversify suppliers and invest in alternative feed systems. However, both Brazilian and Chinese financial institutions are increasingly guided by green finance principles, which could support bilateral cooperation if Brazilian soy is positioned as a green commodity.

5.3. Future scenarios

(A) Status Quo Scenario

If current trends continue, soy expansion is likely to intensify in the Cerrado and Matopiba, where legal protections are weaker, and potentially in the Amazon following the suspension of the Soy Moratorium. This would accelerate biodiversity loss, increase conflicts with Indigenous and traditional communities and disrupt regional hydrological systems.

Market differentiation between regulatory regimes is likely to persist. Europe-bound soy will prioritise traceability and deforestation-free certification, while exports to China and domestic markets will continue to prioritise volume and price.

At the same time, climate risks are increasing. Continued deforestation reduces ecosystem resilience, further undermining production stability and long-term profitability. This creates a trajectory of rising environmental, social and economic risks, potentially locking the sector into a low sustainability equilibrium.

Over time, this may weaken Brazil's position as a soy exporter. While China will remain import dependent, investments in feed innovation, supplier diversification and domestic production may gradually reduce reliance on Brazilian soy. Recurrent climate shocks and supply disruptions could accelerate this shift.

(B) Sustainable Transition Scenario

A transition towards sustainable soy production would require coordinated political, financial and institutional realignment. Three elements are central: financial realignment, governance strengthening and international coordination.

Studies indicate that expanding domestic soybean processing, not just raw-bean exports, could raise the sector's growth substantially (Buainain, 2025; Coelho & Nakabashi, 2025). This suggests that value-creation strategies, coupled with improved governance could strengthen the link between productivity and shared economic benefits.

Financial realignment involves integrating sustainability criteria into credit systems. Existing tools such as climate stress tests and green taxonomies provide a foundation, but broader alignment is needed to link access to finance with deforestation-free and socially responsible production, while ensuring that smaller producers are not excluded.

Governance strengthening requires improved enforcement, transparency and local capacity. Accelerating CAR validation, strengthening environmental agencies and fully implementing the Forest Code would help close existing enforcement gaps.

Under this scenario, incentives could gradually shift from expansion to compliance and value creation. Producers would benefit from improved access to finance and markets, while Brazil could strengthen its position in global trade by linking competitiveness to credible environmental governance.

If implemented, this pathway could reduce the link between soy production and deforestation, improve resilience to climate risks and reposition Brazil as a provider of sustainable agricultural commodities within a more coordinated global framework.

6. Recommendations

The following section presents targeted recommendations for the Chinese and Brazilian governments, industry actors, and investors. These reflect the structural incentives, governance gaps, and dynamics identified throughout the report, while acknowledging the distinct policy priorities and development pathways of both countries. The recommendations aim to align market incentives with environmental governance, strengthen enforcement, address the growing divergence between the EU and Chinese markets, and promote high sustainability standards across both export and domestic supply chains.

6.1. Joint Brazil–China priorities

Establish a bilateral green soy framework. Develop a formal Brazil–China platform linking traceability, carbon accounting, landscape monitoring and green finance standards, building on the Abiove–CFNA MoU and aligning with Chinese sustainability frameworks.

Recognise protected areas and Indigenous territories as climate infrastructure. Integrate protection of native vegetation into bilateral food security and trade cooperation strategies, framing conservation as risk mitigation for long-term agricultural productivity.

6.2. Priorities for the Chinese government

Integrate deforestation risk into green finance and procurement rules. Explicitly reference traceability, geospatial risk screening and verified deforestation-free sourcing within green trade guidance and financial disclosure standards.

Strengthen institutional cooperation with Brazil. Expand collaboration through MOFCOM, MARA, CFNA and state-owned enterprises to support transparent supply chains and harmonised monitoring systems.

Scale practical pilots linking sustainability and supply security. Support farm-level traceability, low-carbon logistics and joint verification initiatives aligned with Brazilian systems such as CAR and Selo Verde.

6.3. Priorities for the Brazilian government

Close enforcement gaps in the Forest Code. Accelerate CAR validation, strengthen environmental agency capacity and improve data integration across ministries to eliminate regulatory grey zones.

Scale jurisdictional monitoring models. Expand successful state-level initiatives such as PCI and Selo Verde to reduce leakage, strengthen compliance and improve producer confidence.

Position Brazil as a verified low-carbon supplier. Use emerging EU and Chinese sustainability agendas to frame Brazilian soy as a climate-resilient commodity supported by enforceable governance and traceability systems.

6.4. Priorities for traders and financial institutions

Harmonise and operationalise traceability systems. Standardise geolocation and deforestation screening methodologies across traders and link them to national platforms to reduce transaction costs and compliance bottlenecks.

Embed verified compliance into credit and trade finance. Condition loans, insurance and trade finance on validated Forest Code compliance and geospatial risk screening, while expanding transition finance for small and medium-sized producers.

Integrate climate and hydrological risk into portfolio management. Treat deforestation exposure, water insecurity and encroachment into protected areas as material financial risks and incorporate them into due diligence, stress testing and capital allocation decisions.

7. Annex 1: Stakeholders and institutions consulted

Institution / Organisation	Stakeholder Type
Abiove – Brazilian Association of Vegetable Oil Industries	Trader association / agribusiness federation
AMAGGI	Agribusiness company / trader-producer
Associação Clube Amigos da Terra Sorriso	Local producer association / NGO
Banco Central do Brasil	Federal government / financial regulator
Bunge	Global trader / agribusiness company
Casa Civil, Unidade de Assuntos Internacionais da Casa Civil (Mato Grosso)	State-level government institution
Clima, Floresta e Agricultura (Climate, Forest and Agriculture Coalition)	NGO / research–advocacy network
China Chamber of Commerce for Import and Export of Foodstuffs, Native Produce and Animal By-Products (CFNA)	Semi-governmental trade association under China's Ministry of Commerce
CNA – Confederação da Agricultura e Pecuária do Brasil	National producer association / agribusiness lobby
COFCO Oil & Grains	Subsidiary of COFCO Corporation (China National Cereals, Oils and Foodstuffs Corporation)
Conservation Strategy Fund	Research institute / NGO
Earth Innovation Institute	Research institute / NGO
FAMATO – Federação da Agricultura e Pecuária do Estado de Mato Grosso	State-level producer federation
GIZ Brazil – Deutsche Gesellschaft für Internationale Zusammenarbeit	International development cooperation agency
Greenpeace Brasil	NGO / environmental advocacy
Green Peace China	NGO / environmental advocacy
GT-Cerrado	NGO / environmental coalition
Imaflora – Instituto de Manejo e Certificação Florestal e Agrícola	NGO / certification and sustainability standards
Independent expert 1	Independent expert / consultant
Independent expert 2	Independent expert / consultant

Independent expert 3 (ex- China Soybean Industry Association)	Independent expert / consultant
Independent expert 4	Independent expert / consultant (PCI Institute director)
Instituto Centro de Vida	NGO / environmental research and policy institute
Instituto Clima e Sociedade	NGO / climate policy and philanthropy platform
Instituto de Pesquisa Ambiental da Amazônia	Research institute / NGO
Instituto Internacional para Sustentabilidade	Research institute / NGO
Instituto PCI (Produce, Conserve, Include)	Multi-stakeholder platform / state-level initiative
MAPA – Ministério da Agricultura, Pecuária e Abastecimento	Federal government ministry
Momento Agrícola	Agribusiness media / producer platform
Norwegian Embassy (Embaixada da Noruega)	Diplomatic mission / donor government
Observatório do Clima	NGO / research and policy network
Observatório do Código Florestal	Research institute / monitoring platform
SEDEC – Secretaria de Desenvolvimento Econômico (Mato Grosso)	State government agency
Solidarity Brazil	NGO / sustainability and rural development
Sustainable Investment Management (Rio de Janeiro)	Private sustainability and ESG advisory
The Nature Conservancy Brazil	International NGO
TNC – Mato Grosso	Regional office of The Nature Conservancy
Universidade de Brasília, Instituto de Relações Internacionais	Academic institution
WWF-Brasil	International NGO / conservation organisation

8. Annex 2: References

Accountability Framework Initiative (AFi). 2022. “Commodity traders must take action beyond the Agriculture Sector Roadmap to achieve a true 1.5°C pathway.” November. https://accountability-framework.org/news-events/news/article/commodity-traders-must-take-action-beyond-the-agriculture-sector-roadmap-to-achieve-a-true-15c-pathway/

AgFeed. 2025. “B15 no tanque dá impulso e Abiove altera projeções para esmagamento de soja.” https://agfeed.com.br/economia/b15-no-tanque-da-impulso-e-abiove-altera-projecoes-para-esmagamento-de-soja/

Almeida, L. M., S. S. Silveira, and R. M. Carneiro. 2017. “Use of genetically modified crops and pesticides in Brazil.” *Ciência & Saúde Coletiva* 22 (10): 3243–3252. https://www.scielo.br/j/csc/a/tjr9r6KFWxPMqzxM3jKDBPJ

Amaggi. 2024. *2023 ESG Report.* https://www.amaggi.com.br/wp-content/uploads/2024/06/AMAGGI-2023-ESG-Report.pdf

Amaggi. 2025. “Governance.” https://www.amaggi.com.br/en/governance/

Baker McKenzie. 2021. “Brazil: The Central Bank of Brazil Publishes New ESG Regulations for the National Financial System.” *InsightPlus*, September. https://insightplus.bakermckenzie.com/bm/environment-climate-change_1/brazil-the-central-bank-of-brazil-publishes-new-esg-regulations-for-the-national-financial-system

Banco Central do Brasil (BCB). 2024. “Resolução CMN nº 5.193, de 19 de dezembro de 2024.” https://www.bcb.gov.br/estabilidadefinanceira/exibenormativo?tipo=Resolu%C3%A7%C3%A3o+CMN&numero=5193

Banco Central do Brasil (BCB). 2025. *Report on Social, Environmental and Climate-related Risks and Opportunities (Relatório sobre Riscos e Oportunidades Sociais, Ambientais e Climáticos).* https://www.bcb.gov.br/content/publications/report-risk-opportunity/RIS_EN_2025.pdf

BankTrack. 2023. “ESG Discrepancy Between Soy Growers and Financiers Creates Risk of More Expensive Financing.” https://www.banktrack.org/download/esg_discrepancy_between_soy_growers_and_financiers_creates_risk_of_more_expensive_financing

Brasil. 1940. *Decreto-Lei nº 2.848, de 7 de dezembro de 1940. Código Penal, Artigo 149 (alterado pela Lei nº 10.803, de 11 de dezembro de 2003).* http://www.planalto.gov.br/ccivil_03/decreto-lei/del2848compilado.htm

Brasil. 2012. *Lei nº 12.651, de 25 de maio de 2012.* http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2012/lei/l12651.htm

Brazilian Government (Secom). 2025. “In 2025, deforestation fell by 11.08% in the Amazon and by 11.49% in the Cerrado.” https://www.gov.br/secom/en/latest-news/2025/10/in-2025-deforestation-fell-by-11-08-percent-in-the-amazon-and-by-11-49-percent-i...

Buainain, A. M. 2025. “Soybeans in Brazil: controversies under debate.” *Jornal da Unicamp*. https://jornal.unicamp.br/en/artigo/2025/07/30/antonio-marcio-buainain/soja-no-brasil-controversias-em-debate/

Bunge Limited. 2025. “Bunge and Viterra complete merger to create premier global agribusiness solutions company.” https://www.viterra.com/Media/News/bunge-and-viterra-complete-merger-to-create-premier-global-agribusiness-solutions-company

Canal Rural. 2023. “Em MT, 23 a cada mil produtores e empresas que cultivam soja estão em recuperação judicial.” https://www.canalrural.com.br/agricultura/em-mt-23-a-cada-mil-produtores-e-empresas-que-cultivam-soja-estao-em-recuperacao-judicial

Canvas Business Model. 2025. “Who owns Louis Dreyfus Company?” https://canvasbusinessmodel.com/blogs/owners/louis-dreyfus-company-who-owns

Caramuru Alimentos S.A. 2023. “Corporate profile.” https://ri.caramuru.com/en/the-company/corporate-profile/

Cargosapiens. 2025. “Brazil records record soybean exports to China in Q1 2025.” https://cargosapiens.com/en/blog/brasil-registra-recorde-nas-exportacoes-de-soja-para-a-china-no-1o-trimestre-de-2025

Cargosapiens. 2025. “Brazilian agriculture exports worth US$82 billion in 2025.” https://cargosapiens.com/en/blog/agro-brasileiro-exporta-us-82-bilhoes-no-1o-semestre-de-2025-e-mantem-protagonismo

Central Committee of the Communist Party of China and State Council. 2025. *Plan for accelerating the construction of China into an agricultural powerhouse (2024–2035)*. https://english.www.gov.cn/policies/latestreleases/202504/07/content_WS67f3bd6ec6d0868f4e8f17aa.html

Chinese Academy of Agricultural Sciences. 2024. “Key research projects of the Feed Biotechnology Laboratory.” https://ifr.caas.cn/tzgg/22c797203e0b431d93aff2ec67ee6744.htm

China International Import Expo Bureau (CIIE). 2025. “Brazil expands soybean, beef exports to China amid closer trade ties: Data.” *Global Times*. https://www.ciie.org/zbh/en/news/exhibition/news/20251010/52921.html

Climate Policy Initiative (CPI). 2016. *The effect of rural credit on deforestation: Evidence from the Brazilian Amazon*. https://climatepolicyinitiative.org/wp-content/uploads/2013/01/CPI_Technical_Paper_Does_Credit_Affect_Deforestation_UPDATE_set2016.pdf

Climate Policy Initiative (CPI) and Pontifical Catholic University of Rio de Janeiro. 2023. *Smallholders in the Caatinga and the Cerrado: A baseline analysis for a rural just transition in Brazil*. https://www.climatepolicyinitiative.org/publication/smallholders-in-the-caatinga-and-the-cerrado-a-baseline-analysis-for-a-rural-just-transition-in-brazil/

Climate Policy Initiative (CPI). 2025. “The (lack of) control of legal deforestation in MATOPIBA.” https://www.climatepolicyinitiative.org/wp-content/uploads/2024/03/The-Lack-of-Control-of-Legal-Deforestation-in-MATOPIBA.pdf

Climate Policy Initiative (CPI) and PUC-Rio. 2025. *Where does Brazil stand with the implementation of the Forest Code? – 2025 edition*. https://www.climatepolicyinitiative.org/publication/where-does-brazil-stand-with-the-implementation-of-the-forest-code-2025-edition/

Coelho, A., and L. Nakabashi. 2025. “Biodiesel policies and the economics of soybean processing.” ANPEC Annual Meeting. https://www.anpec.org.br/encontro/2025/submissao/files_I/i11-f3b1cfe7d8b1ad8558c8e10e8f4d682c.pdf

COFCO International. 2025. “COFCO to ship 1.5 mln T of ‘sustainable’ Brazil soy to dairy.” https://www.cofco.com/en/News/Allnews/2025/0203/55449.html

Confaeab. 2025. “Indústria brasileira assina acordo com China sobre critérios verdes para a soja.” https://confaeab.com/industria-brasileira-assina-acordo-com-china-sobre-criterios-verdes-para-a-soja/

Consumer Goods Forum (CGF). 2025. “CGF China launches 2025 Green Consumer Goods Selection Guide.” https://www.theconsumergoodsforum.com/news_updates/cgf-china-launches-2025-green-consumer-goods-selection-guide-to-advance-sustainable-consumption/

Costa, M. H., et al. 2023. “The water balance components of undisturbed tropical woodlands in the Brazilian Cerrado.” *Hydrology and Earth System Sciences* 19 (6): 2899–2910.

CVONET. 2025. “Muyuan’s ‘soybean meal revolution.’” https://www.cvonet.com/news/detail/780074.html

Eco Braziliense. 2026. “Crédito rural vira ferramenta contra desmatamento.” *Correio Braziliense*. https://newblogs.correiobraziliense.com.br/ecobraziliense/credito-rural-vira-ferramenta-contra-desmatamento/

Esalq/USP. 2024. “Estudo traz informações sobre os impactos das mudanças climáticas sobre a produção de soja no Brasil.” https://www.esalq.usp.br/banco-de-noticias/estudo-traz-informa%C3%A7%C3%B5es-sobre-os-impactos-das-mudan%C3%A7as-clim%C3%A1ticas

ESG Today. 2026. “China releases corporate climate reporting standard.” https://www.esgtoday.com/china-releases-corporate-climate-reporting-standard/

Euronews. 2025. “European Parliament agrees to dilute and postpone EU deforestation rules.” https://www.euronews.com/my-europe/2025/11/26/european-parliament-agrees-to-dilute-and-postpone-eu-deforestation-rules

European Commission. 2022. “Corporate sustainability reporting directive.” https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

European Commission. 2023. “Regulation on deforestation-free products.” https://ec.europa.eu

European Commission. 2025. “Proposal to postpone EUDR enforcement for SMEs.” https://ec.europa.eu/environment/forests/deforestation-regulation_en

European Commission. 2025. “Regulation on deforestation-free products.” https://environment.ec.europa.eu/topics/forests/deforestation/regulation-deforestation-free-products_en

European Commission. 2026. “EU-Mercosur agreement.” https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/mercosur/eu-mercosur-agreement_en

Exame. 2025. “Brazilian soy production set to break records in 2025/26.” https://exame.com/en/brazilian-soy-production-should-renew-record-in-2025-26/

Fintel.io. 2025. “BlackRock, Inc. ownership in ADM: Filings.” https://fintel.io/so/us/adm/blackrock

Flach, R., et al. 2021. “Conserving the Cerrado and Amazon biomes of Brazil: Challenges and opportunities.” *World Development* 143: 105439. https://www.sciencedirect.com/science/article/pii/S0305750X21001972

Forests & Finance. 2026. “The Amazon Soy Moratorium Is Collapsing. Will Big Finance Use Its Leverage to Protect the Amazon?” https://forestsandfinance.org/news/the-amazon-soy-moratorium-is-collapsing-will-big-finance-use-its-leverage-to-protect-the-amazonf

France24. 2025. “Brazil sells exploration rights to oil blocks near Amazon river mouth.” https://www.france24.com/en/live-news/20250617-brazil-sells-exploration-rights-to-oil-blocks-near-amazon-river-mouth

GAAS Brasil. 2025. *Marco Referencial da Agropecuária Tropical Regenerativa*. https://gaasbrasil.com.br/wp-content/uploads/2025/10/Referencial_Agropecuaria_Tropical-Regenerativa_GAAS.pdf

Garrett, R. D., X. Rueda, and E. F. Lambin. 2019. “Globalization’s unexpected impact on soybean production in South America: Linkages between land use and international markets.” *Environmental Research Letters* 14 (4): 045003.

GC Notícias. 2025. “Produtores de soja e milho de MT enfrentam crise financeira grave com dívidas de R$ 706 bilhões.” https://www.gcnoticias.com.br/rural/produtores-de-soja-e-milho-de-mt-enfrentam-crise-financeira-grave-com-dividas-de-r-706-bilhoes

Globo Rural. 2025. “Indústria brasileira assina acordo com China sobre critérios verdes para a soja.” https://globorural.globo.com/agricultura/soja/noticia/2025/11/industria-brasileira-assina-acordo-com-china-sobre-criterios-verdes-para-a-soja.ghtml

Governo do Brasil. 2025a. “Brazil fortifies market diversification in February 2025.” https://www.gov.br/agricultura/en/news/brazil-fortifies-market-diversification-in-february-2025

Governo do Brasil. 2025b. “Brazil takes over the BRICS presidency in 2025.” https://www.gov.br/planalto/en/latest-news/2025/01/brazil-assumes-the-presidency-of-brics-in-2025

Governo do Brasil. 2025c. “In 2025, deforestation fell by 11.08 percent in the Amazon and by 11.49 percent in the Cerrado.” https://www.gov.br/secom/en/latest-news/2025/10/in-2025-deforestation-fell-by-11-08-percent-in-the-amazon-and-by-11-49-percent-in-the-cerrado

Governo do Estado de Mato Grosso. 2025. “Decreto nº 1.473/2025 – Normas para CAR Digital 2.0.” https://www.sema.mt.gov.br

IBGE. 2017. “Censo agropecuário 2017.” https://censoagro2017.ibge.gov.br/

IBGE. 2025. “Population estimates by state.” https://www.ibge.gov.br

Imea (Instituto Mato-Grossense de Economia Agropecuária). 2018. “Composição do funding do custeio da soja para safra 2018/19 em Mato Grosso.” https://www.imea.com.br/imea-site/view/uploads/relatorios-mercado/Funding%20soja.pdf

Instituto Clima e Sociedade (iCS). 2025. “Brazil must protect its agribusiness from climate impacts.” https://climaesociedade.org/en/artigo/brazil-must-protect-its-agribusiness-from-climate-impacts

Instituto PCI (Mato Grosso). n.d. “Estratégia PCI: Produzir, Conservar e Incluir.” https://pcimt.org/estrategia-pci/

Amazon Environmental Research Institute (IPAM). (2024). Cerrado loses 1.1 million hectares and surpasses Amazon deforestation. https://ipam.org.br/cerrado-loses-1-1-million-hectares-and-surpasses-amazon-deforestation/

Instituto de Pesquisa Ambiental da Amazônia (IPAM). 2025. “Without soy moratorium, market insecurity grows.” https://ipam.org.br/without-soy-moratorium-market-insecurity-grows-says-ipam

Instituto de Proteção Ambiental do Amazonas (IPAAM). 2025. “Mutirão aumenta em 201% as análises do CAR no Amazonas.” https://www.ipaam.am.gov.br

IPCC (Intergovernmental Panel on Climate Change). 2019. *Climate change and land*. https://www.ipcc.ch/srccl/chapter/chapter-5/

International Finance Corporation (IFC). 2012. *Performance standards on environmental and social sustainability*. https://www.ifc.org

Lin, B., and Y. Wang. 2025. “Climate change and China’s food security.” *Energy* 318: 134852. https://doi.org/10.1016/j.energy.2025.134852

Louis Dreyfus Company. 2025. *Interim financial report 2025*. https://www.ldc.com/wp-content/uploads/LDC-IFR25-RGB-DIGITAL_Spreads_Secured.pdf

MARA. 2023. “Notice on issuing the three-year action plan for the reduction and substitution of soybeans in animal feed.” https://www.gov.cn/zhengce/zhengceku/2023-04/14/content_5751409.htm

Marengo, J. A., et al. 2025. *Climate modelling, impacts and vulnerability assessments*. Cemaden.

Ministério da Agricultura e Pecuária. 2026. “Agronegócio brasileiro fecha 2025 com recorde em exportações de US$ 169 bi.” https://www.gov.br/agricultura/pt-br/assuntos/noticias/agronegocio-brasileiro-fecha-2025-com-recorde-em-exportacoes-de-us-169-07-bilhoes

Ministério da Agricultura e Pecuária (MAPA). 2024. “Governo Federal lança Plano Safra 24/25 com R$ 400,59 bilhões para agricultura empresarial.” https://www.gov.br/agricultura/pt-br/assuntos/noticias/2024/governo-federal-lanca-plano-safra-24-25-com-r-400-59-bilhoes-para-ag

MMA (Ministério do Meio Ambiente e Mudança do Clima). 2023. *PPCerrado – 4ª fase (2023–2027)*. https://www.gov.br/mma

MMA (Ministério do Meio Ambiente e Mudança do Clima). 2026. *Plano Clima 2024–2035*. https://www.gov.br/mma

MMA (Ministério do Meio Ambiente). 2023. “PPCDAm.” https://www.gov.br/mma

Ministério Público Federal. 2022. “Protocolo verde de grãos do Pará.”

Ministério do Desenvolvimento, Indústria, Comércio e Serviços (MDIC). 2025. *Comex Stat: Balança Comercial*. https://comexstat.mdic.gov.br/pt/comex-vis

Ministério de Minas e Energia. 2025. “E30 e B15 entram em vigor em todo o Brasil.” https://www.gov.br/mme/pt-br/assuntos/noticias/e30-e-b15-entram-em-vigor-em-todo-o-brasil

Ministério das Relações Exteriores. 2024. “Atos adotados por ocasião da visita de Estado ao Brasil do Presidente da China.” https://www.gov.br/mre

Ministry of Commerce (MOFCOM). 2025. *Opinions on expanding green trade and low-carbon transformation*.

Ministry of Finance (MOF) and Ministry of Ecology and Environment (MEE). 2025. *Corporate Sustainability Disclosure Standard No. 1 – Climate*.

Ministry of Finance. 2025. “Corporate Sustainability Disclosure Standard No. 1 – Climate (for trial implementation).” https://kjs.mof.gov.cn/zhengcefabu/202512/t20251225_3980202.htm

Moitinho, F. 2025. “Moratória da soja: Cade mantém a suspensão a partir de 2026.” *Forbes Brasil*. https://forbes.com.br/forbesagro/2025/09/moratoria-da-soja-cade-mantem-a-suspensao-a-partir-de-2026

Mongabay. 2025a. “Brazil soy deal that curbs Amazon deforestation to be suspended in 2026.” https://news.mongabay.com/short-article/2025/10/brazil-soy-deal-that-curbs-amazon-deforestation-to-be-suspended-in-2026

Mongabay. 2025b. “Brazil votes to allow most projects & farms to skip environmental licensing.” https://news.mongabay.com/short-article/2025/12/brazil-votes-to-allow-most-projects-farms-to-skip-environmental-licensing/

Nepstad, D., et al. 2021. “Socioeconomic and environmental effects of soybean production in the Brazilian Amazon.” *Scientific Reports* 11 (1). https://doi.org/10.1038/s41598-021-98256-6

Observatório do Clima. 2022. “Bolsonaro ends government with 60% increase in Amazon deforestation.” https://www.oc.eco.br/en/bolsonaro-ends-government-with-60-increase-in-amazon-deforestation/

Olam Group Limited. 2025. “Proposed sale of Olam Group’s remaining 64.57% stake in Olam Agri to SALIC.” https://www.olamagri.com/news/press-release/proposed-sale-of-olam-group-remaining-64-point-57-percent-stake-in-olam-agri-to-sali

OECD (Organisation for Economic Co-operation and Development). 2011. *OECD guidelines for multinational enterprises*. https://www.oecd.org

OECD (Organisation for Economic Co-operation and Development). 2023. *Global trade and sustainability trends*. https://www.oecd.org/trade/sustainability

Oliveira, G., and M. Schneider. 2021. “The geopolitics of China–Brazil soybean trade: The agribusiness connection.” *Journal of Peasant Studies* 48 (1): 1–23.

People’s Bank of China. 2025. “Green finance support project catalogue (2025 edition).” https://www.gov.cn/zhengce/zhengceku/202507/content_7032004.htm

Pereira, A. C. R., and E. C. Teixeira. 2021. “Inclusiveness and social impacts of soy expansion over family farms in Brazil.” *World Development* 138: 105189. https://doi.org/10.1016/j.worlddev.2020.105189

Pereira, O., and P. Bernasconi. 2025. “Brazilian soy exports and deforestation.” Trase. https://trase.earth/insights/brazilian-soy-exports-and-deforestation

Pesquisa Fapesp. 2024. “Pesticides can affect the health of agricultural workers.” https://revistapesquisa.fapesp.br/en/pesticides-can-affect-the-health-of-agricultural-workers

ProTerra Foundation. 2024. “The 2024 non-GMO soybean crop in Brazil.” https://www.proterrafoundation.org/news/the-2024-non-gmo-soybean-crop-in-brazil-unforeseen-factors-impacting-the-production/

Reuters. 2026. “Major Brazilian grain traders quit Amazon conservation pact.” https://www.reuters.com/sustainability/climate-energy/major-brazilian-grain-traders-quit-amazon-conservation-pact-2026-01-05/

RMETS. 2024. “Climate risks to soy–maize double-cropping due to Amazon deforestation.” *Journal of Climate* 37 (2). https://rmets.onlinelibrary.wiley.com/doi/10.1002/joc.8381

RTRS. 2016. *Management report 2016*. https://responsiblesoy.org/wp-content/uploads/2024/07/InformeGestion-ING.pdf

RTRS. 2024a. “Record acquisition of certified physical soy in 2024.” https://responsiblesoy.org/record-acquisition-of-certified-physical-soy-in-2024?lang=en

RTRS. 2024b. “Brazilian soy leads RTRS certification.” https://responsiblesoy.org/brazilian-soy-leads-rtrs-certification-international-market?lang=en

Salmona, Y. B., et al. 2023. “A worrying future for river flows in the Brazilian Cerrado provoked by land use and climate changes.” *Sustainability* 15 (5): 4251. https://doi.org/10.3390/su15054251

Schmid, S. 2025. “EPP votes with far-right to delay EU deforestation law.” *Politico*. https://www.politico.eu/article/epp-votes-with-far-right-to-delay-eu-deforestation-law/

Secretaria de Meio Ambiente e Sustentabilidade do Pará (SEMAS). 2025. “Relatórios de validação e municipalização do CAR.” https://www.semas.pa.gov.br

Secretaria de Estado de Meio Ambiente de Mato Grosso (SEMA-MT). 2025. “CAR Digital 2.0 valida mais de 12 mil cadastros em 30 dias.” https://www.sema.mt.gov.br

Serviço Florestal Brasileiro (SFB). 2024. “Painel de Regularização Ambiental – Status do CAR e PRA.” https://www.gov.br/florestal

S&P Global Commodity Insights. 2025. “Commodities 2026: US-Brazil soybean trade seen hinging on China’s imports.” https://www.spglobal.com/energy/en/news-research/latest-news/agriculture/122325-commodities-2026-us-brazil-soybean-trade-seen-hinging-on-chinas-imports

Shanghai Stock Exchange. 2024. “Self-regulatory guideline No. 14 for listed companies—Sustainability report (Trial).” https://www.sse.com.cn/lawandrules/sselawsrules2025/stocks/mainipo/c/c_20250516_10779150.shtml

SICAR Pará. 2025. “Painel de cadastros ativos no SICAR-PA.” https://www.sicar.pa.gov.br

Skidmore, K., et al. 2023. “Agricultural intensification and childhood cancer in Brazil.” *Environmental Health Perspectives* 131 (10). https://pmc.ncbi.nlm.nih.gov/articles/PMC10636353

Soterroni, A. C., et al. 2019. “Expanding the soy moratorium to Brazil’s Cerrado.” *Science Advances* 5 (7): eaav7336. https://www.science.org/doi/10.1126/sciadv.aav7336

State Council. 2025. *Plan for accelerating the construction of an agricultural powerhouse (2024–2035)*. http://www.gov.cn/zhengce/202504/content_7017469.htm

Strassburg, B. B. N., et al. 2019. “Expanding the soy moratorium to Brazil’s Cerrado.” *Science Advances* 5 (7). https://www.science.org/doi/10.1126/sciadv.aav7336

Trase. 2018. “New data on Trase shows soy trade from Brazil’s Cerrado driving climate emissions.” https://medium.com/

Trust Carbon. 2025. “Dashboard SICAR – Amazonas farms registered.” https://www.trustcarbon.org/dashboard

United Nations Development Programme. 2012. *Institutional and context analysis: Guidance note*. https://www.undp.org/sites/g/files/zskgke326/files/publications/UNDP_Institutional%20and%20Context%20Analysis.pdf

United States Department of Agriculture Foreign Agricultural Service. 2025. *Assessment of Soy China Initiative in Brazil*. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Assessment+of+Soy+China+Initiative+in+Brazil_Brasilia_Brazil_BR2025-0019.pdf

World Grain. 2025. “Brazil’s soybean area grows to 49.1 million hectares.” https://www.world-grain.com/articles/21588-brazils-soybean-area-grows-to-491-million-hectares

World Resources Institute and World Business Council for Sustainable Development. n.d. “FAQ: What are scope 3 emissions?” https://ghgprotocol.org/sites/default/files/standards_supporting/FAQ.pdf

WWF Brazil. 2023. “China increasingly relies on imported food. That’s a problem.” https://www.cfr.org/article/china-increasingly-relies-imported-food-thats-problem

WWF Brasil. 2025. “Banishing pesticides on responsible soy agenda.” https://www.wwf.org.br/en/?35282%2FBanishing-pesticides-on-Responsible-Soy-agenda

WWF Brasil. 2025. “Deforestation falls by 11% in Amazon and Cerrado in a year.” https://www.wwf.org.br/en/?93221%2FDeforestation-falls-by-11-in-Amazon-and-Cerrado-in-a-year

WWF Brasil. 2026. “Empresas abandonam a Moratória da Soja e colocam em risco...” https://www.wwf.org.br/nossosconteudos/notas_e_releases/saladeimprensa/

Xue, X., and M. Larsen. 2025. “China’s green leap outward: The rapid scale-up of overseas Chinese clean-tech manufacturing investments.” https://static1.squarespace.com/static/64ca7e081e376c26a5319f0b/t/68c09417468c2975452a39d1/1757451287251/PB+-11+China+Low+Carbon+FDI-vf.pdf

Zero Carbon Analytics. 2025. “Deforestation in the Cerrado is reducing soybean yields in Brazil.” https://ukragroconsult.com/en/news/deforestation-in-the-cerrado-is-reducing-soybean-yields-in-brazil