



PROFOR

BEEF IN THE BRAZILIAN AMAZON

Highlights

- The 2009 Brazilian Cattle Agreement (BCA), the world's most ambitious effort to slow deforestation associated with pasture expansion, is a commitment by the three largest Brazilian beef processors including JBS, Marfrig, and Minerva, who combined are responsible for half of the beef production in the Brazilian Amazon.
- The BCA aims to make the Amazon beef supply chain more sustainable by excluding ranchers who engage in deforestation, in forced labor, and in encroachment on indigenous and protected lands.
- Combined with recent public policy initiatives such as the mandatory Rural Environmental Registry, the BCA has improved corporate risk management of deforestation while contributing to the 70% decline in deforestation.
- Challenges to BCA's effectiveness include the lack of reliable monitoring, the lack of positive incentives for good practice, and the lack of confidence in Brazilian government policy.
- International and domestic lenders can improve zero-deforestation pledges through loans conditioned on effective land mapping, stricter producer supply chain systems, and mandatory participation in the *Transparent Supply Chains for Sustainable Economies* platform.

Introduction

Cattle pasture expansion is the main driver of deforestation in Latin America, occupying most of the land that has been cleared.¹ In the Brazilian Amazon, 70% of deforested land is under pasture. This policy brief examines the world's most ambitious effort to slow tropical deforestation associated with pasture expansion, the Brazilian Cattle Agreement (BCA), that targets the Amazon region. This BCA policy brief is an important illustration of the promise and limitations of value chain approaches to curbing tropical deforestation.

The Brazilian Beef Market

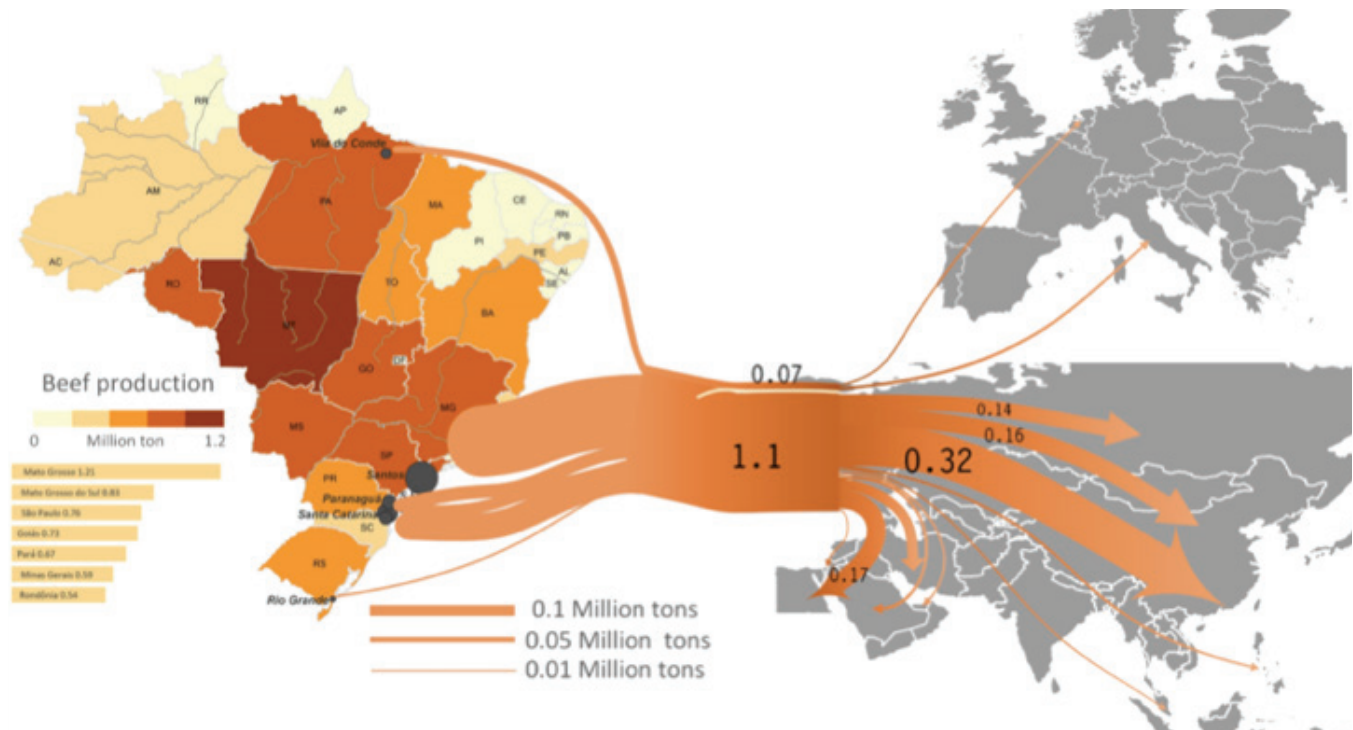
Market demand for sustainably produced beef in Brazil is low. Eighty percent of the beef produced in Brazil is destined for domestic markets, where consumers have not yet made sustainability a purchasing priority. Some supermarket chains in Brazil such as the Pão de Açúcar Group, Carrefour, and Walmart are making strides in this direction. Meanwhile, Brazil's beef export markets are dominated by emerging economies, led by China, that are in the process of establishing sustainability criteria for their suppliers of beef. According to a Rabobank report, in 2016², Brazil overtook Australia as China's biggest supplier of beef. Figure 1 illustrates the domestic production and export of Brazilian beef as recent as 2016.

Brazilian Cattle Agreement in Practice

The BCA is a commitment that was made in 2009 by the four largest Brazilian beef processors including Bertin, JBS, Marfrig, and Minerva. Bertin has since been acquired by JBS, which has reduced the number of signatories to three. Together, these three companies are responsible for half of beef processing in the Brazilian Amazon. The BCA aims to make the Amazon beef supply chain more sustainable by excluding ranchers who engage in deforestation, in forced labor, and in encroachment on indigenous and protected lands. The BCA is often compared with the Brazilian Soy Moratorium (BSM) as both are vast, sector-wide commodity sourcing agreements inspired by awareness campaigns led by environmental nongovernmental organizations such as Greenpeace and Amigos da Terra-Brazil.

However, there are two important differences between the BCA and the BSM. First, unlike soy that is almost exclusively exported, 80% of Brazilian beef is destined for domestic consumption. Second, unlike the BSM, an important impetus for the BCA was legal action taken by the *Ministério Público Federal* (Federal Prosecutor's Office) in the State of Pará. Similar legal actions against meat processors that were buying cattle from illegal ranches were later taken by Mato Grosso and other states in Brazil.

FIGURE 1. DOMESTIC PRODUCTION AND EXPORTS OF BRAZILIAN BEEF IN 2016



Source: Earth Innovation Institute with data from IBGE and SECEX, Brazil; Shimada and Nepstad (2018) with Juan Ardila

- Cattle pasture is formed by deforestation for a range of motives including as a mechanism for capturing the escalating value of land on the agricultural frontier. In this sense, land speculation is often the true driver of forest conversion to pasture.
- <https://westchina.austcham.org/blog/2016/06/28/fatp28052016/>; <https://www.globalmeatnews.com/Article/2016/06/23/Brazil-floods-China-with-beef>

The BCA functioned successfully for eight years. However, in 2017, the largest processor, JBS, had two of its plants closed due to illegal purchasing. Through an investigation known as *Carne Fria*, ranches in the JBS supply chain were found to have engaged in illegal deforestation and were levelled with cattle-sale embargoes for other legal infractions. As a result of this scandal, Greenpeace pulled out of the BCA although the agreement continues with participation of the beef processing companies.

BCA Impact, Limitations, and Leakage

Like the BSM, assessment of BCA success and impact depends upon the perspective from which one approaches the assessment. From a corporate risk management perspective, the BCA has lowered the risk of exposure to deforestation for the participating processors and their customers. Signatory companies reported 99% to 100% compliance with the terms of the BCA in 2017. However, this success is not as clean as that achieved by the BSM for three reasons. First, by reaching only direct suppliers to meat processing plants—cattle from raising and finishing operations—the BCA does not address deforestation by cattle breeders who sell calves to raising and finishing operations. The BCA covers only about 20% of the Amazon region's cattle pasture area. Second, assessment of the BCA's success is limited by the lack of verification of the monitoring systems, which are developed and operated by the processing plants themselves. The *Carne Fria* findings of illegal sourcing by JBS point to the importance of third party verification for the BCA monitoring systems. Third, since cattle are mobile, animals from ranches that are not in compliance with the BCA can be moved to compliant farms to be laundered before sale to processors.

From the perspective of regional deforestation trends, the BCA contribution to the 70% decline in the rate of deforestation was modest. The LEAVES policy brief on *Soybeans in the Amazon and the Case of the Brazilian Soy Moratorium* provides a summary of the overall causes of this decline. Quantification of this contribution is made difficult by the sheer number of public and voluntary measures to slow deforestation that serve as confounding factors to measurement and attribution of BCA impact. Like the BSM, the BCA uses a voluntary agreement to address gaps in public policy. However, unlike the BSM, the BCA capitalizes on an important opportunity to reinforce the Brazilian government's command-and-control measures to slow deforestation by requiring ranch properties in the supply chain to be part of the government's Rural Environmental Registry (CAR).

Market leakage under the BCA is unlikely. Cattle production continued to climb after the BCA was established both through expanding pasture areas and increasing cattle productivity.

Monitoring, Incentives, and Disincentives to Prevent Deforestation

The BCA continues to be extremely important due to the active participation of major meat processing companies. Innovations are underway to improve the BCA. A new monitoring system called VISIPEC uses official, mandatory property registries such as the CAR and cattle transport permits to extend the reach of the BCA beyond the immediate suppliers of the participating meat processing plants.

A more fundamental issue raised by both the BSM and the BCA is the long-term effectiveness of strategies for controlling deforestation that rely almost exclusively on punitive or restrictive measures. Despite previous declines, deforestation in the Brazilian Amazon has been rising in recent years. Suspected causes include a combination of cuts in law enforcement budgets and frustration with the lack of recognition and positive incentives for those farmers and companies who are making the transition to sustainable production systems. Recently, investors and corporates stepped up calls for 'zero deforestation' via a joint statement calling for a renewed effort to bring an end to deforestation in Brazil's Cerrado region, where almost half the forest cover has already been cleared to enable agricultural expansion designed to meet booming global demand for commodities such as soy and beef. The statement is backed by institutional investors that together manage over US \$2.8 trillion of assets. It signals their support for the Cerrado Manifesto, which was launched in 2017 by the Brazilian Government and which has secured backing from 70 global companies, including household names such as McDonalds, Tesco, Walmart and Unilever. The manifesto calls for a series of measures to end deforestation in the region and usher in robust sustainable agriculture standards for companies operating in the Cerrado.

In general, however, strategies for controlling deforestation must be revised to feature a more positive approach. Such approaches can provide positive incentives to top performers while maintaining punitive disincentives such as the BCA.

Systems for delivering benefits to responsible, conservation-minded farmers could include helping them access new markets or streamlining the farm licensing and permitting processes. Two initiatives in Mato Grosso can help generate positive incentives for the farmers who are making the transition to sustainable production systems. The first is the Mato Grosso Beef Institute (IMAC) that is taking an integrated approach to improving the environmental, social, and sanitary qualities of beef production to enhance market access. The second initiative is the Mato Grosso "Produce, Conserve, Include" (PCI) Strategy that has established state-wide goals for forest conservation, legal compliance with the Brazilian Forest Code, increases in cattle productivity, and social inclusion. The PCI is beginning to attract investment. The goals of the PCI could become the basis for mutually-beneficial, sustainable sourcing agreements between Brazil and China or other markets.

Lessons Learned

Despite the impressive decline in deforestation in the Brazilian Amazon through years of government and private sector efforts, the deforestation problem is far from resolved. To improve the impact of the BCA and to improve public policy's response to deforestation, four issues must be addressed. First, the BCA does not incentivize law-abiding producers. As is the case with most corporate zero-deforestation pledge approaches, there is a lack of positive producer incentives. By excluding all deforesters from the supply chain instead of targeting illegal deforesters, the BCA ends up penalizing those conservation-minded, law-abiding producers who have retained more forest on their land than is required by the Brazilian Forest Code. Second, traceability and monitoring remain unreliable. The impressive supply chain monitoring systems developed by JBS and Marfrig do not monitor all breeding and raising operations because these producers do not sell directly to meat processors. The monitoring systems in place currently lack transparency. Property-level supply chain mapping involving the combination of property maps, remote sensor data, and supply chain information can provide unprecedented levels of transparency to measure the progress of zero-deforestation agreements. Third, the BCA does not address the deforestation that is driven by land grabbing through which the presence of cattle pastures is used to demonstrate to the land titling agency that the land is under productive use. The BCA also fails to address cattle operations that sell to clandestine meat processors. Fourth and finally, there is a perceived lack of reliability in the Brazilian government. Many sustainable supply chain initiatives operate under the assumption that governments are not reliable partners in striving for sustainable development. These initiatives are thus implemented with little concern for how the zero-deforestation agenda harmonizes with public policies in the production region.

Recommendations

In addition to addressing the four issues above, a key recommendation to improve the BCA and reduce deforestation is the effective use of finance. The provision of finance is vital to the production and trade of beef. National development banks and multilateral and bilateral donors, including the World Bank Group, have three mechanisms to direct capital towards environmentally and socially sustainable production models. First, lenders and private investors can encourage governments to develop and adopt operational property boundary maps, reliable mapping and dissemination of annual deforestation polygons, and legal mechanisms to force processing plants to impose requirements on their suppliers (e.g. the Cerrado Manifesto). Second, in future loans to processing plants, one point of negotiation could be the companies' improved commercial relationships with suppliers. In Brazil, cattle producers hold deep resentment of processors because of inaccurate balances and lack of payment for hides.

Third, lenders can encourage producer participation in the *Transparent Supply Chains for Sustainable Economies*³ (Trase) platform. By 2021, Trase aims to provide a public, go-to supply chain information systems for companies, governments, investors, and other actors seeking to transition towards more sustainable production, trade, and consumption for the world's major forest-risk agricultural commodities. Trase aims to cover over 70% of the total traded volume of major forest-risk commodities including soy, beef, palm oil, timber, pulp, paper, coffee, cocoa, and aquaculture. One of the initial Trase targets is beef production in Brazil, Argentina, and Paraguay. By encouraging participation in the Trase platform, lenders can improve transparency and monitoring across the Brazilian beef supply chain.

3 *Transparent Supply Chains for Sustainable Economies*

The Program on Forests (PROFOR) multi-donor partnership generates innovative, cutting-edge knowledge and tools to advance sustainable management of forests for poverty reduction, economic growth, climate mitigation and adaptation, and conservation benefits. Through its programs, PROFOR is advancing forest-smart development, which recognizes forests' significance for sustaining growth across many sectors, including agriculture, energy, infrastructure, and water.



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