

IDH POSITION PAPER:

A Sustainable Brazilian Beef Sector

Landscape: Mato Grosso, Brazil
Company Sector: Beef value chain
Land Size: 90.3 million hectares



Summary

Brazil is the world’s biggest exporter of beef, with Mato Grosso being the biggest producing state. While the beef sector plays an important role in the Brazilian economy, it has also been criticized for low productivity, degraded pastures and contributing to environmental issues such as illegal deforestation. Intensifying cattle production to free up land for responsible farming is key to forest protection in Mato Grosso. Through the state government-led Produce, Conserve and Include (PCI) strategy, IDH partners with leading producers, municipalities, NGOs and others to maintain and conserve 60% of native forest while doubling economic output by 2030. We also connect sustainable production areas in the state with national and international markets through our Verified Sourcing Area (VSA) approach, helping achieve sustainability at scale.



Credit: Acrimat*

1. Key facts and figures

Brazil is the world’s second largest beef producer (14.4% of global production), and the largest exporter of beef. The country has a herd of 221 million cattle (13.8% of global herd), occupying an area of approximately 165 million hectares (average stocking rate of 1.34 head of cattle per hectare). The production is based on grass-fed systems, with an average production of 5.57@/hectare, and profitability of US \$17/@¹ (gross margin) and US \$10/@ (net margin).²

Brazil’s is the world’s largest exporter of beef, and the sector represents 22% of the country’s GDP

The beef sector plays an important role in the Brazilian economy. In 2017, agribusiness represented 22% of total Brazilian GDP (US \$374 billion), while beef production contributed to 31% (US \$116 billion) of agribusiness GDP. The sector also formally employed more than 353,725 people in 2017. During the same period, the country produced 9.71 million “Tons Carcass Weight Equivalent” (TEC in Portuguese³). Approximately 20% was exported, while 80% reached the internal market, generating more than R\$523 billion (US \$138 billion) from the entire beef value chain (including production, inputs, industry and retail revenue).⁴

1. One arroba, abbreviated as “@”, is a common Brazilian livestock unit, equivalent to 15 kg of carcass.
2. Source: Report on Q4 2017 Livestock Costs – CEPEA/USP and CNA Report December 2017 (<https://www.cepea.esalq.usp.br/upload/revista/pdf/0722995001519239521.pdf>)
3. “Tons Carcass Weight Equivalent” or TEC in Portuguese – measure used to standardize the weighing of the beef produced by the industry after slaughtering
4. Source: Brazilian Livestock Outlook 2018 - Annual Report Abiec (<http://abiec.siteoficial.ws/images/upload/sumario-pt-010217.pdf>)

2. Challenges in the sector

Despite its size and importance, the Brazilian beef sector struggles with efficiency, and continues to be criticized for its low yielding and expansive pasture areas subject to different degrees of degradation. At the same time, key environmental issues have been associated with beef production in Brazil, including illegal deforestation, greenhouse gas (GHG) emissions, pasture degradation, over-use of water, and biodiversity loss.

In this context, Brazil has submitted its nationally determined contributions (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC). The federal government commits to reduce GHG emissions by 37% in 2025, and by 43% in 2030, both compared to 2005 emission levels. Achieving this commitment takes additional measures related to the agriculture sector into consideration, including restoring 15 million hectares of degraded pastures and integrating 5 million hectares of crop-livestock-forestry systems by 2030. This commitment represents a great opportunity for the Brazilian agribusiness sector to attract investments and new financial instruments to support low-carbon cattle ranching, with higher productivity, environmental compliance, and less pressure on forest cover.

There is a great opportunity for the Brazilian agriculture sector to attract investments and new financial instruments to support low-carbon cattle ranching

The beef sector in Brazil also faces social and economic challenges: under the current development conditions, Brazil's beef production system is likely to cut out around 50% of cattle farmers over the next 10 years.⁵ These are mainly medium-sized producers and smallholders involved in cow-calves operations, known in the supply chain as indirect suppliers. In 2016, it is estimated that these 250,000 smallholders (farms with approximately 50 hectares) produced less than 3@/hectare (national average: 5.57 per hectare), accumulating a loss of R\$2,000 per hectare in the period (approximately US \$526).⁶ The reason for such low productivity is related to the low technical capacity for herd and pasture management, poor access to high-productivity genetics, and lack of credit lines compatible with livestock production.



Smallholder, medium producer or large producer?

In Brazil, the size of farms (rural properties) is classified in "tax modules" ("módulos fiscais" in Portuguese) to define whether they are small, medium or large. The size of each module varies by state and municipality.

In the municipalities where IDH works, tax modules have an average size of between 80 and 100 hectares.

In this respect:

- Smallholder (1-4 tax modules) - producer with 80-400 hectares
- Medium producer (4-15 tax modules) - producer with 401-1,500 hectares
- Large producer (more than 15 tax modules) - producer with more than 1,500 hectares

Source: <http://www.incra.gov.br/tamanho-propriedadesrurais>

Arguably the most pertinent factor is the lack of knowledge regarding individual cash flow of livestock production, causing farmers to enter a cycle of loss – despite experiencing a seemingly satisfactory production – and subsequent collapse. For many, the only option to improve their income is to clear more forest.⁷ Some of these factors indicate a clear correlation between areas with a high number of indirect suppliers and high deforestation rates, especially affecting Amazon biome frontier municipalities. In Mato Grosso, 31% of the total herd originates from indirect suppliers.⁸

Increasing beef production while promoting low-carbon cattle ranching, land tenure, environmental regularization, natural resources conservation, and rehabilitation/inclusion of smallholders is a challenge. But it potentially brings huge opportunities for Brazil, both in Mato Grosso State and in other states where cattle ranching and grain production can evolve to the crop, livestock and forest integration (ILPF) agenda. There is a need to advance supply chain interventions at scale, reaching an impact at landscape level, and connecting these interventions to solutions that ensure sustainable management of the landscapes while identifying new, inclusive business opportunities.

5. Concept note IDH - 2017 (Internal document)

6. Internal IDH reports - 2017

7. "Best practices for IDH to work on prevention of deforestation by indirect beef suppliers in the Amazon frontier of Mato Grosso, Brazil" - IDH by Nienke Sleurink, 2017 (internal document)

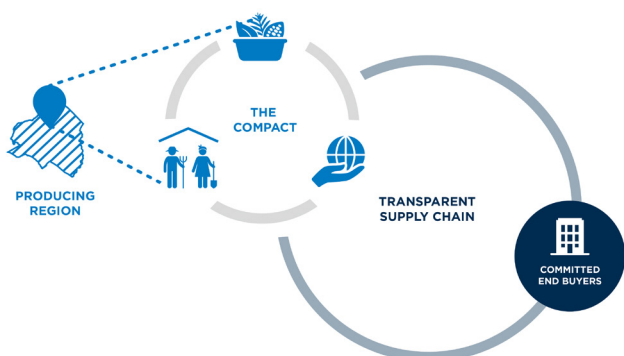
8. Acrimat (Association of Mato Grosso Breeders) - 2017 (<https://www.acrimat.org.br>)

3. IDH innovating for impact at scale

In tropical forest landscapes, IDH uses a three-pronged approach to create areas where agricultural, food and forestry products are grown sustainably (Production), natural resources are safeguarded (Protection), and farmers and communities thrive (Inclusion). IDH implements its initiatives by bringing together businesses, farmers, communities, governments and civil society to build land governance models that can attract new sources of funding and are recognized by markets as Verified Sourcing Area (VSA).



The strategy is implemented in the field through convening private-sector companies and key stakeholders in the development of the regional Production, Protection, Inclusion (PPI) compacts, as well as co-funding partnerships to lead innovative business, establishing a new marketplace under the VSA concept. VSA is a new area-based mechanism to accelerate production and uptake of sustainable commodities globally, where areas or jurisdictions (e.g. municipalities or regions with clear geographical boundaries) with clear governance, could be linked directly to market demands and sustainability criteria for relevant commodities. In these areas, local actors drive sustainable development and receive direct support and incentives by global markets for doing so. Through the VSA model, any buyer, trader or interested third party could easily assess the producing region's status and progress on key sustainability targets. This way, committed end-buyers can get a better understanding of the products in their supply chain, and improve sustainability with direct support for the producing region.



The VSA is an important mechanism for reaching our main goal for Brazil, which is that “Natural forests are conserved and restored to maintain their carbon storage capacity and biodiversity”.

To meet this challenge, our targets for 2020 are:

- **756,000 hectares** of natural forests conserved;
- **123,000 hectares** of forests restored;
- **312,500 hectares** of low productivity pasture land restored/intensified;
- **937,500 hectares** of deforestation indirectly avoided by expanding cropping production and intensification of existing productive areas.

IDH recognizes that in many landscapes where it operates, such as Mato Grosso State in Brazil, there are several land tenure issues that needs to be addressed. The uncertainty over land ownership creates an unfavorable environment for investments in forest restoration. That is why IDH works with its partners to promote land regularization, which in most cases depends on joint efforts between the public and private sectors. We need landowners who meet legal requirements to continuously improve their performance: not only on illegal deforestation, but on sustainable production, inclusion and protection (forest, water, soil, fire prevention, etc.). Through IDH programs in Brazil, landowners are supported to stop deforestation/converting natural vegetation, as well as to restore deforested and degraded areas. We work on developing economically and ecologically viable business models for farmers and companies that supply chain companies, impact investors and mainstream banks are willing to invest in.

* Images were provided and authorized for use by our implementing partner, Acrimat

4. IDH beef supply chain interventions in Brazil

IDH believes that smallholders are the key stakeholder group in the beef value chain in terms of making the required interventions, and reaching the desired impacts that are connected and aligned with our mission, vision and strategy. The smallholder is the basis of the beef production chain, where the main traceability challenges lie. This is why we consider them the agent of change, not only for Mato Grosso, but for livestock production in Brazil more widely. We need to establish a new level of sustainable production where small-scale calf farmers officially “exist” and are the initial stakeholders in an increasingly solid, fair and financially sound production chain. To reach the desired impact beyond the beef supply chain in Mato Grosso and Brazil, we will provide support for smallholders to become profitable and investible, attracting demand-side partners (through co-funding), vendors, commercial banks, and investors. We will develop new business models to create a sustainable beef trade, with the aim of breaking the vicious cycle that leads to illegal deforestation, and ensuring that converting natural vegetation is not the only means of survival.

Smallholders are key agents of change, for Mato Grosso and for livestock production in Brazil more widely

IDH is implementing an innovative approach to deal with the challenge of indirect suppliers in the Brazilian beef sector, via the “Sustainable Production of Calves Program”. This approach brings together smallholders, land tenure/environmental compliance, intensification, increased income, restoration and forest protection, investments, and the connection with the market through the VSA concept.

The project plans to:

- De-risk supply chains connected to illegal deforestation to reach compliance, transparency and traceability
- Build transformational solutions to market (through the development of effective service delivery models)
- Increase incomes and improve quality of life for smallholders and the region as a whole (through better management practices, increase in productivity, and access to finance and market).

5. Three co-funding projects

In Mato Grosso, IDH is already implementing this strategy as part of a landscape coalition of public- and private-sector stakeholders led by the state’s PCI strategy. Three co-funding projects focused on technical assistance are in place in some of the most important beef-producing regions in the state. IDH is convening key value chain stakeholders who are dedicated to producing results at scale through the development of innovative business models, including the challenge of indirect suppliers and their connection with deforestation. These co-funding projects are fully aligned with the regional PPI compacts strategy, as well as with the VSA approach.

Currently, these projects cover more than 15 municipalities in three important cattle regions, directly benefiting more than 500 producers, with an investment of €5 million and the

potential to unlock approximately €25 million in investments over the coming years, while contributing to protecting and restoring more than 1 million hectares of tropical forest.

IDH projects cover more than 15 municipalities in three important cattle regions, benefiting more than 500 producers, with an investment of €5 million and the potential to unlock another €25 million

The first co-funding to develop the “Campos do Araguaia” project started in 2016 and involves The Nature Conservancy, Grupo Roncador and IDH in the Central Araguaia Valley. The main objectives are: to support the state’s PCI strategy in its intensification and restoration targets with the beef sector in the region; to promote responsible cattle intensification and restoration of low productivity areas; to address the removal of systemic barriers through the establishment of a cattle production hub in Barra do Garças (an integrated approach to deal with land titling); and to provide rural credit and technical assistance. The project has started engagement with 50 farms in nine municipalities, reaching a production area of 130,000 hectares and the intensification of 20,000 hectares.

Another co-funding to develop the Sustainable Production of Calves Program brought together São Marcelo Farms,⁹ NatCap, Carrefour Group, Carrefour Foundation and IDH. In the Juruena Valley, northwest of Mato Grosso, the challenge to support the increase in production of sustainable, zero-deforestation, traceable beef connected with the PCI Compact, united the partners in building a deforestation-free calves sourcing project. The project will engage 157 small- and medium-sized calf suppliers in nine municipalities, covering an area of approximately 91,000 hectares. The connection with the already-established Juruena Valley PCI Compact will, in the medium term, evolve into a VSA in the region, attracting new partners from private-sector companies, investors, civil society and various value chains.

Following the same strategic approach, IDH established a third co-funding partnership by convening Acrimat (Mato Grosso Cattle Breeders’ Association), Carrefour Brasil Group and Carrefour Foundation, to develop and implement the “Intensification for Sustainable Calves Production in Mato Grosso” project. This partnership aims to directly benefit 300 producers in three municipalities (Paranatinga, Gaúcha do Norte and Ribeirão Cascalheira). These are on the border of the Xingu Park, which is a transition area from Cerrado to the Amazon biome, reaching an area of approximately 165,000 hectares.

For more information about the programs in Brazil and/or the investment pipeline, please contact our local team:

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9. SÃO MARCELO: The business case for a landscape approach to sustainable beef production in Brazil - IDH, 2018 (https://www.idhsustainabletrade.com/uploaded/2018/06/IDH_Business-case-study_Sao-Marcelo_Brazil_cattle-ranching-1.pdf)