



GTPS

Brazilian Roundtable on
Sustainable Livestock

BRAZILIAN LIVESTOCK OVERVIEW AND ITS CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT

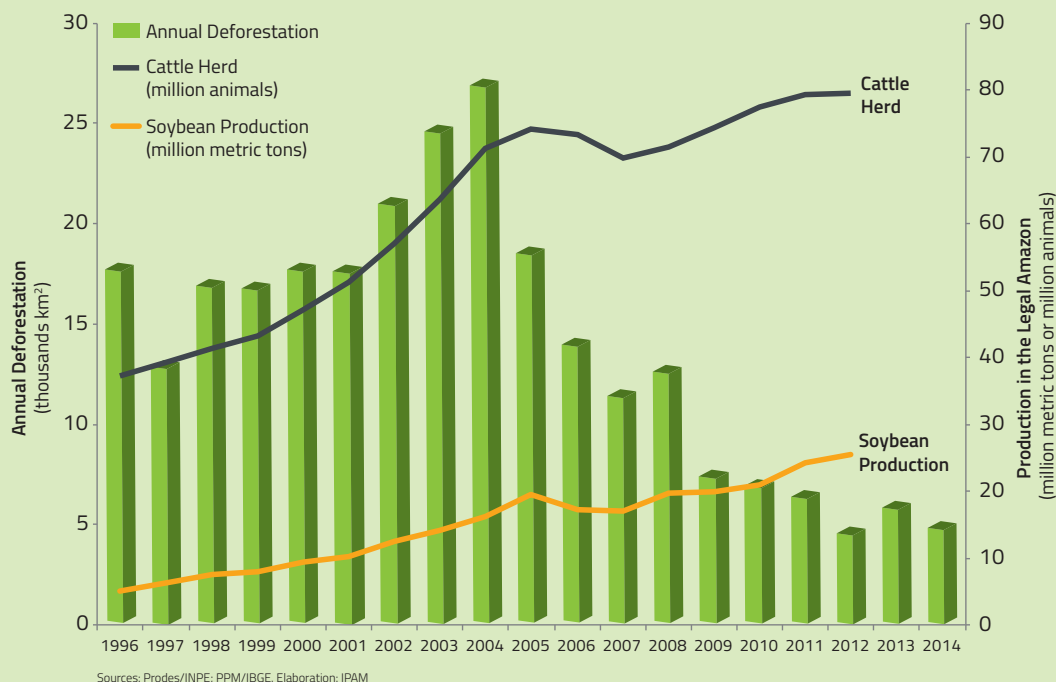
WHAT'S THE MATTER WITH LIVESTOCK?

Livestock production in **Brazil has a key role** to play when it comes to meeting demand for nutritious food and for food security. But sustainability in food production means addressing multiple challenges, such as water supply and management, land use dynamics and greenhouse gases emissions. This paper provides reliable information about those topics assuming the importance of livestock for food security in Brazil and abroad, the need to promote a new land use dynamic based on pastureland restoration and livestock intensification.

Promoting sustainable livestock in Brazil is based on ensure that we continue to meet demand for beef while boldly and proactively tackling the key environmental issues that have traditionally been associated with the industry. Deforestation, greenhouse gases emissions, pasture degradation, water use and biodiversity loss are some of the most commonly issues cited.



DEFORESTATION AND CATTLE HERD IN THE AMAZON



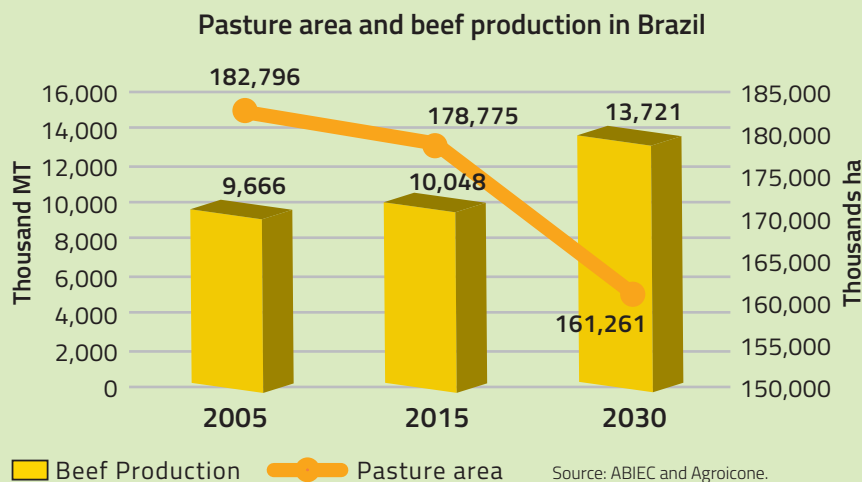
Livestock is usually singled out as the main cause of deforestation in Brazil. However, it is not possible to establish a clear and automatic causation between livestock production and deforestation. While livestock production is a natural activity in any area already cleared, there are many different and complex drivers of deforestation in Brazil. Indeed, the very notion that the expansion of livestock production relies on deforestation is outdated and misinformed: the trend over the next 15 years will be for the total land area dedicated to livestock production to significantly decrease, while productivity expands.

THE EXPANSION OF LIVESTOCK AND AGRICULTURE DOES NOT RELY ON DEFORESTATION

The livestock intensification and pasture restoration are the key to allow a more efficient land use

AVERAGE PRODUCTION

2015 $4@/ha/year$ 15 years +50% 2030 $6@/ha/year$



Total pasture area in Brazil is decreasing while cattle productivity is increasing. In 2005, 9.6m tonnes of beef were produced on 183m hectares. In the ten years to 2015, productivity leapt to 10m tonnes on 179m hectares. By 2030 it is anticipated that the total pasture area will comprise just 161m hectares, for a total annual production of 13.7m tonnes of beef. That is a reduction of livestock pastureland of some 220,000 km² in just 25 years. To put that figure into context, that is an area bigger than the entire island of Great Britain (209,331 km²). And it is 22 million hectares of land that will be freed for other uses, such as planted forest, native vegetation restoration and crop production.

SUSTAINABLE LIVESTOCK AND THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

COP 21 Paris Agreement 2015

In the Paris Agreement, Parties committed to foster emissions reductions, to promote adaptation and resilience of ecosystems and to adopt low carbon emissions technologies.

BRAZIL

- Was the first developing country to commit to an absolute reduction.
- In its Intended Nationally Determined Contribution-iNDC, Brazil set absolute GHG reduction target of 37% on 2005 values by 2025, and of 43% by 2030.

TO DO LIST

- Strengthening and enforcing the implementation of the Forest Code - Restoration under the Law on Protection of Native Vegetation could lead to a carbon sequestration of up to 4.5bn tonnes of CO₂e in the next 30 years.
- Restoring 15 million ha of pastureland and reforesting 12 million hectares by 2030, for multiple purposes.

Livestock production practices will play an important role in Brazil's contributions to the Paris Agreement

"With the use of degraded pastures areas currently existing in Brazil and the adoption of low-carbon practices, by 2030 it will be possible to meet the demand for agricultural products and also reduce by 50% GHG emissions from the agricultural sector, without carrying out deforestation. Moderate intensification of livestock production, the use of no-tillage cultivation system and the implementation of IAFP (Integrated Crop-Livestock-Forestry) systems are key to achieving this scenario." (Imaflora)

UN SDGs (Sustainable Development Goals)

The approval of **UN SDGS (SUSTAINABLE DEVELOPMENT GOALS)** in 2015 created a broad and long term agenda for sustainable development, comprising clear goals related to food security and nutrition, and environmental challenges closely related to food production. Sustainable Development Goals (SDGs) - General Session of the United Nations - 2015: creation of a broad and long-term agenda for sustainable development and poverty eradication. The SDGs that are closely related to the debate of sustainable livestock:



**STOP HUNGER AND
GET FOOD SECURITY**



**ENSURE SUSTAINABLE
CONSUMPTION**

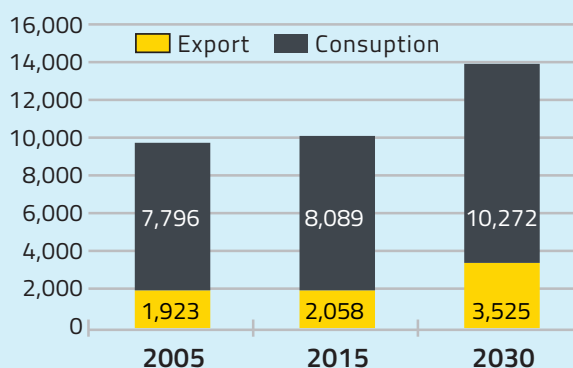


**PRODUCTION PATTERNS
SUSTAINABLE LAND USE**

Concerning SDG 15, it addresses the environmental protection perspective of eradicating poverty and sustainable development, ensuring the preservation of ecosystems as well as biodiversity. In this regard, as also stated in SDG 12, new methods of food production on a sustainable manner are vital in the future, since a poorly managed food production or farming can cause severe damages to the environment and biodiversity, both strictly linked mainly to deforestation.

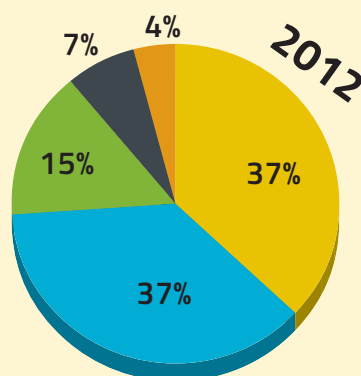
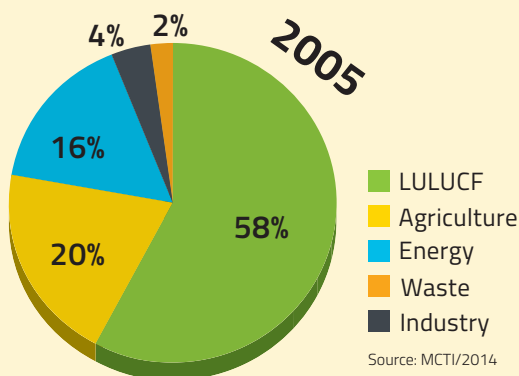
In this sense, the challenges towards promoting sustainable livestock in Brazil, which has the recovery of degraded pastures, comprising intensification and the increase of productivity, the compliance process towards the Law on Protection of Native Vegetation and reduce deforestation are key factors for scaling up good practices and more sustainable production.

ROLE OF BRAZIL AS A LEADING WORLD SOURCE OF BEEF (Thousand MT)



Source: SECEX/MDIC; ABIEC, Agroicone.

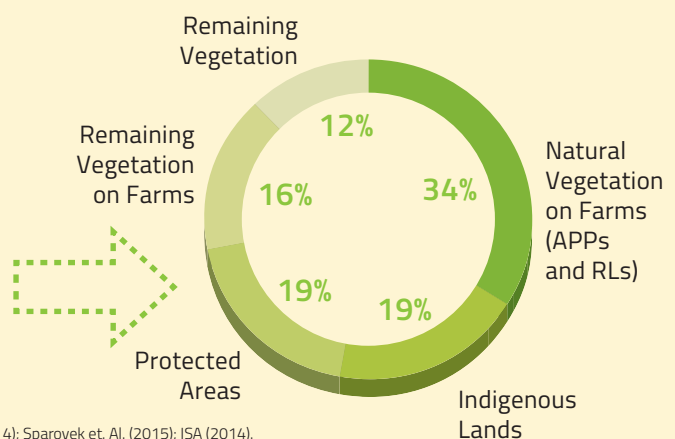
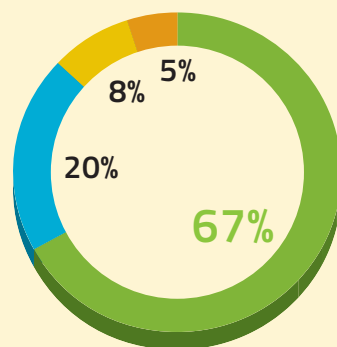
GHG EMISSIONS AND LOW CARBON AGRICULTURE



Brazilian GHGs emissions pattern has shifted in the last years. In 2005 emissions from the **land use, land use change and forestry (LULUCF)** sectors represented 58% of the total emissions in CO2 equivalent. In 2012, this number shifted to 15% due to **deforestation reduction**.

LAND USE IN BRAZIL (2014)

■ Natural Vegetation
■ Pastures
■ Agriculture (1st crop and Planted Forests)
■ Urbanization and Other uses



Sources: Agroicone based on IBGE – PAM (2014); Sparovek et. Al. (2015); ISA (2014).
 Note: Calculations for all categories considered the best available data in 2014.

LIVESTOCK WATER USE

15.500

l/kg – BEEF Water Footprint

93% green water
(rainfall water)

4% blue water
(surface and ground water)

3% gray water
(water required for the dilution of effluents in the production process)

Restoration of degraded pastures is a key action aimed at addressing a responsible water use

ABC PLAN (LOW CARBON AGRICULTURE)

It is a sector plan for mitigation and adaptation of climate change, created by the Federal Government and managed by the Ministry of Agriculture. There are specifically financial incentives for the 6 following most relevant actions (until 2020):

- Restoration of degraded pastures (15 million hectares);
- Zero tillage (8 million hectares);
- Biological nitrogen fixation (5,5 million hectares);
- Integrated crop-livestock-forestry – iLPF (4 million hectares);
- Planted Forests (3 million hectares);
- Treatment of animal waste (4,4 million m³).

BRAZILIAN BIOMES AND LAW ON PROTECTION OF NATIVE VEGETATION (Federal Law nº 12,651/2015)

The Law on Protection of Native Vegetation is a key policy instrument to promote restoration of natural vegetation, curb illegal deforestation and regulate permitted conversion or legal deforestation. Key elements include the establishment of an Environmental Rural Registry (Cadastro Ambiental Rural, CAR, in Portuguese), Environmental Compliance Programmes (Programas de Regularização Ambiental – PRAs, in Portuguese), and obligations to keep and to restore Permanent Preservation Areas (APPs) and Legal Reserves areas (LRs).

APPs are preservation areas in both rural and urban environments, and vary according to different criteria. LRs are the percentage of area in rural private properties that must be preserved for native vegetation – the mandatory set-aside of land that cannot be farmed that goes from 20% in the South region to 80% in the Amazon. The CAR provides a national database that gathers all information on these APPs, LRs and where there is vegetation deficit. Producers are incentivised to enrol as the CAR provides them clear benefits as a tool for landscape and farm planning and transparency regarding their environmental compliance. From 2017 producers not registered in the CAR will not be eligible for public credit. The PRAs define the specific compliance rules to be followed by those producers in APP and/or LR areas.

This compliance process creates a great opportunity to balance production and protection, generating a restoration agenda for Brazil. Brazil foresees the restoration of up to 12 million hectares of forests.



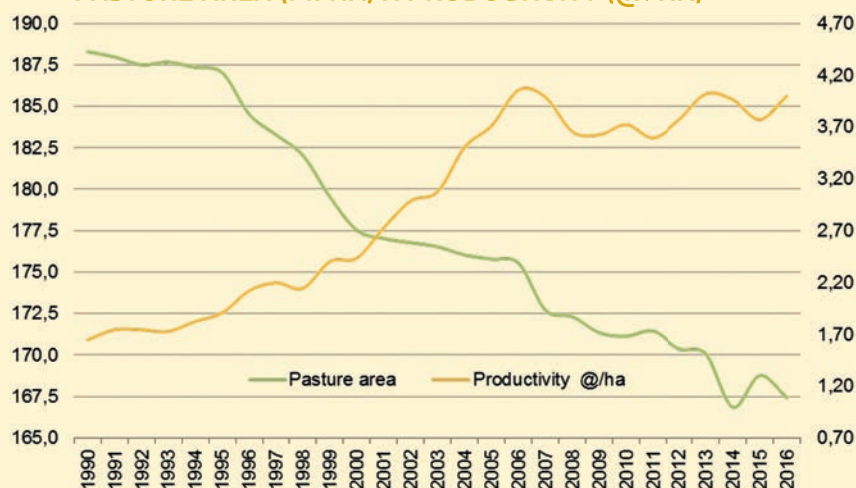
LR REQUIRED BY LAW

Amazon 50%-80%	Cerrado inside Legal Amazon 35%	Other areas 20%
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CHALLENGES TO INCREASE PRODUCTIVITY

In the last 10 years, the number of animals increased mostly in the North of Brazil, while stabilized in the South and Southeast. It is important to notice, however, that the pasture area is decreasing while cattle productivity is increasing. Livestock intensification, genetics and good practices are key to a continuous improvement of livestock sustainability in Brazil, having the deforestation reduction and pastureland restoration as a basis.

PASTURE AREA (MI HA) X PRODUCTIVITY (@/HA)



Source: Agroconsult/IBGE

Key challenges to promote productivity increase and sustainable practices:

- educating about livestock intensification and its benefits to the producers and to the environment;
- improving access to rural credit enabling the investment of less capitalized producers;
- providing funding to contract technical assistance to implement intensification;
- supporting producers to comply with environmental protection laws.

Well managed cattle ranching activity is not an environmental problem. Instead...
It is part of the solution!

- Animal welfare
- High quality protein
- Pasture based systems
- High potential for increase production at same area
- Tropical pastures – high potential for carbon mitigation
- Crop and forestry expansion in Brazil is occurring over pasturelands, main responsible for reducing deforestation
- No water contamination



ABOUT GTPS

Created in 2007, the Brazilian Roundtable on Sustainable Livestock (GTPS) is the world's first roundtable of discussion about issues relating to the livestock value chain. Composed by representatives of different segments, including industry, producers, trade associations, retailers, input suppliers, banks, civil society organizations, research centers and universities, the goal of GTPS is to promote the development of sustainable livestock, through the **articulation of different players, spread of information and continuous improvement.**



The role of GTPS inside livestock value chain is fully related to the 17th goal of the **United Nations (UN) Sustainable Development Goals**, which aims to promote the achievement of all the other goals through partnerships and engagement of different players in the value chain.

GTPS PILLARS

1. Continuous improvement for sustainability
2. Transparency and ethics
3. Good agricultural and livestock management practices
4. Legal compliance



Use the QR code to access the full version of the document **"Brazilian Livestock and its Contribution to Sustainable Development"**

VISIT OUR WEBSITE AND LEARN ABOUT THE MAP OF INITIATIVES FOR SUSTAINABLE LIVESTOCK

WWW.GTPS.ORG.BR