

Opportunities to Reduce Emissions and Support Sustainable Livestock Production in the Republic of Paraguay

Summary for Policy Makers

The livestock sector is a cornerstone of Paraguay's economy but also a major source of greenhouse gas (GHG) emissions, particularly methane. Paraguay has committed to reducing its GHG emissions by 20% by 2030, and there is a significant opportunity for the country to move towards this goal through policies that integrate livestock development and methane mitigation. Success will depend on strong stakeholder alignment and support across the sector.

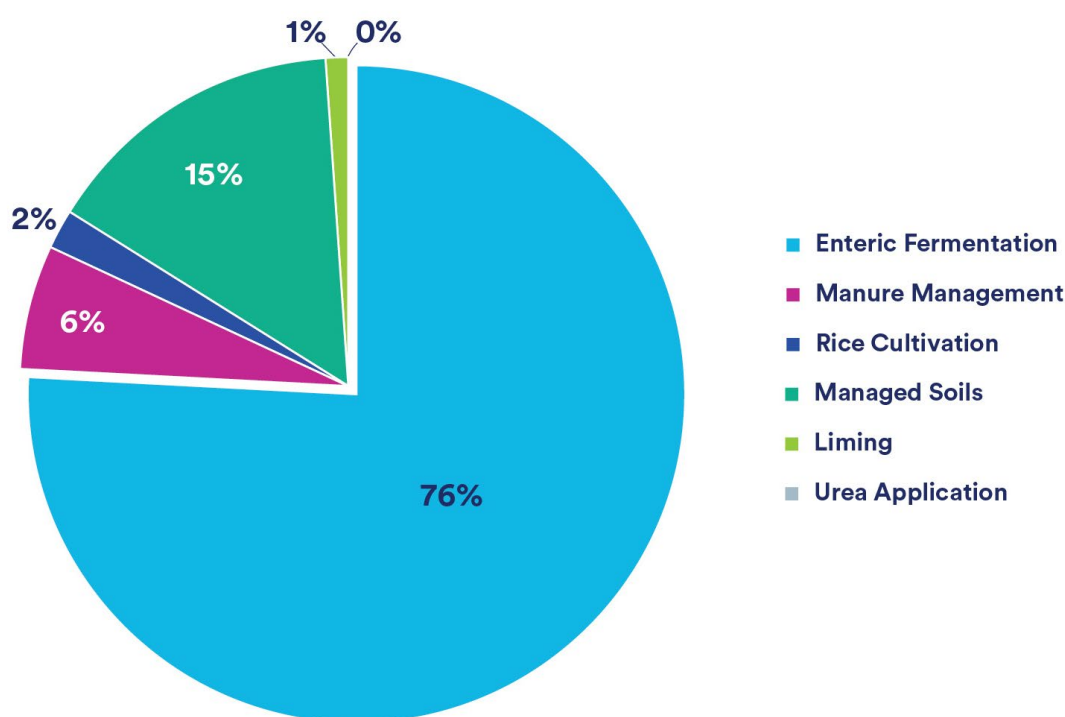
To advance this agenda, the Ministry of Environment (DGA/MADES), in collaboration with Clean Air Task Force (CATF), co-hosted the workshop *Opportunities to reduce emissions and support sustainable livestock production in the Republic of Paraguay* in August 2025 to identify practical pathways for sustainable livestock development. The workshop gathered key actors from government, industry, finance, and academia to assess potential **methane-reducing technologies, enabling policies, financing mechanisms (including carbon markets), and implementation strategies for the Paraguayan context.**

The outcomes of the workshop provide a foundation for a coordinated roadmap to transition Paraguay's livestock sector toward a model that is not only **more productive, but also resilient and low emission.** They will also serve as key inputs to inform policy decisions and investment priorities relevant to advancing this effort. Key background takeaways from the discussion are summarized below.

GHG Emissions from the Livestock Sector in Paraguay

While the livestock sector is a valuable economic engine for Paraguay, its growth is linked to significant environmental and social challenges that require increased attention to ensure sustainable growth. Globally, the agriculture and livestock sector accounts for 42% of anthropogenic methane emissions.¹ However, due to its significant activity, Paraguay's livestock sector accounted for 50.3% of national emissions in 2021, 76.2% of which was attributable to methane emissions from enteric fermentation² (see Figure 1).³

Figure 1: Emissions GHG of the Agriculture and Livestock Sector, 2021



¹ United Nations Environment Programme (2025). Global Methane Status Report. Paris.

² Enteric fermentation is the digestive process of ruminant animals such as cattle, sheep, goats, and others. In the context of Paraguay, the main enteric methane emitter is cattle.

³ MADES-DNCC/UNDP-GEF. 2024. Paraguay's National Greenhouse Gas Inventory Document, 1990-2021 series. 1BTR + 5NC/2BTR project. Asunción, Py. 507.

Opportunities to Increase Productivity and Reduce Emissions from Livestock Production in Paraguay

Technologies that lead to increased productivity – and reduced emissions – can increase income per hectare by 66% compared to baseline, with a reduction in Paraguay’s total GHG emissions by 12.6% to 50%, and GHG emissions intensity from 20.8% to 26%.⁴ **Thus, the pursuit of environmental sustainability also presents competitive advantages, not just obstacles for farmers.** Paraguay’s NDC 3.0 Technical Annex⁵ outlines mitigation measures for the Agriculture and Livestock Sector, several of which were explored in the workshop. **Key lines of action mentioned and levers discussed during the workshop include:**

Line of Action	Description	Levers Identified in the Workshop
Improved Productivity	Priority is given to producing more meat with fewer emissions per unit of product. This is achieved through genetic improvement, reproductive efficiency, animal health and pasture management, over high-cost technologies such as additives. Shortening the production cycle is critical.	<ul style="list-style-type: none"> • Decrease mortality rate • Improve average stock rate per hectare with rational pasture management • Improve calf/cow ratio (birth rate) • Improve weaning weight • Increase use of improved genetics • Improve technical assistance
Knowledge Management	The need for technical assistance and practical demonstrations in the field to overcome producer's perception barriers was identified.	<ul style="list-style-type: none"> • Perception of opportunity • Local research data with development of country-level emissions factors • Capacity building • Demonstration units
Incentive Models	Replication of successful models such as Brazil’s ABC/ABC+ Plan, which combines science with credit at preferential rates for the recovery of degraded lands and other technologies is suggested.	<ul style="list-style-type: none"> • Expand the already robust policy framework to bolster livestock productivity • Green financial products • Participation of livestock in carbon markets

Next steps

The workshop marked an important step in aligning key stakeholder around both the value of and need for integrated economic development and environmental action in Paraguay’s livestock sector. Speakers, attendees, and local authorities identified the following immediate next steps:

- **Define subsequent actions** to develop and implement a roadmap for the Paraguayan livestock sector, focusing on reducing emissions intensity, enhancing productive efficiency, and integrating public policies with appropriate green financial incentives.
- **Form a multi-sectoral working group** that will focus on developing a strategy for the sector that integrates development and environmental services, including methane intensity reduction.

Ultimately, the transition to a more productive and low-emission livestock sector is opportunity to deliver lasting environmental outcomes for Paraguay while strengthening the livelihoods of the farmers and ranchers who will be at the heart of this effort.

⁴ FAO. 2022. Practices and technologies for low-emission livestock farming. Santiago de Chile. <https://doi.org/10.4060/cc1972es>

⁵ MADES. 2025. Third Nationally Determined Contribution (NDC 3.0) of the Republic of Paraguay. Asunción, Paraguay. 137 p <https://unfccc.int/documents/497852>