

# Latin America's livestock sector needs emissions reduction to meet 2030 targets

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Livestock is a pivotal source of income for Latin American countries but

the sector is one of the largest sources of greenhouse gas emissions (GHG) in the region. Agriculture in Latin America produces 20 percent of the region's emissions, 70 percent of which comes from livestock, according to research by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

Reducing livestock's carbon footprint in Latin America is necessary if countries in the region are to meet emission-reduction goals under the Paris Agreement, researchers argue in a new analysis published May 14 in *Frontiers in Sustainable Food Systems*.

The study, called "Ambition meets reality: achieving GHG emission reductions targets in the livestock sector of Latin America," found that the emission reduction targets set by Argentina, Brazil, Colombia, Costa Rica, Mexico, Peru and Uruguay may not be met without wider adoption of emissions-reduction techniques in the livestock sector.

"Widespread adoption of promising mitigation options remains limited, raising questions as to whether envisaged emission reduction targets are achievable," said the authors, who included scientists from the Alliance of Bioversity International and CIAT, CCAFS and research organizations and universities in Latin America.

The study analyzed the countries' Nationally Determined Contributions, or NDCS, which are the emissions-reductions goals voluntarily set by each country under the Paris Agreement. The researchers compared the targets with technologies and practices currently in use to reduce livestock emissions.

The researchers found that a range of practices has been adopted, including silvopastoral systems, dietary changes, improved forage quality, improved pasture management, and improvement of reproductive efficiency, among others. But adoption needs to be scaled

up in order to meet NDCs, they determined.

## **Barriers to adoption remain**

The livestock sector's emissions-reductions shortfalls reflect a general need across Latin American countries to have more ambitious goals for emissions reductions to help keep the planet below the Paris Agreement target of 1.5°C of warming. Greater inclusion of the livestock sector's potential to contribute to NDCs should be a greater part of the discussion, the scientists said.

Livestock producers need better access to inputs such as feed, capital and information, and training related to climate-friendly farming practices.

"The first can be achieved through the development of formal systems of replication of grass and legume seeds," said Alejandro Ruden, a study co-author at the Alliance. "In Latin America, this strategy is still underdeveloped."

Certain grasses and legume plants, when incorporated into livestock systems, can lead to a significant reduction in greenhouse gas emissions in pastures while also increasing productivity.

A formal, subsidized credit system is essential to scale up different practices and technologies. These credits can be granted to small- and medium-sized producers through differentiated pricing for products from environmentally friendly systems or through payments for ecosystem services.

"Access to information can be achieved through efficient dissemination channels, as well as through the strengthening of effective and unified technical assistance and outreach systems," Ruden said.

## Raising ambition

Ensuring that information generated in scientific and academic circles gets to producers is key to enabling the livestock sector to implement practices to reduce emissions and make production processes more sustainable.

"It requires the genuine commitment of decision-makers at the ministry level to put into action, in an articulated and efficient way, GHG mitigation strategies produced by [scientific research](#) in Latin America," said Juan Ku-Vera, a study co-author from the Autonomous University of Yucatan.

If national policies aim to improve productivity and reduce emissions intensity, sustainable [livestock](#) production will contribute to the achievement of the United Nations' Sustainable Development Goals, or SDGs. These include Zero Hunger, Climate Action, and Life on Land.

"It is necessary that the academic, research, business and public policy sectors can support and encourage the changes needed to raise the level of ambition and achieve the SDGs, considering actions from the farm to national scale," said Jacobo Arango, the study's lead author and the leader of CCAFS' LivestockPlus II research project.

**More information:** Jacobo Arango et al, Ambition Meets Reality: Achieving GHG Emission Reduction Targets in the Livestock Sector of Latin America, *Frontiers in Sustainable Food Systems* (2020). [DOI: 10.3389/fsufs.2020.00065](#)

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