

# Greenhouse gas mitigation potential from livestock sector revealed

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Scientists have found that the global livestock sector can maintain the economic and social benefits it delivers while significantly reducing emissions, and in doing so help meet the global mitigation challenge.

The global livestock sector supports about 1.3 billion producers and retailers around the world, and is a significant global economic contributor. New analysis, published today in *Nature Climate Change*, estimates that livestock could account for up to half of the mitigation potential of the global agricultural, forestry and land-use sectors, which are the second largest source of emissions globally, after the energy sector.

The lead author of this study, CSIRO's Dr Mario Herrero, said this new account of the mitigation potential for the global livestock sector is the most comprehensive analysis to date as it considers both the supply and demand sides of the industry. A key finding is that we can get the best mitigation potential from the livestock sector if we take an integrated view of land use and practice change that considers the whole of agriculture and forestry as well as looking at dietary patterns and how we address the needs of global nutrition.

"Livestock has a role in a healthy and sustainable diet, and the sector has an important economic and social role, particularly in developing countries," Dr Herrero said.

"We need to balance these health outcomes and the economic and social

benefits, while also capturing the mitigation potential the livestock sector can offer."

Dr Herrero said sustainably intensifying livestock production is one way this can be done.

"We've found that there are a number of ways that the [livestock sector](#) can contribute to global [greenhouse gas](#) mitigation," he said.

"New management practices such as rotational grazing and dietary supplements can increase [livestock production](#) and reduce [greenhouse gas emissions](#)."

"We need to increase the adoption of these different strategies by making sure that we have the right incentives. If appropriately managed with the right regulatory framework, these practices can also achieve improved environmental health over and above the greenhouse gas benefits delivered, for example through improved ground cover and soil carbon."

The research was published today in *Nature Climate Change* and carried out in partnership between CSIRO, the International Institute for Applied Systems Analysis, the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Colorado State University, the University of Aberdeen, Chalmers University of Technology, Pennsylvania State University, FAO, Wageningen University, Karlsruhe Institute of Technology, the International Livestock Research Institute, University of Oxford, the PBL Netherlands Environmental Assessment Agency.

**More information:** Mario Herrero et al. Greenhouse gas mitigation potentials in the livestock sector, *Nature Climate Change* (2016). [DOI: 10.1038/nclimate2925](https://doi.org/10.1038/nclimate2925)

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