



Livestock greenhouse gases reduction in the Andean Region

Improvements in dual-purpose dairy herds feeding (i.e., supplementation or use of preserved forage), animal genetic, irrigation, and pasture management led to lesser greenhouse gases (GHG) emissions in Bolivia, Colombia, Ecuador, and Peru



Peru / Bolivia / Colombia / Ecuador

Strategies to mitigate GHG emission

The implemented initiative

This project was structured in five components. The first one consisted of biophysical and socioeconomic characterization of dairy production sites. In a second one, methane and nitrous oxide emissions were evaluated in production systems (traditional and improved). The third one evaluated feeding strategies to

enhance milk production systems and to reduce their emissions. Followed by the development of gas mitigation scenarios for pilot sites. Finally, improvements in research capacities in methane and nitrous oxide and contribution to public policies.

Feeding impact on GHG emission

The technological solution

Livestock feeding improvements such as non-structural carbohydrates reductions and/or higher dietary protein

resulted in greater 1.34 liters of milk per day and 34% lesser methane emissions per liter of milk.

Methane emission according the implemented strategy

Methane emission according the implemented strategy

MÁS INFO



Results

Improved systems had greater milk yield per lactation (2,369 vs. 1,990 kg/lactation) and lower cost of production (0.29 vs. 0.21 \$/kg) compared to the traditional ones. Furthermore, methane emission per liter of milk was lower in improved systems than in

traditional systems (29 vs. 44 g methane/kg of milk). Hence, feed with lower structural carbohydrates and greater crude protein contents helped to reduce enteric fermentation and enhance milk production.

Main donors



Participating Organizations

