Improving transparency: Implementing MRV of livestock NAMAS to meet NDC and finance needs

SBSTA 48 Side Event May 8, 2018, 11:30 -13:00, Bonn Room

Resources for reducing greenhouse gas emissions in the livestock sector

Benefits of advanced inventories (booklet): Using an IPCC Tier 2 approach to estimate emissions can better reflect mitigation due to changes in livestock productivity and efficiency.

Measurement, reporting and verification (MRV) report: MRV of livestock greenhouse gas emissions by developing countries in the UNFCCC: Current practices and opportunities for improvement systems at project-to-national level scales using different methods. Soon available in French and Spanish.

Country reports on low-cost strategies for low emissions development in the livestock sector:

Argentina – focus on beef
Bangladesh – focus on dairy
Ethiopia – focus on dairy
Kenya – focus on dairy
Sri Lanka – focus on dairy
Uruguay – focus on beef

In Colombia, recent research shows that grazing management improvement stands out as a strategy to increase animal productivity, reduce emission intensity and increase soil carbon sequestration.

Lessons from Kenya and Ethiopia, a 2018 report assessing the feasibility of multiple low emissions development interventions for the East African livestock sector.

Country case studies of actions that have reduced emissions intensity but rely on improved MRV to account for changes:

Chile
Indonesia
Sri Lanka

Recent evidence-based research by our partners:

- Genetic mitigation strategies to tackle agricultural GHG emissions: The case for biological nitrification inhibition technology in the journal *Plant Science*
- Methane and nitrous oxide emissions from cattle excreta on an East African grassland in the *Journal of Environmental Quality*
- Environmental impacts of dairy farming in Lembang, West Java; Estimation of greenhouse gas emissions and effects of mitigation strategies.
- Climate change mitigation through intensified pasture management: Estimating greenhouse gas emissions on cattle farms in the Brazilian Amazon in the *Journal of Cleaner Production*
- Rethinking monitoring in smallholder carbon payments for ecosystem services schemes: Devolve monitoring, understand accuracy and identify co-benefits in the journal *Ecological Economics*
- Symposium review: Uncertainties in enteric methane inventories, measurement techniques, and prediction models in the Journal of Dairy Science

Online resources:

- CCAFS Low emissions research improves estimates and MRV of emissions, mitigation, and sequestration in smallholder systems; identifies priorities and options for low emissions development that support food security; and supports widespread implementation of low emissions agriculture practices and policies.
- The Global Research Alliance on Agricultural Greenhouse Gases (GRA), with 50 member countries, is focused on research, development and extension of technologies and practices that will help deliver ways to grow more food (and more climate-resilient food systems) without growing greenhouse gas emissions.
- The GRA's Livestock Research Group (LRG) is focused on reducing the emissions intensity of livestock production systems and increasing the quantity of carbon stored in soils supporting those systems.
- Reducing greenhouse gas emissions from livestock: A report on global best practice and emerging options in mitigation measures and their potential.
- CCAFS hosts regional centers for climate change and agriculture research; livestock efforts take place in over 12 countries in the global South.
- International Livestock Research Institute (ILRI) and its Mazingira Lab, is a center for climate change and livestock research in East Africa.
- The SAMPLES website provides guidance on measuring emissions from agriculture and local emission factors.
- The Food and Agriculture Organization (FAO) livestock and the environment theme produces numerous resources.