

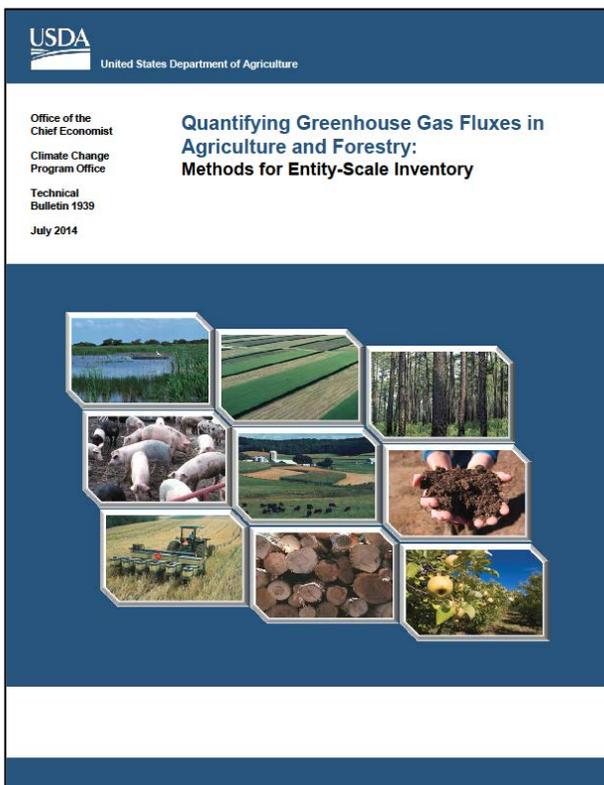
Fact Sheet – Technical Bulletin 1939 - Quantifying Greenhouse Gas Fluxes in Agriculture and Forestry: Methods for Entity-Scale Inventory

July, 2014

America's farm, ranch and forest managers are stewards of the land, and have long recognized the significance of managing soil health, plant productivity and animal nutrition. Conservation practices and other management changes can reduce greenhouse gas (GHG) emissions and increase carbon storage while improving soil health, crop or livestock productivity, and resilience to drought and other extreme weather.

The USDA Entity-Scale GHG Methods Report is a transparent, scientifically rigorous and vetted set of standardized methods that can be used to quantify changes in GHG emissions and carbon storage following a change in management or adoption of a new practice or technology.

State and regional GHG offset programs and voluntary GHG markets can help make these practices less costly to implement and may even increase the producer's bottom line. The challenge is that landowners need tools to quantify GHGs in order to participate in these new market opportunities.



Section 2709 of the Food, Conservation and Energy Act of 2008 directed the Secretary to develop “technical guidelines that outline science-based methods” that will quantify environmental service benefits and help to facilitate landowner participation environmental markets, with an initial focus on carbon markets.

The report underwent several rounds of review, including: Federal technical review by GHG experts across the USDA and other Federal agencies, peer review by 29 scientists, and public comment (in 2011 as a call for information and again in 2013 for comment on the methods report).

USDA is using the methods in the report to develop GHG inventory tools that can help prepare farmers, ranchers and forest landowners to enter into carbon markets. Current USDA carbon tools, such as NRCS's COMET-Farm, are being

updated to incorporate the new methods. The scientific vetting that underpins these methods will provide standardization for USDA carbon tools, which will enhance their usefulness for land managers, GHG registries, State and Federal agencies, and other USDA stakeholders. USDA will also use the methods in the report to assess the GHG performance of current and future conservation programs and initiatives, and to prioritize research and data collection in order to improve agriculture and forestry GHG inventory from local to national scales.

The USDA Entity-Scale GHG Methods Report is the work of 38 experts in GHG estimation in the cropland, grazing land, livestock and forest management sectors from across academia, USDA and the federal government.