

# Tough to Keep Current Bill's Programs Intact

In 2015, the United States developed a plan to meet its commitments to reduce greenhouse gas emissions under the Paris Agreement. The Department of Agriculture relied on current Farm Bill conservation and renewable energy programs to achieve its share. Many of the programs were designed to achieve a range of environmental and rural development goals, with climate change mitigation a corollary benefit.

While current policy reallocates program funds to place greater emphasis on climate, the sector could achieve substantially more by further retargeting program outlays, combined with higher budgets. Given the administration's intention to withdraw from Paris, however, increased funding is unlikely. Indeed, existing programs are at risk.

That is unfortunate. The agriculture and forestry sector has a tremendous stake in mitigating GHG emissions, as well as tremendous opportunity.

American farmers and foresters face unprecedented challenges due to the sensitivity of agricultural productivity and costs to changing temperature and precipitation, including the frequency and severity of droughts and flooding.

At the same time, farms, ranches, and forest lands provide a range of opportunities for low-cost GHG mitigation by sequestering carbon in soils and biomass, reducing GHG emissions from fertilizer and livestock management, and reducing energy use. These measures can provide a bridge to the shift of the U.S. energy system to renewables.

Farm Bill conservation programs currently support retirement for "sensitive" lands that provide greater environmental benefits with less-intense use, and adoption of conservation practices on working lands. Because forest activities have

the highest potential for sequestering carbon, substantially greater mitigation could be achieved by expanding the scope of working lands programs to include forest management (as has been the case in the past), and re-targeting land retirement and easement programs to increase afforestation.

Farm Bill energy programs (and to some extent conservation programs) provide support to farmers, ranchers, small rural businesses, and rural electric utilities to encourage their investment in renewable energy, energy efficiency, and renewable bio-products. Though a wide range of renewable technologies are supported, energy efficiency and solar energy projects dominate, while biogas digesters capturing methane and producing energy from manure are underutilized.

Current legislation also supports farm and forest owners who grow cellulosic crops, such as perennial grasses and short-rotation woody trees, for biomass energy feedstocks. The programs, which have experienced major cuts over the life of the 2014 Farm Bill, serve as complements to the energy-program drivers for on-farm shifts to renewables and the supply of bio-based feedstocks.

Public and private investments in agricultural R&D have dramatically increased global productivity. Only a small share of USDA research funding is targeted to climate change mitigation. However, a growing body of literature suggests that agricultural R&D that increases the productivity of the sector and adaptation to a warming climate also has been a powerful, low-cost tool to achieve GHG mitigation. Further, though estimates are imprecise, R&D may be of far greater cost-effectiveness and impact toward climate change mitigation than the

conservation and energy programs. However, real funding levels for public agricultural research have stagnated in the U.S. since the 1980s.

The U.S. has committed to cutting food waste in half by 2030. Congress could incorporate into the Farm Bill bipartisan legislative proposals to promote the reduction, recovery, and recycling of wasted food, which would reduce GHG emissions along the supply chain. Proposals include standardizing and clarifying food date labels and strengthening liability protection for donations.

Additional proposals would increase the emphasis on biogas digesters, a currently underutilized option among USDA rural renewable energy projects, by reserving funds for municipal digesters or composting projects, and using federal loan and grant programs also would promote co-digestion of food waste on-farm.

In the current political climate, support for all these programs in the upcoming negotiations over the Farm Bill, as well as in the annual appropriations bills, will depend upon their contributions to desirable policy goals beyond their role in GHG mitigation. The budgetary challenge will be particularly great for the bioenergy and research programs, because most of them do not have a budget baseline beyond 2018. As a result policymakers may need to find budgetary offsets.

The negotiations for the new Farm Bill are just beginning. In addition to advancing new opportunities to reduce the carbon footprint of the agricultural sector, it will be a rough row to hoe to merely keep intact programs in the current legislation.



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