Climate change is having a significant impact on family farmers and ranchers. Changes in growing seasons, pest pressure, and precipitation patterns, as well as increasingly frequent and severe extreme weather events, are threatening farmers’ livelihoods and global food security.

However, climate change also presents opportunities for farmers and ranchers. Agriculture is in a unique position to reduce greenhouse gases in the atmosphere on a meaningful scale through soil and biomass sequestration. Fortunately, the same practices that promote carbon sequestration also improve soil health and increase resilience to flooding and drought. On top of that, farms and ranches can also contribute to a cleaner energy future thorough the production of wind and solar energy and the source materials for biofuels.

Projected Impacts on Family Farm Operations

In November 2018, the Trump administration released the Fourth National Climate Assessment, projecting devastating outcomes for farmers if no action is taken to prevent temperature increases. The assessment found that:

- Heavy precipitation events will occur two to five times more frequently.
- Higher temperatures will reduce yields and stress livestock and poultry.
- Soil moisture will decrease significantly across the southern Great Plains and the Southwest.
- Weeds, diseases and pests will become more prevalent, and some pesticides and herbicides will lose their efficacy.

While innovation in American agriculture has driven productivity increases, inaction on climate change will lead to a productivity decline of 25 percent for Midwest farmers by 2050, according to the assessment.

Policy Recommendations

- **Enact an economy-wide carbon reduction mechanism** that recognizes and funds agriculture’s role in sequestration and climate change adaptation and mitigation.
- **Increase funding USDA’s voluntary, incentive-based conservation** programs and refocus programs to the importance of soil health.
- **Provide greater support for on-farm energy production**, including biofuels.
- **Develop programs and incentives for new domestic markets** and supply chains that account for the ecosystems services that farmers provide and allow farmers and ranchers more control over what they produce and the freedom to make climate friendly choices on their land.
- **Fund comprehensive research that focuses on the development** of outcome-based conservation practices and other land adaptation and mitigation tools.