

USDA Farm Service Agency
Climate Change Adaptation Plan 2014

FSA Climate Change Adaptation Plan

Background

FSA's mission is to deliver timely, effective programs and services to America's farmers and ranchers to support them in sustaining our Nation's vibrant agricultural economy, as well as to provide first-rate support for domestic and international food aid efforts.

To assist the country in addressing today's challenges, FSA's Strategic Plan has four goals:

- Provide a financial safety net for America's farmers and ranchers to sustain economically viable agricultural production,
- Increase stewardship of America's natural resources while enhancing the environment,
- Ensure commodities are procured and distributed effectively and efficiently to increase food security, and
- Transform and modernize the Farm Service Agency.

A particularly relevant Goal 2 objective is for FSA to "lead efforts to mitigate and adapt to climate change." Strategies that have been identified in the Plan to achieve this objective include the following:

- Promote planting of trees, shrubs, grasses and forbs.
- Collaborate with partners to develop planting and management specifications that are adaptive to climate change.
- Provide financial incentives to mitigate the upfront cost of establishing practices adopted to adapt to climate change.
- Educate producers on the impact of climate change.
- Partner with external agencies to expedite extension and technical assistance.

Vulnerability and adaptation to climate change

Given the sensitivity of crop and livestock production to climate, the agricultural sector and producers will be disproportionately affected by climate change. Assuming current climate change predictions are borne out, producers will face increased average temperatures, more frequent temperature extremes, and changes in precipitation patterns. Climatic change may also pave the way for weed and insect pests and plant and animal disease vectors, increasing their geographic distribution. Even if producers are not directly impacted by climate change, they will feel its effects on other producers through the interconnected global market for agricultural commodities.

On one hand, producers most vulnerable to climate change will have challenges with responding to changing agronomic and market conditions when changing their production systems.

On the other, meaningful adaptive strategies undertaken by producers may include one of more of the following:

- Switching crops and varieties to those more conducive to changing conditions,
- Diversifying crops,
- Integrating livestock production and/or forestry (agroforestry) with crop production,
- Increasing water use efficiency and conserving soil moisture,
- Altering the timing of cropping activities, and
- Using climate forecasting to support farm planning.

FSA programs will affect the climate change adaptation process to varying degrees and in various ways:

- Commodity programs: FSA supports farm livelihoods by providing a financial safety net designed to address uncertainties with markets and weather
- Conservation programs: The Conservation Reserve Program (CRP) is the largest conservation program administered by FSA. By taking marginal lands out of production for at least 10-15 years, the CRP can help sequester carbon.
- Farm loans: Because adaptation is likely to involve significant investment in new technologies and infrastructure, some producers facing challenges with climate change may be those with limited access to credit, such as beginning and disadvantaged farmers. These populations are also more likely to be farming marginal lands that are more susceptible to climate change effects.
- Disaster programs: This assistance can be a lifeline to farmers who suffer losses from extreme weather events. The short term support offers farmers the opportunity to adapt.

FSA's vulnerability to climate change relates to the increased outlays and pressure on staff resources that result.

Actions

FSA has identified three actions related to climate change adaptation on which it will continue to work in FY 2014, assuming that sufficient staff resources are available:

Action 1: To ensure that FSA programs encourage farmers to adapt to climate change, FSA will review programs and policies to assess whether they affect how producers respond to climate change, whether this impact is positive or negative, and whether opportunities exist to enhance or ameliorate this impact. Opportunities identified will be flagged according to whether they require a change in policy, a regulatory change, or an act of Congress

This action will take place as NEPA and other regulatory process requirements are satisfied for the Agricultural Act of 2014. An informational memorandum for the Administrator will synthesize findings across programs.

Action 2: The seven regional and three subsidiary USDA Climate Change Hubs recently announced by the Secretary are intended to make science-based knowledge and practical information available that support climate change mitigation and adaptation in agricultural settings. With more than two thousand state and county offices throughout the U.S., the Farm

Service Agency is the “face” of USDA to producers who participate in the conservation and energy, commodity crop, disaster assistance, and farm loan programs it manages. Through participation on the Climate Change Hubs steering committee, the agency will help deliver meaningful information at the hubs to the hands of producers.

Action 3: FSA will conduct “continuity of operations” exercises to better understand the administrative implications of and prepare headquarters, state, and field office staff for large-scale crop failure, which will be increasingly likely with climate change.

Bibliography

McKinley, D.C., R.D. Briggs, and A.M. Bartuska, 2012. When peer-reviewed publications are not enough! Delivering science for natural resource decision management. Forest Policy and Economics. In press.

Appendix

Actions to address risks and opportunities

Action	Agency Lead	Risk or opportunity	Scale	Timeframe
Policy review	FSA	Opportunity to highlight to Administration and Congress policy changes to facilitate adaptation	National	Every Farm Bill
Outreach efforts	FSA	Opportunity to use field offices to deliver information available at hubs to producers	National	Ongoing
Continuity of operations exercise	FSA	Opportunity make sure agency can adequately deal with / respond to large-scale climatic events	National	Periodically