



Ms. Sarah Dunham
Director, Office of Atmospheric Programs
United States Environmental Protection Agency
1200 Pennsylvania Avenue NW
6207-A
Washington, DC 20460

June 5, 2015

Dear Ms. Dunham:

National Farmers Union (NFU) appreciates the opportunity to comment on the United States Global Change Research Program's (USGCRP) *Draft Impacts of Climate Change on Human Health in the United States: A Scientific Assessment* (Assessment). NFU has nearly 200,000 family farmer, rancher and fisherman members nationwide and organized divisions in 33 states. We have supported family agriculture and rural communities since 1902, because "The family farm is the keystone of a free, progressive, democratic national society, as well as a strong America, and is the basis of a safe, secure and stable food system."¹ Our comments explain additional consequences not explored in the Assessment that climate change may create for food safety that NFU encourages the USGCRP to consider for inclusion in the final assessment. These consequences stem from the disproportionate impact climate change will carry for family farmers and the subsequent erosion of local food systems.

I. Disproportionate Impact on Family Farmers

The U.S. offers the most secure food system in the world.² This achievement begins with farmers and will be jeopardized when farmers' ability to produce food is disrupted. Such disruption is anticipated due to climate change, and the Assessment explains many of the ways that climate change will make food production more difficult. Farmers who continue operating through the changing climate are, in many cases, going to find adaptation to climate change expensive, and consumers are going to be subject to new inconsistencies in the food supply.

The expenses associated with adapting to climate change are of particular concern to family farmers. A recent U.S. Department of Agriculture (USDA) report said, "Current climate change effects are

¹ Policy of the National Farmers Union," March 2015. <http://www.nfu.org/nfu-2015-policy/2066>

² "The Global Food Security Index," The Economist Group, <http://foodsecurityindex.eiu.com/Country/Details#United%20States>.

challenging agricultural management and are likely to require major adjustments in production practices over the next 30 years.”³ The severity of the necessary adjustments indicates that they will be very costly to implement. In many cases, the expense of farming in a changing climate will drive family farmers who service local or regional food systems, with insufficient capital or access to investors, out of business. The costs of climate change are also likely to restrict new entrants from starting farm businesses by increasing the initial investment needed, leaving more land available for farm consolidation.

These types of farmers frequently operate by servicing local and regional food systems, since access to national and global markets often requires extensive capital and investment in infrastructure and equipment. These producers are less likely to be able to successfully cope with, for example, investments required to drill deeper wells as precipitation patterns and access to surface water resources changes with the climate. The major adjustments predicted by USDA will also require policy shifts that, if not executed carefully and equitably, may also place family farmers at risk and encourage farm consolidation. Climate change, then, is very likely to have a disproportionately severe negative impact on producers who can participate in local or regional food distribution systems, leading to erosion of food systems outside the national and global networks.

II. Diminished Local and Regional Food Networks and Hazards of Consolidation

NFU would like consolidation of the food system to be added to the Assessment as another hazard of climate change under section 6.5, “Distribution and Access.” The loss of family farmers presents serious challenges to the resiliency of the food system. As farmers leave and farmland consolidates, communities across the U.S. will become increasingly reliant on national and global food distribution networks and more exposed to those networks’ climate vulnerabilities.

³ Walthall, C.L., J. Hatfield, P. Backlund, L. Lengnick, E. Marshall, M. Walsh, S. Adkins, M. Aillery, E.A. Ainsworth, C. Ammann, C.J. Anderson, I. Bartomeus, L.H. Baumgard, F. Booker, B. Bradley, D.M. Blumenthal, J. Bunce, K. Burkey, S.M. Dabney, J.A. Delgado, J. Dukes, A. Funk, K. Garrett, M. Glenn, D.A. Grantz, D. Goodrich, S. Hu, R.C. Izaurralde, R.A.C. Jones, S-H. Kim, A.D.B. Leaky, K. Lewers, T.L. Mader, A. McClung, J. Morgan, D.J. Muth, M. Nearing, D.M. Oosterhuis, D. Ort, C. Parmesan, W.T. Pettigrew, W. Polley, R. Rader, C. Rice, M. Rivington, E. Rosskopf, W.A. Salas, L.E. Sollenberger, R. Srygley, C. Stöckle, E.S. Takle, D. Timlin, J.W. White, R. Winfree, L. Wright-Morton, L.H. Ziska. 2012. Climate Change and Agriculture in the United States: Effects and Adaptation. USDA Technical Bulletin 1935. Washington, DC. 186 pages. At 119.
http://www.usda.gov/oce/climate_change/effects_2012/CC%20and%20Agriculture%20Report%20%2802-04-2013%29b.pdf

Commercial shipping, including food shipping, is vulnerable to interference related to climate change. Extreme weather events can destroy railways and roads, or make them temporarily impassible. Ports and river barge traffic are subject to storm surges and drought. Relying on food from distant sources could be disastrous if acute weather events cut off shipping routes. Even if shipping is encumbered rather than cut off completely, it will drive prices up. These hazards are documented in the Assessment, but the compounding effect of diminishment or loss of local and regional food networks is not yet included.

In order to withstand long-haul shipping disruptions, communities need to diversify their food sources. Proper utilization of local food resources, especially local producers, is an important way to mitigate this risk. Increased utilization of local and regional producers would help ensure resilient food supply structures are in place if national distribution channels fall victim to climate-related disturbances. Unfortunately, as discussed previously, farmers who are equipped to feed nearby communities will, in many cases, face more serious challenges in remaining operational through climate challenges than farms participating in national or global distribution chains. Farmers who service local food systems are more likely to be smaller family farms with less access to capital. They are, then, less likely than larger operations to be able to afford the investments, such as increased inputs to help cope with heat, pest or weed stress, deeper wells to increase access to groundwater, or irrigation equipment to cope with changing rainfall, that are needed to keep farming. In an acute climate-related transportation emergency, these farmers might be able to nourish their communities. But the added expense of operating in a changing climate will close many of these farms, weakening this important safety net.

III. Conclusion

NFU hopes that, even as our members continue to experience the negative impacts of climate change, the USGCRP, Environmental Protection Agency, USDA and the administration at large will continue to work toward mitigating climate change to avoid more severe consequences and encourage adaptation to cope with the consequences that cannot be avoided. This work is critical to family farmers and everyone for whom we produce food, fiber, feed and fuel. We appreciate your efforts to explain the impacts of climate change on human health and urge you to include the additional detrimental impact on human health that will occur as climate-related costs are incurred by family farmers.



NFU stands ready to offer any support and assistance USGCRP may find helpful in evaluating these matters for the Assessment. Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in blue ink that reads "Roger Johnson". The signature is fluid and cursive, with the first name "Roger" being more prominent than the last name "Johnson".

Roger Johnson
President