

Stakeholder Feedback for the AFRI Agriculture and Natural Resources Science for Climate Variability and Change

AFRI Stakeholder Input

The programs described herein were developed within the context of the authorized purposes of U.S. Department of Agriculture (USDA) research, extension, and education projects and activities. In addition, the Agriculture and Food Research Initiative (AFRI) obtains input from Congress; the National Agricultural Research, Extension, Education, and Economics Advisory Board (NAREEEAB); and many university, scientific, and agricultural committees and organizations. The National Institute of Food and Agriculture (NIFA) developed a stakeholder's Web page (www.nifa.usda.gov/business/reporting/stakeholder.html) to document stakeholder input that is considered when developing and updating program area Descriptions and Priorities each year.

Stakeholder input generally identified two areas that the Agroclimatology Program should consider. First, the Union of Concerned Scientists developed an agenda for climate change research (http://www.ucsusa.org/global_warming#.VuKoyo1f3X4) that focuses on an agroecology/systems approach to climate change. The agenda has more than 350 signatories. This approach has been reiterated in a position paper by the Ecological Society of America in a special issue in its *Issues in Ecology*, entitled "Climate Change and U.S. Natural Resources: Advancing the Nation's Capability to Adapt" (Issue No. 18 <http://www.esa.org/esa/science/issues>). Second, stakeholder input from a number of sources identified the problematic issue of providing substantive solutions to climate change adaptation and mitigation within a five-year grant cycle when whole systems are involved, and positive and negative feedbacks are involved that necessarily require time to sort out.

Since the 2010 inception of the AFRI Agroclimatology program, NIFA has always emphasized a systems-level approach to climate change adaptation and mitigation, including a required life cycle assessment of the all the Coordinated Agricultural Project (CAP) grants. The Bioenergy and Natural Resources program area follows this model relative to tracing the agroecosystem link to ecosystem services and biodiversity. For the first time in NIFA's history, grants in Agroclimatology can be made for a five-year tenure with a one- or two-year no-cost extension.

Sources of Stakeholder Input:

- Each of the six Climate Change CAP grants has its own external advisory board that help in directing the activities of the projects. Collectively, this involves more than 100 stakeholders, usually from the producer community. This input is channeled to NIFA and the Agroclimatology Program through annual reports and/or professional publications (see <http://www.pinemap.org/about/external-advisory-board>, <https://www.reacchpna.org/partners>, http://sustainablecorn.org/About-People/Advisory_Board.html).
- The Agroclimatology Program has funded two \$5 million projects that are solely extension-focused that collect information from producers about the attitudes on climate change and then seeks to understand barriers to change. For example, the Useful to Usable project provides decision support tools that transform existing climate data into usable products defined by the producers for the agricultural community (see

https://mygeohub.org/groups/u2u/advisory_committee). This information is used inform NIFA Agroclimatology programs.

- Over the last two years the Agroclimatology Program has held two project directors' meetings of grantees per year where dedicated sessions focus on the current and future direction of the program. One of these meetings involves grantees of the Agroclimatology Program proper and the other annual meeting involves grantees of the two interagency climate programs involving NIFA and the National Science Foundation (Water Sustainability and Climate, and Decadal and Regional Climate Prediction using Earth System Models). Collectively, these meetings involve approximately 200 stakeholders per year.
- Scientific societies provide valuable input into the direction of the Agroclimatology Program. For example, The Union of Concerned Scientists has developed an agenda for climate change research (http://www.ucsusa.org/global_warming#.VuKoyo1f3X4) and a particularly focused published article on NIFA's investments in agroecology. The agenda has more than 350 signatories (<http://www.ucsusa.org/our-work/food-agriculture/solutions/advance-sustainable-agriculture/scientists-call-public-investment-agroecology#.VuKp8I1f3X4>). In addition, the *Journal of Soil and Water Conservation* published a special edition focusing on NIFA's Agroclimatology Program with a lead article authored by NIFA's director and two of the NIFA climate national program leaders (<http://www.jswconline.org/content/69/6.tocMany>). The Ecological Society of America has recently published a special issue in its *Issues in Ecology*, entitled "Climate Change and U.S. Natural Resources: Advancing the Nation's Capability to Adapt" (Issue No. 18 <http://www.esa.org/esa/science/issues/>).
- The NIFA Agroclimatology Program is embedded within the Federal enterprise with numerous plans that funnel federal and stakeholder information to the NIFA program. These include the President's Climate Action Plan (www.whitehouse.gov/.../files/image/president27sclimateactionplan.pdf); the USDA Strategic Plan (www.ocfo.usda.gov/usdasp/sp2010/sp2010.pdf); the Global Change Research Program Strategic Plan (<http://www.globalchange.gov/browse/reports/national-global-change-research>); the U.S. Climate Assessment (<http://nca2014.globalchange.gov/>); and the President's Council of Advisors on Science and Technology (PCAST) Reports on Climate, Environmental Capital, and Agriculture (<https://www.whitehouse.gov/administration/eop/ostp/pcast/docsreports>).
- On July 21, 2009, USDA's Cooperative State Research, Education, and Extension Service (CSREES), the forerunner to NIFA, hosted a workshop for its national program leaders and program specialists to identify the climate change strategic directions for NIFA. The workshop's primary objective was to develop and shape the climate change strategic directions for NIFA, depending on stakeholder feedback. It was determined that the complex interplay between agriculture and natural vulnerabilities, risks, and opportunities requires NIFA to take the lead in discovery, learning, and outreach to produce sustainable and economically viable solutions to the impacts of climate change. The strategy is to build strong partnerships with communities to develop and provide cutting-edge research programs, advance novel ideas to manage risk and benefit from new opportunities, and create innovative tools for communication and education to provide information that people and communities can use in their daily lives. Several actionable strategies were developed to have an immediate impact on NIFA's leadership

for climate change. Stakeholder involvement that's needed to build broader ownership for the final plan and commitment to its ultimate implementation. Effective stakeholder participation ensures that the portfolio's strategic planning takes all significant perspectives into account and earns support for successful implementation. Principles used in our stakeholder engagement process include:

1. For each stakeholder activity, focusing on what to ask and what not to ask;
2. Designing a stakeholder consultation event in a way that fosters two-way communication and enhanced mutual understanding;
3. Capturing, analyzing, and responding to large volumes of input in a very short time, and maximizing the value of stakeholder input in strategic planning and RFA deliberations; and
4. Discuss how to transform the stakeholder consultation.