

Case Study: Science and Technology Fellowships at USAID

Fellows Use Their Expertise to Support USAID Programs in Education, Agriculture, and the Environment



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Science and Technology (S&T) fellows at USAID leverage their scientific expertise to help the Agency design, manage, and scale key programs, expanding the impact of USAID around the world. Using their technical skills and deep understanding of emerging global scientific evidence, S&T fellows help ensure programs are designed and implemented based on principles of efficiency, effectiveness, and in alignment with current best practices.

Equipped with scientific expertise in a broad variety of sectors, S&T fellows at USAID have supported the design and implementation of programs in agriculture and the environment. For example:

- a fellow with extensive experience managing academic programs supported the design and delivery of USAID’s higher education initiatives in the Philippines, Indonesia, and Kenya;
- a fellow with a background in biodiversity research helped manage an agricultural innovation program in Peru, providing technical guidance on the project and its implementation; and
- a fellow with a background in infrastructure and engineering project management helped design and deliver USAID’s water and waste infrastructure projects in Sudan.

S&T fellowships offer opportunities for scientists and technical experts to spur innovation in international development. Read on to learn the stories of two USAID fellows who used their scientific expertise to improve USAID programs.

“Fellows often manage complex programs. They need a wide scope of knowledge. It is valuable that they know the scientific process.”

– Fellowship Alum

CASE STUDY: FELLOWS USE THEIR EXPERTISE TO SUPPORT USAID PROGRAMS IN EDUCATION, AGRICULTURE, AND THE ENVIRONMENT

Impact Story #1: Shelie Miller, PhD, Jefferson Science Fellow Alum

An Environmental Engineer Helping USAID Design and Manage Sustainable Climate Programs

Shelie Miller, an environmental engineer and a professor of environment and sustainability systems, was a Jefferson Science Fellow at USAID between 2016 and 2017. During her fellowship, she drew on her research on potential unintended environmental consequences of emerging technologies and energy systems to contribute to USAID's work on climate.

Miller previously held the position of Environmental Compliance Coordinator at the Center for Development Innovation within the Global Development Lab, presently known as the Innovation, Technology and Research Hub. During the fellowship, she provided oversight and leadership in the environmental review of innovations in development. "As a Jefferson Science Fellow hosted at USAID, I was able to understand the [Agency's] operations and processes related to the discovery, incubation, and testing of development solutions through science, technology, innovation, and partnerships. Miller said, "Most importantly, I got to contribute to analyzing the effectiveness of various forms of technical assistance to help global entrepreneurs and innovators achieve scale." Miller also contributed to initiatives that match USAID-supported innovations with potential adopting partners and participated in the Securing Water for Food program, one of USAID's [Grand Challenges for Development](#).

Since completing the fellowship, Miller has remained active in sustainable systems research and has expanded her work to cover various topics, including food waste, refrigeration and air conditioning, carbon capture and use, the urban-rural sustainability divide, and e-commerce. She is actively involved in the University of Michigan's master's program on environment and sustainability.

"Most of our students taking this program are trying to weigh whether to work for the government, academia, for-profit, or nonprofit groups after they finish. Many of the students are interested in sustainability and government," Miller said. "Having been in government and at USAID, I can help teach about and advise students on this career path."

Impact Story #2: Emma Bratton, DVM, American Association for the Advancement of Science— Science and Technology Policy Fellow Alum

A Veterinary Science Expert Helping USAID Expand Impactful Food, Agriculture, and Livestock Programs

Drawing on her background in veterinary science, Emma Bratton helped shape the direction of USAID's livestock programs during her tenure as a 2022-2023 USAID American Association for the Advancement of Science (AAAS) fellow in the Center for Agriculture-Led Growth.

As the lead on a learning exercise evaluating the Feed the Future Innovation Lab for Genomics to Improve Poultry, Bratton helped tackle biases against livestock programs in low- and middle-income countries while highlighting the importance of local capacity-strengthening and women's empowerment. "The USAID fellowship offered me the opportunity to apply my skills to many different policy challenges," Bratton said. In addition, Bratton helped rewrite USAID's Biodiversity Policy and became a leader of the One Health Working Group, helping develop a USAID-wide position statement for the group and guiding future actions to better operationalize and integrate One Health across the Agency. Bratton also served as a gender point of contact for the Center, where she helped develop the Generating Resilient Opportunities for Women commitment and codesigned a workshop to help increase gender sensitivity within the Center.

Bratton's research in advance of a trip to Madagascar made it possible for her, on arrival, to assess livestock programs countrywide and offer advice on which value chain and livestock issues the USAID office in the country should make its focus. Bratton then deployed her existing expertise on livestock and the new knowledge gained from her in-country experience to help lead several USAID programs and initiatives, contributing to USAID's Livestock Month, the Agrilinks web community, USAID's Agricultural Threats Working Group, and the design of a new award program in partnership with the United Nations Food and Agriculture Organization.

After completing the fellowship, Bratton continued her work at USAID, serving as the activity manager for the Feed the Future Innovation Lab for Livestock Systems and developing new livestock-related programming.

Learn more about the Science and Technology Fellowships by visiting:
<https://www.usaid.gov/science-and-technology-fellowships>