

# THE INDIGENOUS RESILIENCE CENTER AT THE UNIVERSITY OF ARIZONA

Advancing Resilience of Native Nations, with Native Nations



The Indigenous Resilience Center (IRes) is supported by the Agnese Nelms Haury Program in Environment and Social Justice. It aims to position the University of Arizona as a world leader in Indigenous resilience research, education, and outreach.

Located within the Arizona Institute for Resilient Environments and Societies, IRes is a central hub at UArizona for tribal resilience research, scholarships, tribal outreach, and teaching. We support a collaborative team of STEM faculty who work within the center to create a robust community of Native and Indigenous STEM scholars and students who respectfully honor traditional knowledge and tribal sovereignty.



## OUR CURRENT PROJECTS

- Develop and support an interdisciplinary, connected network of university researchers working with tribes on resilience
- Focus on food, energy, water systems, health, and the environment, addressing indoor air quality and toxic air pollutants, chronic health conditions and nutrition, and traditional agriculture, as they relate to Indigenous communities
- Use models, community surveys, educational outreach, GPS, and GIS
- Leverage existing academic, extension, research, and training programs at UArizona related to tribal and Indigenous resilience
- Provide direct support for on-the-ground tribal resilience projects
- Partner with Diné College, University of New Mexico, Montana State University, Little Big Horn College, Oklahoma State University, Northern Arizona University, University of California, Berkeley, Arizona State University, and others

## HIGHLIGHTS

### NANO-FILTRATION WATER UNIT

- Our faculty have co-lead the development and deployment of solar nano-filtration unit (SNF) technology to supply clean drinking water to remote, off-grid homes on the Navajo Nation.
- IRes works closely with the Navajo community and households to learn their needs and their willingness to use the units. The team then makes modifications after assessing this feedback.
- IRes works with organizations and the Navajo Nation to develop workforce skills to turn over the project to the community for long-term implementation.

### NAVAJO Water GIS

- Our faculty have developed an interactive internet GIS mapping application to display water well locations and water quality results for the Navajo Nation. This makes thousands of results publicly available in a convenient tool that deepens accessibility and use of water quality data.
- A mobile application for use on Android phones in areas without internet connectivity is underway.
- This has been a collaborative project with the University of Arizona, University of New Mexico, and Northern Arizona University.

### INTEGRATING INDIGENOUS AGRICULTURE

- The IRes faculty are piloting projects related to upscaling traditional agriculture in Indigenous communities for the benefit of tribal health.
- IRes will consult with tribes to conduct nutritional analyses on traditional foods that will aid in the process of ensuring a healthy diet for tribal members.
- IRes will also invite collaborative partners including federal, state, tribal and local governments as well as NGOs to also tackle the issue of Indigenous health.



**14%**

U.S. Native American households lack access to electricity



**35%**

dwellings are not connected to central power or potable water (on the Navajo Nation)



**370M (5%)**

Indigenous peoples around the world protect **80%** of global biodiversity on a mere 25% of the planet's land



THE UNIVERSITY OF ARIZONA  
ARIZONA INSTITUTE FOR RESILIENT  
ENVIRONMENTS & SOCIETIES

**Indigenous  
Resilience Center**