On World Water Day, an ASU team looks to enhance global availability through localized solutions

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Researchers often look at how people experience water issues in their communities, but these studies are usually focused on a single region. One interdisciplinary group of researchers from Arizona State University, however, is taking a cross-cultural approach to look at water knowledge and management around the world.

In the most recent phase of the Global Ethnohydrology Study, this team interviewed people from communities in the United States, New Zealand, Fiji and Bolivia to see how perceptions of water risks and solutions varied depending on the community’s level of development and water scarcity.

“It can be a challenge to design cross-cultural research that produces meaningful results in a comparative context,” said Amber Wutich, co-author of the study and associate professor in the School of Human Evolution and Social Change. “This kind of work is important because it allows us to identify global trends in water problems and solutions.”

One of the unique factors about this project is its high amount of student involvement. Wutich said that mentoring is one of the most important ways the team informs others about their work.

“Through our graduate and undergraduate programs, we involve hundreds of students in the project in research design, data collection in international field sites and data analysis in our labs at ASU,” she said.

The results of the study found that people in wealthy and water-scarce areas were more concerned about water availability. Their solutions leaned toward collective action in creating policies. Meanwhile, people in poorer and relatively water-abundant regions had greater concern for water pollution, and suggested individual behavior changes as solutions.

“This research is important for tailoring water management strategies to the concerns...
and interests of local residents,” said Kelli Larson, lead author and associate professor in the School of Sustainability. The study lays the foundation for future comparative research, which will help policy and aid workers create solutions that are more likely to succeed for each individual region.

On World Water Day this March 22, Larson reflects on the 2017 theme, “wastewater,” which draws attention to the need to treat and reuse wastewater to protect the environment and make our water cycle more efficient.

“The implications of our research suggest that collective actions and policies in using wastewater may be more popular in developed areas, whereas individual practices and technologies may be more effective in less developed regions,” she said.

You can read the ASU team’s paper "Cross-Cultural Perceptions of Water Risks and Solutions Across Select Sites" and other water-related articles for free for a limited time here in a special World Water Day collection by Taylor & Francis. Then check out other Center for Global Health projects here.

"Top photo: A student interviews a Fijian woman for the Global Ethnohydrology Project. Photo courtesy of the Center for Global Health"

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