PUBLIC RELEASE: 9-DEC-2016

Utah State University researchers receive American Water Resources Association Award

Enjie Li, Joanna Endter-Wada, Shujuan Li Honored with 2016 William R. Boggess Award

UTAH STATE UNIVERSITY

LOGAN, UTAH, USA -- Too little water. Too much water. Pollution. Salt water. Lack of infrastructure. Encroaching sea levels.

These are challenges faced by water managers around the globe and, in particular, by the world's so-called 'megacities,' termed as such because they're inhabited by more than 10 million residents.

"Megacities face continual population growth, urban expansion and climate change, all of which create tremendous stress for water infrastructure and have implications for human health and social equity," says Utah State University graduate student Enjie Li. "Yet, each city represents varied situations with complex challenges."

With USU faculty mentors Joanna Endter-Wada, professor in the Department of Environment and Society and Shujuan Li, associate professor in the Department of Landscape Architecture and Environmental Planning, Enjie Li tackled the subject of megacity water management in a paper selected by the American Water Resources Association for its 2016 William R. Boggess Award. The honor recognizes authors of a paper published in the association's journal the previous year and selected as that year's outstanding submission.

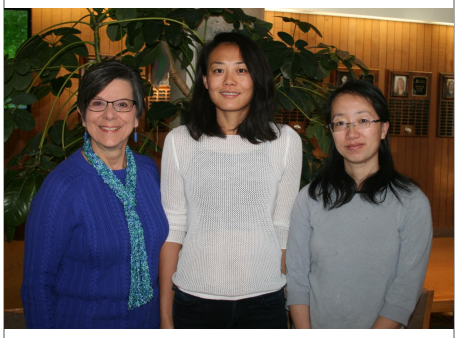

IMAGE: UTAH STATE UNIVERSITY RESEARCHERS, FROM LEFT, JOANNA ENDTER-WADA, ENJIE LI AND SHUJUAN LI ARE RECIPIENTS OF THE AMERICAN WATER RESOURCES ASSOCIATION'S 2016 WILLIAM R. BOGGESS AWARD FOR THEIR PAPER DETAILING... **view more ›**

CREDIT: MARY-ANN MUFFOLETTO/UTAH STATE UNIVERSITY

A doctoral candidate in Human Dimensions of Ecosystem Science and Management in the Department of Environment and Society, Enjie Li is lead author of the paper, published in JAWRA in June 2015. The paper characterizes and compares, on a global scale, water challenges faced by the world's 28 United Nations-designated megacities as they face mounting pressures to provide the critical resource for their residents.

The research was supported by iUTAH through a National Science Foundation grant. The three USU researchers were recognized in a formal ceremony during the 2016 AWRA Annual Conference held Nov. 13-17, in Orlando, Fla.

"We explored these megacities from four different perspectives: geographic context, development trajectory, rate of population growth and forms of urban expansion," says Enjie Li, who received additional support from USU's Office of Research and Graduate Studies, the USU Ecology Center and the USU Center for Women and Gender to present the research in Beijing, China at the 2013 AWRA Specialty Conference, "Water Resources for Megacities: Challenges and Solutions."

Though supplying water is a major challenge for all of the study sites, she says, each city's situation is unique.

For example, Beijing and Mumbai struggle to supply sufficient drinking water, while dealing with too much stormwater. Los Angeles and Tokyo have the capability to recycle water to meet drinking water quality standards, but face social opposition to use of this water source.

"These challenges have serious implications - especially when you consider one in eight urban dwellers currently lives in one of the world's megacities," Enjie Li says. "Further, conservative growth projections by the U.N. predict another 13 cities will become megacities by 2030."

Though the Salt Lake City metropolitan area, with a population of about 1.14 million, is long from approaching megacity status, it also faces growing pressure from urbanization -especially in terms of water resources.

"There are common threads between big cities and little cities and we have much to learn from megacities," says Endter-Wada, who serves as a team member for the statewide, NSF-funded iUTAH project. "Utah is growing rapidly. It's easier to prepare for challenges, than to fix problems after the fact."

###

Media Contact

Joanna Endter-Wada
joanna.endter-wada@usu.edu
435-797-2487

http://www.usu.edu