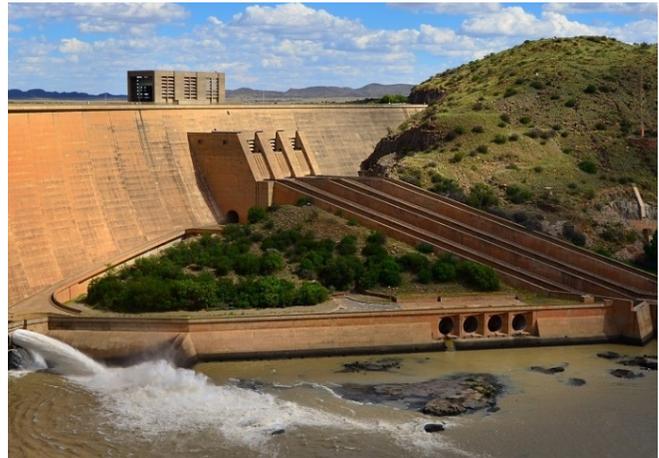


World Water Week 2018: Water, Ecosystems, and Human Development

*By Joan Rose, PhD
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Established in 1991 and administered each year by the Stockholm International Water Institute ([SIWI](#)), World Water Week provides a unique forum for confronting water-related challenges and their global impact on public health and the environment. It focuses on innovative thinking and positive action from scientists, decision-makers, business innovators, and especially young professionals from diverse sectors and countries.



Gariep Dam on Orange River in South Africa

As the [2016 winner of the Stockholm Water Prize](#) (see also box below), for which I'm still thrilled and grateful, I wanted to highlight this year's theme: "[Water, Ecosystems, and Human Development](#)," which started earlier this week and ends today, [August 31](#). All life depends on water. Because we need healthy ecosystems to provide essential services for human development and well-being, World Water Week 2018 focused, without exaggeration, on the very basis of our existence.

Balancing Perspectives



Rainwater harvesting in Namibia

[Earlier this year](#), my fellow Water Quality & Health Council member Steve Hubbs wrote about the United Nations World Water Day 2018, held every year on March 22nd, and its theme “[Nature for Water](#)” that explored how we can use nature-based solutions (NBS) to help overcome the global water challenges of the 21st century. Not surprisingly, NBS were central to this year’s [2018 Thematic Scope](#), which was also aligned with several targets of the United Nations Sustainable Development Goal 6 ([SDG6](#)), “Ensure availability and sustainable management of water and sanitation for all.” In Stockholm, World Water Week 2018 also sought to balance multiple overlapping, and sometimes competing, perspectives—systems,

development, human and social, economic, and governance—to identify and utilize natural systems and processes that can provide diverse benefits while maintaining ecosystem integrity or even improving current environmental conditions. Although SIWI’s World Water Week 2018 [Program](#) and [website](#) featured a tremendous amount of resources and scheduled events, I’d like to highlight some of the perspective-related opportunities and challenges in the rest of this article.

Stockholm Water Prizes

Awarded each year by SIWI during World Water Week, the Stockholm Water Prize honors women, men and organizations whose work contributes to the conservation and protection of water resources and to the well-being of the planet and its inhabitants. This year, professors Bruce Rittmann from Arizona State University and Professor Mark van Loosdrecht from Delft University in The Netherlands were named 2018 Stockholm Water Prize Laureates for their revolutionizing microbiological-based technologies in water and wastewater treatment.

SIWI also awards a Junior Stockholm Water Prize annually. To date, competition for that prize has drawn over a 100,000 student researchers from dozens of countries, encouraging their continued interest in water and sustainability. The [2018 finalists](#) bring exciting ideas from the youth of the world with 32 entries from 32 countries.

Systems: All of us live in river basins, whether in rural or more urban areas, in which upstream development affects downstream water quality and quantity. Participants at World Water Week 2018 focused on the need to improve our understanding and management of our river basins, and the ecosystems they contain, as inter-dependent systems.

Development: Balancing developmental pressures between “green” (e.g., rainwater harvesting) and more conventional “grey” solutions (e.g., dam and irrigation construction)

is an ongoing challenge as our societies continually change the landscape and alter the patterns of water flow. It is typically not a question of “either-or,” but about complementarity and finding the right balance of economic and environmental trade-offs.

Human and social: It is critical to recognize that the survival and livelihood of many societies has been and continues to be derived from water in ecosystems and, in turn, how we manage and protect both natural and built systems. Improved respect for ecosystems requires greater awareness, education, and understanding of their vital role in sustaining life and human societies.

Economic: Central to any balance of perspectives in ecosystem and water management is understanding the economics of ecosystem values and services, including both tangible services that can be translated into monetary terms and more intangible functions such as biodiversity and scenic beauty. Movement toward a more circular economy, such as through the safe reuse and recycling of wastewater and nutrients, has significant potential to advance ecosystem management.

Governance: Finally, an integrated and sustainable water and ecosystems management plan cannot exist without effective communications and governance of often competing demands for water. Cultivating a perspective that ecosystems are a public good can provide both immediate and long-lasting benefits to communities sharing them, while creating incentives for shared governance.

Be an Advocate for Change

All of us at the Water Quality & Health Council applaud and support World Water Week 2018 and the tireless efforts of SIWI and their supporters around the world. Citizen stewardship lies at the core of improved understanding and management of water, ecosystems, and human development, and we all have a part to play.

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