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Water resources challenges in China: integrating quantity and quality dimensions

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Water resources challenges in China: integrating quantity and quality dimensions

Human societies are facing multi-faceted water challenges

Too little water



Too dirty water



Too much water



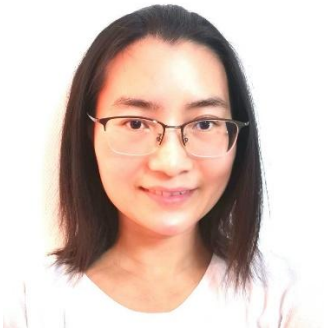
Wrong location



Abstract

Human societies are facing increasing water challenges globally that threaten both the quantity and quality dimensions of freshwater resources. These challenges are particularly acute in rapidly developing countries such as China, where rapid urbanization and agricultural expansion have placed high pressure on surface and groundwater systems. This presentation focuses on China's multi-faceted water resources challenges, including water scarcity, groundwater depletion, surface water pollution and their linkages to production and consumption through supply chains. Using multi-sourced datasets and different modelling approaches, we aim to understand China's water related challenges and the underlying natural, environmental and socio-economic drivers for these challenges. Ultimately, the goal is to help identify leverage points for informing policies and strategies towards sustainable water resources management.

Biography



Siao Sun is a professor in Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences. Her research interests include urban hydrology modeling, groundwater resources management, social hydrology, and water sustainability. She integrates hydrological modeling, spatial analysis and socio-economic analytical approaches to understand the interaction between human and water systems. She has published over 60 peer-reviewed papers in leading journals including PNAS, Nature Communications, Water Resources Research, Water Research and Environmental Science & Technology. She serves as an associate editor for the Journal of Hydrology.

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