Optimizing Flood Governance System in the Context of Climate Extremes and Urbanization: Evidence from Three Recent Floods in North China

2 Nov 2023 (Thu)
4:30 – 6:00 pm (UTC+8)
Rm 221, Chen Kou Bun Building, CUHK

China has millennia of experience in taming floods, but the historically effective flood governance system faces two pressing challenges today: the increasing frequency and intensity of extreme precipitation events in the context of climate change, and rapid, large-scale urbanization, giving rise to higher flood risks. This study investigates whether the flood governance system in China can rise up to the two challenges, where the gap is, and how to improve it. Using three recent floods in North China as case studies - the 2012.07.21 Beijing Flood, the 2021.07.20 Zhengzhou Flood, and the 2023.07.29 Beijing/Hebei Flood - and applying the 2P2R (prevention-preparation-response-recovery/resilience) analytical framework, this study finds that the strengths of China's flood governance system lie in flood preparation and response, albeit inadequate to cope with more powerful floods in the future. More importantly, the flood governance system needs urgent enhancement on prevention and resilience. Better flood prevention requires updating climate risk perceptions for all societal actors, strengthening the roles of market and society in sharing flood management responsibilities with the government, and following the precautionary principle in urban planning. Improving urban resilience calls for reassessing design and construction standards in light of climate extremes and strengthening sponge-city and resilient-city construction.

Xiaofan Zhao
Assistant Professor
Division of Public Policy, HKUST

Dr. Xiaofan ZHAO is an Assistant Professor from the Division of Public Policy of The Hong Kong University of Science and Technology. She holds a BS in environmental engineering with honors and with distinction and a MS in management science and engineering from Stanford University and a PhD in public administration from Tsinghua University, where she also worked as a postdoctoral fellow before joining HKUST. Her research focuses on climate change governance in terms of both mitigation and adaptation. Her publications have appeared in peer-reviewed journals such as World Development, Energy Research & Social Science, and Environmental Policy and Governance.