



Workshop: Intersections Between Resilience and Risk

Water supply, Critical Infrastructures
By Zeyu Yao (UCL)

What does Resilience mean to you?:
(How do you define resilience?)

The ability to bounce back – to ensure the minimal functionality is maintained when facing extreme events. As well as the ability to adapt to changes by having diversified solutions

Like a “sponge” or bamboo, flexible but sturdy

Your Current Research Focus:

(Identify your areas of research that could be applied to building resilience into risk management)

Tacit knowledge transfer in urban water management. How much do professionals rely on tacit knowledge at each stage of a project and whether such knowledge is being transferred and used by those in other fields.

Key Resilience Research Challenges:
(List what you believe to be the key challenges)

Tackling uncertainties → reliable and accessible data
Interconnectedness of systems → result in amplified impacts

Communication → people to people, people to system, system to system

Knowledge gap → recognizing the need to urgently consider resilience in the system

What would good look like?

(Your view required here – with some context)

Able to anticipate and mitigate tomorrow's risks by having responsive and efficient communication channels. Identify (flood) risks and coping mechanisms from different disciplinary perspectives



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Perceived Barriers?:

(Where do you perceive the barriers?)

Systems and impacts of failure are interconnected, and future climate poses greater uncertainties that people could anticipate and willing to accept

- Thinking of resilience should be “built-in”, it shouldn’t be something to be considered after minimum requirements are met, it is a minimum requirement.
- Building walls between disciplines and fields

What are the consequences - Risks?:

(What happens if no progress is made - ie status quo?)

Deterioration of current infrastructure systems.
Large scale, long term impacts resulting in more deaths and economic losses.

Reaction time becomes longer, and solutions become less effective

Envisaged Breakthroughs Required:

(Where do you envisage big/significant breakthroughs?)

Network thinking, system thinking transferred into the design, construction, and management of infrastructure systems.

Adaptive systems for planning and implementation

Who needs to do what?:

(Think here - what would you need and what would you do?)

Find the gaps in knowledge and perception. Ultimately resilience cannot be achieved without the right decisions being made, and decision making relies on having accurate, timely information