



# Emergent Urban Hydro (in)securities around the World

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# Outline:

1. Reconceptualising “Water and the City”
2. “Urban Hydro(in)security”: what and how?
3. Developing the Knowledge Base

# What is the “problem”, and is the “hydrosocial transitions” concept helpful?

- long history of “water-city” thinking (Wittfogel, etc.) but tendency towards determinism and instrumentalism
- Declaration of the “anthropocene” suggests need to get beyond “nature/culture” and other dualisms
- Much new thinking is, arguably, overly theoretical, difficult for non-initiates (e.g. urban metabolisms, post-politics, etc.) and hard to apply
- Often conflates “water” and “water services”

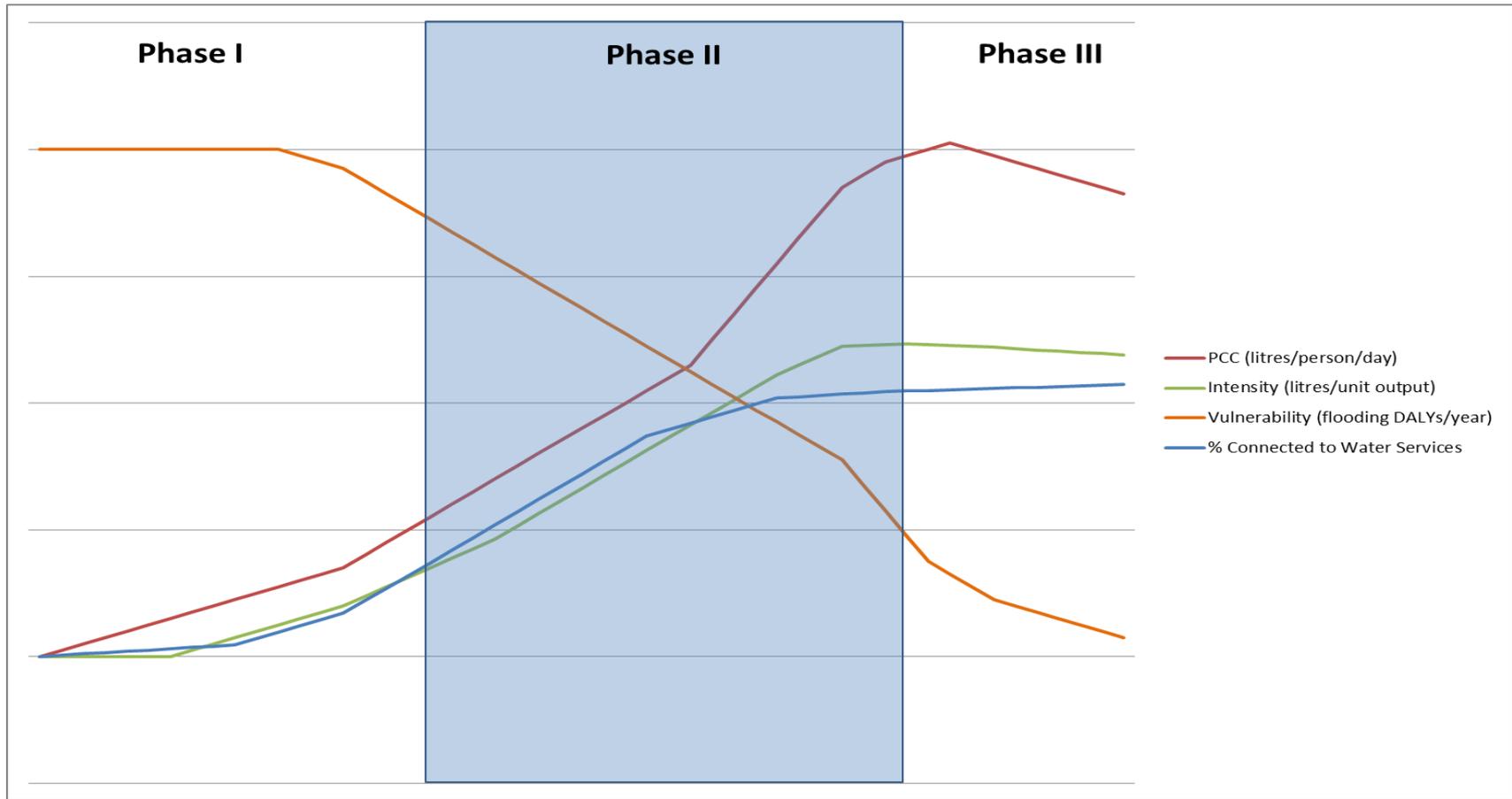
Our development of the UHT concept is part of an effort to systematically understand:

- changing patterns of water services production and distribution
- innovation diffusion in water services technology
- changing patterns of water use in urban regions
- changing patterns of public policy formation, especially as regards urban water governance
- growing importance of “nexus” integration
- distributional equity in water services

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***.....but how will we know a “hydrosocial paradigm”  
when we see one?***



# Underlying Drivers

	<b>Phase 1</b> <b>Hydro-precarity</b>	<b>Phase 2</b> <b>Hydro-modernism</b>	<b>Phase 3</b> <b>Hydro-security</b>
<b>Economic System</b>	Pre-Fordist	Fordist/Industrial	Post-Fordist/Post-industrial
<b>Political System</b>	Feudal/absolutist	Democratising	Democracy/post-democracy
<b>Water Management Objective</b>	Expanding water services	Industrialising water services, esp. vertical integration	Multifunctional water services, nexus integration
<b>Engineering Paradigm</b>	Spatial extensivity	Reductionist/scientific/monolithic	Organic/holistic
<b>Environmental Paradigm</b>	Interdependence of human and nature	Utilitarian, ecological modernism	Biocentric

## Case Studies of:

- Bristol, UK
- Kampala, Uganda
- Osaka, Japan
- Abu Dhabi, UAE
- Beijing, China
- Vancouver, Canada
- Tucson, Arizona
- Durban and Johannesburg, South Africa



# Developing the Knowledge Base



This project is funded by **Lloyd's Register Foundation**, a charitable foundation helping to protect life and property by supporting engineering-related education, public engagement and the application of research.

## International Water Security Network

Water security is defined by the UN as "the capacity of a population to safeguard sustainable access to adequate quantities of and acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability."

Water security is an ever more important global issue, of relevance and importance to individuals, businesses, governments and organisations.

This project brings together the University of the West of England, Monash South Africa and the University of Arizona to investigate issues around water security. Under the cross cutting themes of 'risks & vulnerabilities' and 'innovation & adaptive capacity' the project will investigate:

1. **Urban Water Security (UWE, Bristol)**
2. **Transboundary Water Security (University of Arizona)**
3. **Improving Water Quality Security (Monash South Africa)**

The work being undertaken is grounded in real world concerns, with experiences, solutions and best practices that can be transferred and shared for the public good.

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