

# Securing municipal drinking water supply in rivalrous settings – an analysis of power resources and equity in cases from India, Spain and the USA

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# Context of the research

- By 2050, over two thirds of the human population will live in cities, and 1 billion of these urban dwellers will live in water-stressed cities (UN, 2018)
- Need for water allocation and reallocation to secure urban drinking water supply (Garrick et al., 2019; McDonald et al., 2011)
- Water allocation – about institutions (i.e. about rules), but also deeply political (i.e. about power) (Joy et al., 2014; Sikor & Lund, 2009; Ribot & Peluso, 2003)
- Equity in (rural-urban) water allocation – need both local and universal considerations (Wilder & Ingram, 2018)





Front Range, Colorado



Zaragoza, Aragon



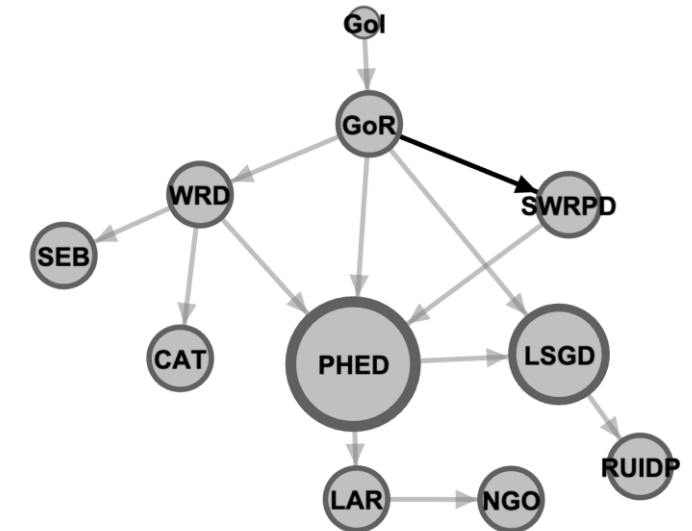
Jaipur, Rajasthan

### Research Questions:

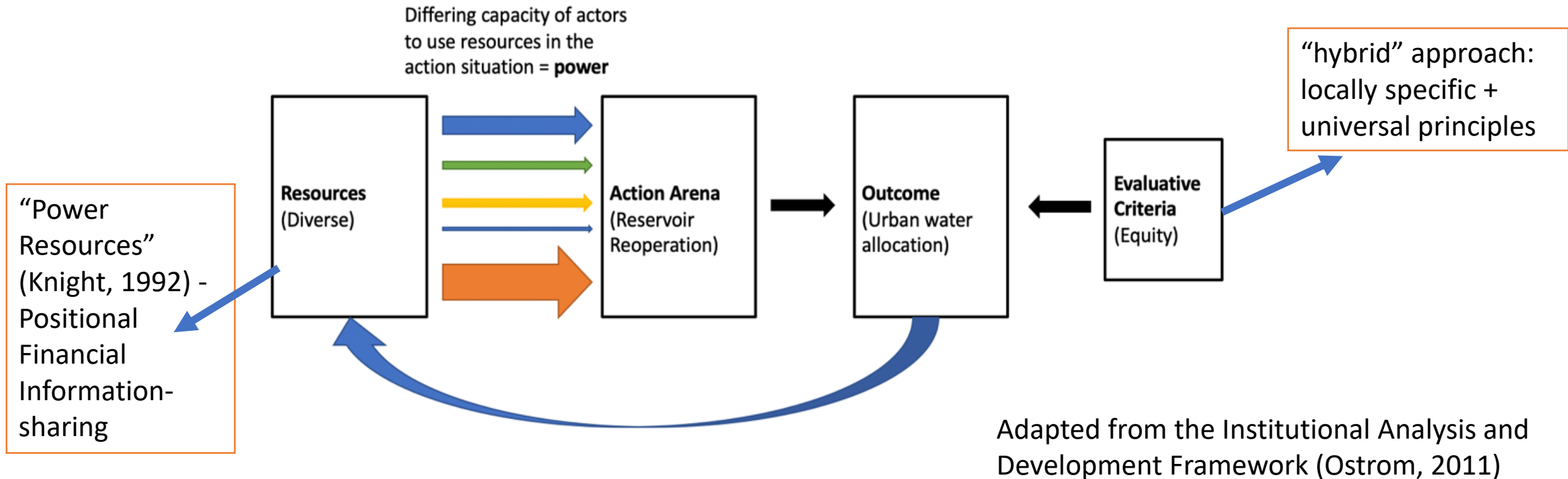
- 1) What power resources do urban water providers use to secure water vis-à-vis other rural users?
- 2) What are the equity considerations of local actors? How do they align with universal equity principles?

### Methods

- Comparative Case Study
- Interviews
- Participatory Network Mapping



# Attempting to 'operationalize' some big topics like equity and power in research...





# Results/ Applications

## On power resources

Power resources	Importance of power resource to securing water allocation		
	Public Health and Engineering Department (Rajasthan)	Zaragoza City Council (Aragon)	Municipal Corporations (Colorado)
Position	High	Low	Low
Financing	High	High	High
Information	Low	Low	Low

<https://doi.org/10.1371/journal.pwat.0000097.t003>

## On equity

Directional Principle	Bisalpur reservoir	Yesa Reservoir	Colorado Big Thompson Reservoirs
Common good	✓		
Considerations of non-humans and future humans	Partial	Partial	Partial
Inclusive procedure		✓	✓
Sharing burdens		✓	✓
Addressing power imbalances			

<https://doi.org/10.1371/journal.pwat.0000097.t004>



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Thank you for your attention

Questions?

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