



Urban Water Initiatives in Tamil Nadu and Karnataka

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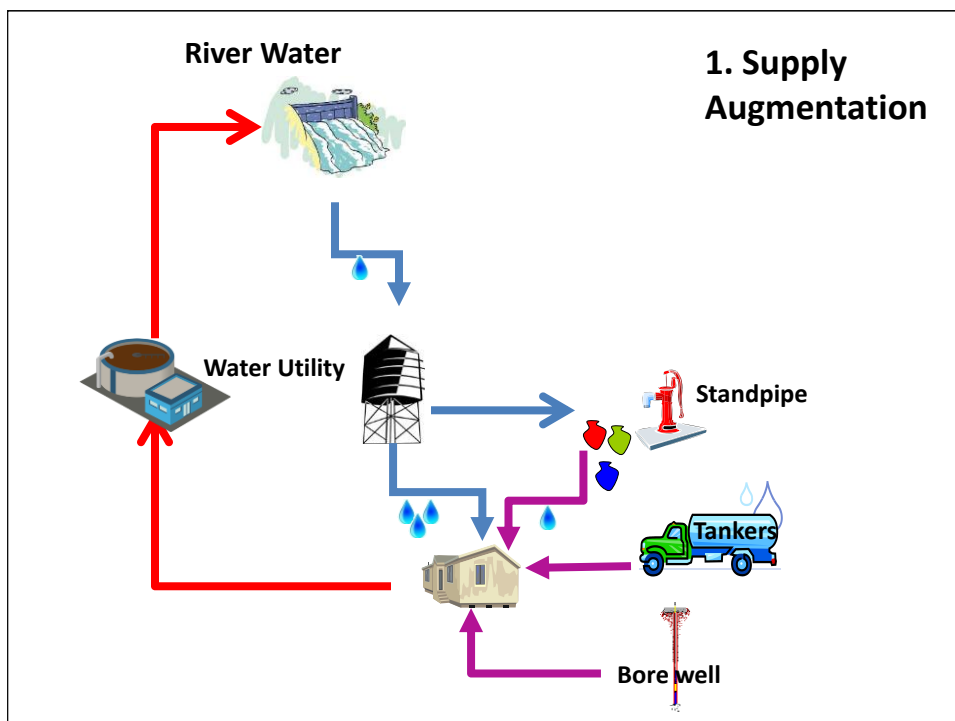
GRIHA Summit, New Delhi

State Level Initiatives (and some concerns)

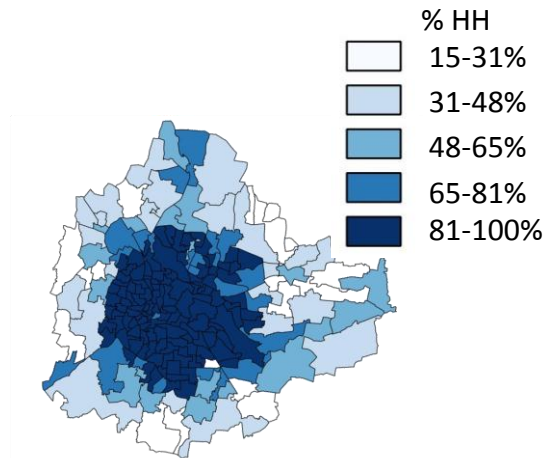
1. Supply Augmentation (Bangalore)
2. Dual Source Supply (Tamil Nadu)
3. 24/7 Water Supply (Small Towns in KA and TN)
4. Zero-Liquid Discharge Law (Bangalore)

Central Message

Many household-level initiatives are piece-meal. The lack of a systemic view, renders them ineffective, even unsustainable.



Cauvery Supply to Bangalore City



Source: 2011 Housing Census Data
Analysed by Lele and Kuttawa

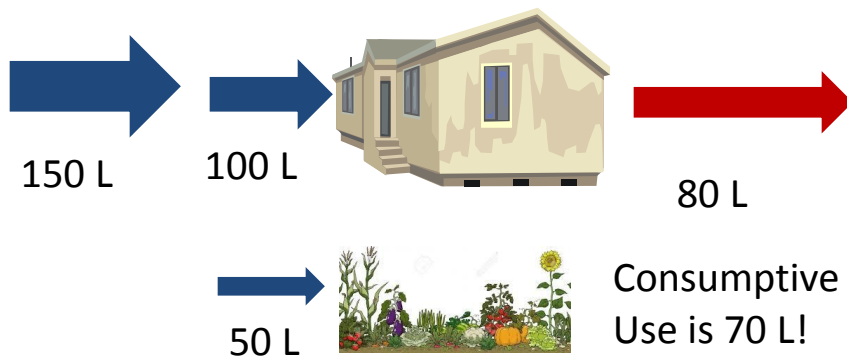
Low tariffs encourage wasteful use
– of the worst kind!



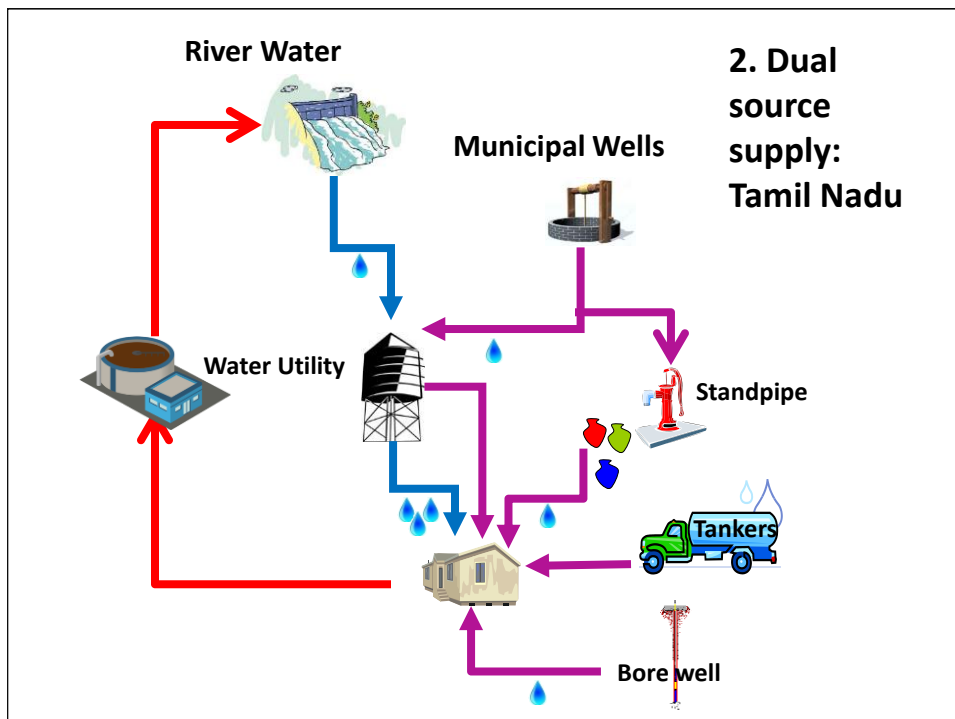
Consumptive use versus withdrawals



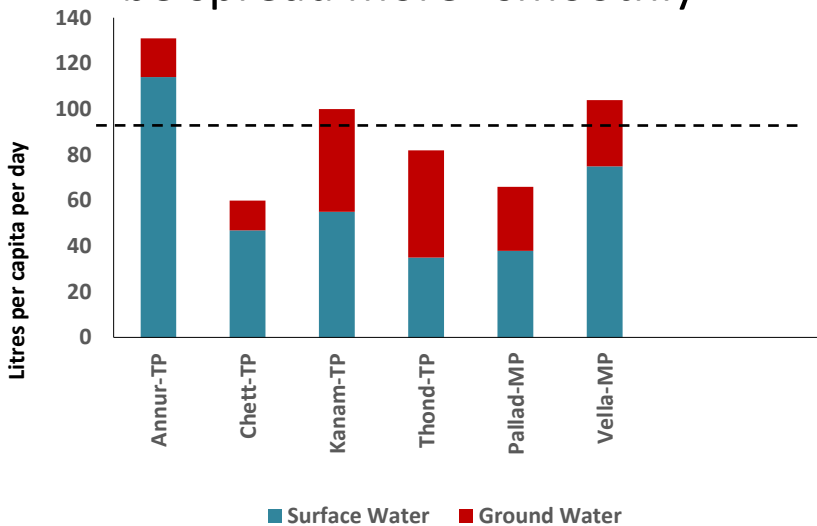
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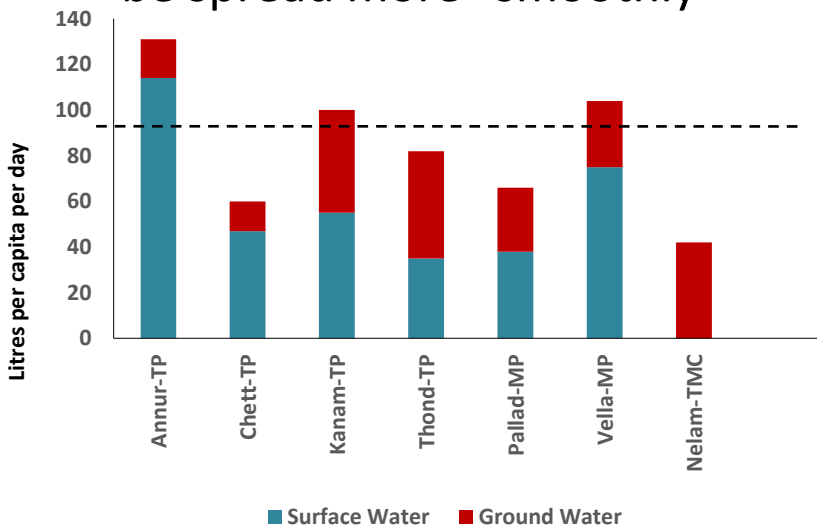
More emphasis on outdoor water use is needed. Very difficult to find low-water using landscape firms.



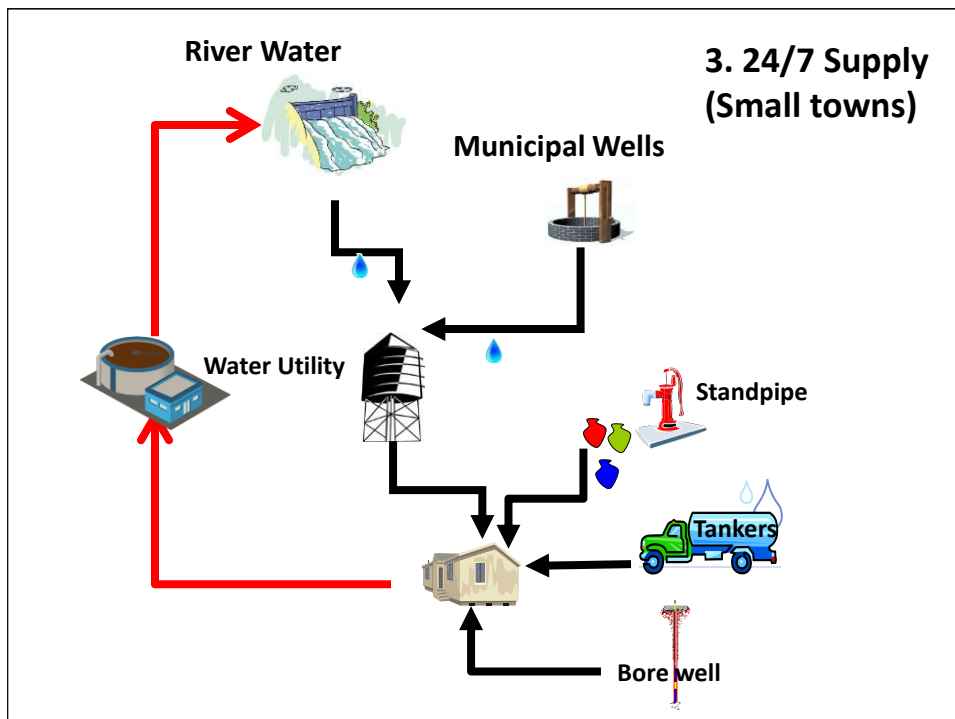
Dual supply allows imported water to be spread more “smoothly”

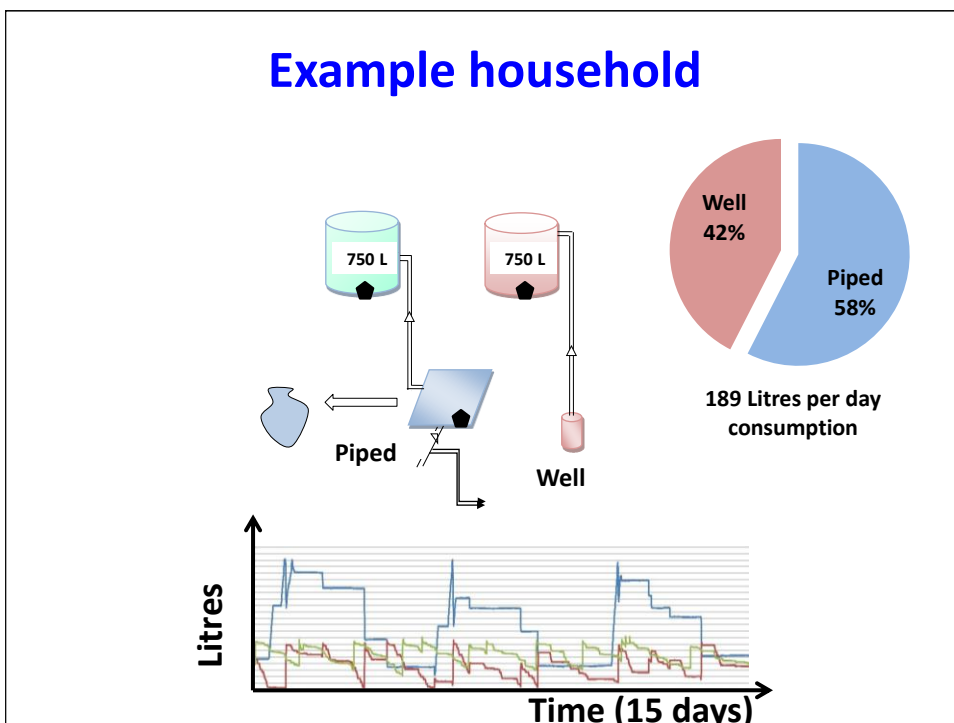
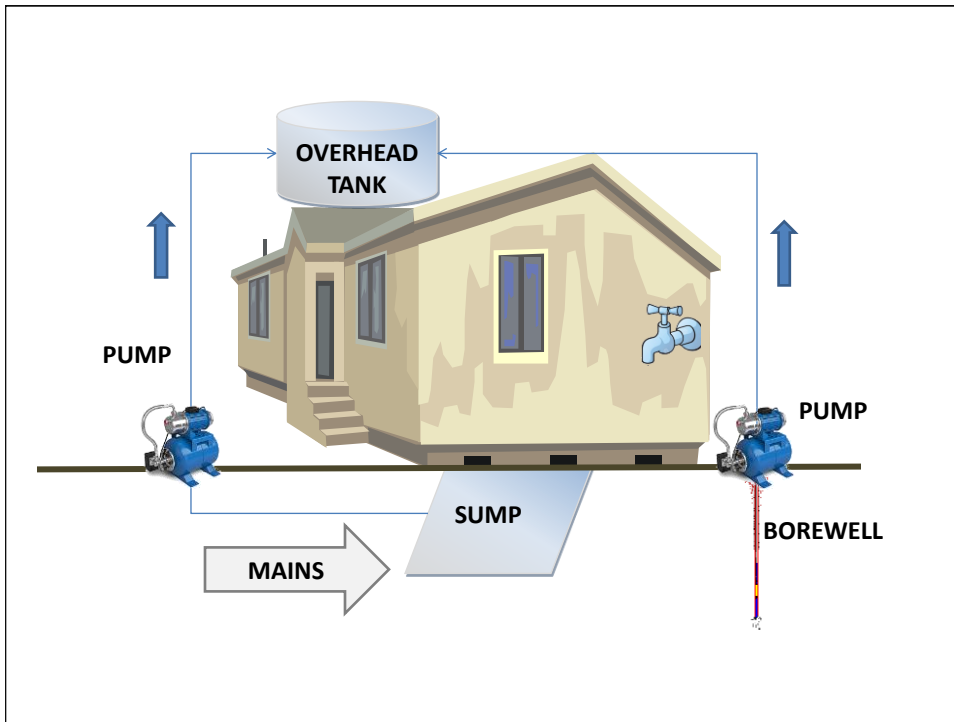


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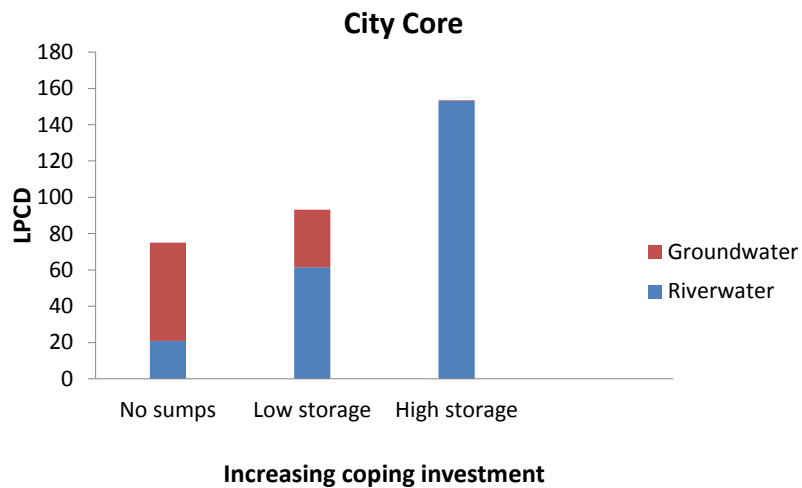


If dual sourcing is more “sustainable/equitable” what does it mean for building plumbing code?

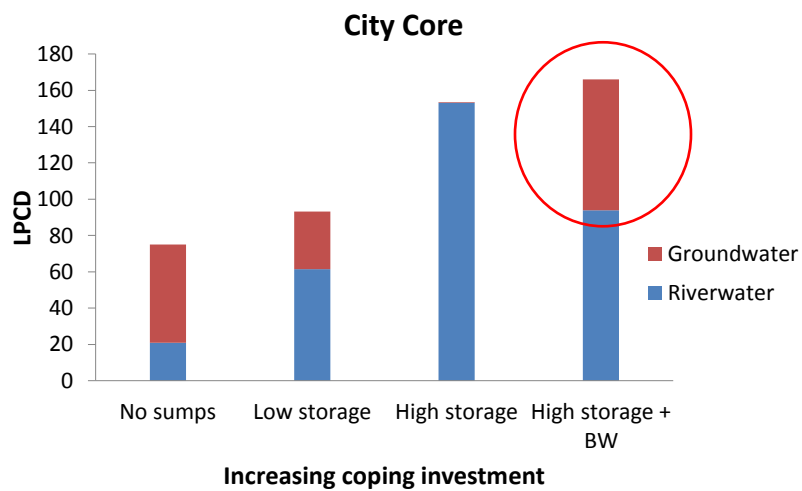




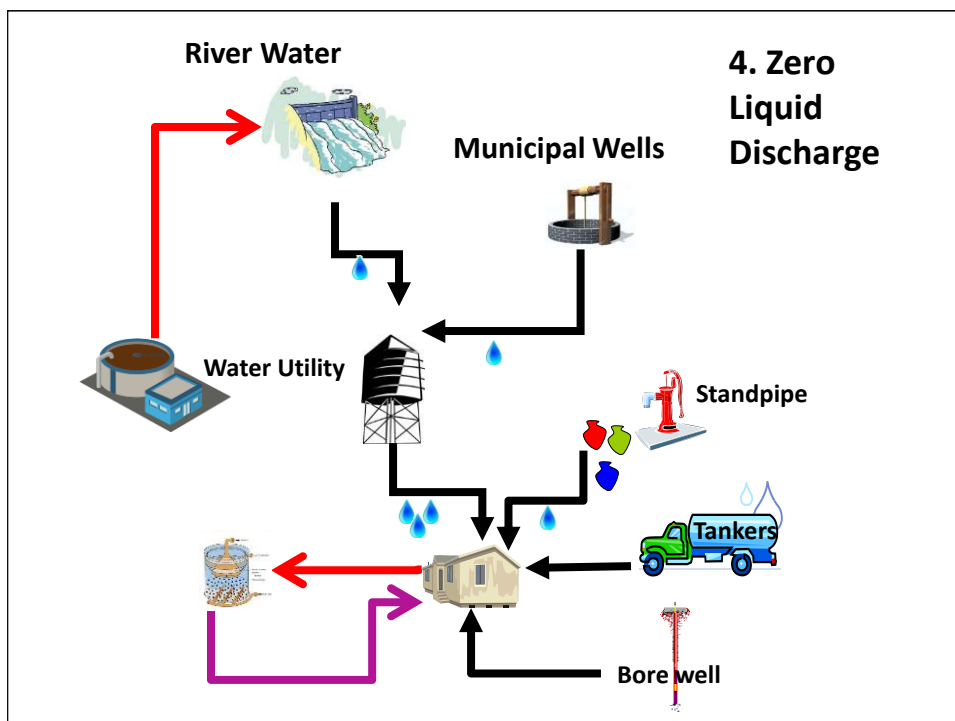
Household investments in storage really matter!



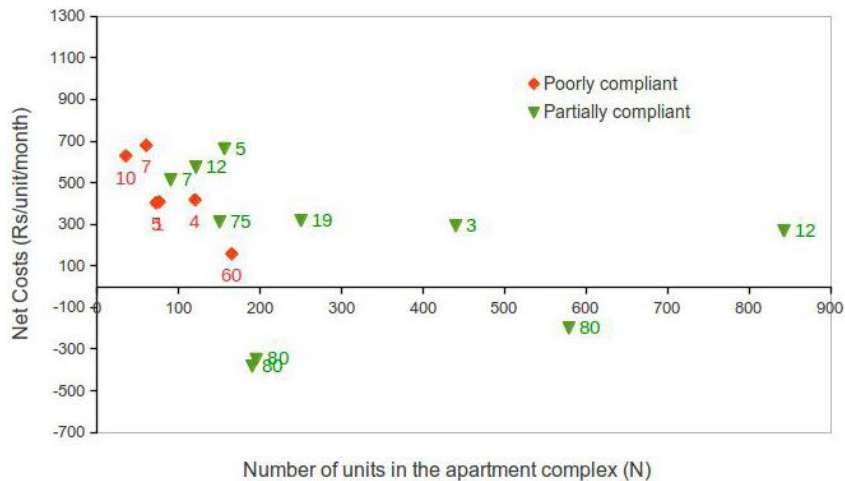
But borewells are a sticky investment



Groundwater tends to be swept under the carpet. Responsible buildings should measure and monitor groundwater use.



Economies of scale



Kuttuwa et al., 2017

Mandated wastewater reuse

- Doesn't make sense in sewered areas
- Fails in small apartment complexes (economies of scale matter)
- Encourages wasteful consumptive uses in large apartment complexes –
 - Alternatives like allowing treated wastewater to flow into lakes are urgently needed (but not yet legal).

THANK YOU!