

COMMUNITIES AS TRUSTEES OF GROUNDWATER RESOURCES

A CASE FOR DECENTRALIZED RESPONSE TOWARDS CLIMATE CHANGE

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The Public Trust Doctrine (PTD) and the Groundwater crisis

- Under the PTD norm, the government acts as a trustee of natural resources on behalf of the people. The judgment was applicable to surface water resources but fell short on groundwater resources.
- Groundwater usage in India is tied to exclusive/ private land ownership rights.
- Depending upon the nature of property, landowners can effectively extract groundwater without restriction.
- Subsidised electricity for irrigation has created inefficient/ excess usage of water for farming

Background of the Study: Varying practices of water access in Delhi, India.

- Sample of 200 households (40 wards across Delhi)
- Increased coverage over the years has not resulted in improved supply. The National Sample Survey Organization (NSSO) survey puts piped water access at 40% in urban areas.
- Concerns of low grade physical water infrastructure: transmission and systemic losses (NRW) pertinent.
- Private expenditure on the increase: private tankers (as opposed to free govt. tankers) and bottled water.

Community management of Water Supply in Sangam Vihar, Delhi

- Categorized as an 'urban village'. Urban villages grew in response to accommodate Delhi's increasing population.
- Urban villages are densely crowded, haphazard and non-zoned.
- Subsidized charges for drilling bore wells for residential colonies in order to address 'last mile delivery' gap of piped water access.
- Extracted water supplied to individual homes and stored in overhead roof tanks.
- All expenditures such as pumping charges are borne by approximately 20 families dependent on the bore well connection.



Figure 1: Haphazard urbanization in Sangam Vihar. A photo of the main road.

Lessons from community management and implications for Climate Change

- Groundwater management is the first step towards safeguarding it from the effects of climate change.
- Communities/ common sharing (CS) of groundwater resources present an opportunity of judiciously using and managing the resource as opposed to individual, multiple connections.
- Common bore wells for CS have the option to be drilled on a wider land area as opposed to individual connections which need to be confined to the property boundary. CS can maximise water extraction by making effective choices.
- Communities given a greater importance through recent developments. In a weak central regulatory framework, CS may be a useful interim measure.
- Limitations of the study

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