



Moving Towards SDGs: A Social and Solidarity Economy Perspective of Water Governance in India

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Introduction

- India's policy focus on food security and economic prosperity hinged crucially on the spread of irrigation.
 - The expansion of Irrigation in India involved an accelerated and indiscriminate use of irrigation wells (shallow dug wells and tube wells), with groundwater accounting for over 85 per cent of the country's area expansion since the 1970s.
 - India's Groundwater development followed a trajectory of what is considered "anarchist" and "atomistic" in its access and governance.
 - The conventional governance paradigms failed to take into account the integrity and nature of aquifers as ecosystems and the need to govern them as commons.
 - Hence, reorientation of groundwater management and governance is the need of the hour
- Our study employs the concept of Social and Solidarity Economy (SSE) to examine the promising designs of cooperative and community-based groundwater management in India.
 - SSE moves beyond the neo-classical focus on measurable impacts on income and pays attention to social mobilization, redistribution justice, environmental conservation that foster core SDG principles of intergenerational and intra-generational equity in water governance.
 - We highlight a few cases of community-based groundwater management such as *The Arwari Water Parliament* and *Pani Panchayats* among others that have worked on a sound understanding of the commons.
 - Indicative solutions that have emerged from these practices are Decoupling water and land rights, restrictive crop irrigation and community councils.
 - Although they are context-specific and defined by water resource typology and the dynamic socio-economic contexts, these experiences represent a scale-appropriate attempts at management given the decentralized nature of aquifers.
 - The prevalence of such bottom-up approaches of governance demonstrates how SSE inadvertently can facilitate the delivery of Sustainable Development Goals (SDGs).
 - Specifically, parameters that reflect the broad water governance principles of Effectiveness, Efficiency, Trust and Engagement that are crucial for protecting aquifers (SDG 6.6) through community participation (SDG 6. B) that were only marginally addressed by Millennium Development Goals.



- Community shared groundwater acts as major source of coping mechanism in precarious rainfed farming. Thereby securing farmers income.
- Increase in cropping cycles has ensured an additional income to the farmers



- 6.b Community participation in decision making and collective ownership
- 6.4 Sustainable withdrawal to meet economic and social needs. Needs based assessment and planning by communities based on understanding of aquifer properties.
- 6.5 Implementing Integrated water resource management. Where communities have implemented conjunctive use of water for sustainability of aquifers.



- Gender inclusive governance and management.
- Women Self Help Groups come together to form community governance body.
- Women Self groups manage financial aspects and act as catalyst for needs assessment and governance



- Decoupling of land and water rights. Landless and landholders both get access to water based on water agreements.
- Access to groundwater irrespective of the class hierarchy existing in the society

Our study argues that the adoption of SSE parameters is indispensable as India incorporates the notion of water trusteeship in its National Water Policy, which marks a paradigm shift in water accountability towards a future built on the edifice of strong polycentric environmental governance institutions.

Community based groundwater management - An integrated institution-based approach

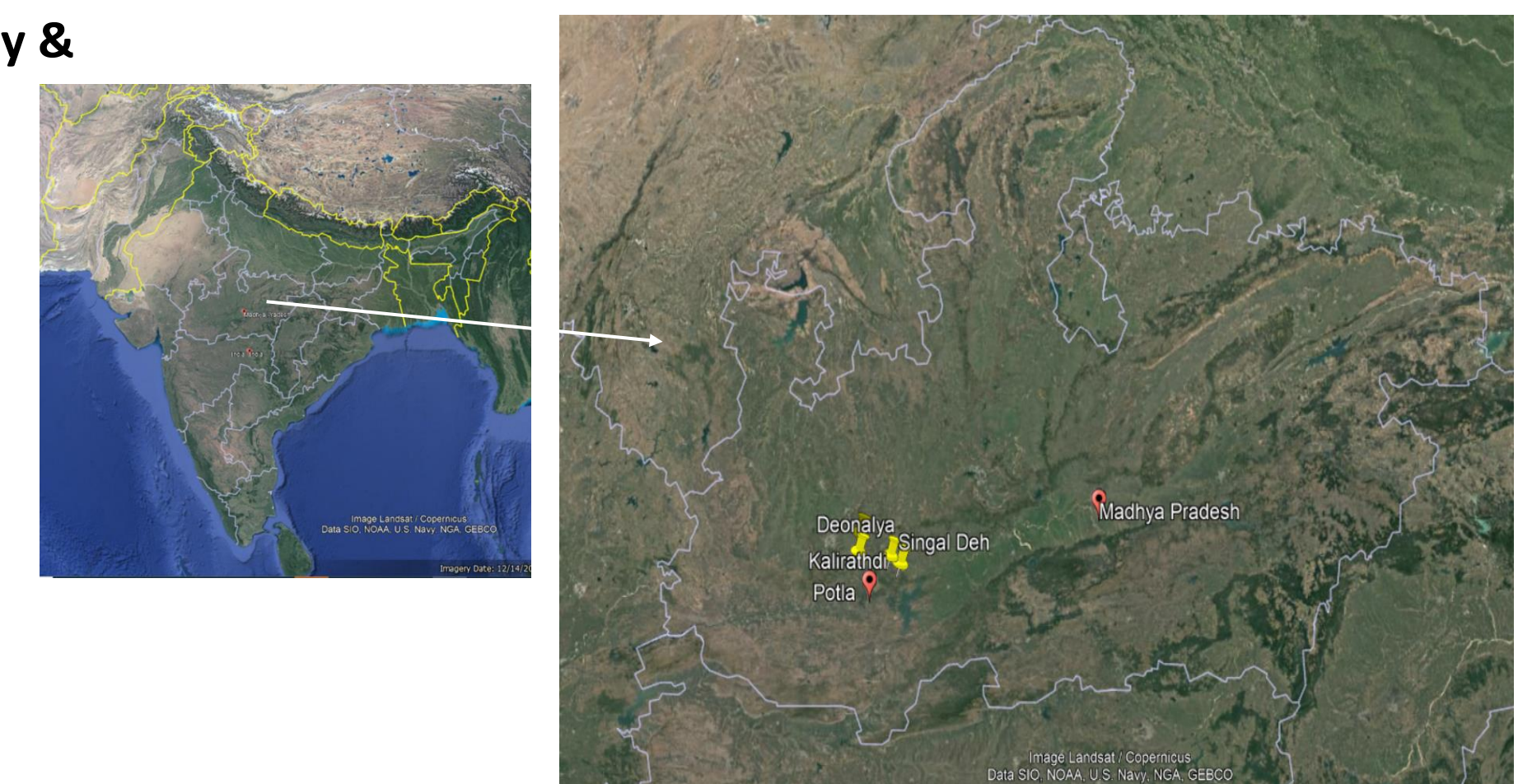
- Groundwater as common pool resource
- Qualitative and Quantitative assessment of aquifer for sustainability of aquifer
- Social, Hydrological and Geohydrological integrity
- Demystifying the knowledge of groundwater by linking traditional community knowledge with mainstream knowledge
- Creation of governance structures through community institutions
- Community Participation at every level
- Strengthen of local level institutions



Social & Solidarity Economy

- Institutions based on mutual benefits of equality & fairness
- Local economy and resources
- Economic Inclusion and Collective ownership/ Participative governance
- Solidarity through altruism and reciprocity
- Aims to achieve environmental and social sustainability

Map of Study Area



S. No.	Project Sites	Description of Work	Details
1	Kaliratdi	a. Bore well pooling through pipelines	1 Water User Association 29 farmers, 22.5 Hectares
2	Deonalya	a. Lift irrigation system b. Protective irrigation for kharif c. Conserving limited shallow aquifer	2 Water User Associations 43 farmers, 36.25 Hectares
3	Sivanpani	a. Bore well water sharing through pipelines	1 Water User Association 19 farmers, 14.25 Hectares
4	Singladeh	a. Bore well sharing through pipelines b. Protective irrigation for kharif	1 Water User Association 4 farmers, 6 Hectares
5	Potla	a. Bore well sharing through pipelines b. Protective irrigation for kharif	1 Water User Association 19 farmers, 19.75 Hectares

Study Methods

- Primary data from Community Institutions. (crop water budgeting, land holding patterns, SHGs involvement, participatory decision-making, Gender balanced participation)
- Focus Group Discussions with participating farmers
- Critical Analysis of water governance agreements



References

- Shankar, PS Vijay, Himanshu Kulkarni, and Sunderrajan Krishnan. "India's groundwater challenge and the way forward." *Economic and political Weekly* (2011)
- Shah, Tushaar. *Taming the anarchy: Groundwater governance in South Asia*. Routledge, 2010.
- Venkataronappa, Manjunatha Arahalli, Sathyannarayana Kutala, and Devika Chonira Madappa. "Assessing Social and Solidarity Economy in India's Tropical Tasar Silk." (2019).
- Utting, Peter, ed. *Social and solidarity economy: Beyond the fringe*. London: Zed Books, 2015

