



POLICY BRIEF

Peri-Urban Water Security

SaciWATERS

About SaciWATERs

SaciWATERs, the South Asia Consortium for Interdisciplinary Water Resources Studies, is a policy research institute based in Hyderabad, India. From its inception in 2001, it has focused on critical issues related to water resources management in south Asia. A key endeavour at SaciWATERs has been to enhance the dominant water resources management paradigm in the region with a consideration of all issues using a pro-poor human development approach. The emphasis is on the accumulation of new knowledge through a combination of research, capacity building, and advocacy.

About the cover picture

The cover picture shows that the peri-urban poor collect water from low cost common water points. The burden of this collection falls mostly on women.

Ensuring Water Security in Metropolitan Hyderabad

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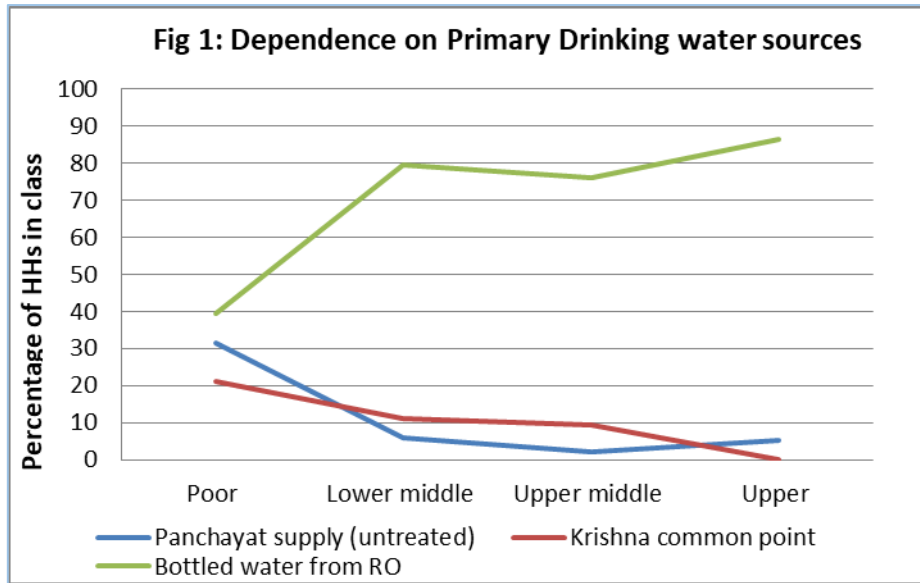
The study entitled 'Ensuring Water Security in peri-Urban Hyderabad' was undertaken in a backdrop of significant institutional changes in water governance that have been experienced by not only India and South Asia, but also most part of the developing world. The study focuses specifically on the peri-urban context, arguing that this space emerges as unique as opposed to the city core on the one hand and rural interiors, on the other, with respect to water securities. *The two primary objectives that are dealt with in this study are, firstly, understanding the complexities of institutions governing the domestic and drinking water sector in peri-urban Hyderabad, and secondly, the implications and visible impacts of such governance on the residents in terms of water access and related livelihood trajectories.* The relevance of the study draws from four distinct points: first, it emphasises the point that the current processes of urbanization and the emerging institutions that are an integral part of it, produces a peri-urban space that is quite distinct from that of the past; second, most studies do not make a point of departure between the drinking and the residual domestic water sectors, while this one, while doing so, establishes the need to do it; third, since this study just precedes the implementation of Mission Bhagiratha, it provides a perfect benchmark to assess the multi-faceted impacts of government provisioning of safe drinking water, which represents a departure from the institutional models predominant in a neo-liberal development paradigm.

These findings of this study indicates that Mission Bhagiratha undertaken by the Government of Telangana can, if implemented properly, prove to be the solution to a lot of water insecurity problems, particularly for the poor and vulnerable, who are currently either depending on priced water which they can ill-afford or falling back on unsafe sources of free water for drinking in times of water scarcity, when the prices of water from private or PPP ROs increase.

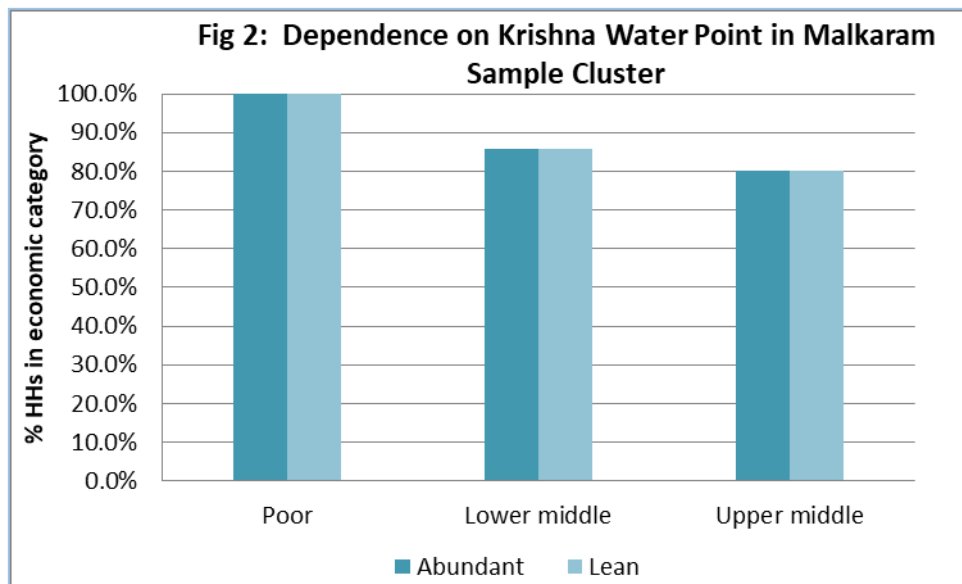
Some of the important findings and policy implications/ recommendations coming out of the study are provided below:

THE POOR HEAVILY DEPEND ON GOVERNMENT SOURCES

In the entire sample (286 household distributed in 4 peri-urban villages), the poor predominantly depend on low cost government/panchayat sources of water, though they do supplement this with purchased water sources (Fig 1). The rich depend almost entirely on private purchased sources.



In the poorest village in our sample, Malkaram, one of the three clusters (hamlets) depend on Krishna water point (though through an informal arrangement). The dependence of poor on this source is higher than that of the richer households. Importantly, the overall dependence pattern does not change in the lean periods due to the high reliability of the water supply, unlike the other sources (Fig 2).



The poor consume less water than the rich, both drinking and domestic. This inequality increases in the lean or scarce seasons (Fig 3). The gap increases in the lean seasons, since the prices of water from purchased sources tend to increase. The inequality in water used from purchased RO sources is much higher than in the case of low cost treated Krishna water point (Table 1).

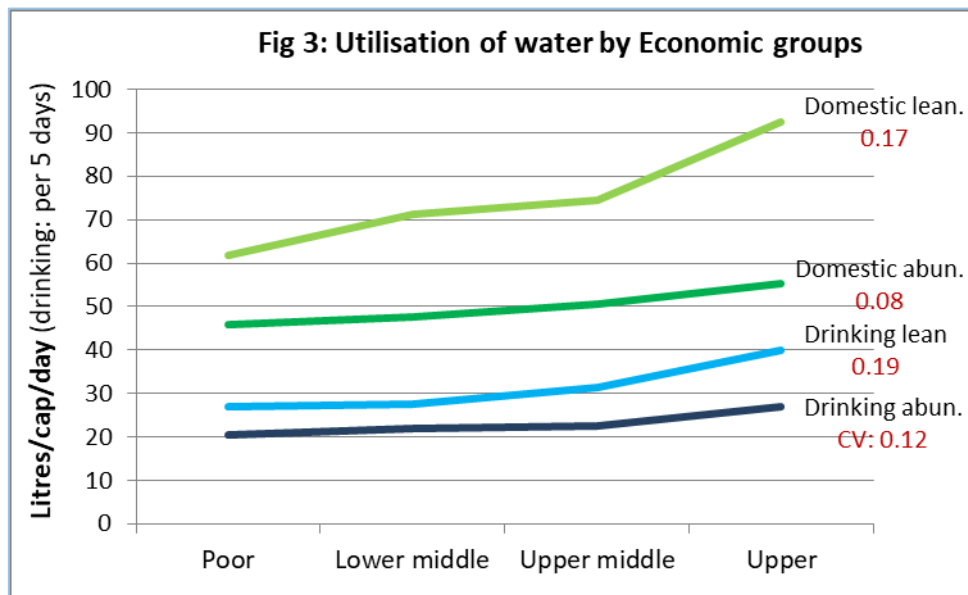


Table 1: Inequality between Economic Groups in Water Consumption

Source	Water consumption litres/cap/day for households using source			
	Abundant		Lean	
	Poor	Upper	Poor	Upper
Krishna water point	4.2	4.6	5.9	6.4
RO water	3.5	5.5	4.7	8.1
Total	4.1	5.4	5.4	8

The raison d'être of existence of the tanker economy are not household demands from the peri-urban villages

Since domestic water needs higher volumes of water (avg. 46 litres/cap/day in abundant period and 55 litres/cap/day in lean period) households mostly depend on low cost sources such as panchayat sources, Krishna water point (if available) or personal borewells. In the lean season, because of low reliability of supply of panchayat sources households shift more towards personal borewells (upper-middle and upper economic groups), shared borewells, and government tankers. For supplementary use in the lean period, they have to depend on private tankers.

Mission Bhagiratha could look at the following recommendations to ensure that the objective of the scheme is successfully achieved:

1. Regulation for state schemes cannot be left in the hands of local governments.

- i. Since the Gram Panchayats operate in proximity with the villagers, there exists various alliances and nexus between water operators and Panchayats, which may hinder the operation of a large scheme.

Field evidence: *Certain villages lying en route the HMWSSB pipeline are supposed to receive treated river water from the pipeline. However, in some cases the pipeline is perpetually clogged/broken or the payment is not made by the Panchayat and the villagers never receive this water. The Panchayats buys water in large quantities from informal water tankers, and they seem to have colluded with these informal players. Thus the unavailability of formal water supply is favourable to such a nexus.*

- ii. There is also a collision between the Panchayats and the RO plant operators- especially the ones that are run using a PPP model. These plants make huge profits by selling treated groundwater to areas outside the village. The Panchayat may or may not take enough initiative to make sure that a large scale water supply schemes operates successfully.

2. Large scale awareness building campaigns have to be held to make sure that Mission Bhagiratha is implemented successfully.

- i. Since the villagers are used to receiving only untreated groundwater(almost always polluted) through pipes, special measures are required to make people aware that this water is treated surface water and is safe for consumption.

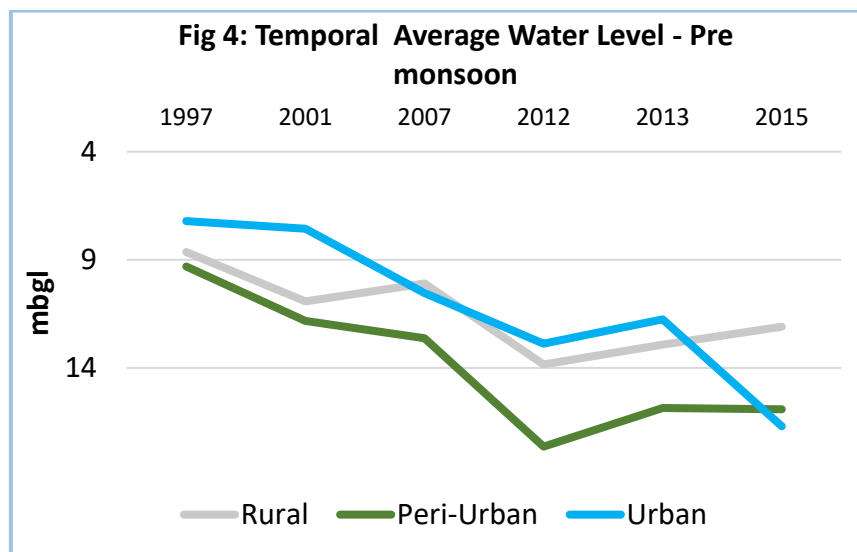
Field evidence: *Mallampet in Quthbullahpur mandal is one of the few villages where Mission Bhagiratha was implemented early. Although the households have been given new connections with this water, they are only using it as a supplementary domestic water source. The reported that they were never told that this water can be consumed as well. The panchayat did not inform the villagers that this is treated water, and so they are continuing to purchase water from PPP and private ROs.*

- ii. Due to the poor quality of groundwater, there has been a large-scale dependence on RO plants in these villages. The people have a perception that only RO treated water

is safe, since it is paid for. Thus, such perceptions need to be altered by confidence-building campaigns.

3. Sustainable management of groundwater requires community action that is supported by the government, which can be taken up as a part of the vision behind Mission Kakatiya.

In spite of the expected dependence on surface water for drinking and domestic water needs, the ground water management is of utmost importance for two reasons. Our study found that firstly, there is an evidence of ground water depletion, and this depletion is more in the peri-urban context compared to either the urban or the rural areas around Hyderabad (Fig 4).



Secondly, high incidences of pollution was found in this study impacting the ground water aquifer in the peri-urban areas from city and industrial waste, that crucially impact people's decisions of water choices. Government support for prompting collective action to manage ground water could actually be designed around Mission Kakatiya that would go a long way in achieving SDG goal 6.

Our study has found successful cases of collective community action to regulate groundwater in the study villages that are distressed due to the depleting quality or quantity of groundwater.

Field evidences: *In some villages it was observed, the Panchayat regulates the activities of the informal water tankers, and does not allow them to sell water outside the village, if the villagers are facing a water-shortage. The villagers stage protests against these tanker operators with support from the Panchayat. In a village with high groundwater pollution, villagers were able to successfully bargain for drinking water provision from the polluting industry.*

The study shows the need for more jobs in agriculture, as the industries near the peri-urban villages have not been able to absorb the entire population displaced by agricultural land acquisitions. The groundwater reserve thus needs to be sustained to provide a buffer for an increasingly impoverished agriculture in the peri-urban areas.

If community action is effectively mobilised with government support, local surface water bodies and groundwater can be regulated efficiently to revive agriculture while creating employment.

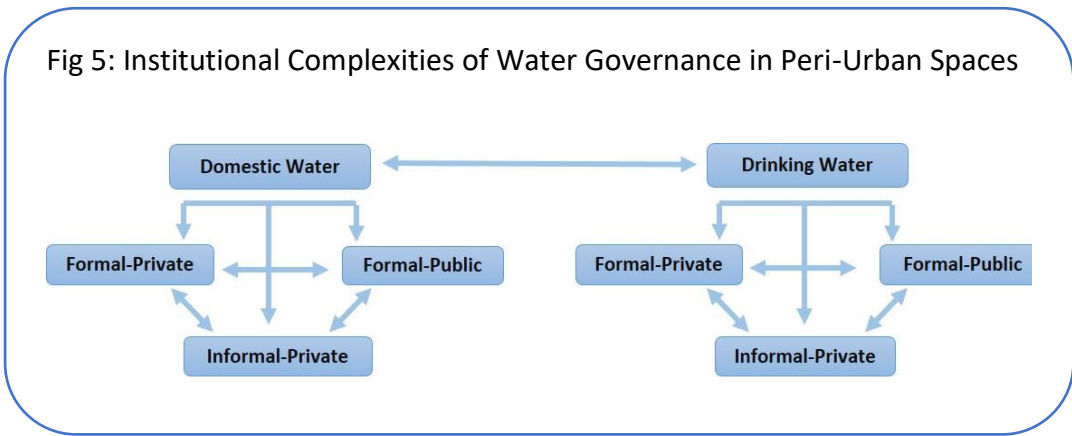
4. Including peri-urban spaces in the Government Narrative

Peri-urban spaces, particularly around the large metropolitan centres are unique and needs administrative attention that is different from that existing now. *Currently this is a space that is the most impacted by the urbanization processes, but being governed by Gram Panchayats, that neither has the resources or responsibilities to deal with the land, water and livelihood transitions.*

- i. Lying at the periphery of urban settlements and activities, peri-urban villages are always the source of raw materials required for urbanisation and the recipients of the wastes that the same process produces.

Field evidence: *The groundwater in all of our study villages has been polluted by industrial/urban wastes being dumped close to these villages, creating severe water insecurities for local communities.*

- ii. The domestic and drinking water sectors are closely interconnected with many formal and informal players linking the two. This institutional arrangement in unique to the peri-urban spaces, though it is likely to get altered by Mission Bhagiratha.



iii. The informal tankers may not go out of business with the coming of Mission Bhagiratha, as the demand for tanker water is also informal and such informal enterprises buying water may not be covered under the scheme.

There is a dire need for the strict implementation of the APWALTA in these regions. This will help in diminishing the role of informal players and breaking the nexus of complex institutions that are currently making profits from commonly owned groundwater. Also implementation of the Nagar Panchayat Act to administer these transitional spaces as provided for in the 74th Amendment Act, 1992 should be given a serious consideration.