

# Best practices in addressing Urban Water, Sanitation and public health conditions

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# Urban Water and Sanitation status of Hyderabad

- In Hyderabad, the Hyderabad Metropolitan Water Supply & Sewerage Board (HMWS&SB) is responsible for the supply of potable water including planning, design, construction, maintenance, operation, and management of the water supply system. Officials in 38 municipalities in the Telangana State are engaged with the HMWS&SB in the provision of water.
- It is estimated that demand will rise to 1,204 MGD by 2031, but supply will only fulfill half that amount.
- The HMWS&SB has 80 water reservoirs of 200 MLD storage capacity, including the aforementioned reservoirs
- The 2011 census reports that 93% of households have access to treated water supply in Hyderabad

# Urban Water and Sanitation status of Hyderabad

- The transmission mains carry water from the source through to water treatment plants and to the master balancing reservoirs at Singapur, Saheb Nagar, and Ghanpur.
- Subsequently, the trunk distribution mains carry water from the balancing reservoirs to the reservoirs within the city.
- The pipelines carrying water from the source to the treatment plants (transmission mains) are 286 km long, and the pipelines from the treatment plant reservoirs to the city (trunk mains) are 265 km long.
- As per HMWS&SB, Hyderabad has over 387,532 water connections in the MCH area and 194,600 water connections in surrounding municipalities. The city has 8,353 public stand posts (PSPs) for those who do not have individual house connections among the weaker sections of the society. Slums have 98,696 water connections, while commercial and industrial sectors have 13,451 and 936 connections, respectively.

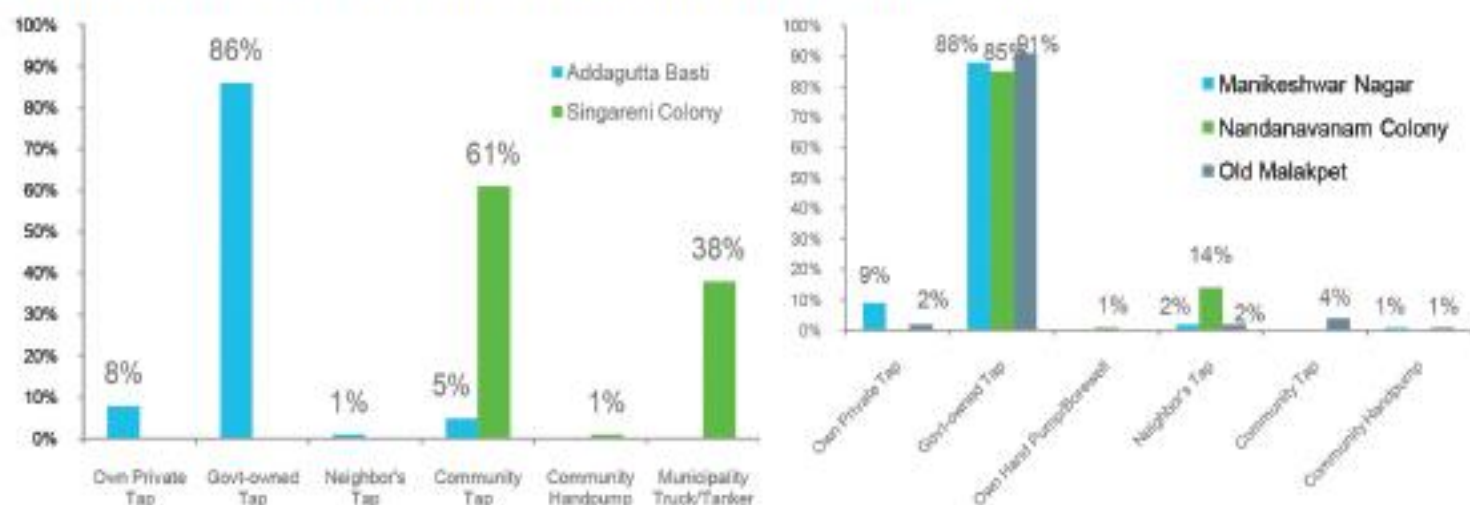
# Existing Urban Water Sanitation Conditions

Year of Initiation	Source	Distance from Hyderabad (km)	Designed Storage Capacity (MLD)	Daily Supply (MLD)	System Mode	Water Treatment Plant deployed
1920	Osman Sagar (Gandipet) Lake - Musi River	15	115	40-68	Gravity	Asifnagar filter beds (Rapid Sand Gravity Filtration)
1927	Himayathsagar Lake – Esi River	9.6	91	40-50	Gravity	Miralam filter beds
1965 (Phase 1) 1981 (Phase 2)	Manjira Barrage- Manjira River	58 59	68 135	68 135	Gravity / Pumping	Peddapur Phase 3, 4 (Dual Media Filtration)
1991 (Phase 3) 1994 (Phase 4)	Singur Dam – Manjira river	80 80	171 176	171 176	Gravity / Pumping	Rajampet, Kalabgoor
2004 (Phase 1) 2008 (Phase 2)	Nagarjuna Sagar Dam (principal supplier to city) - Krishna River	116	410	261	3 Stage Pumping	Kodandlapur filter beds (Rapid Sand Gravity Filtration)
2015 (Phase 3)	Krishna project	Srisaillam (152); Joorala (186); Nagarjunasagar (131)	90	409	Gravity / Pumping	WTP at Kodandlapur, Nasarlapally and Godakondla
2015 (Phase 1)	Godavari project	SriramSagar (200); Yellampally (170); Inchampally (270); Kanthalapally(270)	82	386		

# Existing Urban Water Sanitation Conditions

Parameters	Slums without USWEs	Slums with USWEs
Household ownership	83%-91%	77%-88%
Caste-wise distribution	32%-39% scheduled castes	36%-61% other backward classes
Occupation status	daily wage laborers, salaried	daily wage laborers, salaried
Average family size	4-5 each HH	4 each HH
Average household income	up to INR 100,000 annually	up to INR 100,000 annually

**Figure 6. Primary sources of drinking water in non-USWE slums and USWE slums**



# Case Studies

- The GHMC, with external donor support and in partnership with APMAS, a local NGO, set up 1,000LPH reverse osmosis systems to provide safe drinking water to communities that were dependent on untreated water and exposed to health risks. Under this initiative, SHGs operate 8 water plants, out of 10 plants proposed by the HMWS&SB; these are located in Patancheru-2, RC Puram-2, Serilingampalli-1, LB Nagar-1, Alwal-1, and Kapra-1
- The RC Puram plant has an average demand of 300 cans per day during the summer, compared to 75 cans sold per day during the monsoon and winter seasons. Presently, electricity expenses are borne by GHMC as informed by operators. The monthly operating expenditure is around INR 9,000 (USD 134), and this includes salary of two operators, chemicals, and consumables. The operator is able to save on average INR 3,000 (USD 44.7) per month.

# Case Studies

- In August 2013, SMAAT Water Private Technologies set up an RO water purification kiosk just outside the Nandanavanam Colony, catering to the urban poor living in the area. The kiosk sells 5-liter cans of treated water at INR 1 (USD 0.01) and 20liters at INR 4 (USD 0.06). Smart prepaid cards are issued to regular customers from INR 100-500 (USD 1.49-7.46).



# Challenges in Urban Water

- Clarifying the Mandates of Water Supply and Sanitation Service Providers
- Improving the Governance of Water Supply and Sanitation Service Providers
- Financing Water Supply and Sanitation Operations and Infrastructure Development
- Regulating the Urban Water Supply and Sanitation Service
- Building Capacity, Developing Procedures and Professionalizing Actors of the Water Supply and Sanitation Sector.
- Developing Procedures for Community Participation

THANK YOU