

Pioneering the next era of water infrastructure in India

ABHINANDAN SETHIManaging Director, SPML Infra Limited

What is the current demand-supply scenario of water?

India is facing a severe water crisis, with demand consistently exceeding supply. Despite having 18% of the world's population, the country has only 4% of global water resources, placing it among the most water-stressed nations. Per capita water availability has dropped sharply to just 1,341 cubic meters this year, pushing India deeper into water scarcity.

Agriculture alone consumes about 910 billion cubic meters annually, and demand continues to grow. Without urgent action, agriculture will suffer the most, followed by water-intensive industries, potentially costing the nation up to 6% of GDP by 2050. Major cities such as Bengaluru, Chennai, and Delhi are already grappling with acute water shortages.

The challenges are complex, extreme water stress, widespread contamination of surface water, inadequate piped supply systems, and climate change impacts including droughts and frequent flooding. While initiatives like the Jal Jeevan Mission have expanded drinking water access to nearly 80% of households, the crisis continues. Tragically, an estimated 200,000 people lose their lives each year due to unsafe drinking water. Addressing this crisis requires sustainable water management strategies that can safeguard both economic growth and social well-being.

How do you view the changing approach in water distribution and supply in domestic market?

India's domestic water distribution is undergoing a significant transformation. The Jal Jeevan Mission, launched in 2019, set the ambitious goal of providing 55 litres of piped tap water per person per day to every rural



household by 2024, now extended to 2028. SPML Infra has been a trusted partner in this journey, successfully commissioning and executing several large-scale water supply projects under the mission.

We are seeing three key trends shaping this progress. First, there is a strong push toward universal access, moving away from the earlier situation of irregular and inadequate supply. Second, the smart water management market is expanding rapidly, projected to reach USD 2.2 billion by 2033, reflecting a technologydriven approach with digital metering and monitoring systems. The Central Groundwater Authority has further strengthened accountability by mandating smart water meters and annual billing for commercial groundwater users. Third, there is a gradual shift toward privatization and public-private partnerships, based on financially sustainable models with cost recovery and rationalized tariffs as guiding principles.

Overall, India's water supply strategy is moving from supply-driven to demand-responsive, from fragmented to integrated management, and from public provision to hybrid models. Yet, ensuring equity and affordability remains the most critical challenge in this transition.

How effective and important are the government schemes in water supply and distribution?

Government schemes are proving to be very important and increasingly effective in addressing India's water crisis. The flagship scheme of Jal Jeevan Mission stands out as very impactful. As of September 2025, it covered 157 million households, reaching 81% of rural India, which represents a massive expansion from just 32.3 million households having tap connections when the mission launched in 2019. This is transformative, providing functional tap water connections to almost 125 million additional rural households in five years.

Beyond Jal Jeevan Mission, other schemes like AMRUT 2.0 addresses urban water infrastructure and it has provided 5.86 million tap water connections and 3.7 million sewerage connections in all statutory towns of the country. The Atal Bhujal Yojana is progressing well, with over 1,600 gram panchayats across 7 states showing improved groundwater levels and significant community participation in groundwater management.

The schemes are essential for bridging the rural-urban water supply gap, improving public health and ensuring equitable distribution of water resources across the country. They provide the critical infrastructure backbone needed to move from fragmented, unreliable water supply to universal household-level access. However, their long-term success depends on robust monitoring, adequate funding, and behavioural change at the consumer level.

How is the company supporting India's water infrastructure projects?

SPML Infra is playing a pivotal role in strengthening India's water infrastructure through the extensive execution of both urban and rural water supply projects. With a proven track record of completing over 700 projects nationwide, the company has demonstrated its comprehensive expertise across the entire water value chain, delivering clean drinking water to more than 50 million people across India.

SPML Infra is actively contributing to the government's initiatives. We are executing several rural water supply projects under the Jal Jeevan Mission in different states and





recent wins highlight our growing involvement. Rs. 14,380 million-contract for the Dholpur, Saipau Water Supply Project under Jal Jeevan Mission will make provisions of clean drinking water facilities for over 1.5 million people in Rajasthan.

On the urban infrastructure front, SPML Infra has recently secured a prestigious Rs. 10,730 million-project from the Indore Municipal Corporation under AMRUT 2.0 for water supply augmentation. The project involves the construction of a 1,650 MLD raw water intake structure and a 400 MLD water treatment plant equipped with advanced technologies. Once completed, it will significantly improve water availability and benefit nearly 3.5 million residents of Indore.

Beyond water supply, SPML Infra's environmental contributions have been equally impactful. The company has successfully executed sewage treatment plant (STP) and sewerage network projects in Kanpur, playing a vital role in the Clean Ganga Mission by reducing pollution and improving river water quality. Similarly, the decentralised STP and sewerage network in Mira Bhayandar, Maharashtra, is helping treat wastewater locally, reduce environmental stress, and promote cleaner urban living conditions.



Through such initiatives, SPML Infra continues to strengthen its role as a key enabler of sustainable urban development, delivering integrated water and wastewater solutions that directly enhance the quality of life for millions.

What are the latest trends in water and wastewater recycling in the country?

India is moving rapidly toward a circular water economy, with major shifts in wastewater recycling and reuse. The Union Ministry of Jal Shakti has mandated cities to reuse at least 20% of consumed water, while the National Mission for Clean Ganga targets 50% reuse by 2025 and 100% by 2050 in areas with operational STPs. States are also setting ambitious goals, Haryana plans to raise treated wastewater use from 15% to 80% by 2030.

Technological adoption is accelerating, with digital monitoring of water treatment and supply system, decentralized sewage treatment, advanced effluent treatment methods with zero liquid discharge (ZLD) gaining ground in industries. Cities are adopting decentralized water recycling systems to process and reuse wastewater for non-drinking purposes like irrigation, cooling, and landscaping.

But there is a significant gap between sewage generation and treatment, only around 32 percent of sewage is treated, with a major portion remaining untreated and disposing into rivers, lakes and other water bodies. This presents both a challenge and an enormous opportunity. The focus is now shifting from just building treatment infrastructure to creating robust frameworks for reuse, with emphasis



on equity, climate resilience, and sustainable water management practices to transform wastewater from waste to a valuable resource.

What are the major solutions offered by the company in water and wastewater recycling?

SPML Infra delivers comprehensive, end-to-end solutions in water and wastewater treatment, covering the entire value chain from engineering design and technology application to construction, operation, and long-term management. The company has established a leadership position with expertise in water treatment plants, sewage treatment plants, common effluent treatment plants, tertiary and reuse systems, sludge treatment, biogas, and power generation.

The solutions comprise advanced processes including anaerobic, anoxic, and aerobic treatment for wastewater, as well as coagulation, flocculation, sedimentation, media filtration, disinfection, membrane filtration, and advanced oxidation for water treatment. A key differentiator is SPML's integrated approach, building plants fully equipped with advanced technology-based automation to ensure reliable performance, efficient O&M, and long-term sustainability.

Serving both municipalities and water utilities, SPML's portfolio includes large water treatment plants up to 400 MLD, sewage and effluent treatment plants, advanced tertiary systems, and complete water management solutions. With strong EPC capabilities, SPML Infra not only builds but also operates projects under long-term contracts, providing full lifecycle, resource-recovery-driven solutions aligned with circular economy principles.