

# WATER: NURTURING HEALTH, ENHANCING WELL-BEING

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As we begin the year 2024, we have the same feeling as when the last year started - water has become scarcer and it is on the top of the agenda for nations and industries across globe. More countries are realizing that there is a huge risk in doing nothing to address the challenges related to water supply and the industry facing with declining production.

As a fundamental natural resource, water plays a vital role in the development of any region. The amount of water accessible to a country and its equitable distribution are crucial elements of sustainable development. Water stress has the potential to impact regions, industries, and households extensively, ranging from drought and flooding to compromised water quality. In 2023, almost 2.2 billion people were left without clean water and this trend is escalating. It is therefore, essential to evaluate the effectiveness of water resource management for fostering economic growth in an environment friendly manner.

With the rapid pace of urbanization in almost all regions of the world, an escalating number of individuals reside in urban areas. This surge in urban population has heightened the demand for water, placing additional pressure on city's water supply system. The growing concerns surrounding declining water supplies also pose significant challenges to industrial productions. The dwindling water supply for industries has become a pressing issue.

Industries often rely on groundwater sources for their water needs. Over-extraction of groundwater for industrial purposes further depleting the aquifers and reduce the overall availability of water, especially in regions heavily dependent on groundwater resources.

operations, leading to production delays and financial losses. Industries relying heavily on water-dependent processes, such as manufacturing and energy production, are particularly vulnerable. Industrial processes also results in water pollution, affecting the quality of available water sources. Contaminated water not only poses environmental risks but also limits the usability of water for various industrial activities.

Industries can adopt efficient water management practices, such as optimizing processes, fixing leaks, and implementing water-saving technologies. It is vital for industries to adopt responsible water management practices, invest in innovative technologies, and collaborate with stakeholders to ensure a resilient and sustainable water future for industrial operations. By addressing these challenges proactively, industries can not only secure their water supply but also contribute to broader environmental conservation efforts.

## WATER IS VALUABLE

Water is significant both as a social and economic commodity. Beyond its crucial role in sustaining life, water is vital for all commercial activities and economic progress. It is a market commodity, and its efficiency and benefits can be optimized through effective allocation and intelligent demand-supply management.

Ensuring the sufficient availability of water meeting specified quality standard is crucial not only for industrial production but also for institutions and various establishments.

The global recognition of the value of water is increasing, and it might soon be traded internationally alongside other commodities. Water is turning to be the new oil of future. Recognizing its significance is essential for ensuring sustainable development and responsible management of this invaluable resource.

As conventional water resources face depletion and escalating pollution, it is imperative for the domestic, institutional and industrial users to assess their water consumption and implement necessary changes, including effective treatment and reuse facilities. Aquality Water Solutions has been spearheading water efficiency solutions and it has successfully installed technologically advanced, high-quality water treatment plants that support the cause.



## CASE STUDY

**Project:** Clean Water Supply for Drinking and Production

**Client:** Facebook India

Facebook India has evolved from a singular online operations team to a network of five extensive offices situated in cities including Hyderabad, Delhi, Gurgaon, Mumbai, and Bengaluru. Its expansion goes beyond initial tasks, now encompassing teams dedicated to sales, marketing, partnerships, policy, and various other domains that significantly influence different aspects of businesses. The company has experienced remarkable growth in India, investing in its workforce to foster career development and enable individuals to deliver their best work.

**Project Challenges:** The requirements were to place the water treatment plant within space constraints in a modular commercial kitchen with imported ice machines, steam makers, coffee machines, dishwashers and other facilities.

**Project Scope:** All equipment having NSF certification/ IS standards for drinking water quality have been supplied, installed and commissioned by Aquality Water Solutions Pvt. Ltd. All equipment and treatment machineries were procured of reputed brand made internationally. The company installed the following system at four institutional premises of Facebook India.

- 11 systems each of 600 gallon per day with hydro-pneumatic storage facility at Gurgaon facility
- 14 systems each of 600 gallon per day with hydro-pneumatic storage facility at Hyderabad facility
- 9 systems each of 600 gallon per day with hydro-pneumatic storage facility at Bengaluru facility
- 7 systems each of 600 gallon per day with hydro-pneumatic storage facility at Mumbai facility
- Water treatment system at all places is being maintained under operation & maintenance.

Some key components and features under the scope of AQUALITY include:

**Filtration System:** Multi-stage filtration system to



remove impurities, sediments, and particles from the water supply.

**Water Softening:** Best quality water softeners are used to reduce the hardness of water by removing minerals like calcium and magnesium, preventing scale buildup in appliances.

**Reverse Osmosis:** The RO system is used for removing contaminants at a molecular level, providing high-quality, pure and safe water.

**Carbon Filtration:** Employing activated carbon filters to absorb and remove chlorine, odors, and organic compounds, improving the taste and odor of the water.

**Smart Monitoring Systems:** Smart sensors and monitoring systems are integrated in all treatment systems to continuously assess water quality and system performance, allowing for proactive

maintenance and swift issue resolution.

**Energy Efficiency:** The system is fitted with energy-efficient components to minimize operational costs and environmental impact.

**Compliance with Regulations:** Ensuring that the water treatment system complies with water quality regulations and standards as per the guidelines.

**Regular Maintenance and Service:** A fully trained professional team of engineers and technicians are deployed for routine maintenance to keep the system running efficiently and addressing any issues promptly to avoid disruptions in water supply.

**Service delivery:** Clean and safe drinking water for approximately 3000 officials and employees along with water for ice machines, steam makers, coffee machines, dishwashers etc.

Implementing water treatment system for Facebook offices is essential to guarantee a secure and dependable water supply. The system incorporates cutting-edge technologies and processes to purify water, rendering it suitable for diverse uses within the office environment. This initiative not only enhances the well-being of employees but also contributes to the longevity of plumbing infrastructure and supports overall sustainability efforts within the organization.



## About the Author



**Mohammed Naser Azeez**  
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A first-generation entrepreneur, he personifies a strong passion for innovation and a willingness to take risks. His visionary drive led him to establish the renowned Aquality Water Solutions, driven by the idea of offering technologically advance water treatment solutions to domestic, institutional, and industrial clients.

Driven by a strong desire to improve access to clean drinking water, he has made significant contributions in enhancing the lives of people through unwavering commitment, groundbreaking technological innovations, and a steadfast pursuit of quality excellence.