To begin with the stewardship, industries need to disclose their water use to bring about a culture of decision making that is based on environmental costs. Use of water risk mapping tools can help in finding solutions for water risks. In collaboration of other stake holders, industries should develop long term water security plans by analysing available water resources, usage pattern, future demand and community expectations. Industries should strength collective efforts and ensure water availability in culturally and socially equitable manner, which are also environmentally sustainable and economically achievable. To begin with the stewardship, industries need to disclose their water use to bring about a culture of decision making that is based on environmental costs. Use of water risk mapping tools can help in finding solutions for water risks. In collaboration of other stake holders, industries should develop long term water security plans by analysing available water resources, usage pattern, future demand and community expectations. Industries should strength collective efforts and ensure water availability in culturally and socially equitable manner, which are also environmentally sustainable and economically achievable.



Abdul Rahman Mohammed CEO, Sahara Industry

The theme for this year's World Water Day underscores the imperative that no one should be left behind when it comes to access to water and sanitation on a global scale. Water scarcity is a pressing issue, impacting even the largest economies, while the situation in the poorest nations are particularly terrible.

Instead of resorting to power struggles or seeking to dominate shared water resources, the focus should be on promoting cooperation, transparency, and mutual understanding among all stakeholders. This includes riparian nations, local communities, and marginalized groups, ensuring that their perspectives and needs are taken into account in decision-making processes. By prioritizing collaboration and inclusivity, we can work towards sustainable solutions that address the challenges of water scarcity and promote equitable access for all.

Water is essential to our existence, serving crucial functions from hydration to cooking to personal hygiene. It also holds significance for commercial endeavors, contributing to the development and economic advancement of nations.

India, with its vast population, is grappling with a difficult challenge – water scarcity. This critical issue has far-reaching implications, as nearly half of the country's population is routinely suffering from acute water shortages. The severity of this crisis is posing a significant threat to the well-being of millions and the nation's overall development. The root causes of this water crisis are multifaceted, stemming from a combination of factors such as rapid population growth, urbanization, industrialization, and the adverse effects of climate change. The growing demand for water across various sectors, including agriculture, industry, and domestic use, has outpaced the available resources, leading to an unsustainable strain on existing water supplies.

## THE WATER CRISIS IN INDIA POSES A SIGNIFICANT THREAT TO THE WELL-BEING OF MILLIONS OF PEOPLE AND THE COUNTRY'S OVERALL DEVELOPMENT EFFORTS.

Moreover, the uneven distribution of water resources across the region further aggravates the problem. While some regions experience abundant rainfall and have access to permanent rivers, others face prolonged droughts and rely heavily on groundwater, which is being depleted at an alarming rate due to overexploitation.

For a large population in India, groundwater is the primary source of water supply for daily activities, highlighting the critical role of natural resources in maintaining a stable and healthy lifestyle. However, with the escalating population, groundwater usage is on the rise while water availability is shrinking. India holds the distinction of being the world's largest groundwater user, utilizing an estimated 251 billion cubic meters per year, which accounts for over a quarter of the total global extraction. Given that over 60% of irrigated agriculture and 85% of drinking water supplies rely on it, coupled with increasing industrial and urban demand, groundwater stands as a crucial resource. It is imperative that we focus our efforts to conserve groundwater and safeguard one of our most vital natural resources for future generations.

Water pollution represents a significant environmental concern in India, with untreated sewage being the primary source of contamination.

It's estimated that around 70% of surface water in India is unfit for consumption. Every day, almost 50 billion litres of wastewater enters rivers and other water bodies untreated. The drinking water quality is worsening every day.

The World Economic Forum has estimated that cost of environmental degradation in India is valued to be INR 3.75 trillion (\$45 billion) a year. The health costs relating to water pollution are alone estimated at about INR 470-610 billion (\$5.6-7.3 billion per year) — most associated with diarrheal mortality and morbidity of children under five. Apart from the economic cost, lack of water, sanitation and hygiene results in the loss of 400,000 lives per year in India.

## WATER POLLUTION IN INDIA EXACTS A STAGGERING ECONOMIC TOLL, WITH THE ASSOCIATED HEALTH COSTS ESTIMATED TO RANGE BETWEEN A STARTLING INR 470 BILLION AND INR 610 BILLION ANNUALLY.

This gives the rise to water treatment industry, which is estimated to be \$3.03 billion (INR 252.7 billion) in 2023, expected to reach \$6.95 billion (INR 579.6 billion) by 2033, at a CAGR of 8.67%. As urban populations rise, there's a growing need for water treatment systems to fulfill city water supply and sanitation needs. Implementing point-of-use water treatment systems can mitigate waterborne illnesses and enhance daily water quality. With increasing awareness of waterborne diseases, the demand for such systems in India is also on the rise.

Sahara Industry has been at the forefront of addressing water challenges for the past two decades, employing advanced technologies to ensure access to clean water for both drinking and industrial production purposes. With a deep understanding of the critical role water plays in sustaining life and driving economic activities, Sahara Industry has been relentless in its pursuit of innovative solutions to tackle water-related issues.

Leveraging cutting-edge technologies, Sahara Industry has developed a comprehensive range of water treatment systems tailored to meet the diverse needs of communities, industries, and municipalities. Their advanced water purification processes are designed to remove harmful contaminants, such as heavy metals, chemicals, and microorganisms, ensuring that the treated water meets the highest quality standards for human consumption and industrial applications.

As the world continues to face increasing water stress due to factors such as population growth, urbanization, and climate change, Sahara Industry's role in providing sustainable water solutions becomes even more critical. It is our collective responsibility to ensure that no one is left behind in the pursuit of clean water. Every drop counts, and every action, no matter how small, can contribute to a ripple effect that transforms lives and communities.



Dr. Siddappa S. Bhusnoor, Professor, Department of Mechanical Engineering K J Somaiya College of Engineering

Water quality and quantity are diminishing due to human activities and the impacts of climate change. Water is at the core of sustainable development and is critical for socio-economic development, healthy ecosystems and for human survival itself. However, with the global population increasing, the demand for clean and accessible water is also rising. This demand, coupled with climate change and environmental degradation, presents significant challenges in water resource management. It is imperative to adopt sustainable practices to secure a viable future for our planet.

Sustainable water management ensures meeting current needs without jeopardizing the ability of future generations to meet their own. SDG # 6 (Sustainable Development Goal 6) focuses on not only providing drinking water, sanitation, and hygiene but also enhancing water quality and sustainability. Apart from traditional practices like rainwater harvesting, sustainable water management includes wastewater treatment, desalination, drip irrigation, water pricing, river basin management, and raising public awareness about water conservation. Several challenges must be addressed in sustainable water management, including population growth, water pollution, scarcity, and political and social issues. By prioritizing sustainable practices and addressing these challenges, we can work towards a future where water resources are managed wisely for the benefit of all.