

Interview with
Mr. Subhash Sethi
Chairman, SPML Infra Limited



Q. In your opinion, what are the challenges in this new decade for the water industry?

A. From abundance to scarcity, India has seen the transitioning of water in less than 50 years. In 1970s we had about 3500 cubic meters average annual per capita water availability that has reduced at alarming rate and we have left with only 1486 cubic meters per person currently; and this being a national average, it substantially varies in different states and region. Even this inadequate availability is projected to further reduce to 1341 and 1140 cubic meters by the year 2025 and 2050 respectively. One of the biggest challenges in this decade could be the declining water sources and growing demand that may force us to import water like the oil.

Population growth in urban areas, water scarcity, climate change effect, water supply risk,



200 MLD Water Treatment Plant, Surajpura, Rajasthan

Favourite Book/Author: A book by Jim Collins titled “Good to Great: Why Some Companies Make the Leap... And Others Don’t”

Favourite Movie: “Interstellar” by Christopher Nolan for its intriguing scientific mysteries.

Favourite Holiday Destination: Greece for historical and cultural richness.

One piece of advice for ‘EverythingAboutWater’: Water is a finite resource but renewable if we use our mind and technology.

inadequate regulatory framework and aging infrastructure will remain be some of the main challenges to be faced by the water industry. The industry must also consider how it will address the escalating energy costs, environmental risk, infrastructure security, restructuring of institutions, distressed groundwater situation, and equitable supply amidst increased demand among other. Then there are financial issues related to operation and maintenance of the massive water network in the country.

Around 600 million people, a little less than half of India’s population faces extreme water stress. A large number of India’s rural households do not have piped clean drinking water at their premises. The water contamination in leading rivers and water bodies are alarmingly high and major population rely on these sources with health risks. Indian water industry is and will be facing new and old challenges in the years ahead.

Q. What are the solutions to these challenges?

A. With the time running and issues clogging the industry, central to addressing these challenges lies in developing and improving the water and wastewater infrastructure, including reliability of monitoring and control systems. The key to delivering a stable and consistent water supply

into the future will require new technologies and systems that are capable of monitoring water resources in real-time. Smart water network solutions improve the accessibility and reliability of physical water infrastructure by collecting and analyzing data more efficiently. The use of advanced and innovative technology like Artificial Intelligence (AI), Machine Learning (ML), Automation and Robotics, Internet of Things (IoT) and Big Data Analytics not only provide modern solutions to better manage water infrastructure and reduce non-revenue water, but also support important changes to the ways in which water industry operate. Smart end-to-end water networks offer businesses the opportunity to improve productivity and efficiency while enhancing customer service.

We also have to consider the water conservation in irrigation, industries and municipal usage and

Indian water industry needs to explore how the new technologies can solve emerging water challenges.

VISION OF MY COMPANY: Creating with passion and innovation, world class infrastructure to make human life comfortable

NUMBER OF EMPLOYEES: 500+

KEY ACHIEVEMENTS OF THE LAST YEAR: Completing rural water supply projects under Jal Jeevan Mission in Manipur in a record time.

MAJOR ORDERS WON RECENTLY: Received orders for Manipur Water Supply projects under JalJeevan Mission & Bengaluru Water Supply Project combined worth about 800 Crore.

NAMES OF MANAGING DIRECTOR AND SENIOR EMPLOYEES: Sushil Sethi Jain – Vice Chairman

Abhinandan Sethi – Executive Director

making wastewater treatment mandatory and reuse facilities with proper regulatory and tariff framework. A country like India, where water loss in distribution network is almost 50% and irrigation sector consumes over 80% of the total fresh water; needs to implement smart water management and smart irrigation systems. It is

especially needed as low efficiencies in irrigation with significant wastage have contributed to the water crisis situation. A sensor-based solution for smart and on-demand irrigation helps measuring water requirements in plants to make sure they get just enough water for the best produce thus effectively lowering the water usage.

Q. Which technologies you think will make the most impact in this new decade?

A. Water industry is in the transition phase as it has to embrace technological innovation like the other industries to endure the present and emerging challenges. Other industries have adopted the information and digital technologies much earlier reaping the benefits. There is a growing momentum to address the issues of water industry through innovation that can be deployed in the water sector and nations across the globe are experimenting with innovative technology.

The combination of smart infrastructure and digital technologies will be helpful in addressing the challenges in this decade and beyond. The Internet of Things (IoT), the increasing prevalence of internet connected-devices is central to this as other industry 4.0 'levers' like advanced data analysis, machine learning, and cloud computing.

Artificial intelligence and machine learning solutions helps in smart asset management by analysing the likely failure in the aging infrastructure thus identifying where the spending should be focused on and can improve asset management through budget and workforce optimization. Artificial intelligence also offers the potential to enhance service delivery, optimize investments, and reduce costs. It can improve the



2074 Million Litre Raw Water Reservoir, Sindhanur, Karnataka



2587 MLD Pumping Station for SAUNI Yojana Phase-1, Gujarat

efficiency of water supply systems by maximizing information and data available to make better operational and planning decisions. Big data and analytics technology helps in harnessing the data coming from different sources and provide an early indications of quality issues, abnormal consumption, reliable fault detection to determine when there is a leak, and optimised customer interactions while drones can be used for efficient monitoring and execution.

Automation and robotics help to redesign work processes for more efficiency. Robotic lab analysers can test two to three times more samples than human operators in the same amount of time, and allow analyses to be carried out round the clock to keep a strict check on water quality parameters. Adopting smart water infrastructure like smart metering, smart leak detection techniques would help in reducing non-revenue water with real-time monitoring system to ensure a sizeable reduction in transmission and distribution losses and water conservation plan. Electronic instruments such as pressure and acoustic sensors, telemetry units and control system connected wirelessly with cloud-based

monitoring system creates real time information on leaks with accurate location to detect the leaks in distribution networks quickly and precisely.

Smart irrigation system is especially needed for India, where irrigation consumes almost 80% of fresh water. A sensor-based solution for smart and on-demand irrigation helps measuring water requirements in plants to make sure they get enough water for the best produce effectively lowering the water usage. Technological innovation in wastewater treatment with reverse osmosis and other emerging process is required to be implemented to reclaim water and use it to reduce the nation's dependence of fresh water for irrigation and industrial purposes.

Q. What steps should governments take for the water industry?

A. We need to consider an integrated approach to water supply and wastewater management in the country with reliability and financial sustainability. Improved cost recovery by adopting systematic approach towards wastewater treatment and resource recovery with complete reuse facility should be made obligatory.

It is important that the following steps may be taken by the governments to improve water situation in the country:

- ▶▶ Encourage and provide resources for better water distribution infrastructure.
- ▶▶ Modify the National Water Policy to emphasize re-use of treated wastewater and reduction in groundwater usage. Industries shall be requisite to adopt innovative water efficient technologies to reduce dependence on ground water sources.
- ▶▶ Water audit could be made mandatory for industries abstracting large quantity of ground water and should adopt appropriate technologies and practices to reduce their water extraction substantially.
- ▶▶ Expand funding for water source development, sewerage networks and sewage & effluent treatment plants under dedicated schemes and resources.
- ▶▶ Increase technical and financial assistance to water utilities and municipal corporations to manage public private partnership (PPP) for both water supply and wastewater treatment and reuse projects.
- ▶▶ Water industry should be supported for



3000 MM Dia MS Sauni Pipeline, Gujarat

taking up projects for loss reduction, improvement in non-revenue-water and groundwater recharge projects. A watershed approach, integrating research, monitoring, data base implementation and management will also be helpful.

- ▶▶ Create a national regulatory framework and institution to oversee the management of water resources, state and project disputes and pricing of water on pan India basis.
- ▶▶ Upgrade planning capacity by engaging town planners, water experts and environmental engineers to develop plans for sustainable water supply management and expanding sewage collection and treatment networks.
- ▶▶ Create awareness among farmers to adopt efficient irrigation and water-use efficiency and provide them incentives for adopting innovative technologies.
- ▶▶ Improve water governance system based on participation of stakeholders.
- ▶▶ Economic evaluation of water resources with remedial actions for continuous improvement.
- ▶▶ Capacity building programs at all levels with

clear objectives and monitoring system with the help of technology.

- ▶▶ There should be a mission mode approach intended to improve water availability in the water stressed regions in the country.
- ▶▶ Conservation of river, dams, and other water bodies should be undertaken in a scientifically planned manner and their survival should be restored to the extent feasible and maintained properly.
- ▶▶ Enact suitable ground water legislation for regulation and development and implement it homogenously across the region.

Meanwhile, other major challenges which government can improve such as inordinate delays in land acquisition, regulatory bottlenecks, statutory clearances, shortage of skilled manpower, timely availability of materials, escalating cost of raw materials, financing issues including difficulty in getting long-term and working capital funds, absence of cost-effective technology, lack of technical expertise to manufacture, install and operate treatment systems, and lack of competent project management personnel also hamper the

development of the required infrastructure.

Q. Please share few of the new technologies/R&D done by your company?

A. Modern technology is creating new applications and tools that are changing how companies design, plan, and execute projects. By providing advanced software, construction-focused hardware, and analytics capabilities, these innovations are eliminating many of the problems that have afflicted the sector for decades. At SPML Infra, we are using modern technology interventions to execute our projects in much faster and better ways than earlier with rapid solution of issues cropped up during the execution of large projects. The advanced analytics and machine learning to capture both structured and unstructured data to optimize decision making including workloads, staffing solutions, and strategies for minimizing inefficiencies have helped us. Drones, close circuit interconnected cameras, advance people management system, modern equipment and machines, connected devices are being used for efficient project execution and monitoring. By

adopting and implementing these innovations, SPML Infra has increased productivity, streamline project management and procedures, and enhance quality and safety standards.

Q. What are your thoughts on the recent challenges like pandemic and environmental issues? How much time you think it will take for the industry to bounce back?

A. The coronavirus pandemic has disrupted lives globally with hardly any country or region left that has not been affected. India has also suffered badly with infection counts going into millions with over 4 lac casualties. After the first wave when things were started to become normal, the second wave has struck like a storm throughout the country, with record new cases and very high casualties. The pace of economic recovery that had created a great hope of double digit growth in FY 22 suffered with second wave and created emergent signs of slowdown. Going ahead, a substantial stimulus to create effective strides for growth and for reducing the daunting impact of the second wave on economy, trade and industry would be crucial to support the economic momentum in this extremely difficult time.

Apart from stay-at-home orders, lockdowns and curfew challenges faced by the industry, other significant issues that disturbed the business environment in the country included escalating cost of raw materials, reduced number of workforce, working capital issues, maintaining cost margins/profitability, weakening of demand, costs of deployed workforce, wages and salaries during the lockdown, repayment of loans, costs of capital and costs of compliances etc.

While the pandemic inflicted substantial economic and social shocks as production, construction, and other economic activities dropped precipitously, there have been some environmental benefits associated with significant reductions in air pollution and greenhouse gas emissions. As a result, air quality levels in major cities improved largely because of reduction in factory and road traffic emissions. The extent of its impact on the water and wastewater sectors in India is not particularly evident but the situation has highlighted the limitations in the existing system

of water resource management and need for improvements in resource monitoring and developing process-based models with smart and digitally connected infrastructure.

As per trends after the receding of second wave, the lead economic and business indicators have shown improvement in June 2021. With the sequential growth pattern attributed to increasing business activities, we are hopeful that it will not take much longer time for the economy to recover. However, if we are able to avoid the third wave of pandemic to disrupt us any further, it is expected that things will be normal by next year.

Q. What is your company's vision for this new decade?

A. Considering the growth SPML Infra Limited has achieved in last 40 years, it has built a formidable reputation by executing more than 600 infrastructure projects, in areas ranging from drinking water facilities, wastewater treatment, sewerage network, better municipal waste management to smart cities and power transmission and distribution services.

Being a leading water management company in India, SPML Infra Limited is fully prepared with advanced technology and innovative approach to receive and execute large ticket projects with focus on creating sustainable solutions for water supply infrastructure in the country. With tremendous experience in executing large water supply and irrigation projects, our plan for the future is to maximize our strength and deliver projects that will help everybody in the country getting clean drinking water at their premises under the Jal Jeevan Mission and also herald a new era of irrigation in India.

Q. What is your learning from the pandemic phase?

A. The lessons we will collectively learn from this crisis is that despite our modern and scientific developments, we are still not ready to face such challenges. Regardless of scientists' warnings about the high risk of animal-borne infectious diseases, we continue to destroy natural habitats. The evidence of the destructive human impact on the natural environment from global climate, water, soil to the air, on plant and animal diversity

To recognize water as a vital resource, water sustainability requires action by both government and public, with the government playing a decisive role in addressing the challenges.

and its negative impact on human health and wellbeing is overwhelming.

While coping with the pandemic disruptions is a struggle to survive, at SPML Infra Limited we have put the health and safety of our employees and work force on highest priority while cooperating and working with clients on developing infrastructure projects across the country. We have also incorporated innovative digital technologies in our business operations for remotely monitoring of projects and trouble shoots any issues before it disrupts the execution. The current crisis has also accelerated resource-efficiency measures while health & safety priorities have gained greater strategic relevance.

PERSONAL QUESTIONS

Q. Please tell us something about yourself and your family.

A. I am an all-time learner, learning new ideas of business, spirituality and everything the life revolves around. I prefer a work environment that encourages vivid exchange of ideas and amicable discussions to reach on mutual goals. My two sons, Harshvardhan Sethi and Abhinandan Sethi help me in handling our business operations in India and several other countries with utmost clarity and talent.

Q. How and when did you enter the water industry?

A. When I was quite young, I used to visit areas in Rajasthan with my father and have seen the suffering of people due to scarce water resources.

SPML Infra has adopted advanced technological intervention to increase productivity, streamline project management and procedures, and enhance quality and safety standards.

The precarious situation bring a change of heart when I decided to make water as our core business. My vision was simple. To make life comfortable for people by creating infrastructure solution for clean drinking water reaching them. Today, when I look towards more than 50 million people spread across the country getting drinking water facilities everyday by our efforts, I feel happy that an idea seeded more than four decades ago has been fructified.

Q. What was your first Job or Work Profile? Please share its experience and learning with us.

A. After completing my commerce degree from Guwahati University, I was inducted to the company by my father. It was a humble beginning. My brothers, Mr. Anil Sethi and Mr. Sushil Sethi and I were tasked to develop the water pumps business of my father. With the experience I gained while working, I decided to explore bigger opportunities in water industry and started bidding for projects. As we started getting projects awarded to us, it

was a bigger task to execute them. With sheer hard work and never giving up attitude, I followed with every individual concerned to execute the projects on time and within the given budget with a profit margin. The greatest learning that I could share with the readers are that you have to believe in yourself and set a goal to achieve and once decided, commit yourself to reach the goal post earlier than the target.

Q. What has been the most inspiring experience of yours in the water industry till now?

A. During my initial days when I was looking for business opportunities in water sector, I committed to execute a very challenging water supply project in Mizoram. The scope of project was to pump water up to 880 metres into the mountains of Lunglei. The terrain was rock-jagged, vicious, and roads non-existent. It was very challenging but I was completely determined to execute it. We transported the construction material over 400 kms of cold blasted terrain and laid a 12 km long pipeline that could withstand a pressure of 135 kg/cm². It became one of the highest pressure pipeline ever used in any water supply project in India. Build a pumping station at 12,000 feet up in the mountains and set-up one of the world's highest single stage pumping station to take water up to the Lunglei habitat.

Q. Please describe your company in your words. What does it mean to you?

A. We have built SPML Infra on the values of transparency and mutual respect with talented,

mission driven, innovative and ambitious people. We have a strong company culture that attribute to defined goals, employee empowerment, clear communication, collaboration and performance. Post my student days, my life revolves around the company and I hold it in high esteem and continuously devote my time, energy and resources for its development.

Q. Which is the 'Best Water Company' in your opinion?

A. If I talk internationally, then without any doubt Veolia is the best water company; but in India, I feel that SPML Infra Limited have the best record of having executed more than 600 projects with a legacy spread across four decades and providing clean drinking water facilities to over 50 million people in the country.

Q. What personal and company milestones you are majorly looking forward to achieve in the next few years?

A. I wish to explore more untrodden territories around the world and know the people, their ideas, culture and way of life.

And for SPML Infra Limited, I wish that it reaches to the top few water companies in the world that are respected and valued by the people globally.

Q. One final question: What's the best advice you have ever received?

A. My father used to tell me that 'no work is difficult enough that a thoughtful planning and efforts will not accomplish it'.

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