

Water Today

The Magazine

UNITING THE VIBRANT WORLD OF WATER

**An Integrated Approach Towards
Water Conservation & Resource Management**

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Fostering Sustainable Innovative Solutions for Future



What started off as an entrepreneurial venture three decades ago, is today India's most successful company in the field of bio-based technologies and engineering with presence all over the world. The zeal of working toward making the world a better place has stayed with us till today and will continue to do so. With a humble beginning as a supplier of ethanol plants, today Praj is a globally leading company with a bouquet of sustainable solutions for bio-energy, high purity water, critical process equipment, breweries and industrial wastewater treatment.

Headquartered in Pune, India, Praj has spread its presence across the globe with more than 750 references in more than 75 countries. With a slew of new initiatives, Praj aspires to be a major player in the environment, energy and agri processing led applications providing innovative, integrated solutions including plant, equipment and products that will enhance the quality of life. Here we have an account from Mr. Shishir Joshipura, CEO & Managing Director, Praj Industries Ltd. on developing sustainable solutions.

Name:	Mr. Shishir Joshipura
Company:	Praj Industries Ltd
Designation:	CEO and MD
Key Competencies:	Change Management, Strategy Development & deployment for Business at global level, driving growth through customer centric innovation, starting new businesses including defining break-through models, defining & delivering profitable growth in stagnant businesses, project execution, commercial contracting Industrial & automotive marketing and distribution, export market development, global R&D centre management & post-acquisition integration, working across multi-cultural environments.
Member:	Chairman of Sub-Committee on Environmental Sustainability - CII Western Regional Council 2019-20. Co-chair for CII Innovation Council for WR & Member of CII National Committees on Capital goods, Smart Manufacturing, Trades & Fairs Committee. Founding Director for Alliance for Energy Efficient Economy, India.



Tell us about the Industrial wastewater landscape look like in India and the growth challenges in this sector.

Water is increasingly becoming an area of attention and focus for all industries, given challenges on availability and depleting resources of water. The regulations have also evolved to recycle the water and Zero Liquid Discharge.

The market in India is growing. Wastewater treatment and Recycle have become areas of prime importance. The challenge is to get right technology at affordable cost of installation and treatment to improve feasibility from economic perspective.



Your views on the India's technological movement in Industrial wastewater treatment.

Increasingly, the quality of raw water is becoming challenging to treat, given the presence of harmful constituents, resulting from environmental problems created by past practices. Focus on Zero Liquid Discharge (ZLD) calls for efficient technologies to balance between operating cost and cost of environment degradation. India's industry offers world class effluent treatment technologies like Zero Liquid Discharge (ZLD) system, MBBR, MBR, etc. across the industry spectrum.

Explain the market dynamics & key regulations impacting Industrial Wastewater treatment market in India.

Reduction of water footprint for the industry, efficient utilization of water resources and 'multiple' use of input water with tightening discharge norms are key drivers for the driving demand in the industry. Regulators are also taking prudent but increasingly stricter stands on water utilization and discharge of effluents into common streams. The movement to save rivers and protect their aquatic life along with larger protection of the eco system is driving and increasingly pushing the demand for Zero Liquid Discharge (ZLD) system.

Tell us about the key growth drivers of Industrial wastewater market in India

As stated above, the regulations on water usage and wastewater treatment are the key drivers for the growth of industrial wastewater market in India. Increasing level of awareness and internal initiatives from Corporates to reduce their water footprints is also driving the demand.

Which region is most suitable for upcoming opportunity in Industrial wastewater market of India?

Ideally, it could be expected that the demand for industrial wastewater treatment would arise from wherever industrial development is taking place. Traditionally, West and South India have been the regions where a large part of the opportunity is present. This is owing to the higher concentration of process industries in these regions, such as chemicals, pharmaceuticals, textiles industries.

Namami Gange initiative is creating demand for Effluent Treatment in states along the Ganges river.

What is the market size in volume and by types of wastewater resources in India?

The size of the annual industrial wastewater treatment market in India is estimated to be about Rs.5,000 crore. This includes investment in Civil, Mechanical, Electrical and Electronics packages.

When it comes to the industries which are generating wastewater, the key industry segments are:

- a) Refinery
- b) Oil & Gas Upstream

- c) Petrochemicals
- d) Fertilizers
- e) Large Chemical Plants
- f) Textiles Dying plants etc.

Thermal Power Plants though generates huge volume of wastewater, quality of wastewater is not as bad as some of the segments mentioned above. With FGD getting installed in most of the power plants, more complex plants will be new norm.

Other segments are Automobile, Desalination Plants, Pharmaceuticals, Food & Beverage, Pulp & Paper etc. Size of the ETPs are smaller in Pharma and F&B segments however, complexity level is very high.

Your Opinion on the tune of Industrial wastewater market by different industries and value chain players?

Metal, petroleum refineries, chemicals & petrochemicals, pharmaceuticals, textiles, power plants are the sectors that make up the top layer of the demand for wastewater treatment in India.

On the other hand, smaller industries such as food processing, sugar mills, tanneries etc. might not require large scale effluent treatment plants, but the sheer number and spread of these industries across the country makes them a significant contributor to the demand for the industrial wastewater treatment in the country.

Tell us about the future market forecast for Industrial wastewater market in India by 2022?

The industrial wastewater sector is expected to see a strong double digit growth in coming years. This growth is expected to be in the range of 10-12% per annum. However, a huge spike in growth could be seen if there is a regulatory call to adhere to stricter norms, either through the tightening of the CPCB norms or through the enactment of the National Water Framework Bill which is being discussed for the past few years.

Equipped with a degree from BITS Pilani in mechanical engineering and an Advance Management Programme (AMP) from Harvard Business School, Mr. Shishir Joshipura started his professional journey as a trainee engineer in Thermax. Learning through opportunities and challenges, rising through the ranks, he transitioned to the role as CEO of SKF India. From 2nd April 2018, Shishir has taken over as CEO and MD of Praj Industries Ltd., a Pune based major player in Biotech space.