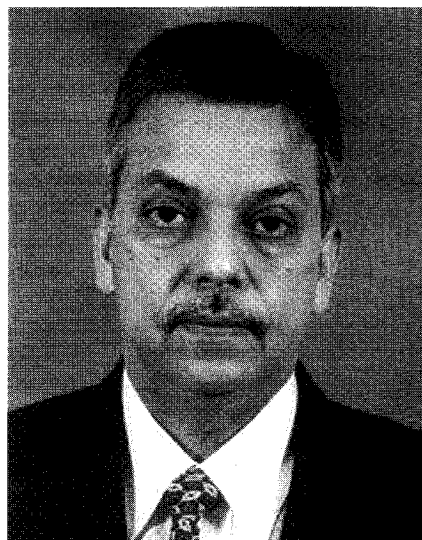


Interview

# “Water Management is the Need of the Hour”

**While water still is an available resource, time may soon arrive when quality water may raise concern for both urban and industrial needs. Rajesh Sharma, Vice Chairman and Managing Director, Ion Exchange (India) Ltd, suggests a few measurements to manage and utilize water properly in order to retain its quality existence for generations to come.**



**Rajesh Sharma**  
Vice Chairman and Managing Director  
Ion Exchange (India) Ltd

**Water is the oil of future. May we have your comment?**

In my opinion, water is more valuable than oil. Having said that, the rate at which fresh water resources are getting depleted, availability of water is soon going to be a very huge challenge for entire mankind. In the long term water scarcity will definitely have a deep impact on the food production as more than 75 per cent of fresh water is utilized for agriculture. A recent study report by the World Bank suggests that the level of water stress the world is facing today will increase during the next 20 years and food production will reduce by almost 25 per cent. Under these circumstances, prices of food will be sky high and availability will become a bigger challenge. Increasing urbanization is further adding to water stress, leading to water management as the need of the hour.

**What is the consumption pattern of water across various sectors and how can this be managed particularly for agriculture?**

If we put the consumption pattern in descending order in terms of total volume of water consumed, it would be Agriculture, Urbanization and Industrialization. All these three sectors need to be addressed in terms of water management for our country. Agriculture, as I have already mentioned, utilizes almost three fourths of fresh water resources. In the current scenario, the Government must review the entire policy of water consumption by the farmers. To manage water for agriculture, simple steps can be taken including measurement of how much water is consumed per crop and, if a crop is water intensive, it should not be grown in water stressed areas. The rationalization of water must be Done. If you look at places like Israel where water is scarcity, drip irrigation is a common practice to use water judiciously. These basic steps can control the usage of water to a significant level. Water used for irrigation ultimately percolates and gets mixed with the ground water, or flows into rivers now There are techniques available globally to recycle water even in agriculture. Though these techniques can be applied to large farms this require

huge investments. So far these are not practiced in India.

### **How has urbanization added to the woes of depletion of water resources?**

Currently, around 30 per cent of India's population resides in cities and during the next 20 years this is expected to increase to 40 per cent resulting in about 450 million people living in the cities. This would result in substantial increase in consumption of water for domestic consumption and as well as in sewage generation. As of now around 40 to 50 per cent sewage is treated in the big cities whereas you hardly have any such facilities in small cities and villages. Thus untreated sewage ends up getting discharged into water bodies.

In urban development infrastructure, the rationalizing of water availability must be addressed. Ion Exchange has been propagating with government the need for legislation and for subsidies and incentives for recycle and reuse of water. Mandating a certain percentage of water to be recycled as against using fresh water resources could help to a large extent. Close to 65 to 70 per cent of water can be reused for various domestic purposes. Rain harvesting is another technique that, in my opinion, must be made compulsory at all the places where people consume ground water. This would help dilute the salinity and concentration of contaminants, and also raise the ground water level.

### **Industries use the minimum across the broad consumer categories of water. There is lot of stress on managing water. What is your take?**

Water is the lifeline of industries and is required for various processes and also to generate power. Government is imposing stricter norms on industries to treat waste water and reuse the same in their processes. Further, recycling reduces contamination and conserves fresh water. There has been a change of mindset in the industrial sector as, in some areas, the cost of recycling waste water is much lower

than the combined cost of fresh water and treating waste water. Water is highly subsidized in some areas, whereas in water stressed regions commercial rates of water are extremely high. In Chennai, the rate of water for industrial use is close to Rs. 50-60 per cubic meter. Ion Exchange has its own ion exchange resin manufacturing unit in Ankleshwar, Gujarat where we have system for waste water treatment and recycle. In these systems input cost of water and waste water discharge cost, both put together, are more than the cost of recycling water. By doing this, we are able to reduce the load on the environment and dependency on fresh water resources. We are trying to demonstrate to the industry that treatment and recycle of waste water can no more be considered a cost or wasteful expenditure but it rather adds to the revenue.

In case of small scale industries, what is most important is to ensure that they treat waste water to a minimum level before discharging it into the common effluent treatment plant (CETP) for further treatment. Treated water can be recycled back to the industries for various process applications and can be supplied at lesser cost as an incentive for use in industrial applications.

### **How big is the water industry poised to be in India?**

Indian Industrial waste water treatment industry is growing at a rate of almost 15 per cent per annum and is worth USD 2 billion in India. As per the commitment of the Government to invest in infrastructure for water and sanitation, this industry may see investments of the order of up to USD 30 billion during the next five years, that is close to almost USD 6-7 billion per year, which would include USD 2-3 billion for hardcore equipment and rest for the civil work and pipe work.

However, there are challenges related with the water industry. The general belief is that water is a fundamental right and so consumers expect 24X7 supply of water of good quality at very little cost, without realizing its true economic value. But

---

*"Ion Exchange has been propagating with government the need for legislation and for subsidies and incentives for recycle and reuse of water"*

---

**Water is the lifeline of industries and is required for various processes and even power generation.**

*“A Self-sustainable model that involves Communities, Industry and Government would bring in greater accountability as well as reduce the burden on Government”*

today, the quality as well as the availability of water is constraint. Water is critical to the society and we have to change our approach.

Water is poised to become a commodity that will come at a price. Today the cost of water that is being paid by consumers does not even cover the cost of treatment let alone overheads and operational costs. For any activity to be sustainable, revenue generation is important and this is true with the water industry too. After all for how long can anyone supply water, which is free of cost and fit for use? Whether it is the Government or private players, it is important to have a return on investments and operational cost must be recovered.

**What is the approach that should be taken by the Government and how can accountability be increased?**

115 million people in 17 states, largely in the rural areas, drink unsafe water because of high concentration of contaminants. Handling this alone is a tall order for the Government. In my opinion, Government needs to develop a methodical approach to address the challenges associated with availability and quality of water in tandem with industry as well as the community.

Having said that, a self-sustainable model that involves communities, industry and Government would bring in greater accountability as well as reduce the burden on Government. Management and operation of the plant should also be with this entity. This model would give the community an insight into the cost of operation and other overheads and thus consumers would be more willing to pay the right price. This, in my view, should solve the problem to a great extent.

**Foreign players are tapping the Indian markets for opportunities, how will the regional players be affected?**

Every industry has an organized and unorganized set of players. The water industry has a low entry barrier and does not require huge investments. Setting up a

plant for water treatment does not require much financial outlay. Basic technology is available in the market and there is a continuous flow of new entrants in this field. While consolidation will take place in the near future, regional players will always be there.

However, it is important to have more and more good players working at the task of water management. The need and the task are so huge that it would certainly require more companies with requisite expertise and experience to get involved. Projects should be awarded based on the specific expertise and capability required.

**Are there any standards that are set for the equipment offered for domestic water treatment?**

There are standard specifications for large industrial equipment that is used for water treatment. But as of now there are no standard specifications for the equipment used by the end users in the domestic sector. CII Water Equipment & Management Division has taken up the task to get standards developed through BIS for water purification devices like RO and UV equipment. Today the consumer is uninformed about the safety of these devices, whether they are good enough to remove the contaminants completely in order to ensure that the water is safe for the purpose of drinking. Hopefully, within the next six months, we will be able to create the standards with regulatory bodies like BIS.

**Tell us more about your presence of Ion Exchange in the market as supplier of purifiers for water treatment for domestic purposes?**

Ion Exchange started as an industrial water treatment company. 85 per cent of business is from offering solutions for industries. We are present in the domestic market to provide solutions for water purification and treatment but that accounts for 15 per cent of our total business. We have not gone with the policy of pushing products for

**Industrial Waste Water Treatment Industry is growing at a rate of almost 15 per cent per annum and is worth USD 2 billion in India**

domestic use, but our approach is that of a solutions provider. As water treatment specialists we are aware of practical operational problems of purifiers. Take, for example, RO systems that are fast gaining popularity. The systems have limitations that the consumer is not aware of. They may not perform up to the desired capacities where iron content or total dissolved solids (TDS) are high, the membranes may get choked. In a place like Mumbai, where drinking water is sourced from the lakes, RO systems can remove the important minerals that should ideally be retained in the water. We believe in supplying the right solutions to customers for the trust they have in us over the years and this is where we differ from others. We are ready to grow slowly but will not compromise on the quality standards that have been set over the years.

### **How has the economic meltdown affected the business of Ion Exchange?**

Like every other industry even our business had a measurable impact because of the slowdown. About 20 per cent of our business is from exports, which were affected. The second half of the last financial year was affected badly because of various reasons like deferment or slowing down of projects, demand reduction and huge inventory carrying costs that led to shrinking of profit margins. The domestic sales were affected badly during the third quarter but there have been signs of revival since the beginning of the fourth quarter.

### **Referring to up gradation of plants for better efficiency, funding problems could put the customer's decision to switch over to new technologies on hold; how does Ion Exchange handle this challenge?**

There are funds available from the banks to carry out such projects. Once we are convinced about the viability of the project and if customer is unable to make the investment, we can organize

the investment and get into a profit sharing model. This fetches good return on investment, helps the customer save operating costs and make payment towards the project financing made by us. Over a period of time, the asset is transferred to the user at written down value. The user thus has the asset to his name and continues to save money for the rest of the lifetime of the equipment. The plant performs with greater efficiency while reducing the load on the environment at the same time.

### **What are the future plans of the company?**

We are present in practically every sector and are one of the leading solution providers. Ion Exchange provides industry with total water and environment solutions and services, so that customers can focus completely on their core production areas while we undertake complete responsibility of managing the quality and quantity of water for their facilities.

We want to increase our revenue from exports and are expanding our geographical presence. Singapore is the regional hub of Ion Exchange for our South East Asia operations in Thailand, Malaysia and Indonesia. We now have a presence in the Middle East too. Last year, we took initiatives to get into the African markets and are trying to consolidate our position there as well.

We are also extending our expertise to infrastructure projects for urban and rural water treatment and sewage treatment, for drinking water and sanitation.

### **What would be your message to the readers of CEW?**

Water is a most precious resource that needs special attention in our country. It must be treated with utmost care by all and we must take the responsibility to ensure its availability and quality, for current as well as future generations. We are accountable for how we use and manage water, for the sake of mankind and our planet. ■

*As told to Mittravinda Ranjan*

---

***“Profit sharing model fetches good return on investment and helps the customer save on the operating costs”***

---

**Ion Exchange provides industry with total water and environment solutions and services, so that customers can focus completely on their core production areas**