

Rajesh Sharma, Vice-Chairman & Managing Director, Ion Exchange (India) Limited



Rajesh Sharma, Vice-Chairman & Managing Director, Ion Exchange (India) Limited, joined the Company in 1974 and has held a number of sales, marketing and management positions. Before taking up the office of Managing Director from 1st April 2000, he was the Deputy Managing Director. He established the company's international business division, including its 100% EOU and has developed business relationships with leading engineering contracting companies and business & technology partnerships with leading companies in Europe, Japan, South East Asia and the Far East. Sharma is a member of various National Committees of leading Engineering Associations. He has chaired technical seminar sessions organised by various Associations and also presented papers in India and abroad on water and wastewater treatment and water conservation topics.

Ion Exchange (India) Limited pioneered water treatment in India and is today, the country's premier company in water and environment management. Specialists in water and waste water treatment for four and a half decades, Ion Exchange offers total solutions for industry, homes and communities, urban and rural; solutions encompass water and liquid waste treatment, air pollution control, solid waste management and energy recovery from waste. Integrating process technology, design engineering and project management capability, Ion Exchange takes end-to-end responsibility - planning, integrating and managing water on supply, quantity, quality, discharge and environmental fronts.

The company has supplied numerous installations for diverse industries in India and abroad, from nuclear and thermal power plants, fertilizer factories and refineries to automobile, electronics and textile industries.

Ion Exchange offers a range of Zero B drinking water purifiers and water conditioners to provide total water care for homes. Zero B Sapphire, Wall-Mount RO, Intello, Solar, Suraksha Plus Non-electric storage water purifier, Pristine & Ultimate RO- Table top reverse osmosis purifier. Resiline - On line purifier for residential use, Suraksha -On tap purifier in kitchens are some of the home solutions products the company manufactures. The company also provides water vending stations for retailing purified water at railway stations, bus depots, shopping malls, places of pilgrimage and to other public places. Sewage treatment/ recycle systems provide assurance to residential complexes against water shortages.

Technologies for water disinfection, and removal of fluoride, nitrates, arsenic and iron have also been adapted for the rural sector through point-of-use, handpump attachments and community level systems.

The company is extending its expertise to infrastructure projects for drinking water supply, sewage treatment and disposal, sea water intake and desalination and solid waste management for government, municipalities, water supply & sewerage boards It has successfully undertaken projects in partnership with NGOs as well as municipalities and PHEDs.

Technical services form a key component of the Ion Exchange solutions bouquet, and its service network is the largest in the Asian water treatment industry.

Speaking with **Anil Mascarenhas** of **India Infoline**, Rajesh Sharma, Ion Exchange says “as a group we plan to reach about Rs10 bn by 2012”.

What growth are you seeing in the water business? What is the demand-supply gap?

Globally, the industry is growing at about 10% whereas India and developing countries are growing ~15-20%.

In India there is a huge demand-supply gap. Around 33-35% people do not have access to safe drinking water. The sanitation is only 10% and 90% of the water is going untreated into the rivers and seas; further contaminating fresh water. So this is a challenge as well as a big opportunity for companies in the water treatment business. In the next ten years, India would be investing around US\$4-5bn per year on this infrastructure and industry is expected to grow at ~18-20%.

To what extent is Ion Exchange geared to take advantage of this opportunity?

We certainly have the length and breadth in terms of infrastructure; we have trained man power, service backup, and technology. We are very well-prepared to grow and take advantage of the opportunities. At the same time, we are a conservative company, in terms of the type of business we want to do.

Doesn't that make you less aggressive in the market?

Well, we don't want to just grow the top line without adding value. We are a technology-driven company, and are always on the lookout to bring in state-of-art technologies to offer the right solution. In our quest to offer the right solution, we do lose some opportunities. For example, you cannot have universal solution as the water quality is different at different places. We test the water before we recommend our product to the customers. At Ion Exchange, we have always believed that we should not offer a wrong solution, and that puts a restriction on our sales team. This at times, does make us lose opportunities.

Today products from China are also being dumped into the market. Quality control in this area is very poor. As part of CII, we are encouraging creation of standards and have made suggestions to the Bureau of Indian Standards (BIS) on issuance of standards for all types of domestic purifiers.

What are the main challenges you face?

The primary immediate challenges for the water and sanitation sector are to extend services to the unserved, to improve efficiency and quality of services to those who are nominally served and to do this through utilities which are efficient and accountable. Private sector participation will help in introducing innovative ideas, financial resources, corporate management and improved efficiency and accountability to users.

Unfortunately, in many countries, including ours, water is highly subsidized. This has resulted in its under-valuation and over-consumption by those fortunate to get supplies while the poor lack access to safe water. What is needed is rationalised tariffs based on offtake and consumption patterns. Subsidies must be restricted to the economically disadvantaged. The slowness in private sector participation in water projects is mainly because industry does not yet see proper policy frameworks in place for investment and an assurance of reasonable Return on Investment. Water is so highly subsidised that apart from a few cities, water tariffs do not even cover O&M cost of water treatment plants. The full economic value of water must be understood and paid for by the end user. If services are provided in an efficient and accountable manner, users will be ready to pay for realistic pricing based on true economic costs . An example is the O&M of water supply in Navi Mumbai which has resulted in better service and quality of water and an increase

in revenues

Are there any model countries we could emulate in managing water?

England is totally privatized and France has been privatized for the last 70 years. In these countries the water supply is reliable and consistent in quality. Many cities have tried to do this; some were successful while some failed. Countries which didn't have an effective regulator met with failure.

Singapore's water management strategy, sometimes referred to as the 4 tap strategy, is also quite exemplary. The first "tap" is local water catchments and the reservoir integration scheme. The second is imported water under water agreements. The third desalinated water, and finally, the tap of reclaimed or new water. Singapore is 100% sewered and all used water is collected through a comprehensive sewerage reticulation network and treated to effluent discharge standards at Water Reclamation Plants. Advanced membrane technologies further treat the effluent from WRPs to a potable standard, thus reclaiming large volumes of used water. Although the end-product NEWater is used mainly for industrial and commercial use, it is also an important supplement to potable water supply. With this strategy, Singapore will have secured its water requirements for the next 100 years.

In India, we have a regulator for electricity and telecom. We should also have a regulator for water. This would ensure that nobody charges an exorbitant amount for water and it will help privatization.

What kind of infrastructure is required for effective use of water?

The kind of model which we have been propagating is a Public Private Partnership (PPP) model where we have the consumer as a partner. Once the member of the consumer association too is on the board of a PPP, the cost being incurred and the profit being made would be known. As long as that is done transparently, it's fine. In the case of industries, there is no major issue as the calculations are more straightforward.

What are the steps undertaken by Ion Exchange to reduce water wastage?

At Ion Exchange we try to educate customers and communities on the benefits of water conservation by promoting rainwater harvesting, watershed development and recycle of industrial effluent and domestic sewage.

We are implementing water conservation by putting up waste water recycle plants in our factories. By reducing our water consumption and also reducing our waste, we are saving money. There is a cost incurred in setting up the recycled plant, but we will be able to recover costs through savings and thus generate wealth from waste.

How is your revenue pie likely to be?

Predominantly, engineering is ~ 45% of our revenues. Our chemical business brings ~25% and we have the services contributing ~20%. The remaining includes consumer products and home products.

We are concentrating a lot on the service side - service revenue, operation and maintenance. Customers increasingly want plants to be operated by us, so that they can focus on their core manufacturing processes. Moreover, improved and efficient operations result in savings in operating cost.

We have created the backward integration in terms of availability of trained personnel. We associate with Universities and also run diploma courses in water treatment and operation and maintenance. In Industrial Training Institutes (ITIs), we are conducting operation and maintenance certificate courses. This enables students to get basic education in water

management.

What does Ion Exchange Services do?

Ion Exchange Services has ~500 engineers who are in the supervisory and technical position and another 1500 operators who we have contracted. They primarily concentrate on after sales services and operation & maintenance of water and waste water treatment plants.

How are freshers recruited in your company?

We go to engineering institutes where we take trainee engineers. For management trainees we hire fresh MBAs.

Has your consumer products' division managed to make profits?

It is certainly doing better than what it was doing earlier and we would be introducing some exciting products. The idea is to take them down to Tier II and Tier III cities. We have a purifier which runs without electricity; it uses solar cells to indicate the quality of water.

We are in a break-even kind of situation. We need to keep investing in market exploration, product development, etc. A lot of money goes into advertisements and brand building too.

Besides Hindustan Unilever, even Tatas have entered the water purifier business. How are you viewing the competition?

It's a huge market opportunity. Overall penetration level for water purification is not even 1%. In case of major metros, the highest penetration is in Delhi at 24% while in Mumbai it is ~14%. In the remaining metro cities it is less than 10%.

Why this difference between Delhi and Mumbai?

Consumers in Delhi use a lot of ground water, which has high mineral content. Therefore they need water purifiers. In Mumbai, municipal water is more in use which is comparatively better. Moreover a lot of people still believe in boiling the water.

What would be the growth drivers for the company?

Future growth is certainly Service, which is in terms of operation, maintenance along with the consumables chemicals and products. Engineering will remain around 50%. If we bag larger projects, it may even go up further because it is a higher value business.

Your first half was quite affected by raw material prices. Do you have any strategies in place to take care of such situations in future?

Our first half of last year was hit by rising raw material costs. This was followed by the economic slowdown. As a result, we had raw materials which were procured at a high cost while finished good prices crashed in the international market. That had a significant impact. This year should be reasonably better.

As far as the project business is concerned, we are getting even more selective after suffering a bit. This implies that we do not want to take up jobs, which do not allow a reasonable escalation against increase in raw material cost. There are customers who are now providing these escalations.

How much is your international business contributing to your revenues?

It's been doing very well except during the recent slowdown; as of now it is picking up. The international business was about 20% last year and almost similar this year. Our objective is to take it to 25-30% in the next two to three years.

We have not fully leveraged our potential; you may call it a conservative approach. But we feel

that we have adequate experience and technology and the necessary infrastructure to play a leading role not only in India but also in the developing countries because we understand the needs of the developing countries and have products to meet their requirements. The conditions are quite similar as those of India and with that objective we expanded our international footprint.

Doesn't it make sense for Ion Exchange to align with a civil works company to bag large orders?

We partner with Civil Construction Companies on project to project basis. We also have a subsidiary called Ion Exchange Infrastructure, which is based in Kolkata. The team has the capability to handle large infrastructure projects.

You see that as a missing gap in your company?

Yes it was. Now we have it covered. Earlier we were not even taking up civil work. We would rather shy away. But now there is not much choice because even industrial projects are coming up with civil works.

The area where Ion Exchange has really grown is in bringing new technology and developing applications. So in the last 10-15 years the significant work which we have done is in waste water management and recycle.

In order to conserve scarce fresh water resources, it is essential to recycle both domestic and industrial waste water. We have the most cost effective solutions/technologies for waste water recycle.

Tell us about your R&D division?

We have a very strong R&D and technology team, which are continually working on developing new products. The R&D challenge is to develop a cost effective product for a particular problem. For removal of contaminants like fluoride, iron, nitrate and rrsenic, we have developed specific products, which can be used at point of use in homes as well scaled up to community level plants. All these products find application globally.

What is your take on recycling?

World over, the rapidly increasing population, industrialization and pollution are exerting enormous strain on existing fresh water resources. Recycled water is a drought-proof, dependable, locally controlled additional source of water supply and hence one of the most effective solutions to help solve water scarcity. Thus, the escalating water shortages and rising water costs, coupled with tighter regulations on consumption of fresh water and discharge of waste water, have significantly boosted the adoption of water recycle by industry and municipalities as well as by residential/commercial/institutional complexes, hotels and resorts.

Recycled water can satisfy most water demands, provided it is adequately treated to ensure water quality appropriate for the use and the receiving environment. However it is generally used for non-potable purposes such as industrial processes and cooling water, irrigation, toilet flushing, gardening, vehicle washing, construction activities, concrete mixing and artificial lakes. Advances in waste water treatment technologies and health studies of indirect potable reuse suggest that even planned indirect potable reuse will become more common in the future; some projects already use recycled water to recharge ground water aquifers and augment surface water reservoirs.

Water recycle also provides tremendous environmental benefits such as decreasing waste water discharge and thus lessening pollution, and reducing the diversion of water from sensitive ecosystems. Recycled water can also be used to create or enhance wetlands and riparian habitats.

Whereas earlier, technologies to treat waste water for reuse were mainly biological, current techniques integrate physico-chemical, biological and membrane separation processes for optimum water recovery. These include micro, ultra and nano filtration, reverse osmosis systems, membrane bio-reactors and advanced photo-chemical oxidation. Among these, the membrane bio-reactor is fast becoming the technology of choice; it produces a very high treated water quality, effectively combining biological and membrane separation processes, and thus eliminating the need for secondary clarification after aeration as well as for tertiary treatment.

What is your order book position?

This year it has been around Rs. 2.5 bn. It is spread out over a year. It does not include the normal consumables business.

What are your capex plans?

Regular capex is around Rs. 80-100 mn. Last to last year we have expanded capacities, for our chemical plants, where we invested around Rs.300 mn.

What are your financial goals?

As a group we plan to reach about Rs10 bn by 2012. It is currently hovering around Rs.6 - 6.50 bn as a group.

What is your message to Shareholders?

The need for water treatment is continuously increasing because of scarcity of fresh water resources and increasing generation of waste water. Continue to repose faith in us and you will be rewarded. Water is a highly sustainable business as it is essential for the very existence of living beings.