Time to tackle wastewater issues on war-footing

- Anuj Bhagwati

Anuj Bhagwati, Managing Director of A.T.E. Group, speaks on wastewater management in India.

Wastewater management is crucial to attain sustainability at all levels. How do you rate India in this aspect compared to some countries in Europe and Asia, from your experience and perspectives?

Let's look at this point from three perspectives: norms, awareness and compliance. The norms established by our central government for wastewater management are quite stringent and at par or, in fact in some cases, more stringent than what we see in Europe and other countries. This is what is needed due to our population and population density and the increasing scarcity of water that we are facing.

As far as awareness is concerned, yes, social awareness about effective wastewater management for long term sustainability is certainly increasing. I see this change not only in general public, but also more and more businesses and entrepreneurs are increasingly interested in the subject and are looking for comprehensive solutions for effective management of wastewater. Media too has played a major role in creating this awareness.

Compliance, however, still remains a cause of concern. A host of factors may be responsible for this lag. Laxity in enforcement and monitoring could be one important factor. It takes time to get the right people in adequate

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numbers to monitor and enforce rules. Another factor could be the complexity of the subject and the dearth of right expertise to suggest suitable and economic solutions. There is a reluctance to invest in good treatment technology and also in monitoring and analytics tools is another contributing factor.

In the textile industry, wastewater has posed many problems and thrown innumerable challenges. In India, where do we stand amid the raging controversies?

The textile industry has evolved rapidly in the last few years. A single manufacturing plant now handles a wide variety of products with innumerable options of processing and finishing. The number of dyes and chemicals used has increased many folds. On one hand this helps the textile industry keep up with the ever-changing fashion industry, but on the other hand, traditional wastewater treatment technology is not able to treat effectively the varying effluents to meet the safe disposal norms. A huge quantity of sludge is generated due to lime and ferrous treatment. Conventional aerobic biodegradation has its limitations in reducing colour and COD in a single stage. The power consumption is very high and it generates biological sludge. This is an unviable solution and the industry has to look for and invest in wastewater technologies that can effectively handle complex effluents, posing no environmental hazards.

What are the technological developments available today that help us grapple with wastewater management? How have we developed as a solution provider over the years?

A.T.E. HUBER Envirotech (AHET) is a joint venture between A.T.E. and HUBER SE, Germany. We combine the expertise of both the partners, Huber with over 175 years' experience and over 40,000 installations across 60 countries, and A.T.E. with close to 20 years' experience and with over 300 projects across 10 countries, to offer state-of-the-art solutions for wastewater treatment, recycling and sludge management covering both industrial and municipal sectors.

At AHET, we strongly believe in offering technologies which minimise life cycle costs and do not contribute to environmental problem, be it chemical usage, power usage or sludge generation, while meeting the wastewater treatment norms. All our research and development is oriented towards enhancing the efficiency of wastewater treatment in a completely holistic manner.

Our pioneering AAA (registered) technology for the textile industry, the membrane bio-reactors, the sludge thickening, dewatering and solar drying technologies from our partners HUBER SE (Germany) are few examples of the technologies that we offer for the textile industry.

BOD, nitrogen and phosphorous concentrations are posing serious challenges in effluent treatments. Are there ways out of these with current technologies?

Yes, at AHET we have natural and eco-friendly technologies to tackle BOD, nitrogen and phosphorus. In textile high ammoniacal nitrogen is seen in printing effluent due to the usage of urea. AHET has designed several anoxic biological treatment systems (not only for textiles, but also for other chemical industries) that offer treatment and reduction of these constituents.

What is your message to the citizens, industry and the Government on wastewater management and also your recipe for an ideal wastewater management?

NITI Ayog's Composite Water Management Index June 2018 presents a very grim water situation in India. The report goes on to say that the crisis is only going to get worse and by 2030 the country's water demand is projected to be twice the available supply, implying severe water scarcity for hundreds of millions of people and an eventual approximately 6 per cent loss in the country's GDP.

As we all know, our growing population, industrialisation and climate change are all exerting increasing pressure on our water resources. Water quality is also a major concern for India. In this context, the proper treatment of wastewater to enable compromise free recycling or discharge is essential to human health, agricultural productivity, and long term economic growth.

At AHET we believe that wastewater is the best source of clean water. Wastewater treatment and recycling can go a long way in mitigating the water crisis. It can often be the most economical way of generating clean water for industrial processes.

Time has now come for all of us stakeholders, the government, industry, and people, to come together to meet this challenge. Fortunately, we now have technologies that can effectively and comprehensively address the issue of wastewater treatment with any level of complexities. The government should focus through policy initiatives, not only in enforcing the regulations that are already in place, but also in preventing over exploitation of ground water. Industry on its part needs to stop looking at it as a compliance requirement, instead, take it as a personal and social responsibility. ITJ