Wastewater Treatment – Recent Scenario

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Editorial

If India is able to use the appropriate technology for water treatment, it could significantly expand its water supply and improve the use of water to improve public health and economic development. The world is not running out of the water. The real challenge is to provide enough fresh water to a rapidly growing global population (with growing demands for growth: more energy, more food, more industry and more consumption). More and more irregular weather conditions and natural disasters only exacerbate the situation. All regions of the world often struggle with severe water scarcity. This is a tough nut that even breaks in relatively rich, developed countries. But in developing countries with no basic infrastructure, inadequate financial resources are combined with rapid urbanization and increased industrialization to create a crisis. The lack of treatment options leads to two problems: waste water is not treated before it is discharged into waterways contaminating the source, which often makes water unusable for drinking. Drinking water is removed from the same source and was not properly treated again, causing significant public health problems: 21% of India’s communicable diseases are caused by hazardous water. At the end of January, Yale University’s research was published in 178 countries at 178 in the Indian Environmental Benefit Index in connection with the availability of water and sanitation services. If India is to use widely the appropriate treatment technology, it will be able to significantly expand its available water reservoir for both potable and non-drinkable use. Our economy, our industry and, above all, our people would benefit. The challenge is enormous, but not difficult. There is a need for political will, as well as technological and political innovations - but as water crises all over India, there is no overwhelming inactivity. There is reason to hope. Indian water and sanitation investments, including health care systems, are still low, but have increased over the last decade. The results are far from ideal but encouraging. For example, in 1975-80, the coverage of rural sanitation was estimated at 1 to 1.2 %. In 2009 it had increased to 20%. The Ministry of Micro, Small and Medium-sized Enterprises and the National Innovation Council recently announced the launch of India’s Inclusive Innovation Fund, which aims to invest in a number of socially significant sectors such as water and sanitation.

State investment and solid political work. But the private sector can also help: a recent study lists the Indian water sector as a whole with an investment potential of $ 120 billion by 2032. Another estimate is that India’s total water and wastewater treatment market is about $ 430 million, increasing annually by about 18 percent. But the twelfth Five-Year Plan of the Government i.e., 2012-2017 states that economic growth of 8-10% is only possible if the water requirements of the growing population are met. Developing countries such as India have problems with re-use of waste water due to lack of treatment. The challenge is to find a low-priced and low-technology user which, on the one hand, avoids endangering our substantial waste water dependent livelihoods and, on the other hand, protect the degradation of our valuable natural resources. The use of built wetlands is now recognized as effective Technology for sewage treatment. Compared with conventional processing systems, built wetlands need less material and energy, they are easy to handle, and they do not have any problems with sludge disposal and can be maintained by unskilled personnel. Furthermore, these systems have lower costs for construction, maintenance and operation because they are powered natural energy of sun, wind, soil, microorganisms, plants and animals. Therefore, it seems that for the planned, strategic, safe and sustainable use of waste water. The need for political decisions and integrated programs involving decentralized low-cost Sewage treatment technologies, biofilters, efficient microbial strains and organic, inorganic changes, suitable crops / systems for crops, cultivation prominent crops and modern ways of using waste water.

Concluding Remarks

The wastewater treatment process is one of the most important environmental protection processes that should be supported around the world. Most sewage treatment plants process wastewater from households and retail outlets. Industrial installations, refineries and wastewater treatment plants are usually treated on-site. These devices are designed to ensure that waste water is treated before it is discharged into the local environment. Part of the water is used to cool machines inside plants and to process. They are trying to make sure nothing happens. It is illegal to dispose of untreated sewage into rivers, lakes, oceans or the environment and, if found guilty, can be prosecuted.