SDG 6: Clean Water and Sanitation

Access to safe water, sanitation and hygiene is the most basic human need for health and well-being. However, the rapid raise in population, urbanization and increasing water needs from agriculture, industry, and energy sectors has increased the demand for water. There will be lack of access to billions of people to these basic services in 2030 if the efforts to provide clean water and sanitation does not quadruplets.

The demand for water has overtaken the population growth, and as we see, half the world's population is already experiencing severe water scarcity at least one month a year. The climate change that causes increase in global temperature is also adding to Water scarcity.

As stated by WHO for SDG 6, Investments in infrastructure and sanitation facilities; protection and restoration of water- related ecosystems; and hygiene education are among the steps necessary to ensure universal access to safe and affordable drinking water for all by 2030, and improving water-use efficiency is one key to reducing water stress.

KLE Academy of Higher education and Research Campus has many measures that aid 'clean water and sanitation' process with following facilities in the campus.

- Water conservation facilities practiced are, Rain water harvesting, Borewell /Open well recharge, Maintenance of water bodies and distribution system in the campus.
- The water collected during the rainy season from the building top roof is stored in the underground tank and is used for domestic use in staff quarters and gardening.
- Two Sewage Treatment Plants (STP) of capacity 1000 KLD each are installed and the treated waste water is used for gardening and toilet flushing in the campus for conservation of water.
- The main water used by the University is from the river and wells and the total water usage in University is monitored through water flow meters. The University campus acquires approximately 22.5 lakh liters of water per day to meet the needs of the campus and hospitals. The University optimize water resources efficiently for various purposes, including domestic and sanitation by campus inmates as well as hospital patients and their attenders.
- The superfluous water after chlorination is used for gardening and to flush toilets.

• Average total requirement of water	• 22.12 lakhs liters/day
• Capacity of water treatment plant	• 22.50 lakhs liters/day
• Inflow quantity of water to Water treatment plant	• 16.62 lakh liters/day
• Average inflow of water from KUWS	• 10.87 lakh liters /day
• :Approximate waste water flow to STP (	• 15.76 lakhs liters /day

Sewage Treatment Plant Cpacity:1000 KLDx2- 20 lakh liter/ day)	
• From STP treated waste water used for flushing and gardening	• 7.50 lakhs liters/day
• Rain water harvesting : well source	• 3.80 lakh liters /day
• Kangrali well	• 1.70 lakh liters/ Day
• Borewell recharging ground water	• 0.25 lakh liters/day

Sewage treatment plant: The campus has two Sewage Treatment Plant (STP) with a capacity of 2000 KLD. This plant treats liquid waste generated from the hospital and other buildings in the university campus. The treated waste water is used for gardening and toilet flushing's and covers around 6 acres and University campus of 15 acres.

1000KLD STP runs on ASP (Activated sludge process) with extended aeration system another 1000KLD STP runs on MBBR (moving bed bio reactor)

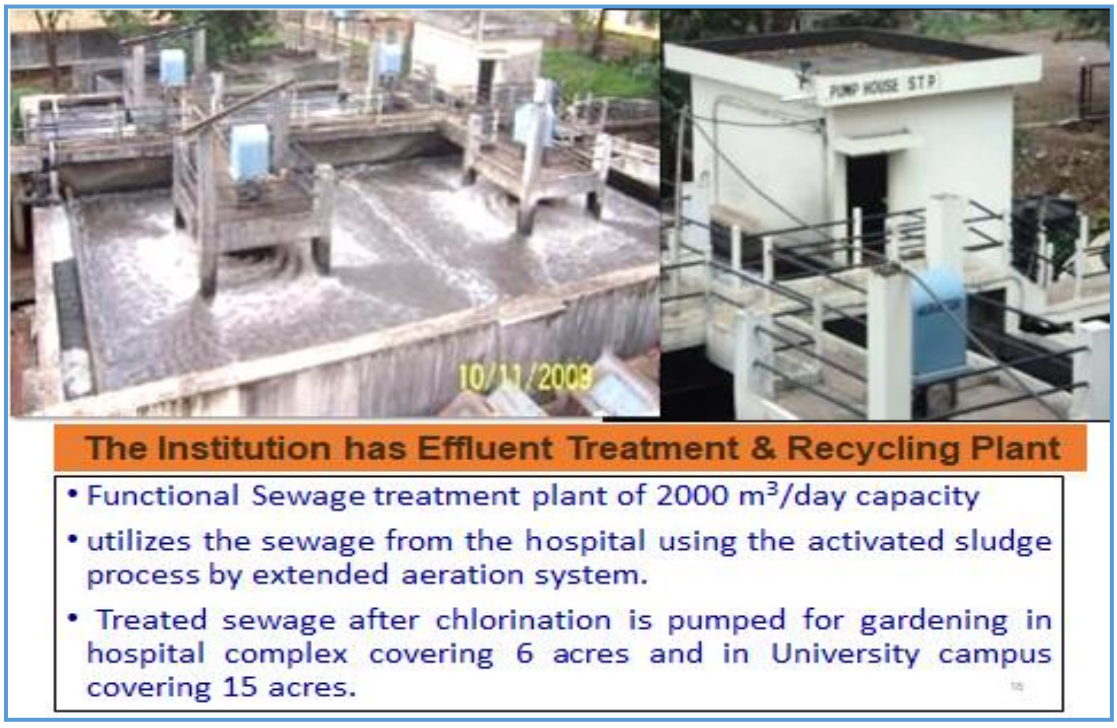
- The water system remains unpolluted and clean because, Ground level service reservoir which stores treated water has got all round gutters which prevents contamination of water like storm water, surface runoff, leakage of drainages, floods etc..
- Campus has got practice of periodic mechanized cleaning of Ground Level Service Reservoir, underground water tanks & overhead water tanks which minimize the water pollution and enhance the water quality.
- Water softeners, Reverse Osmosis (RO) plants are installed at key locations to upgrade the water quality and minimizing the failures of Boilers, CSSD equipment & Bio-medical equipment.
- Pressure compensating aerators fixed to the taps saves 15-20% water.

Clean drinking water:

- Free drinking water is provided for students, staff, patients and patient attenders at multiple places in the University campus. Water purifiers are installed on each floor, with quality check performed every month.
- Periodic monitoring of the drinking water units are carried out for its potability and wholesome water.
- Domestic water waste is treated using activated sludge process by extended aeration system. Thus, treated sewage after chlorination is pumped for gardening, recycled water and waste water of RO system is used for flushing toilets, cleaning and gardening. E-waste, hazardous chemicals and radioactive waste are managed through different storage chambers.

In the Community

- NSS has adopted 8 villages that exposes students to the rural areas and areas with lesser facilities.
- The volunteers have been able to mingle with the village population, school children and bring about awareness regarding ill effects of tobacco, harmful effects of plastic on environment, conservation of water and sanitation etc.
- NSS and YRC units of KAHER conduct activities like educative programs and camps for environment, health, sanitation, hygiene awareness, importance of clean water, water borne diseases, tree plantation, cleanliness and road safety measures. Adoption of Villages, Swatch Bharat Abhiyan and Unnat Bharat Abhiyan are being practiced by all NSS units.
- Conduct awareness programs and camps on environment, health, sanitation hygiene.



Rain Water Harvesting

KLE Academy of Higher Education and Research Deemed-to-be University BELAGAVI

Prof. (Dr.) M. S. Ganachari
Registrar