

Best Practice 2020-21

1. Title of the Practice

Responsible Water Policy: With the increase in the density of student population, the campus faced water distress and introduced a policy for the responsible use of water on the NLSIU campus.

2. Objectives of the Practice

The policy objectives were to attain responsible use of water resources through holistic measures across the following areas.

1. Water conservation
2. Water table recharging
3. Rainwater harvesting
4. Water recycling

3. The Context

Under the expansion plan of the university, the student population on the campus has more than doubled over the last 5 years. At the same time, the area around the university has also become more densely populated, leading to the depletion of the water table in the area. With limited municipal water supply, groundwater is the prime source of water on the NLSIU campus.

4. The Practice

While rainwater harvesting, water table recharging and sewage treatment are standard practices, the university realised that these measures are not sufficient. The very design of tap systems and student usage patterns ensures that there is immense water wastage in acts as simple as handwashing.

A typical tap releases ~18L of water per minute. However, only 1L of water is sufficient to wash hands. The same logic holds true for showers.

Solution: Water flow restrictors were installed across the campus. The university tested several water restrictors which could be easily installed and identified one that could successfully demonstrate the restriction of water flow from 18L/min to 2L per minute without significantly changing the user experience. The university decided to install the water restrictors across all ~500 taps and shower heads in the campus.

Challenges faced: Students were used to a certain water flow and pressure, and were likely to remove the water restrictors if the alternate experience was not to their satisfaction. The student body was therefore taken into confidence from the very outset. Both the need for the change and the efficacy of the restrictors were demonstrated to them. The students signed off on the installation before the project was implemented.

Results: The per capita water consumption on campus reduced from 120L/day to 75L a day. This was despite the increased construction activity on the campus during this period, which led to an increase in overall water consumption.

5. Evidence of Success

There has been a 37% reduction in per capita water usage on campus. The university has removed its dependency on tanker-based purchase of water. The university intends to reduce this consumption further by implementing other water conservation strategies.

6. Problems Encountered and Resources Required

- a. User reluctance: Some users (among students) were of the opinion that the restrictions would change their daily experience. A pilot project was initiated, which actively involved student participation, and the project was implemented unanimously.
- a. Product selection: Getting the right product that is easy to install on old taps and consistent in performance required testing and pilots.
- a. Resources: The university plumbing team was trained in installation and maintenance. There have been a few instances of students removing the restrictors, and hence, constant monitoring and replacement are required.

7. Notes (Optional)

The cost of the project was only a few lakhs, but the results are significant.