6.2.1 Water Consumption Tracking

Extensive Rainwater Harvesting facilities have been installed within the campus to satisfy the campus water demand. Three types of rainwater conservation models are used to harvest the rainwater acquired within the campus.

Model 1- Conventional Rainwater Harvesting
Model 2- Percolation Pits along the Runoff Channels
Model 3- Pond
Model 4- Perforated Drain Channel

Model 1: Conventional Rainwater Harvesting Pit:

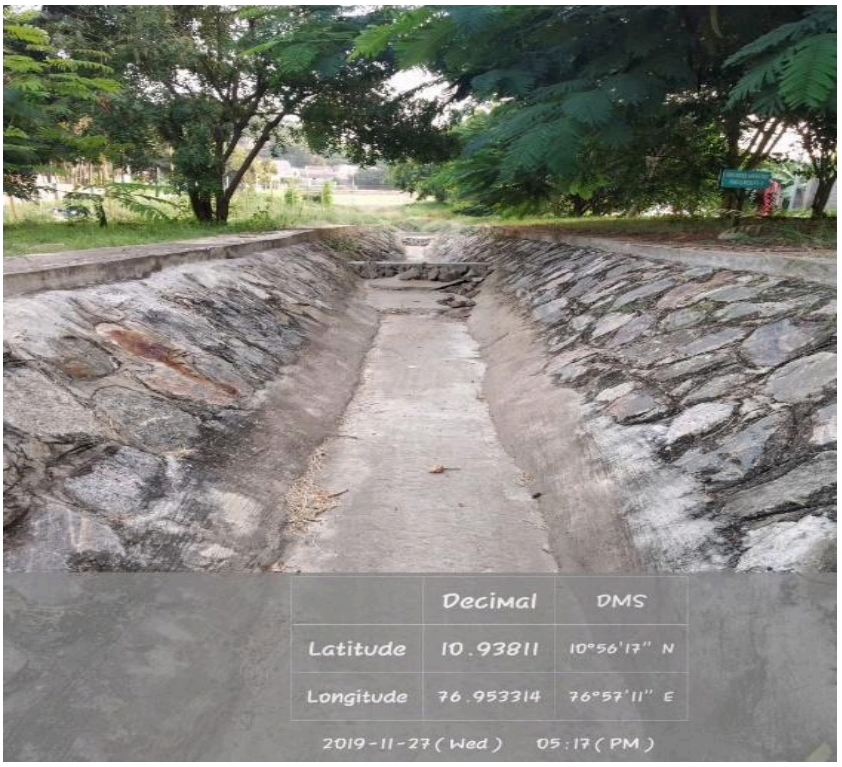
Conventional rainwater harvesting pits measuring 02 feet x 02 feet in size have been established around the campus to collect the roof top runoff. Rainwater is collected from a roof-like surface and redirected to a pit so that it seeps down and restores the ground water.

Rainwater Harvesting Pit

Rainwater Harvesting Pit

Model 2: Percolation Pits by Deep Bore Holes

Percolation pits along the runoff channels with a check dam facility has been constructed across small streams having gentle slope. Around 45 pits were excavated along the flow channel each measuring a depth of 100 feet. The check dams were constructed adjacent to each pit along the channel to store minimum quantity of water in each chamber to recharge the groundwater and the excess water overflows to the next chamber along the channel.



Percolation pits by deep bore holes (Dry Season)

Percolation pits by deep bore holes (Rainy Season)

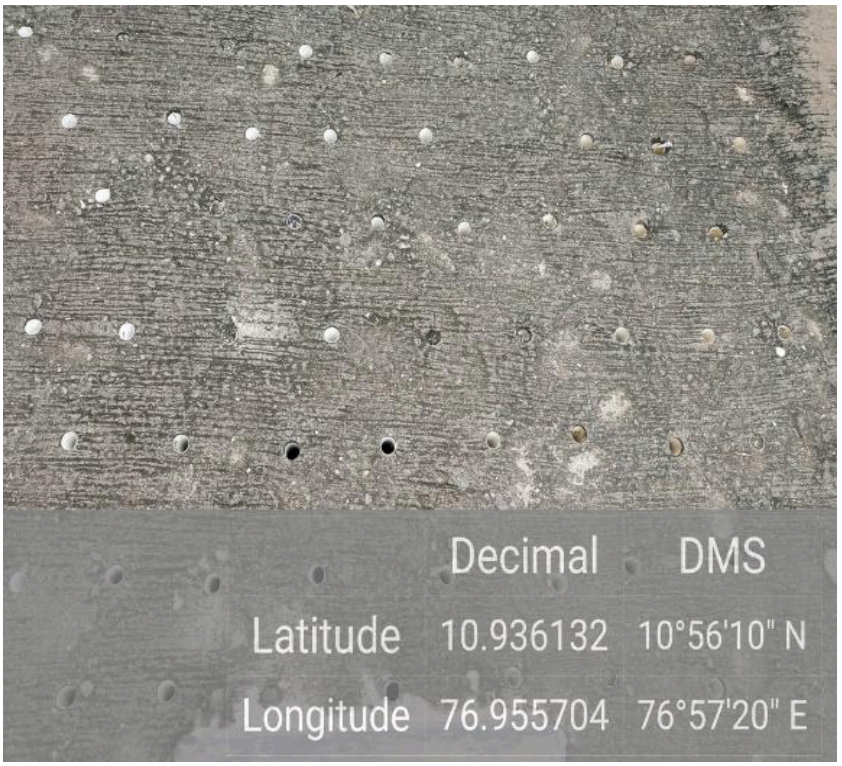
Model 3: Percolation Pond

Percolation pond is the most effective runoff harvesting structure that is used inside the campus. The artificially created pond has a capacity of 20,000 litres, excavated to harvest and impound the runoff from the catchments for a longer time, thereby recharging the ground water storage in the zone of influence of the pond.

Runoff collection Pond

Model 4: Perforated Drain Channel:

Perforated land drain is used to collect water through the small holes located around the pipe; these holes allow water to seep from the ground into the pipe and be carried away over the drains directly into the drainage channels. This finally reaches the sewage treatment plant operated inside the campus. Here, the collected water is treated efficiently and reused for gardening, vehicle cleaning and toilet sanitation.



Perforated Drain Channel Slabs (Close view)

Perforated Drain Channel Slabs (Long view)

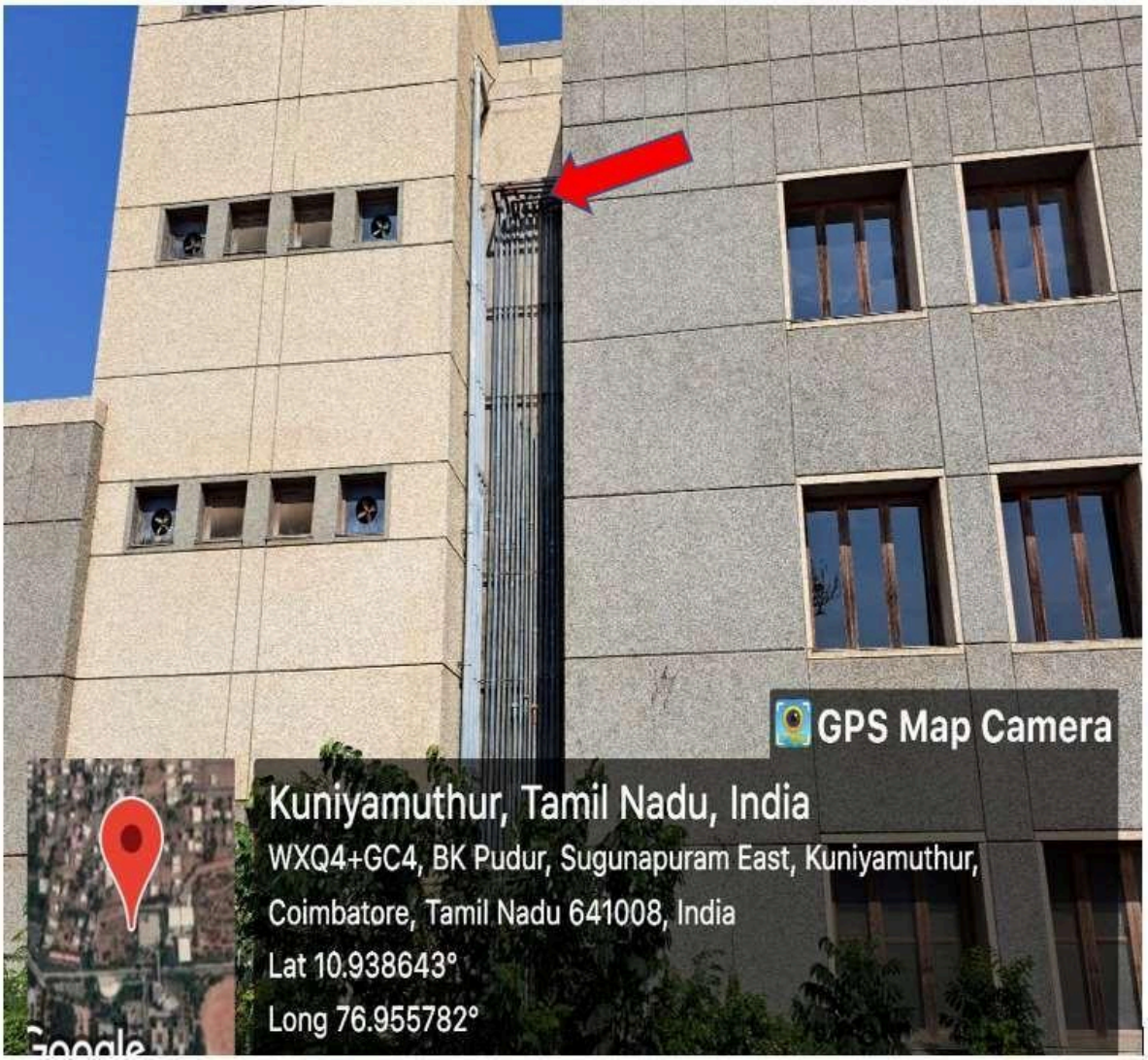
Majority of Rainwater Runoff within the campus is efficiently used to recharge the ground water, due to which no water has been stagnated within the campus. This, further helped in ameliorating the environment of the campus. The daily water requirement of the college is met from the bore wells.

Multiple sewage treatment plants located throughout the campus.

Distribution system

The water from bore well is pumped to ground level tank to overhead tank and is stored and distributed throughout the campus. The water is distributed through well laid pipe network to all areas inside the campus. Entire distribution system is well supervised by Civil works committee to ensure that there are no leakages and wastage of precious water through joints, valves etc. Maintenance of distribution system is taken care by the dedicated staff members (Plumbers).Whenever the problems are identified immediate actions are taken to avoid wastage of water. Drinking water is supplied from the institute Reverse Osmosis (RO) plant through water

containers regularly based on the seasonal demand.



RO PLANT

Distribution of water cans from RO plant

BILLS FOR THE ESTABLISHMENT OF FACILITIES