

Water conservation

Water conservation: Water as one of the most precious resource to become a rare commodity shortly. Rain water harvesting structures and utilization in the campus

Response: Rainwater harvesting structures S.K.R. college for Women, Rajamahendravaram believes in the quote "the running water should be made to walk and the walking water should be made to crawl and the crawling water should be made to stand" and takes all possible measures to preserve the rain water. The institution has a built in roof water harvesting and flood water management through percolation pits. These pits are useful for garden watering as an alternative to fresh water. There are several other benefits such as providing back up source of water, reducing erosion of ground, flooding around the building and raising the aquifer. The main advantage of these percolation pits is that it requires low upfront capital investment and they are easy to maintain. During the rainy season, a lot of rain water floods the campus from all directions. Percolation pits were successfully found to be one of the simplest and most effective means of harvesting rainwater. The institution with the help of volunteers from NSS and NCC has been digging the percolation pits at crucial points in the college. They are designed on the basis of expected gravitational runoff with rocks or block jam and stream sand, secured with punctured solid pieces wherever essential. The percolation pits measure 6 X 6 X 6 ft. and can store 692631 cu.mts. amo unt of water. Small water help the stray water into the nearest percolation pit. Adequate measures are taken to seal the openings so as to prevent students and animals to slip into them. Every rainy season, maintenance is undertaken by student volunteers both to clean the lead channels and to remove the silt from the bottom of the tanks so as to keep the storage capacity intact.

Roof Water Harvesting: SKR College for Women, Rajamahendravaram is operating in 5 large buildings with a huge roof top space. This provides an opportunity to harvest a lot of rain water flowing down the roofs. This water is brought down through pipe lines and connected to percolation pits. The Chemistry department also utilizes the roof water for some of its lab purposes as a source of distilled water for qualitative identifications.

Water Conservation & Management:

The College has a serious concern for the Water Conservation & Management systems. The College has Developed Rain water Harvesting Pits and maintains them with the help of NCC cadets & NSS Volunteers.

Methods Adopted in the College to recharge Ground Water: In order to promote artificial groundwater recharge, the rain water from roof top areas is collected into the water harvesting pits dug at strategic areas on the campus. The recharge pits allow the rainwater to replenish groundwater by recharging the underground aquifers. It can be built to recharge a bore well or just to help the water infiltration in an area. College has installed rain harvesting pits at the following places in the campus 1) In the Mango garden North East to the college buildings 2) Behind Science Laboratories. The common Procedure to construct the rain water harvesting pit involves 5 stages Process:

Stage 1: Digging a pit with required dimensions

Stage 2: Filling the 3/4th of the pit with black stone which does not absorb any water.

Stage 3: Constructing Cement Brick wall around the pit

Stage 4: Filling up the remaining 1/4th of the pit with 30mm metal stone

Stage 5: Covering the pit with Iron mesh