

Department : Civil

Year : 2012-2013

Group No: 11

Guided By

**PROF. K. A. PATEL**

## **SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA**

### **Project Title**

### **A CONSERVATIVE STUDY OF ROOFTOP RAIN WATER HARVESTING AT SMT S. R. PATEL ENGINEERING COLLEGE, DABHI-UNJHA OF TECHNOLOGY**

#### **Abstract:**

In most of the rural areas, ground water is the major source of drinking water. In earlier days, open wells and ponds that belonged to the community were the source of drinking water supply. With the advent of bore well technology and progress made in rural electrification, the scenario of rural water supply has considerably changed. The traditional methods and practices have given way to hand pumps and power pump schemes. Bore wells are drilled and water from over-head tanks is distributed through supply mains. Statistics reveal that more than 85% of rural water supply is from the ground water sources at present. Indiscriminate exploitation of ground water and the decline in ground water level have rendered many bore wells dry either seasonally or through-out the year. To overcome such a situation, bore wells and tube wells are now being drilled to greater depths, often tapping ground water from deep aquifers. Discharge of untreated effluents into surface water streams and lakes by industries has resulted not only in contaminating the surface water resources, but also the groundwater bodies. In coastal areas, over exploitation of ground water has resulted in seawater intrusion, rendering ground water sources saline in some areas. Identification and promotion of simple, reliable and environmental friendly technologies for augmentation of ground water resources are necessary to overcome the above problems and to ensure the long-term sustainability of our precious groundwater resources. Reviving the traditional practices of rainwater harvesting along scientific lines can go a long way in preventing a serious water crisis in the major part of our country in the years to come. Unjha is one of the water scarce cities in Gujarat. Depending on precipitation intensity, rainwater constitutes a potential source of drinking water. Rooftop Rainwater Harvesting is the technology where surface runoff is effectively collected and stored. Harvested rainwater can then be used for drinking or for ground water recharge. Unless a proper water storage method is adopted, the rainwater harvesting may not be effective. This paper deals with a case study of rain water harvesting method adopted at Smt. S. R. Patel Engineering College, Dabhi-Unjha.

#### **Prepared By:**



Sr. No.	Student Name	Enrollment No
1	NAYI KAUSHAL R.	90780106037
2	PATEL AMARISH H.	90780106003
3	PATEL SACHIN B.	90780106020
4	PATEL PRATIK M.	90780106025