

## **Role of Jalvardhini Pratisthan in Ground Water management of Hard Rock**

U.M.Paranjpe

*Jalvardhini Pratishthan*

Sources of ground water or surface water in Hard Rock terrain is Rain fall (precipitation). Role of Jalvardhini Pratishthan, a voluntary organization (NGO) is to give knowledge and technical expertise about Rain water management or Rain water conservation

### **Potential of Rain fall**

Assuming annual average Rainfall between 50mm to 3500 mm Potential of Rain fall over 1 acre (4,000 sq.m.) of land will vary from 2000 cum (20,00,000 liter ) to 4,000 cu.m. (1, 40, 00,000 liter) If this water is used properly then it will be sufficient for all activities at any village or pada.

Requirement of water at any village or pada (cluster of Houses) is for following

- (i) For Drinking and cooking purpose
- (ii) For Horticultural development on Barren or Varkas land.
- (iii) For Kharip and Rabbi crop
- (iv) For other activities of people & cattle's

### **(i ) For Drinking and cooking water requirement**

A family of 5 requires about 10 cu.m. (10,000 liter) of water for drinking & cooking or entire year. Even a small house having roof top area of 40 sq.m. will give 20 u.m. (20,000 liter) at 500 mm annual average Rain fall.

### **(ii) For Horticultural Development on Barren land or Varkas land**

About 1 liter of water is requirement for each tree such as Mango, Kaju etc. Hence at 80 trees per acre we will need  $80 \times 240 \times 1 = 1,92,00$  liter of water. This quantity of water can be very easily stored from even minimum annual average rainfall of 500mm

**(iii) For Kharip & Rabbi crop.**

A small portion say up to 10% is to be reserved for collecting Rain fall so that this stored water can be used during dry spell during Rainy season or for rabbi crop after monsoon

**(iv) Water required for other Human & cattle activity**

For this surface runoff is to be collected in pond at suitable locations or sites within village so that this stored water will be sufficient for entire year.

From all above it is very clear that Rainfall over entire village area if properly stored then it can take care of various activity. This will also help in recharge of ground water and dependence upon ground water in Hard rock terrain will be a minimum.

Keywords: Rainwater Harvesting, Hard rock