



PARIVARTHANE VOL.8

RWH AT URBAN LOCAL BODY – AN INFORMATIVE PAPER

FREQUENTLY ASKED QUESTIONS (FAQ'S) IN RAINWATER HARVESTING

1. What is Rainwater harvesting and how?

Catching the Rainwater where it falls. Rainwater is the ultimate source of fresh water. The activity of collecting rainwater directly or recharging it into the ground to improve ground water storage in the aquifer is called Rain Water Harvesting. Rainwater may be harvested by two ways. Rainwater that falls on the terrace of the buildings and in the open spaces around the buildings can be tapped.

2. Why Rainwater be harvested?

Rain Water may be harvested to conserve and augment the storage of ground water, to reduce water table depletion to improve the quality of ground water, and to arrest seawater intrusion in coastal areas.

It could be that you don't like big bond issues to pay for new water treatment plants. There are lots of possible reasons.

3. What are the main objectives of Rainwater harvesting?

The main objectives of rainwater harvesting are

- To conserve the surface run-off during monsoons
- To overcome the problem of flooding and stagnation of rain water during monsoon
- To recharge the aquifers and increase the availability of ground water
- To improve the quality of ground water wherever necessary
- To arrest the intrusion of salt water in to mainland aquifers

4. What are the main components of a Rainwater harvesting system?

- **Catchment:** The surface upon which the rain falls
- **Conveyance:** Transport channels or pipes from catchments area to storage
- **Roof washing:** The systems that filter and remove contaminants and debris
- **Storage:** Cisterns or tanks where collected rainwater is stored
- **Distribution:** The system that delivers the rainwater
- **Purification:** Includes filtering equipment, distillation, and additives to settle, help filter, and disinfect the collected rainwater

5. Who all can have the Rainwater installation?

Anybody at any point of time can have the Rainwater installations. For Example: Individual houses, Institutions, Industries, Apartments, Gardens, Open spaces, Community centers, Convention Halls etc. There is no limit for harvesting rainwater subject to rainfall and catchments area.

6. Is the Rainwater harvesting necessary for individual household?

Yes of course. In our state of Karnataka due to growing population, inadequate infrastructure and non-availability of potable sources, many municipalities are not in a position to supply required amount of drinking



water for citizens. This being the situation, one can start harvesting rainwater for the own use, which helps to cater at-least for 3 to 4 months period in a year.

7. Is the Rooftop harvesting economically viable (beneficial)?

Yes it is. Without chemical treatment, collected rainwater is typically suitable for all non-potable (non-human-contact) uses including:

- Outdoor lawn and garden watering/ Irrigation.
- Vehicle and power washing
- Fire fighting
- Air conditioner make-up water
- General non-potable outdoor usage
- Cold water flushing and clothes washing subject to local ordinances.

8. How do I work out that how much water my roof will collect?

There is a simple formula for working this out. Basically, **1mm** of rain on **1 square meter** of roof top equals **1 litre** of water. e.g. If I have a roof of **40 square meters** and we get a downfall of **12mm** then: **40 x 12 = 480L** of water will be collected.

9. Who will build it and how long will it take?

We need someone who understands rainwater harvesting. It is simple but it still needs someone who has experience in the principles of rainwater harvesting. Then a skilled mason or a plumber can do the job for you within 10 days. The training session for the plumbers and architects is being planned and will be imparted batch wise and ULB wise, once the Trainers Manual is published and released by the Government.

10. How big the rainwater tanks are?

The rain water tanks are vary in size from a **few liters to about 1000 liters**. Most of the HDPE barrels are **200 to 250 ltrs capacity**. Size of the Rain water tanks start from some hundred liters to 6000 liters. In our environs, we can have underground '**Ferrocement**' tanks with required capacity to suit our installations. This type of tank may be built **upto 20,000 liters** capacity for domestic utility.

11. Can I use the harvested water for groundwater recharge?

Absolutely, artificial recharging to augment ground water resources has become a necessity and therefore it should be developed and popularized in both urban and rural areas. The filtered and treated rainwater both from roof top and open surfaces can **be led to bore wells and open wells** so as to enhance the water table level and also to establish the source sustainability.

12. Does it require a lot of maintenance?

Not necessarily. We have to check the entire system once or twice in a year, if need be at very little cost it can be rectified. **Remember rainwater harvesting means that you have to get involved in the process.** This is about making water all our business and this is about building our relationship with water, with the environment. Harvest rain and learn the value of each raindrop!!

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