

# Water Conservation and Rain Harvesting

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Water is a blessing from Allah to us. In Pakistan we are fortunate to be located in part of the World where for centuries there was never any scarcity / shortage of drinking water. I recall my childhood days in the north of Lahore where potable water was readily available only at a depth of around 30 ft. Every household had a hand pump in the house for daily water needs. The situation has drastically changed and now potable water is available around 800+ ft. down and it is rapidly receding further downwards – thanks to us loosing Ravi River to India under Indus Basin Treaty. Ravi was the main source of recharging the aquifer of Lahore and now it is only possible for a few months of the year when flood water is flowing during summer. We cannot reverse what has been done in the Indus Water Treaty regarding Ravi at this point in time thus we need to devise means and methods of sensible use and conservation of this valuable resource. The aquifer of Lahore area is not being recharged compatible to the rate we draw ground water for our needs. This is mainly due to big increase in the population and our age old habits of mercilessly wasting and misusing enormous amount of potable water.

Take the example of the residents of large Banglows; large amount of water is wasted in our daily routine i.e.:

- Washing driveways.
- Excessive watering of large lawns and plants.
- Vehicles washing every morning.

Public taps all over the city are often left run-

ning unchecked for one reason or another.

There is an urgent need to educate general public about the judicious use of water. For long term planning it is important to start educating children at primary school level about the importance and conservation of water.

Immediate action can be taken through all powerful electronic media to educate general public the same lesson of non-wasteful use and conservation of water. Large advertising boards available on major roads should carry public service notice about water conservation. To supplement our ground water resources, there is an urgent need to avail rain harvesting to the maximum. I must hurry to that, we Pakistanis are not ignorant about rain harvesting, it has been practiced for time unknown in Barani / Desert areas of Thal and Tharparkar and many District of Balochistan where rain water is collected in pounds for irrigation and daily use of human beings and animal both domestic and Wild.

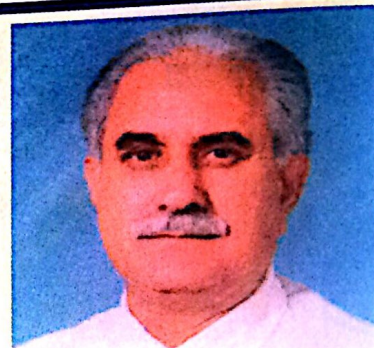
When I say rain harvesting here I mean its introduction to large cities. Let us take Lahore as example because we all know it so well. All the supply of water is drawn from ground and with the massive growth of population resulting in ever greater demand on ground water which is not being replaced / recharged as per the rate we are pumping out. This has resulted into:

- Lowering the aquifer level
  - The brackish ground water of Southern Districts is encroaching into aquifer of Lahore.
- Rain water harvesting is practiced in many de-

veloped and developing countries of the World and we can learn a lot from the research / practice of these countries e.g. Australia, South Africa, Sicily, Ireland and many others. The enormous built up area of Lahore produces equally large amount of runoff which is drained into the already over loaded sewerage network that contributes to over flowing gutters on to streets and roads thus creating problems in the low lying areas. We have witnessed this phenomenon getting worse every year.

The over loading of sewerage network can be taken care of with the introduction of storm water drains. But the best would be the introduction of rain water storage coming from buildings or at least the minimum we can do is draining the roof top rain water on to large lawns and grounds where it will sock into the ground and help towards recharging the aquifer. On site storage of rain water into large tanks is practiced elsewhere in the World and the same can be introduced in Lahore, in particular in localities where there are large Government Owned Residences and also in localities where large size privately own residences exist. Houses must be designed such that minimum of roof top rain water goes into the sewerage network.

It is a well known fact / habit of our daily life that we mercilessly use potable water for uses where non-potable water from shallow wells can be utilized. It is a common scene in localities e.g. Model Town, Gulberg, GOR, etc. where driveways and vehicles are being



washed with high pressure hoses first thing in the morning, using potable water from the water supply tap.

This morning ritual including watering of large lawns can be undertaken using water drawn from shallow wells installed by the property owner thus saving the potable water which is drawn from around 800 ft deep aquifer.

PHA in Lahore has done excellent work of making the city green and planting beautiful flowers in the green spaces in the middle of major roads, but at the cost of heavy amount of potable water. What can be done by PHA is listed hereunder:

- Use processed sewerage water for irrigating their plantations
- Where processed sewerage water is not available use water drawn from shallow wells
- Introduce irrigation system via plastic pipes / tube buried in the ground as against using Bowsters
- Irrigate during cooler hours of the day in summer season i.e. late at night, this will reduce traffic congestion caused by PHA trucks irrigation the road side plantations during morning hours. It will also reduce evaporation losses of the irrigation water.

Punjab Government should take immediate action to arrest the wastage of our valuable resource and develop incentives for water conservation and rain harvesting.