III.A.3. Water Harvesting and Water Reuse Protection in Chennai City - Economic and Sustainable Issues

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The Paper is a study based on t he experiences of rain water harvesting and water recycling by a housing complex Chennai City. The wells which were dry previously are maintained and are recharged through innovative soil and water management practices. The method of rain harvesting is by digging shallow wells to hold the rainwater collected through down post pipes from terrace top. Further, a few absorption pits are dug to collect water falling directly on the ground. Additional hand bores having a shallow depth are dug to draw water collected in the pits. The results are encouraging due to the following benefits which can be emulated elsewhere with suitable modifications: (i) The shallow dug wells invariably yield better quality water than the deep bore wells, (ii) Old dried out wells become rejuvenated and start yielding, (iii)Ground water recharge in other bore wells and (iv) Water quality improves over time.

The used water is classified as grey and black water. The grey water results from bathing, washing of vessels, clothes and floors. Black water is let into sewage lines and is not used. The treatment plant for grey water is located in the housing complex premises itself and thorough innovative techniques the water is treated successfully. In this study an attempt has been made to work out the comparative economics and sustainability of this innovative system via a vis the alternative choices. The results are encouraging and cost effective.