Groundwater is a major source of water contributing water supplying system anywhere, so in ward no: 19 of Kathmandu city. Kathmandu is disorderly urbanized valley filled with fluvi Lacustrine Quaternary sediments. Ward no: 19 is situated in the core of the ancient city where denizens still nearly or totally depend upon groundwater for their daily purpose. So groundwater extraction is high in comparison to recharge in the area. Urbanization is one but not the major reason behind low groundwater recharge. The major reason is surface geology which constitutes layers of black Kalimati clay. Sandy clay layer exist in a perched form in the clay horizon which is nearly not expose to the surface. Since the Kalimati clay has very low percolation rate groundwater recharge rate is very low in the area. However during pit percolation test some of these pockets of sandy clay are encountered at shallow depth, in Shantaneshowr at the depth of 1.81m (PT4) and at North of Maruhiti at 1.82m (PT3). Hence subsurface groundwater recharge techniques should be the most appropriate method to recharge aquifer of this area. In the locations where sandy clay is encountered at the shallow depth percolation pits can be designed to recharge groundwater estimating the rainwater catchments of the area. Dried dug wells which are scattered rampantly in the study area can be viable medium to recharge groundwater because dug wells are it self connected to the shallow aquifer horizon.