

## Water management at Deccan international school (Total area: 10 acres) - situated in a low-lying area near the dry Chikka Kalasandra lake

Water demand: 35 KL/day; rainwater harvesting potential: 13801 KL/annum

- No. of borewells in the campus: 4
- 2KL / day of Cauvery water is used for drinking purposes
- Rooftop rainwater harvesting exists only for the junior school building

### Issues

- Flooding during heavy rains - concentrated in 3 areas:
  - Flooding area 1 - Parking lot
  - Flooding area 2 - Junior school courtyard
  - Flooding area 3- Open area behind Ashram school
- Water scarcity during summer, hence major dependence on tankers (~12 KL of tanker water/day)
- Lack of filtration to the direct borewell recharge in one borewell led to its siltation rendering it unusable
- Harvested rainwater from the junior school block passes through the muddy courtyard and then into the rainwater tank leading to heavy silt accumulation in the tank, so this water is not used

### Solutions implemented

- Remedying siltation in borewell with direct recharge with the help of a filtration system and recharge wells
- Flooding area 1 (slope: towards the school with a catchment beyond the school): 2 consecutive recharge wells (5ft x 30ft) overflowing into a chamber that is connected to the main internal SWD of the school
- Flooding area 2 (runoff: 199 KL / annum): cattle trap installed downstream of the area to direct runoff into the main SWD; 11 recharge wells dug in main internal SWD
- Flooding area 3 (runoff at least 47 KL / annum): effect of intervention in the above two flooding areas has resulted in elimination of flooding in this area



### Next steps

- Rooftop rainwater harvesting systems on all buildings
- Splitting the water coming into the chamber (near flooding area 1) into two parts - diverting one part into the old open well next to the Ashram school, and the other part towards to main building for recharge
- Refurbishment of rooftop RWH system in the junior school building