

Solution : Look up!!!!



Every roof is a potential water harvesting structure. Use it to solve your water problems. To know just how, log on to www.rainwaterharvesting.org

Citizens take action – Hyderabad, Andhra Pradesh

Enough water !

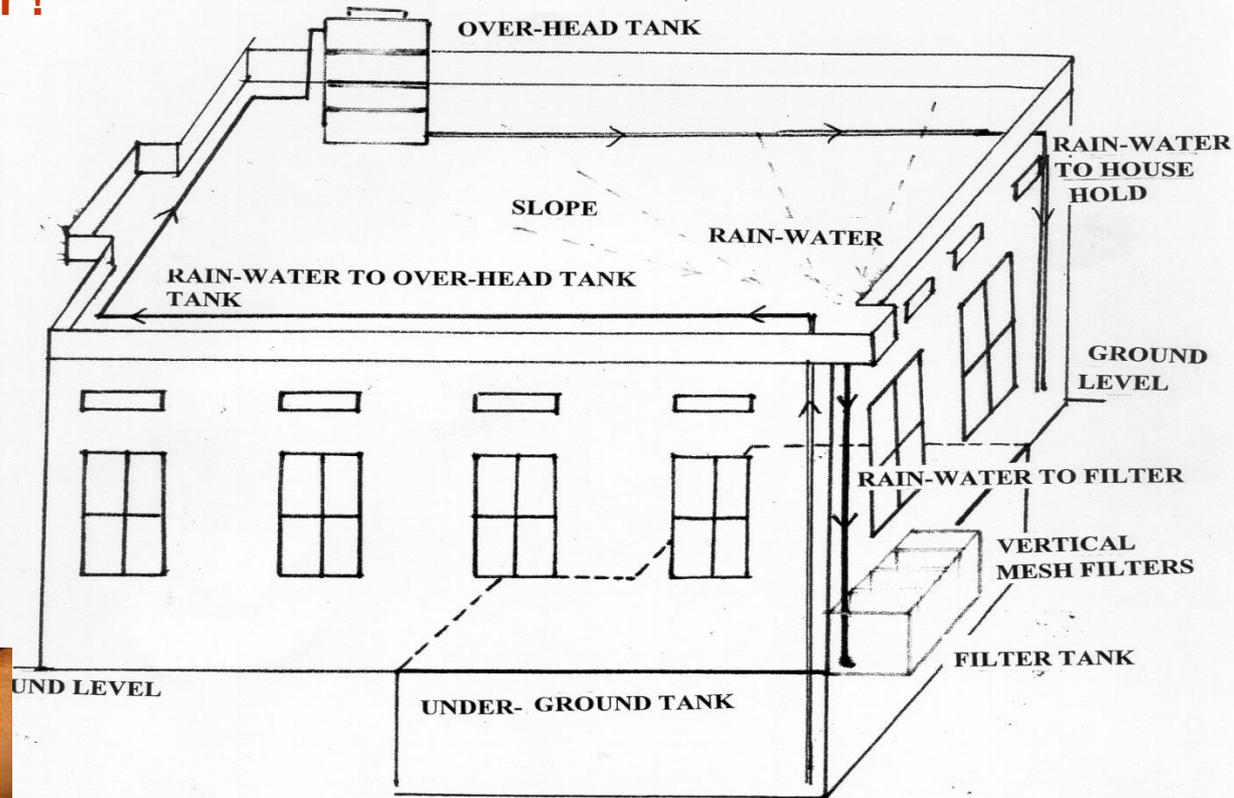


Fig. 3. Three-dimensional diagram showing the concept of rainwater harvesting system from a flat roof surface. Rainwater drawn to an under-ground tank, is pumped to an over-head tank, and then supplied to kitchen and toilets for household use.



Crystal clear !

Citizens take action – Jhabua, Madhya Pradesh



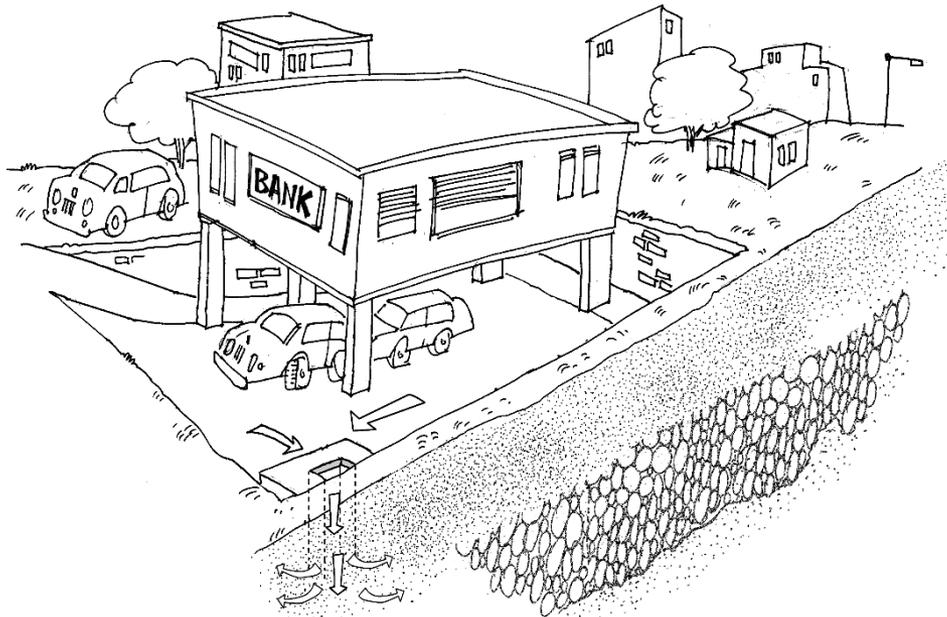
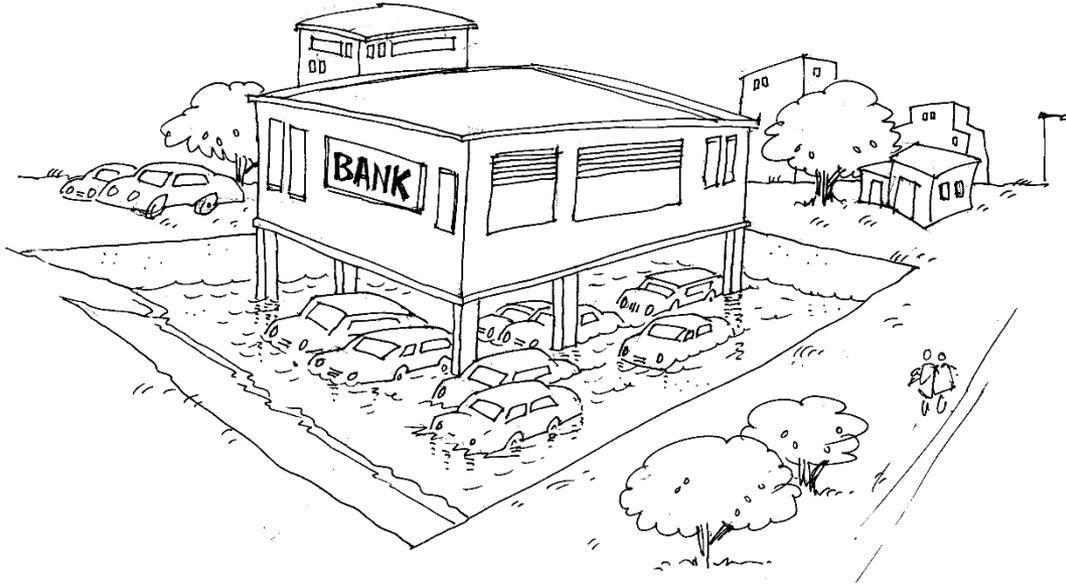
- At Kokawad Ashram in a residential school for tribals, rainwater harvesting has been used to dilute the high fluoride levels in groundwater
- The rain falling on the rooftop of the school building is stored in a 75,000 litre ferrocement tank
- The groundwater as well as the stored rainwater is pumped to overhead tanks where they are mixed and used for drinking and cooking. The diluted groundwater is potable

Citizens take action - Bengaluru

- Rainbow Drive, a newly developed private colony in Sarjapur Road in Bangalore
- No municipal supply or sewage treatment
- Borewell supply; own STP
- Over the years borewells dried up (3/5)
- Started rainwater harvesting – from stormwater drains; individual plots (recharge wells –55); storage tanks
- Supply from groundwater 2 borewells (after RWH) –
- Water charges based on costs of RWH + cost of STP



Citizens take action – Karnataka Bank, Mysore



- In the rainy season, the basement would be completely flooded
- Bank built an underground tank to collect the flood water which was recharged into the aquifer
- During the monsoon
- at least 10,000 litres percolates into the aquifer every day
- As the water level in the aquifer rose, there was no flooding in the basement
- Quality of water from the borewell used by them has improved

Citizens take action – E. Nizamuddin Colony, New Delhi

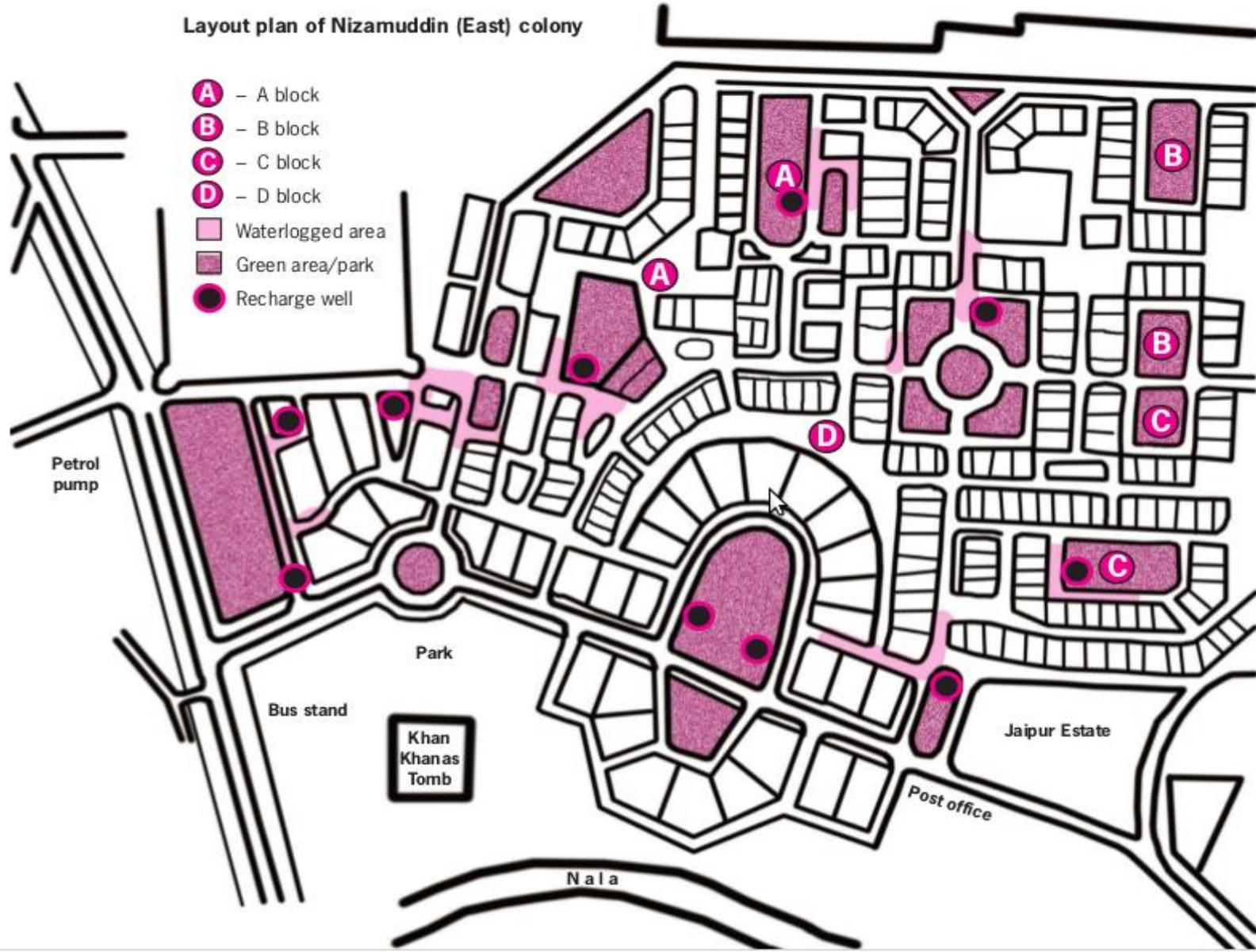


Citizens take action – E. Nizamuddin Colony, New Delhi

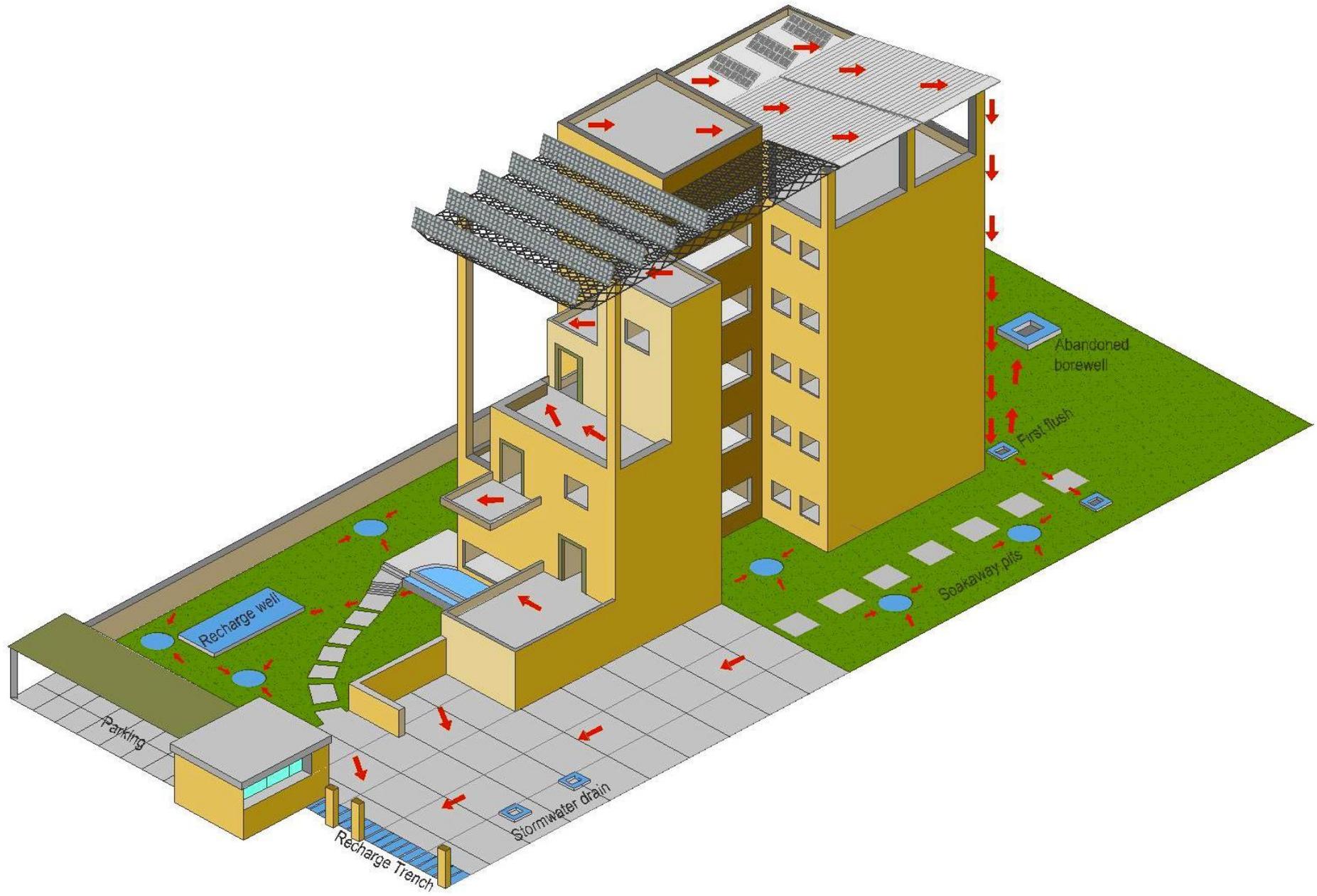


- Rainwater in the stormwater drains was tapped to recharge groundwater
- This was an effective antidote to waterlogging

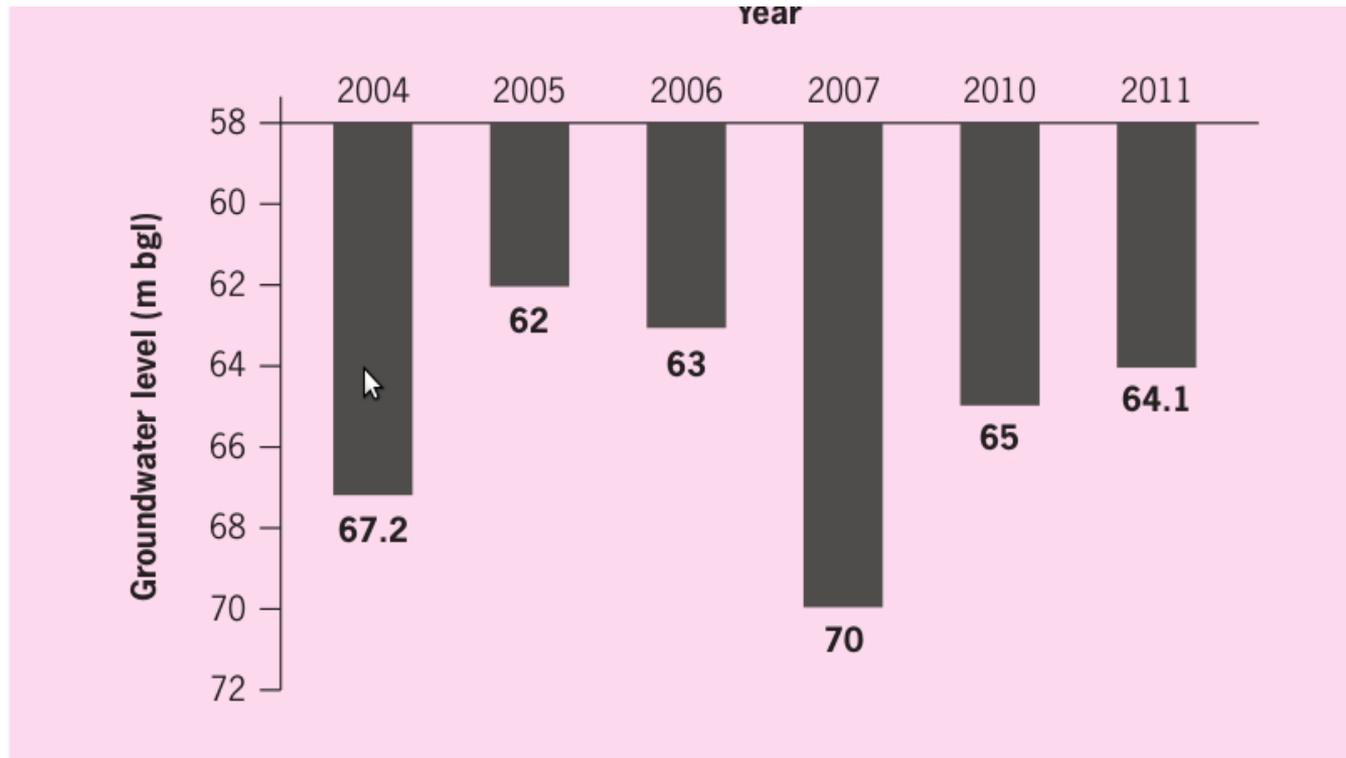
Citizens take action – E. Nizamuddin Colony, New Delhi



RWH at Centre for Science and Environment



RWH at Centre for Science and Environment



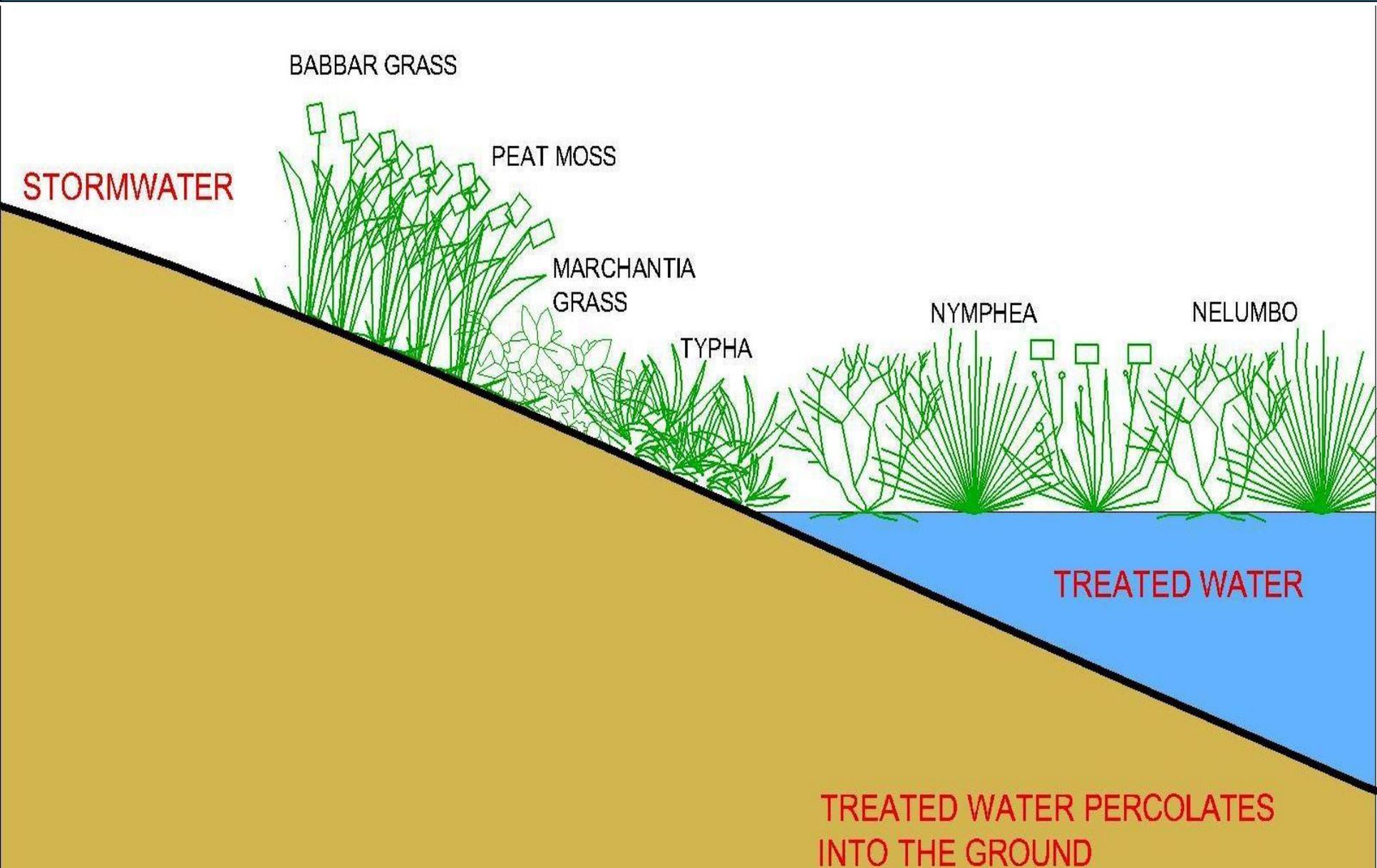
Source: Centre for Science and Environment, New Delhi

Rain garden in the alluvial soil of Delhi



Surface runoff from different directions will be entering

Rain garden in the alluvial soil of Delhi



Pervious pavement at Gandhi Nargar RS, Jaipur

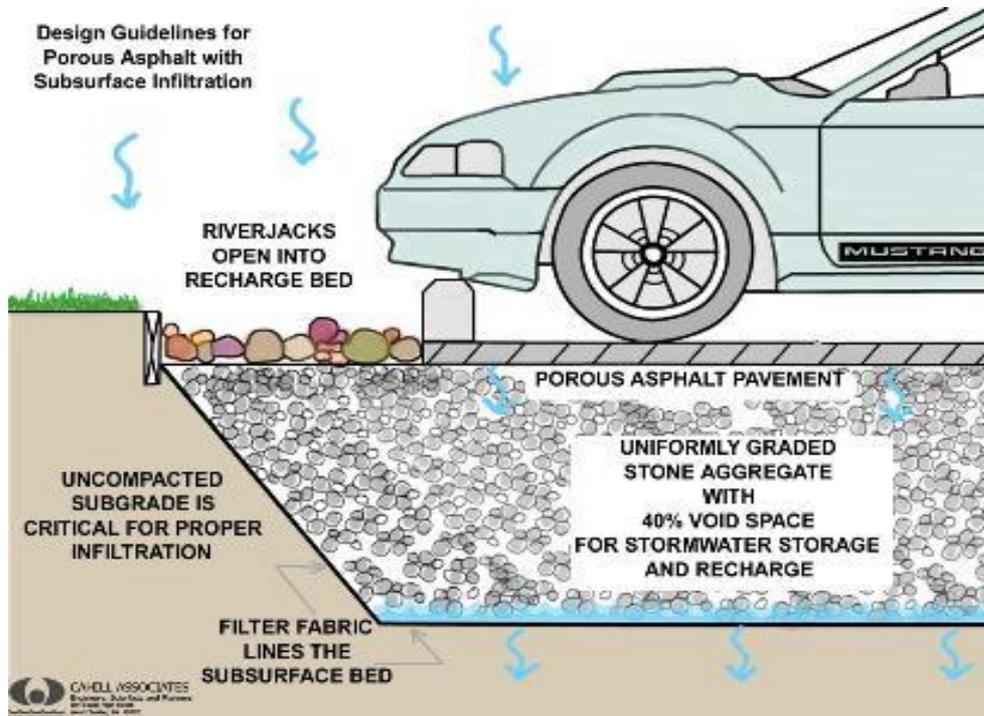


4 m wide strip
recharging 2 lakh
litres of water
annually to the
ground

The whole parking
lot can recharge 22
lakh litres of water
into the ground!!!!



Pervious pavement at Gandhi Nargar RS, Jaipur



- Pervious pavement is made of either pervious asphalt
- Pavement has air spaces that allow water to pass through the pavement into a reservoir base of crushed aggregate, then infiltrate into the ground.

RWH at Janki Devi Memorial College

JANKI DEVI MEMORIAL COLLEGE'S RAIN WATER HARVESTING SYSTEM

RAINWATER AVAILABLE FOR HARVESTING

Total rooftop and surface area:
32,170 square metres (sq.m)
Average annual rainfall in Delhi:
611 millimetres (mm)
Total volume of rainwater harvested:
6880 cubic metre (m³) or 68,80,000 litres

This is 35 per cent of the total rainwater harvesting potential

WATER SUPPLY SOURCE

The three borewells inside the campus caters to the total water requirement of the college

RAINWATER HARVESTING SYSTEM

Rooftop water harvesting: The runoff from the terrace of the college building is channelised into three recharge wells, each measuring 1 metre (m) x 1 m x 2 m at two different locations. All the rooftop rainwater outlets except that from the tutorial block discharges into stormwater drains and then to the recharge structures. Whereas in the case of tutorial block, a network of pipes linked through chambers take the rainwater to the recharge well. To facilitate groundwater recharge, all structures are provided with a 15 m deep borewell of 150 mm diameter. Layer of brickbats filled inside the recharge well ensures proper filtration of harvested water.

Surface runoff water harvesting: The runoff from the unpaved area is intercepted at the main gate by a collection trench. From here the runoff eventually drains into an abandoned openwell thereby facilitating groundwater recharge.

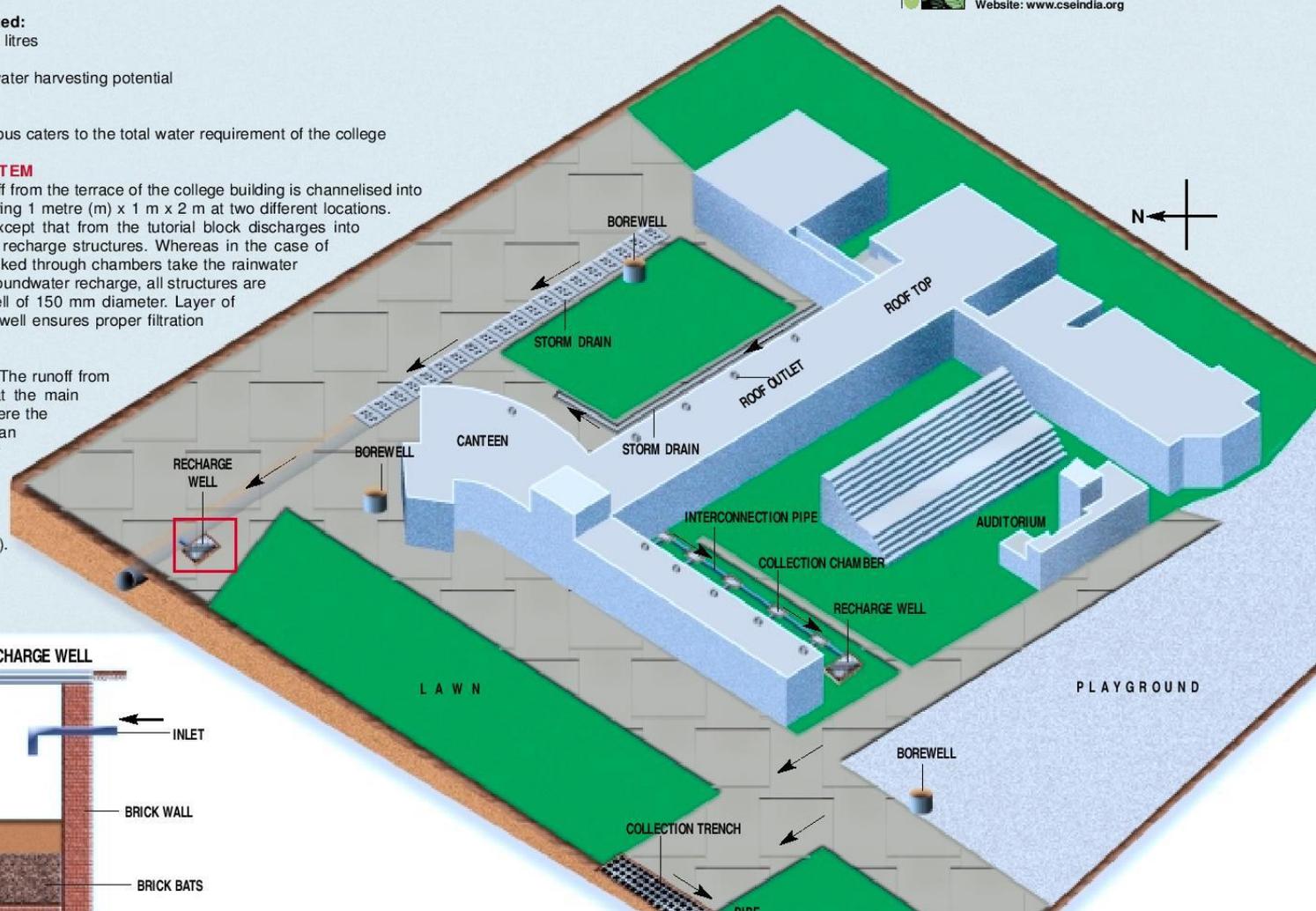
EVERLASTING IMPACT

The water level as on June 2002, was 35.8 m below ground level (bgl).

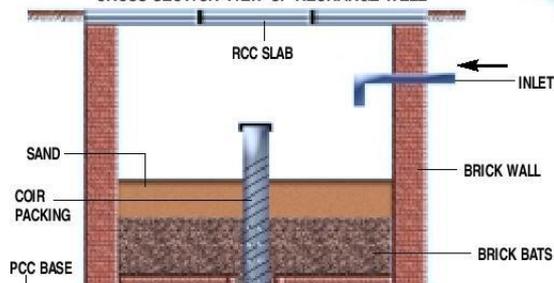
Cost of the entire rainwater harvesting system: Rs 0.70 lakhs.



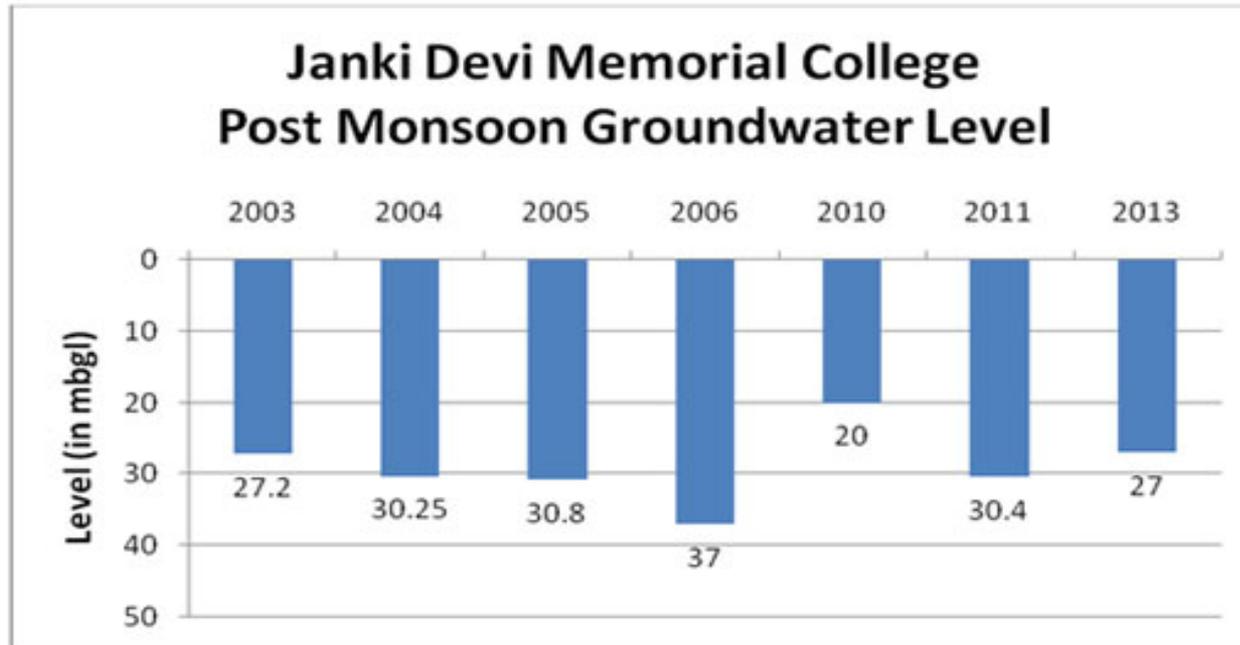
Centre for Science and Environment
41, Tughlakabad Institutional Area, New Delhi-110 062
Phone: 608 1124/3394/6399 Fax: 608 5879
Website: www.cseindia.org



CROSS SECTION VIEW OF RECHARGE WELL



RWH at Janki Devi Memorial College



Wastewater treatment and reuse

<https://youtu.be/BuSXQPvW0Kg>

**Rain is decentralised. So is the demand for water.
Why can't we decentralise supply?**



Catch water where it falls