Online Impact Workshop cum Master Class on Capacity Building initiative for Citywide Water and Sanitation Management

CENTRE FOR SCIENCE & ENVIRONMENT 2020

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Training program on Water sensitive urban design and planning, August 2019

- Urban water management
- Sustainable urban drainage system
- Rainwater harvesting system
- Wastewater system DWWT's

URBAN

PROJECT 01 - Residential complex in Vadodara (Under construction)

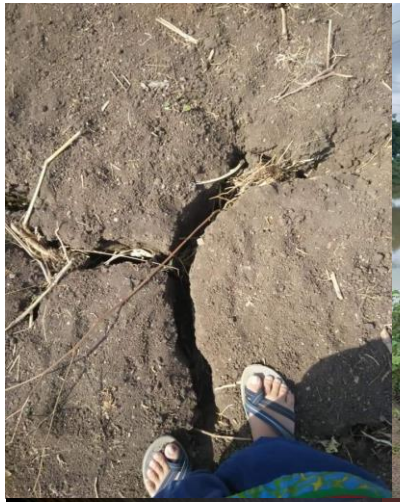
RURAL

PROJECT 02 - RWH & Sanitation design for rural school, Maharashtra (Completed)

RURAL

PROJECT 03 - Rainwater interventions for village, Maharashtra (Under construction)

1. Identify issue
2. Analyse data
3. Calculations related water sensitive site/project planning
4. Design & Identify suitable system
5. Execution, construction, material, maintenance
6. Involve community & educate them on water sensitivity aspect








SOLVE URBAN FLOODING THROUGH WATER SENSITIVE PLANNING

RESIDENTIAL BUILDING, VADODARA,

Site area:1200 square meter

Built up area: 400 square meter

Site program: Zilla parishad marathi medium school for 100 students, Aurangabad, Maharashtra

Annual rainfall capture on site: 4,50,000 litres/year

Number of user: 100-150 people (Students, Teachers)

A | RAINWATER HARVESTING 90% OF PER DAY RAINFALL

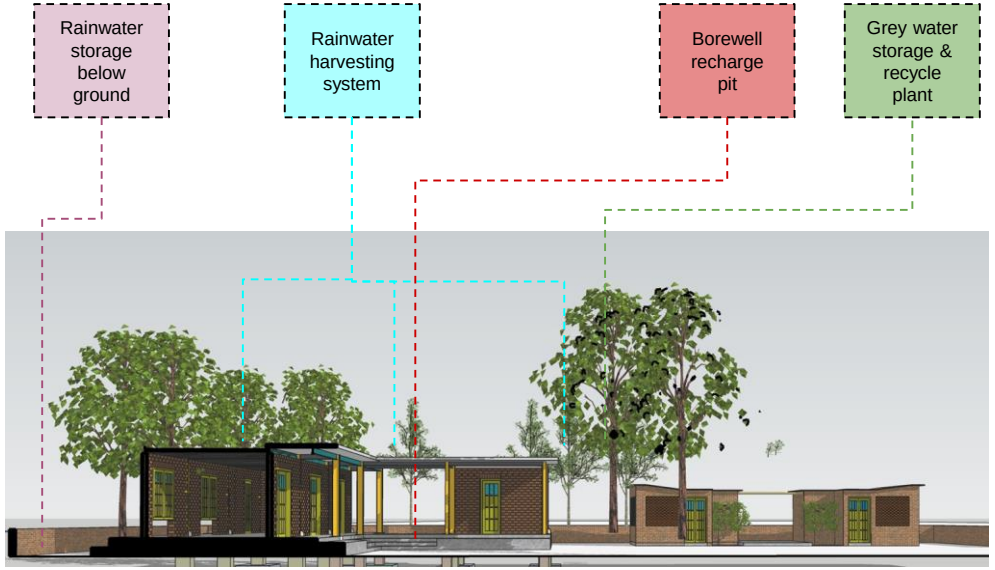
- 9500 litre rainwater storaged
- 1000 litre rainwater released in landscape
- 3000 litre water for ground & borewell recharge
- Total water used/stored = 13,500 litre/day

B | GREY WATER RECYCLED 50%

- 1500 Litre per day water enter plant pit
- 750 litre/day water for landscapin g

C | DRAINAGE WATER 100%

- 600 Litre per day water enter plant pit & trees
- 600 litre/day water for landscapin g



SOLVE ABSENCE OF WATER TO PROMOTE ACCESS TO EDUCATION SCHOOL BUILDING, AURANGABAD,






SOLVE ABSENCE OF WATER TO PROMOTE ACCESS TO EDUCATION SCHOOL BUILDING, AURANGABAD,

Site area:3450 square meter

Site program: Residential+Commercial complex, Vadodara, Gujarat

Annual rainfall capture on site: 12,78,900 litres/year

Number of user: 40 families

Rainwater harvesting & reuse tank

Stormwater drainage plan

Pervious pavement, ramp

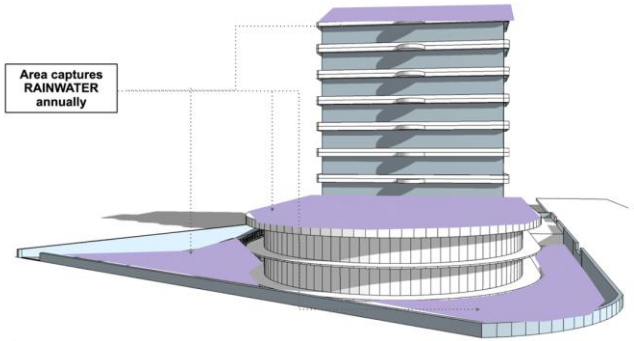
Borewell + Recharge pit

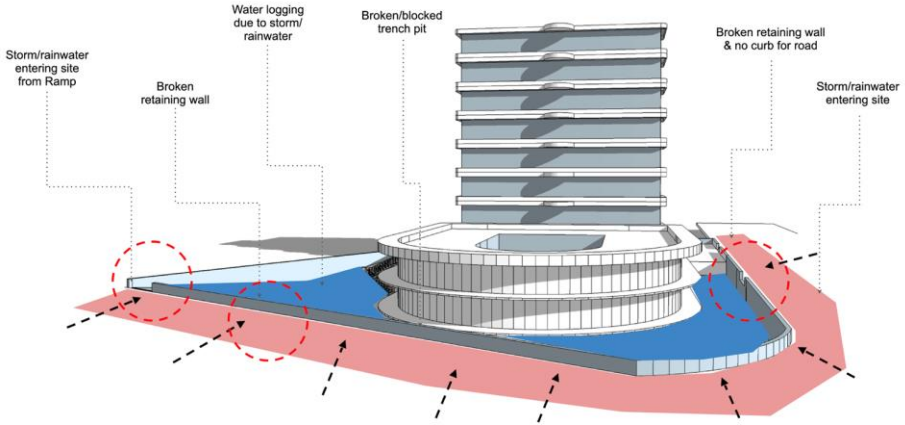
A | RAINWATER HARVESTING, STORMWATER DRAINAGE

42,500 litres per day

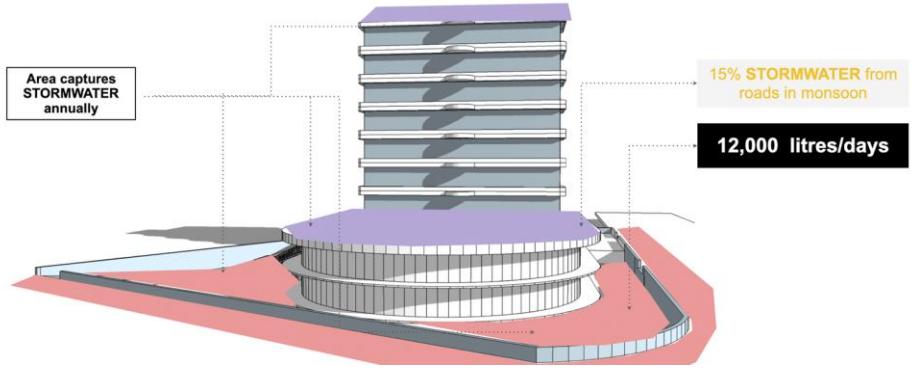
40% per day water storage

60% of water recharge on surface



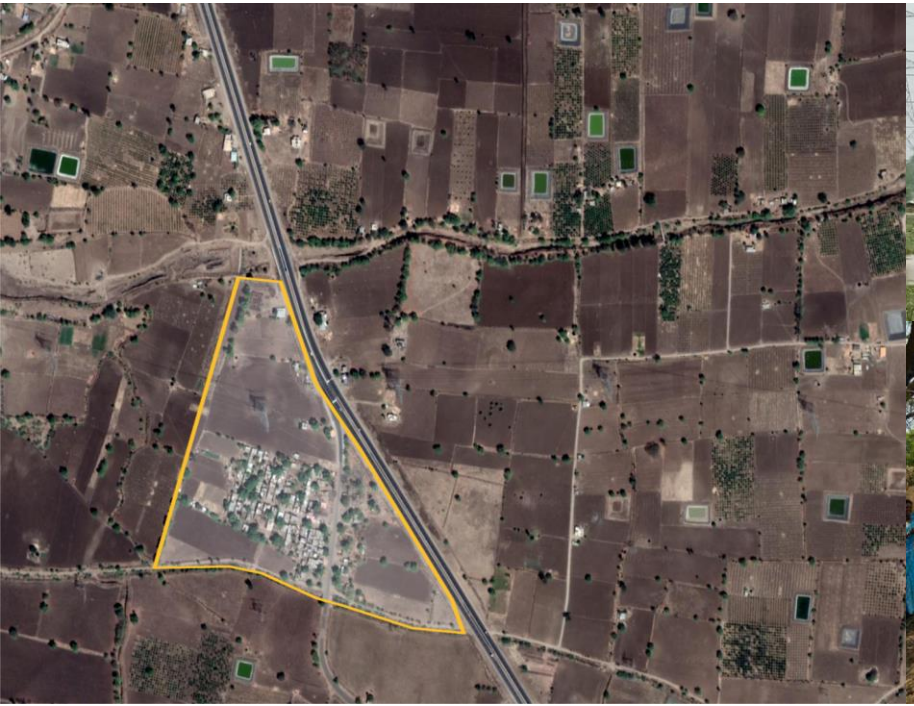


80,224 litres/days + 12,000 litres/days = 92,224 litres/days



SOLVE WATER CRISIS TO INCREASE GROUND WATER LEVEL

DROUGHT AFFECTED VILLAGE, AURANGABAD,



SOLVE WATER CRISIS TO INCREASE GROUND WATER LEVEL

DROUGHT AFFECTED VILLAGE, AURANGABAD,

Site area:1,59,189 square meter

Site program: Pandhari drought affected village

Annual rainfall capture on site: 2, 91, 02, 680 litres/year

Number of people: 1800 people (250 families)

Rainwater recharge system per house

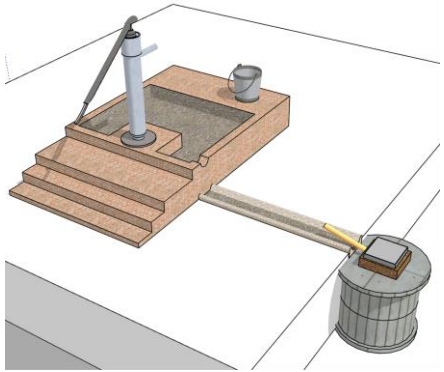
Stormwater drainage proposal

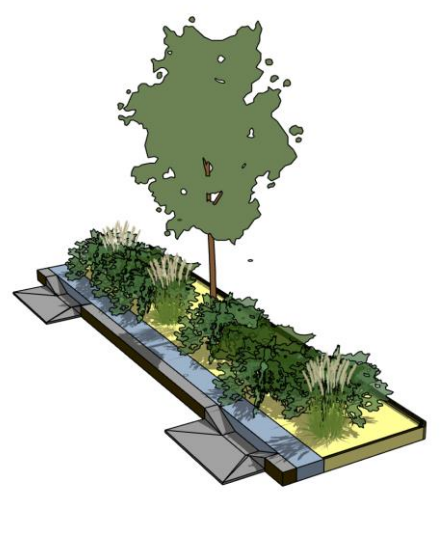
Borewell recharge pit

Grey water storage & recycle plant

We want to achieve in two phase for next three years

- Store 50-60% rainwater
- Reuse 40% rainwater
- Recycle, reuse 30% of grey water
- Increase ground water recharge capacity
- Develop sustainable stormwater drainage system
- Create water sensitive small village & reduce water tanker dependency





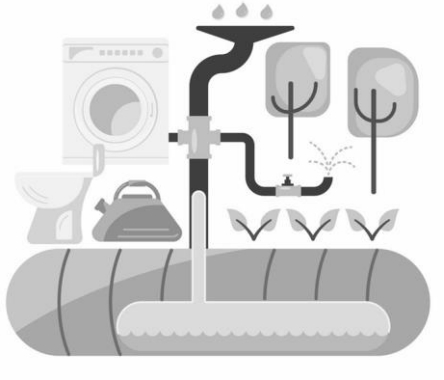
IMPACT & LEARNING FROM MY CSE WATER SENSITIVE TRAINING IN

Urban water management

Sustainable urban drainage system

Rainwater harvesting system

Wastewater system DWWT's



DESIGN

IMPLEMENT

ACHIEVE WATER SENSITIVITY

EDUCATE & CONVINCE

CREATE AWARENESS

IMPLEMENT WITH COMMUNITY INVOLVEMENT

REDUCE WATER DEPENDENCY

INCREASE GROUND WATER LEVEL

ACCESS TO WATER

CAPTURE, REUSE, RECYCLE WATER