

CII – Godrej GBC Hyderabad

Optimal Utilization of Ground Water Resources

 Mahindra Automotive Sector

Presented by:

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Mahindra & Mahindra Ltd.,

Automotive Sector, Zaheerabad – A.P

Date: 26th August'2009

Mahindra & Mahindra Ltd.,
Automotive Sector
Zaheerabad – A.P

 Mahindra Automotive Sector

Organization Profile: Established in 1985 in semi arid region

Total estate area : 343 Acres

Products Mfg. : 3 Wheelers, UVs & LCVs

Our Products

UTILITY VEHICLES



Invader



Maxx



Safari



Camper

LIGHT COMMERCIAL VEHICLE



Tourister



School Buses



Load King



Tour-42 str Bus

3- WHEELER



ALFA Load carrier



ALFA Passenger

Struggle for Water

- Acute water shortage
- Drying up of open wells and bore wells
- Rationing of water to colonies
- Buying of water from distant locations
- Rising of water demand day by day due to increase in production demand
- Ground Water strike rate dropped to 450 feet

Year 2000 Areal View of the Mahindra Estate



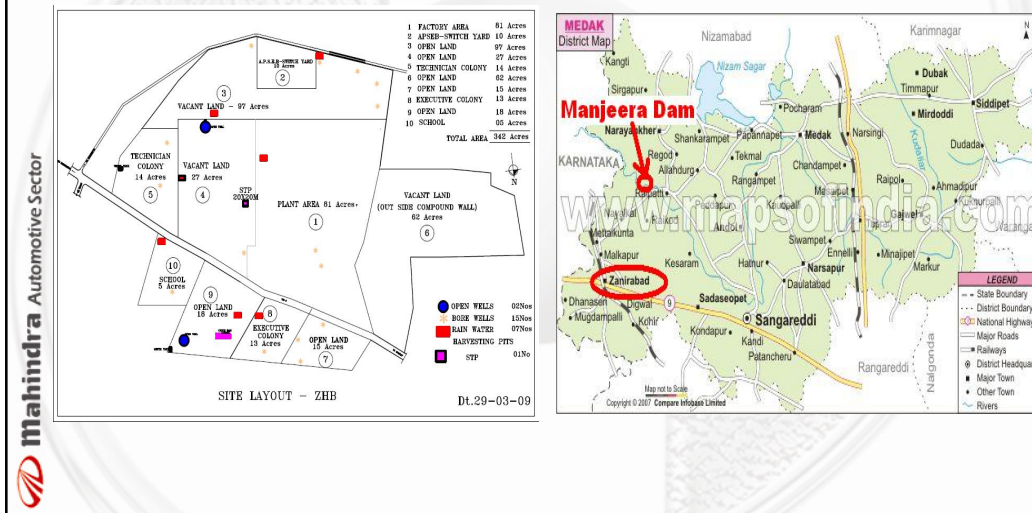
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Initiatives started

- Help sought from ICRISAT and Ground Water Department of AP Govt.
- Under ground water maps and the topography of Zaheerabad estate were studied

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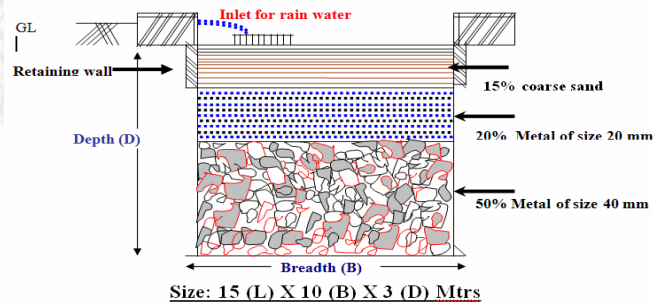
Under Ground Water Maps & Topography of the Mahindra Estate



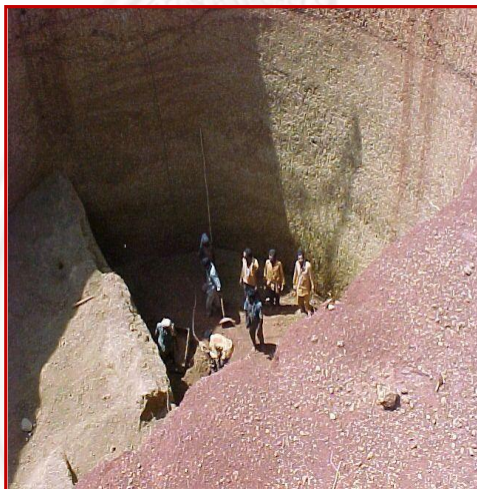
Inputs taken from ICRISAT and Ground Water Department

- Based on these inputs a time bound master plan of water augmentation was worked out.
- The activities considered under master plan
 - Rain water harvesting pits,
 - New locations for bore wells,
 - New location of open wells,
 - Planting of trees which requires less water for survival,
 - Locations for new percolation tanks
 - Re-usage and Re-cycling of waste water,
 - Channels created for rain water to recharge the under ground water reservoirs and
 - Massive tree plantation and drip irrigation

Rain Water Harvesting Pits



Open Wells



Open well under construction



Open well under usage

LOCATION OF OPEN WELL
SI ZE: DIA: 12MTR.
DEPTH: 35-40 MTRS.

Green Inventory

S.No	Name of the Plant	Area Covered (Acres)	No. of saplings planted
1	Mango Plants	81	23,100
2	Chiku Plants	1	100
3	Nagpur Orange	3	1,500
4	Teak	2	5,000
5	Coconut	1	500
6	Cashew nut	1	500
7	Pomegranate	2	500
8	Goose	7	2,100
9	Flower Plants	2	
10	Subabool	20	80,000
Total		120	1,13,300

Green Inventory



Percolation Tanks



Before construction photograph
Dt: 30/12/2004



After Collection of storm water in
percolation tank
Photograph: 21/04/2005

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Reservoir Capacity: 120 Lakh Ltrs
(Approx.)

Rain water Inflow to Harvesting Pit & Percolation tank



Video taken on Dt: 17.08.09, Time: 05.00 PM



Percolation Tank Catchment Area



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Re-cycling of Effluent Water

Effluent Treatment Plant (ETP):



Bio-filtration Plant



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Drip Irrigation



Drip Irrigation

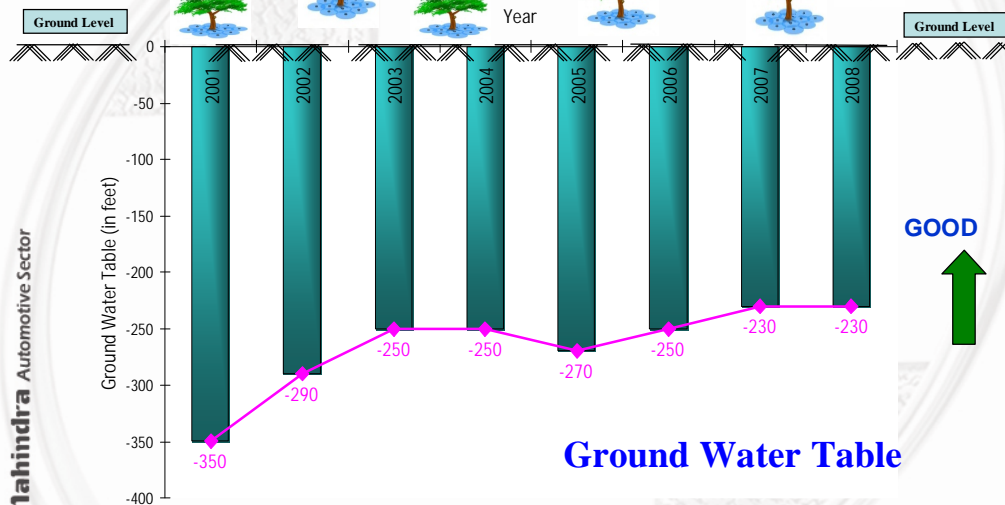
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Year 2008 Areal View of the Mahindra Estate

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Results



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END OF THE PRESENTATION



THANK YOU

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