



Company Profile



- Wipro Ltd - Global IT services company.
- Business area of focus - Electronic commerce, Business Intelligence, CRM, SCM, EAI & Infrastructure Management.
- First Software services company certified at SEI - CMM level 5.
- First Software Services Company to be Certified ISO 14001.
- Wipro facility in Gurgaon is LEED Platinum rated and Kochi is LEED Gold rated from US Green Building Council.
- Going forward all 17 New buildings are being constructed as per Gold LEED specifications



- About



- Ecoeye - Ecoaction at Wipro
 - Wipro's initiative towards Ecological Sustainability
 - "Eco Eye" signifies Wipro's endeavor to apply the lens of ecological sustainability to the way we work
 - Concentrated corporation-wide initiative to transform the way we do business & engage all our stakeholders
 - Going beyond compliance
 - Being responsible
 - Making Wipro ecologically sustainable in every dimension
 - Providing our customers a diverse portfolio of green solutions (Lighting, IT (products, services & applications), Renewable Energy, Consulting, etc.)

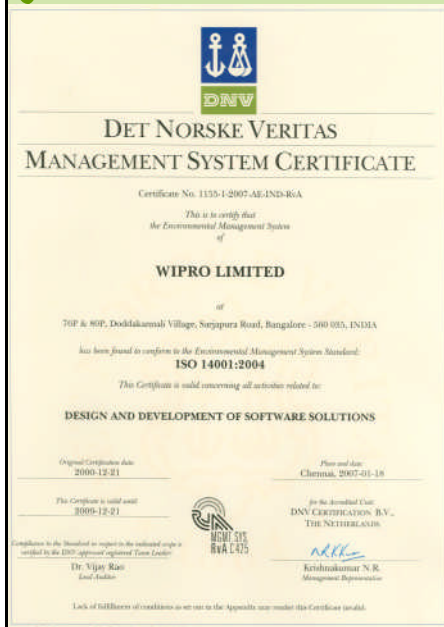


- Themes



1. Ecological surplus organization
Remodel operations (reduce, recycle & offset) to reach neutrality / surplus in the four identified areas (energy, water, waste & biodiversity)
2. Business investments
Build a portfolio of investments that will open new opportunities of sustainable business
3. Beyond Wipro
Partner with regional, national & global groups as part of larger sustainability initiatives in energy, water, waste & biodiversity
4. Transparent reporting
Establish a framework of sustainability-centered measuring & reporting based on GR3 guidelines
5. Risk planning & mitigation
Assess risks to Wipro arising from climate change & ecological degradation; Publish the risk-mitigation plan

ISO 14001 Certification



We are also certified to

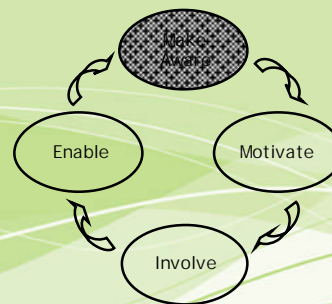
CERTIFICATION	INITIAL CERTIFICATION DATE
ISO 9001:2000 & TICKIT	Dec 2001
ISO 14001	Dec 2000
CMM Level 5	Dec 1998
CMMi Level 5	May 2002
CMMi Level 5 V1.2	Dec 2006
PCMM	Dec 2001
TL9000	Dec 2001
ISO 27001 (BS 7799: 2:2002 converted to ISO 27001 on Oct 2006)	BS 7799 - Oct 2002
IEEE SPA Award	May 2003
ITIL certification (BS 15000 converted to ISO 20000)	BS 15000 (DNV) - Feb 2004
ISO 13485	Jul 2005
AS 9100	June 2006
Automotive SPICE	June 2006 (IMPRONOVA)

Internal Communication to Employees



- Help Employees make a difference at work & beyond

- Make aware & train
 - ü Screening of AI Gore's documentary-film 'An Inconvenient Truth' across locations
 - ü Email auto-signature tagline " Please don't print this e-mail unless you really need to", to spread awareness & induce reduction in the consumption of printing paper
 - ü Leverage the influence of 'Women of Wipro' as 'Green Ambassadors' to spread ecological awareness within their circles of influence



- ✓ Employee portal to build awareness & capability e.g. personal carbon calculator

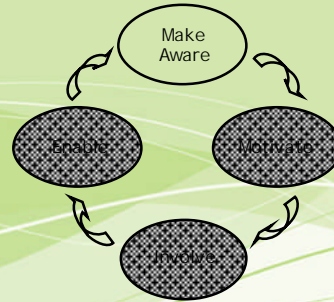
ü Implemented
✓ Planned

Internal Communication to Employees



- Help Employees make a difference at work & beyond

- Motivate
 - √ Encourage eco-friendly behavior
- Involve
 - ü Personal E-waste collection drive (Mobile handsets, PCs, etc.)
 - ü Local EcoEye Chapters to provide employees a platform for involvement
- Enable
 - √ What employees want to do, e.g. Eco-initiatives for the Community through Wipro Cares



- ü Implemented
- √ Planned

Internal Communication to Employees- Intranet channel for Environment



Wipro is doing a self transformation to create an ecologically sustainable organization and business. As Wipro moves forward on this path, it would continuously try to influence all its stakeholders and communities, to move towards ecological sustainability.

1. Why is Wipro doing this?

It is a fact that the path to economic progress is ecologically unsustainable. Each one of us is a part of this. The impact and effect of this could range from serious disruption to society and economy as we know it, to global upheavals and

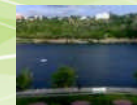
Wipro Green Awards

ECO GALLERY | CITY ECO NEWS | WIPRO CHARTER | HOW GREEN ARE YOU | GREEN TOPS | ARTICLES | HOME

Engage the Community(Community Involvement)



- Protect the ecology in the surrounding community area
 - Transplantation of trees
 - 40 trees identified for felling, to widen roads, in Bangalore, have been transplanted to a community open space.
 - Mass Tree Plantation drive
 - 1000 saplings were planted on world environment day (2007-08)
 - Restoration of Manikonda Lake (Hyder abad)
 - Attempt is to restore the surrounding biodiversity.
- Provide relief to disaster (Tsunami) affected areas
 - Coastal Tree Plantation by employees at tsunami affected - Pushpavanam Village, Nagapatinam District, Tamil Nadu, India. (Oct 2, 2005)
 - A unique corporate-community joint initiative
 - To emphasize the importance of having a coastal tree belt to mitigate the damage from cyclones & floods.
 - 2,54,464 tree saplings planted along a 2 km village coastline to a depth of 100 mts
 - Reclamation of Salinated agricultural Land
 - For 100.25 acres land affected by sea water during the tsunami.



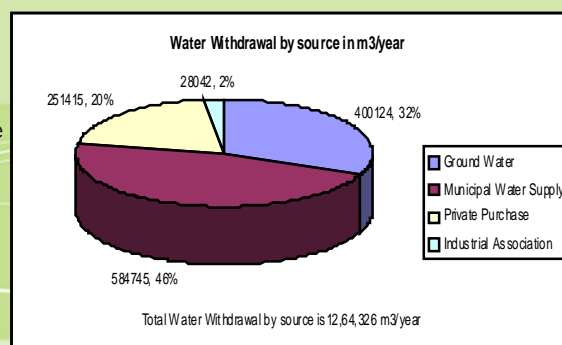
Monitoring & Reporting System



1) Total volume of water withdrawn by source contributes to an understanding of the overall scale of potential impacts and risks associated with the Wipro's water use. We take all measures and water consumption is monitored for every use.

Water is withdrawn from the following sources.

- Ground water
- Municipal water supplies
- Private Purchase
- Industrial Association



For Monitoring purpose water meters are installed to capture the Water consumption on day- day basis

Monitoring & Reporting System



- 2) In-house RO plant- Final Water from out let of RO plant is tested by approved laboratory for the quality check
- 3) Bottled Water - Batch-wise water analysis report is collected from vendor
- 4) Common Sewage Treatment Plant: Before discharging the sewage into the public sewer the domestic sewage is tested for various parameters, it is discharged only if the parameters are well within the limits.
- 5) Sewage Treatment Plant: Before discharging the treated water final collection tank water is tested for various parameters. It is checked whether the parameters are well within the limits for healthy running of plant & also for usage of the treated water for Gardening & Flushing

Monitoring & Reporting System



- Every month water consumption is reviewed in Location review meeting.
- Daily Report covers Water Received, Water Consumption, STP treated Water

Water Meter connected to the following sources

1. Borewell Raw Water supply
2. Municipal Raw Water supply
3. Toilet Flushing Water
4. AC Condenser water make up
5. Irrigation pump at terrace
6. STP Treated Water



WE KEEP TRACK OF WATER USAGE



Daily Report Sep-2008.xls

Innovative Project-1 RO Plant Efficiency



Plant efficiency and water conservation:

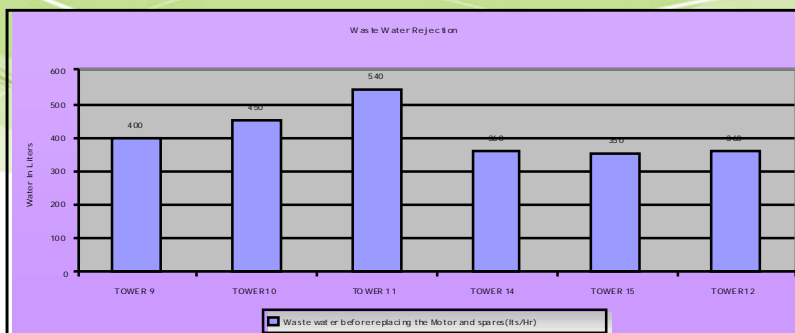
The capacity of the RO plants are 150LPH (Liters per hour) and before this initiative, out put of plants were varying between 30 to 40LPH. Thumb rule for the RO plant water generation is 1:1 ratio that is one liter of water wasted for the regeneration of 1 liter of water . Before this project the plant use to take 4 to 5 litre of water to generate one liter water . There were more customer calls on the non availability of the drinking water as the plant efficiency was down and during peek hours waters are arranged in the bottles to the water cooler .

RO(Reverse Osmosis) Plant efficiency improved drastically and savings achieved in water rejection from RO Plant. Downtime of the plant reduced and availability of the plant though out. RO Plant is used to treat the water for drinking purpose using the reverse Osmosis concept.

Results Before Initiative



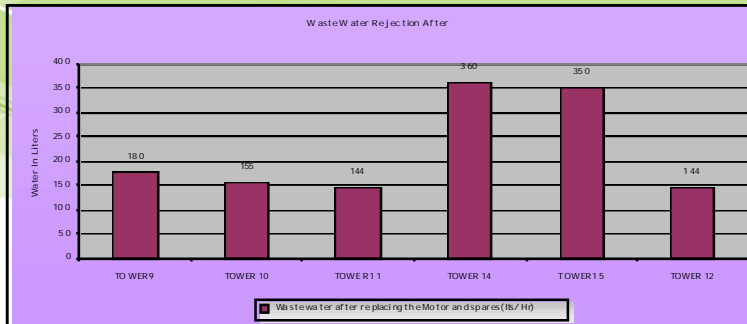
SI	Tower	TDS INLET	TDS OUTLET	Water Out Put before	Waste water before replacing the Motor and spares(lts/Hr)	Pressure before Replacing the Motor
1	TOWER 9	450 ppm	48ppm	90	400	4kg/cm2
2	TOWER 10	455 ppm	45ppm	72	450	2kg/cm2
3	TOWER 11	440 ppm	73ppm	30	540	2kg/cm2
4	TOWER 14	460 ppm	36ppm	90	360	4kg/cm2
5	TOWER 15	450 ppm	35ppm	110	350	4kg/cm2
6	TOWER 12	460 ppm	40ppm	90	360	3kg/cm2



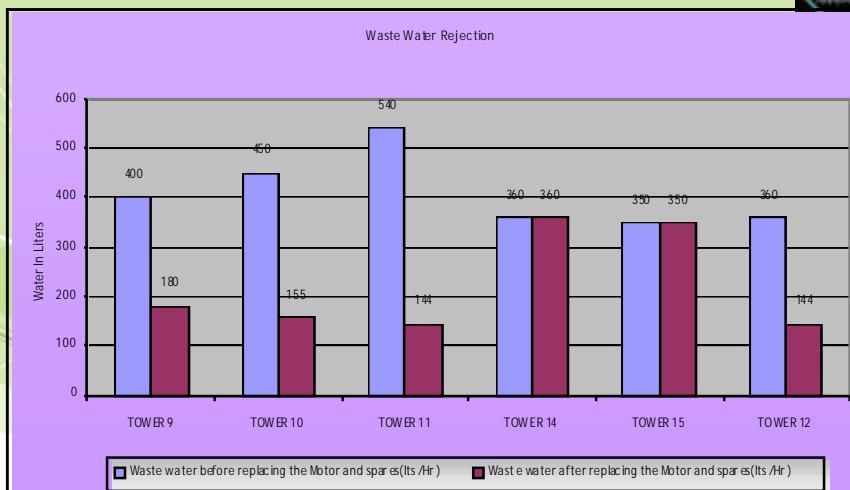
Results After Initiative



Sl	Tower	TDS INLET	TDS OUTLET	TDS Output After Relacing the Motor	Water Output After Relacing the Motor (L/hr)	Waste water after replacing the Motor and spares (lts/Hr)	Pressure after Replacng the Motor
1	TOWER 9	45ppm	48ppm	40ppm	134	180	7kg/cm2
2	TOWER 10	45ppm	45ppm	37ppm	145	155	7kg/cm2
3	TOWER 11	44ppm	73ppm	30ppm	144	144	6.8kg/cm2
4	TOWER 14	46ppm	36ppm	34ppm	144	360	4kg/cm2
5	TOWER 15	45ppm	35ppm	35ppm	110	350	4kg/cm2
6	TOWER 12	46ppm	40ppm	30ppm	144	144	6.9kg/cm2



Summary



Benefits & Sustainability



Improved efficiency /Water conservation:

- Efficiency of the plant is improved from 47% TO 97 %.
- Reduction in waste water rejection. (Approx 300 Kilo liters of water saved per month)
- Reduction of the plant downtime and break down calls .
- Stopped procuring the bottle water .
- Reductions in carbon foot print because improved efficiency and reduction of water consumption.

	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09
Sediment Filter										
Activated Carbon Filter										
Membranes										

Project 2: Rain Water Harvesting @ Wipro



- Wipro is one of the First companies to start Rain water harvesting (RWH)
- We have implemented RWH project at 6 locations across India.
- Water harvested is being used for cooling towers, Rest room Flushing, Land scaping and ground charging.
- We have Harvested total of 8522 KI of Rain water for the year 2007-08



Water- Rain Water harvesting Facility- Reuse & recharge



Underground collection sumps have been set up of total capacity of 3743 KI across Wipro

Monitoring

Rain gauges are used to measure the rainfall received.



Use of Harvested Rainwater

The harvested rain water is used for Cooling Towers, washing of utensils and hands in cafeteria, flushing in restrooms and for landscaping. The amount of water utilized for each of these purposes is also monitored.



RWH @ Wipro Campus



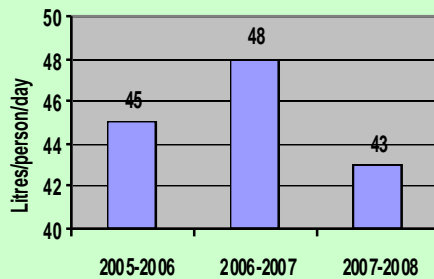
- Rain water from the roof tops are guided through down take pipes to 2 under ground sumps and surface water is guided to the other sump through storm water drain.
- Roof top water is used for cooling tower application and rest room flush.
- Surface water is used for Gardening and ground charging.
- Ground charging pits are created next to under ground sumps to divert the over flow water.



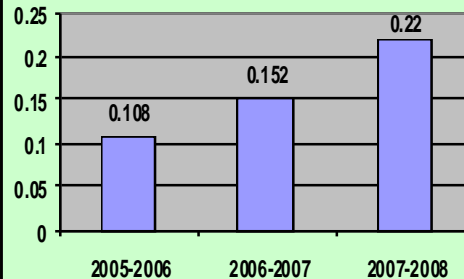
Specific Water Consumption



Water Consumption/person



Specific water consumption



Water Conservation-Measures



- Pre-valves Installation
- Installation of Auto sensors for Urinals & Wash Basins
- Adjustment of Water Pressure by Control knobs
- Installation of health faucets
- Monitoring water leakage on daily basis.
- Installation of meters to monitor the water usage wherever feasible
- Insertion of 1ltr. Bottle inside the Flush tank
- Automatic level sensors fixed in Main tank & STP water tank
- Monitoring daily consumption of fresh water and STP water
- Water level controllers in over head tanks.
- Use of sprinklers for watering the garden / landscaped area.

Water- Conserve

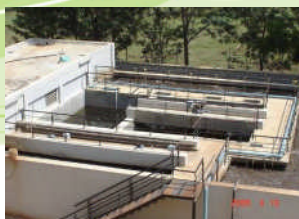


- Sewage treatment plant at all campus locations.
- Use of treated water for gardening / landscaping and toilet flushing.
- Use of sprinklers for watering the garden / landscaped area.
- Implementation of Rain water harvesting. Collection capacity equivalent to 45 days requirement.
- Reuse of rain water after treatment for garden.
- Use of dish washing machines to clean utensils at Kitchen.
- Display of signage's (Posters for awareness)
- Provision of drip irrigation system for landscape watering

Water- Recycle & Reuse



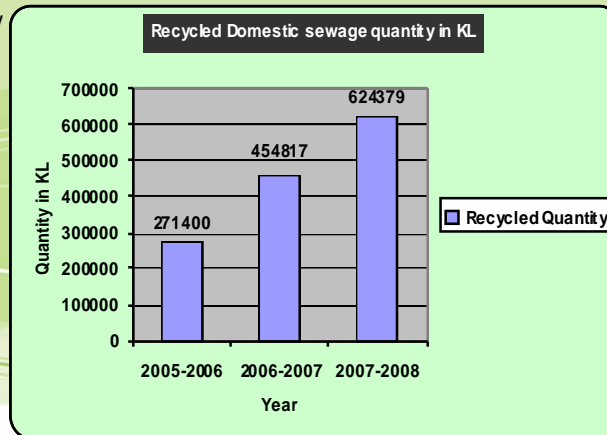
- All Major Wipro campuses has Sewage Treatment plants as part of the basic infrastructure.
- Treated water is used for Gardening and Restroom flushing.
- Use of recycled treated water would save about 50% of fresh water consumption.



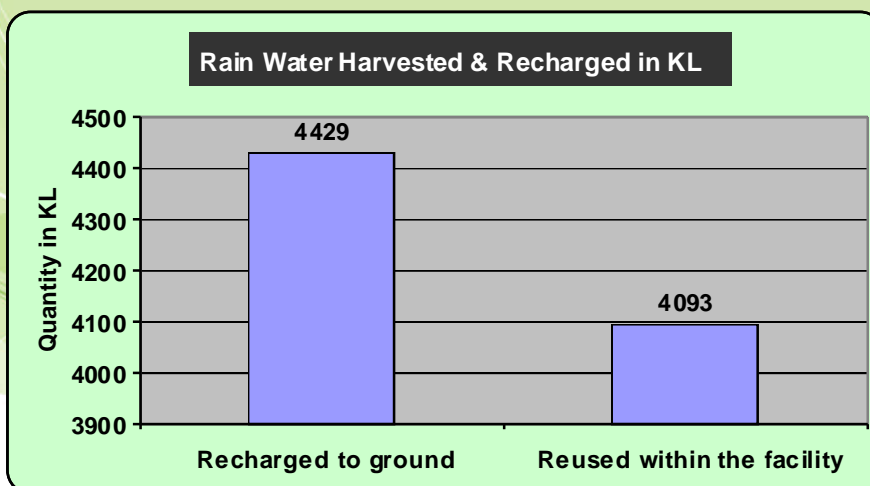
Recycled Domestic Sewage



- All Wipro major locations have STP. Any new Wipro campus is provided with an STP. As Wipro is adding locations the no. of STP plants are also increasing.



Water- Reuse & Recharge



Water- Reuse & Recharge

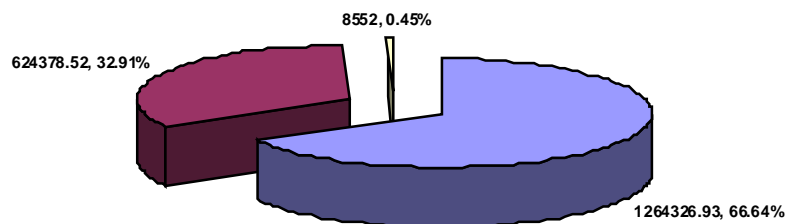


- Harvested rain water is used for cooling tower ,Rest room flush and gardening thus saving the usage of fresh water
- Ground water recharge through rain water harvesting improves the water table conditions, soil moisture conditions
- By rain water harvesting we are able to offset 15days of our fresh water consumption

Water-Consumption, Reuse & Recycle Pattern



Consumption Reuse & recycle pattern

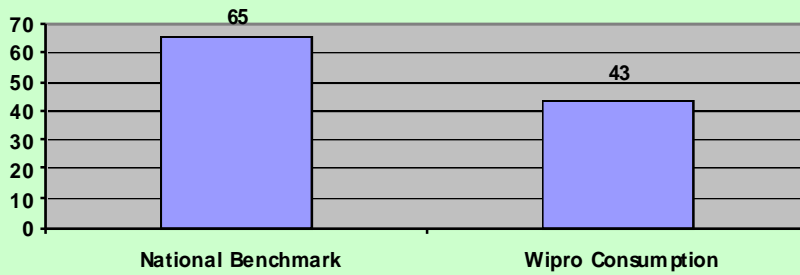


■ Water consumption in KL ■ Recycled water in KL ■ Rain Water Harvested in KL

National Benchmark



National benchmark on Water consumption in KL/day



India Water Portal

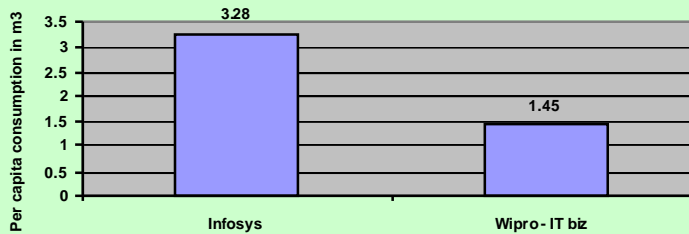
Link : <http://www.indiawaterportal.org/Network/askq/kb/?View=entry&EntryID=264>

IT Biz Benchmark



Financial Year	FY 07-08	FY 07-08
Company Name	Infosys	Wipro - IT biz
Per Capita Fresh Water Consumption in m ³	3.28	1.45
Head count	79,000	72350

IT Biz Benchmark



Other Environmental Initiatives



Energy Conservation Measures

- Replacement of copper ballast with electronic ballast
- Provided the thermostat controller for water coolers and replaced 36W PL with 18 and 11 W CFL in W/s and Rest rooms
- Ambiator Installation
- Replacement of Old UPS systems and optimizing the load
- Matrix Energy Savers for all split & package A/C units
- VFDs for chiller pumps
- Arresting the duct leakages at the master server rooms for the better utilization of A/C
- Replacement of Energy inefficient AC's
- Occupancy Lighting sensors provided at Workstations
- The set points of return air temperature fixed at 24 °c instead of previous set point of 23 °c.
- TPM implementation in Utility Blocks has resulted in energy savings Installation of sun control films as energy saving initiative
- Solar Panel with LED lights for Skywalk
- Resizing of the Pumps & Post life cycle analysis of chiller pumps
- Provision of Timers for Lighting at Cafeteria for optimum utilization and to reduce unnecessary illumination during non peak hours
- Life cycle analysis of STP-Recirculation Pumps
- Installation of LED's for Common area Lighting
- Providing of Timers for Workstation AHU's

Utilization of Waste for Energy



Bio Gas Plant

Biogas Plant Capacity	1500 kg/day of left over food, vegetable cuttings and fruit peels, other bio - degradable matter and 12 cu m / day of organic sludge from existing STP.
Area Required For Biogas Plant	20 m x 15 m approx.
Biogas Produced	Approx 160 - 180 cum / day which is equal to Approx 120 - 125 commercial (19 kg) LPG cylinders / month which are directly proportional to solid waste loaded. OR Approx 288 kWh/day (12 kW peak)
Bio-Manure Generated	45000 lit / year of good organic manure will be available. About 15000 lit to be removed once every 4 months
Process Water Required	Approx 1500 - 1800 lit per day
Electricity consumed	25 kWh / day
Manpower Required for Operation and Maintenance	3 semi - skilled persons for food waste loading daily, general cleanliness and maintenance. One skilled technician is required on call basis and for supervision.

Awards and Accolades



- ISO 14001 certification in 2000 - Wipro is India's first Software & Services Company to get this certification.
- Srishti's "Good Green Governance" Award in the Services sector for 2006 & 2007
- CII's "National Energy Management" Award for the most energy efficient facility award for 2006, 2007 & 2008.
- CII's SHE performance Award
- CONCERN India Foundation Award - 'Helping People Help Themselves'
- TERI's Corporate Environmental Award for 2007
- Golden Peacock Award 2008 - Runner up
- Show award by Mysore Horticulture Society, Lalbhag, Bangalore 2007
- 1st Prize for Ornamental Garden 2008 by Mysore Horticulture Society
- First prize for Summer/Winter garden completion by Horticulture society of India awarded to KDC 2007 & 2008
- Certificate of Assessment from UVDB for Safety, Health, Environment & Quality practices



We have not inherited the earth from our
fore fathers,
we have simply borrowed it from our
children

Save the Earth



Thank you for your time