

# Watershed Management Programmes with Community – “Beyond the Fence”

---

*Dahanu Thermal Power Station*

# Agenda

- q Company & Plant Profile
- q CSR process at DTSP
- q Focus of CSR Initiatives at DTSP
- q Water Management Programmes – Beyond The Fence
- q Drinking water systems for villages & community
- q Watershed Management Program with community
- q Benefit
- q Award & recognition

# 1. Company & Plant Profile

# Company Profile – Reliance Energy

- q Largest integrated power utility company
  - Generation Capacity > 900MW
  - Distribution- > 5000 MW of power in Orissa, Delhi, Mumbai,Goa
  - Transmission
  - Engineering, Procurement & Construction
- q Group turnover > 15000 crores
- q Asset base > 10000 crores
- q Customer base > 2.5 Crores



## Plant Profile – Dahanu Thermal Power station

- q 2 x 250 MW Coal Based Plant
- q Supplies Electricity to Mumbai
- q First power plant certified as ISO 9001, ISO 14000, OSHAS 18000 and SA 8000
- q Capacity Utilisation > 100 % for last 4 years.
- q **Best plant** in country as per all operating parameters
- q **Top Rank in National Award for Meritorious Performance** by Central Electricity Authority (CEA), Govt. of India for its **Excellent Performance** among **Indian Thermal Power Plants** in the year 2004-05.
- q Adjudged amongst “**Top Plants of World**” by Platts’ “**Power**” magazine in 2004
- q **International Quality Crown Award** in the **Diamond** category by BID (Business Initiative Directions, Moscow) in May2007

## 2. CSR Process at DTPS

# CSR Process at DTPS

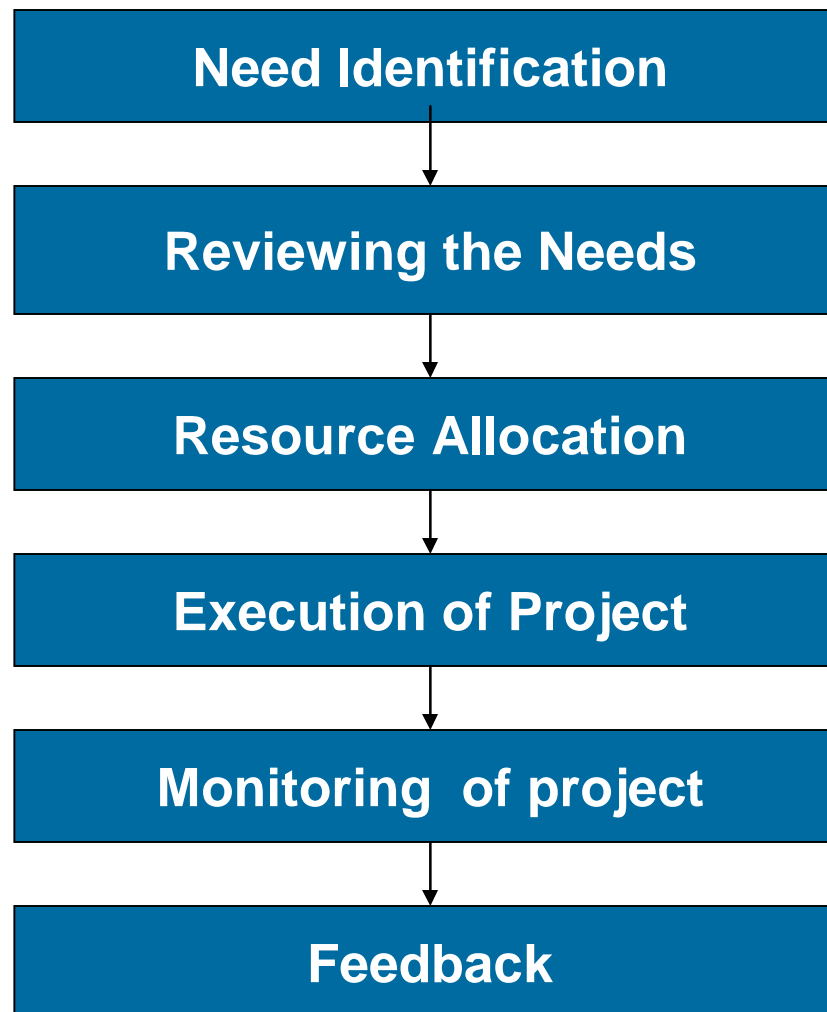
## Vision

- q To be amongst the most admired & most trusted integrated utility companies in the world
- q To set new benchmarks in standard of corporate performance & Governance
- q To strive to attain unmatched reputation for group with Governments, state & community

## CSR Objective

- q To be responsible corporate citizen nurturing human values and concern for society, the environment and above all people .
- q To contribute community development & nation building.
- q To conserve natural resources by their responsible efficient use
- q To earn the trust & confidence of all stakeholders by exceeding their expectations

## CSR Process at DTSPS



### **3. Focus of CSR Initiatives at DTPS**

# Focus of CSR Initiatives at DTSPS

## Background of Dahanu Community

- q Located at 125 Km north of Mumbai on the coasts of Arabian Sea.
- q Population:332767
- q 65.99 % are the Tribes spread over the rural area of 185 villages in Dahanu Tahasil

## Needs

- q Deprived from Basic requirements
  - Education
  - Health
  - Specific community requirement

# Focus of CSR Initiatives at DTSPS

## Approach

- q Public Private Community Partnership
- q NGO-Rotary, Lions club
- q Employees ,students

# Focus of CSR Initiatives at DTPS

## Education-Partnership with Public, Private & Local bodies

- q Development of Educational Infrastructure
- q Construction of School buildings
- q Construction of college buildings
- q Furnishing of class rooms and laboratories



## Educational Assistance:-

- q Educational material
- q Scholarships
- q Recognition of Teacher By Awards





# Focus of CSR Initiatives at DTSPS

## Health – Participation of Private, Public & Local Bodies

- Medical camps
- Immunization programs
- Emergency medical relief
- Medical infrastructure development
- Safe drinking water for community
- Water conservation projects



# Need Identification - Water conservation Projects

- q Annual rainfall 1800 – 2000 mm
- q Main occupation Agriculture.
- q Depends on rain water
- q No storage facilities
- q Wastage of water and sea water ingress in ground water
- q The available water bodies get contaminated with sea water with tide
- q Scarcity of potable drinking water
- q Hence the thrust on water management programmes.

## Need Identification - Water conservation Projects

- q Available water sources very far off from “Padas” and villages
- q Poor quality of available resources due to low ground water table and ingress of sea water
- q Poor quality of water lead to health problem
- q Contaminated and low ground water table affects agriculture also
- q Poor quality of life
- q Wastage of time and energy in sourcing the water
- q More pumping required for agriculture

## **4. Water Management Programmes - Beyond The Fence**

# Water Management Programmes – Beyond The Fence

- q Drinking water systems for villages and community
  - Construction of hand pumps for different villages
  - Provision of safe drinking water
- q Watershed Management Project with **PPCP**
  - Construction of “Vanarai” Bandhara (traditional name for temporary check dam) for water conservation
  - Repair of old water check dams
  - Construction of water storage check dam at “**Raitali-Chari & Vadade Villages**”.

## **5. Drinking Water System for Villagers & Community**

# Drinking water systems for villages & community

## Construction of Hand pumps

- q 185 villages and 834 sub – villages of “Padas”
- q Distance between two “Padas” 1.5 – 2.5 Km
- q Inadequate drinking water provision
- q Non availability of electricity to lift available water
- q Company provided 140 tube wells in 40 villages during this year so far.
- q Expenditure in last 3 years Rs. 37,19,400/-
- q Future plans to provide 500 tube wells & bore well.

## Benefits

- q Easy availability of potable water
- q Less time & energy required in water sourcing



# Drinking water systems for villages & community





# Drinking water systems for villages & community

## Provision of drinking water for devotees

- More than 25 lac devotees visit “Mahalakshmi” temple during summer
- DTPS makes drinking water provision for 30 days during the “Yatra” period.
- Proper control for avoiding wastage and contamination
- Makes available clean drinking water in remote location
- Water storage tank provided
- Pump installed



## **6. Watershed Management Program with community**

# Watershed Management Program with community

## Construction of “Vanrai” Bandhara

- q Stores rainwater and also improves ground water table
- q Programme organised with village Panchayat & students
- q Involvement of educational institutes for “Shramdan” – (Gift of Labour) by students
- q Constructed 8 such Bandhara so far.
- q Every year 2,3 bandharas are constructed
- q Use of fly Ash in construction activities

## Benefits

- q Low cost traditional solution
- q Holds rainwater for one season
- q Avoids wastage and improve water table

# Watershed Management Program with community



**Construction of Vanrai bandhara with the help of community**



# Watershed Management Program with community

## Letter of Request

**ग्राम पंचायत, चरी-कोटबी**  
पो. आशागड, ता. डहाणू, जि. ठाणे.

= हस्तलिखित =

दिनांक : २०/१/२००६

प्रति,

माननीय रिलायन्स एनर्जी डहाणू,  
ता. डहाणू, जि. ठाणे

विषय : वनराई बंधारे बांधण्यास सहकार्य  
मिळणे बाबत,

महोदय,

उपरोक्त विषयान्वये आपणांस  
विनंतीपूर्वक अर्ज करितो की, साक्षात्प्रमाणे  
सन २००६-०७ ह्या वर्षी पाणी उडवा पाणी जिरवा  
ह्या अंतर्गत वनराई बंधारे कोजे चरी, केळईपाडा  
मेघदेवपाडा, उमडूकपाडा, कोटबी- पाटीलपाडा ह्या  
ठिकाणी बांधण्यासाठी आपण सहकार्य करावे.  
ह्या कामी गा. पंचायत सर्वे सकार्ये सहकार्य करण्यास  
तयार आहे.

सन २००५-०६ मध्ये बांधलेल्या वनराई  
बंधान्यामुळे केळईपाडा, कोटबी पाटीलपाडा ह्या  
ठिकाणी विषयाच्या विहिरीची उन्हाळ्याची पातळी  
उंचावण्यास कार मरत आलेली आहे.  
कृपेने, सहकार्य करावे.

ग्राम पंचायत

# Watershed Management Program with community

## Construction of water storage check dam -“Raitali-Chari & Vadade Villages”.

- q Average rainfall in Dahanu 1800 MM
- q By October month small rivers get dried.
- q Local administration of Dahanu invited REL for construction of check dams by “PPP” route
- q 8 locations finalized after a joint survey.
- q Out of which at one site -Savata dam constructed last year
- q Two site site selected during this year
- q Panchayat passed the resolution for dam construction
- q Capacity of dams – 16000 M<sup>3</sup> of water storage together

# Watershed Management Program with community

## Construction of water storage check dam -- “Raitali-Chari&Vadade Villages”

### Stages of Implementation

- q The design of the dam submitted by REL.
- q Design approved by Irrigation wing of Public Works Department.
- q Final clearance from BDO.
- q 30 % fly ash from the thermal power plant used in the construction of the dam.
- q Construction of the Dam completed in year 2006-07.

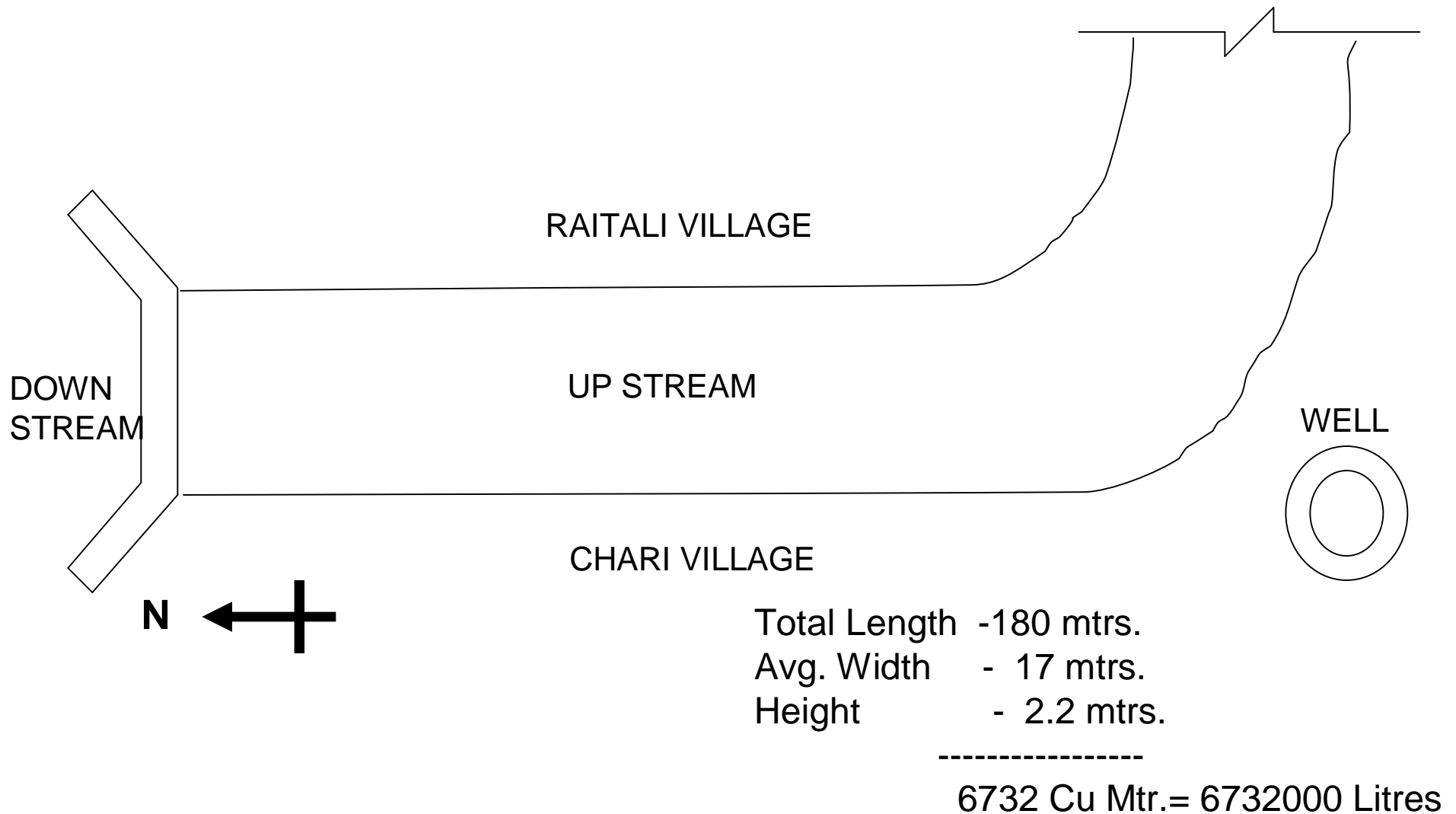
# Watershed Management Program with community

## Construction of water storage dam - Saravali

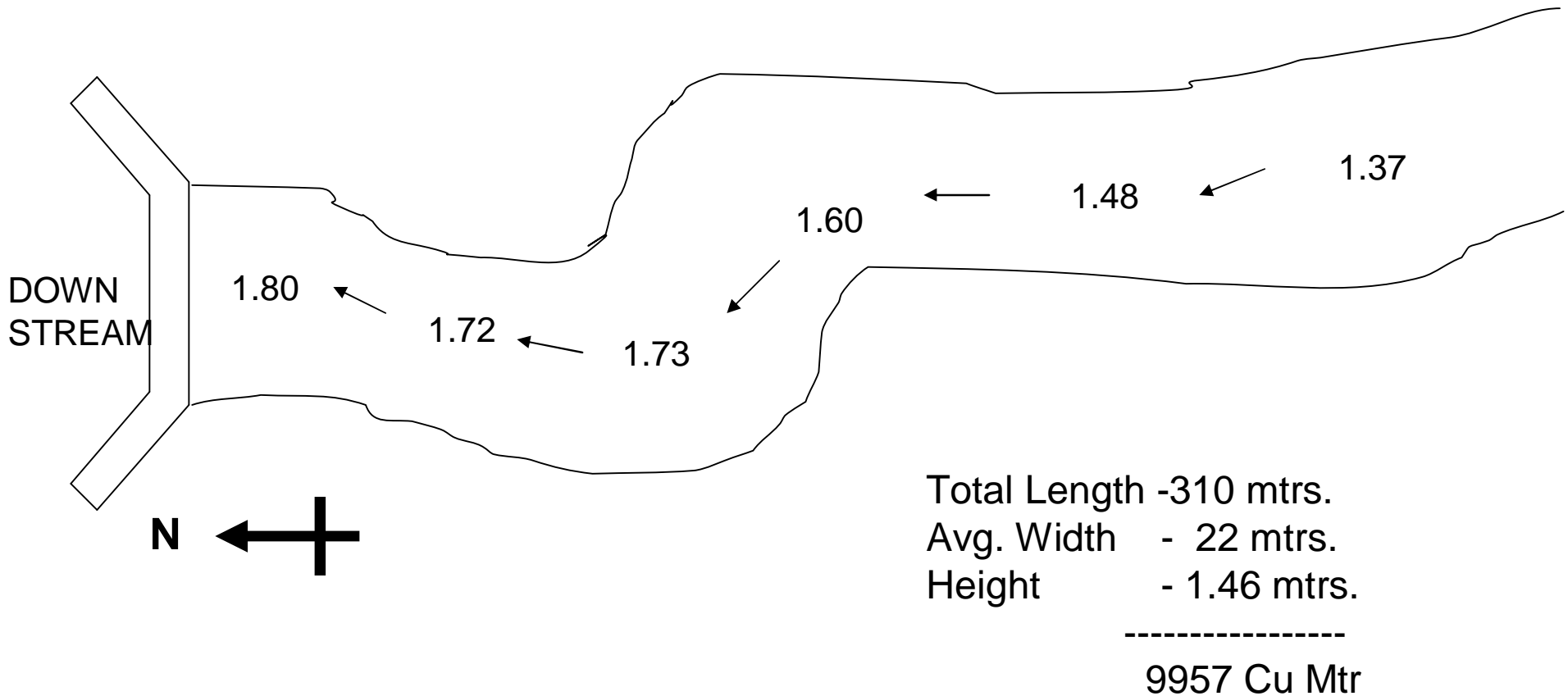
- q Project completed in 06-07.
- q Expenditure Rs, 15,00,000/-
- q Hand over in Apr 2007
- q Work appreciated



# Construction Of Chari-raitali Water Check Dam



# Construction Of Asangaon-vadade Water Check Dam



## View of Dams



**Chari- Raitali Dam**



**Vadade Dam**



# Watershed Management Program with community



**Reliance Energy**  
A Dhirubhai Ambani Enterprise

Reliance Energy Limited  
Dahanu Thermal Power Station  
Dahanu Road  
Thane 401 608

Tel: +91 (02528) 225 000-09  
Fax: +91 (02528) 222 576  
www.rel.co.in

Ref.No.DTPS/CSR/05-06/589

Date:-25/04/2006

To  
The Block Development Officer (H.Gr.)  
Panchayat Samitti Dahanu  
Dist.Thane

Subject: -Construction of water check (Storage) dam at Savata / Saravli Tal.Dahanu.  
Ref.: - 1) your letter No.ZP/Upvibhag/Vashi/337,Z.P.Patbandhare Up-Vibhag Palghar, Branch Dahanu Dated.4/12/2004.


- 2) Letter from Executive Engineer Laghu Patbandhare Z.P.Thane, dated 15/12/2004.
- 3) Our letter No.DTPS/CSR/04-05/00006619,Dated 23/02/2005.
- 4) Letter from Dy.Engineer Z.P.Pat Bandhare Up-Vibhag Dahanu, dated 2/03/2005.
- 5) Letter from Dy.Engineer Z.P.Pat Bandhare Up-Vibhag Palghar, Branch Dahanu Dated 29/03/2005.
- 6) Our letter No, DTPS/CTS/1554/935 Dated 10/05/2005.
- 7) Our letter No DTPS/CSR/05-06,4273 Dated 18/10/2005.
- 8) Our letter N.DTPS/CSR/05-06/5244,dated 6/12/2005.

Sir,

Reference to your letter for helping in construction of Dam at Savata/Saravali vide reference 1,and obtaining all required clearances there by Reliance Energy's Dahanu Thermal Power Station (DTPS) started construction of Dam on 29<sup>th</sup> Nov. 2005 and Dam construction is completed on 13<sup>th</sup> March 2006.Reliance Energy's DTPS has extended all help and incurred expenses in construction of the Dam. As this Dam belongs to Dahanu Panchayat Samitti, Reliance Energy's DTPS is hereby handing over the Dam to Dahanu Panchayat Samitti with immediate effect. Irrigation Dept of Dahanu Panchayat Samitti may now carry out necessary operation and maintenance of the Dam. Some photographs of the dam are enclosed here with for your record.

Thanking You.

With Regards

  
Vice President (DTPS)  
Reliance Energy Ltd.

Received  
11/05/06

  
ग्रामपंचायत साहिब



- C.C.To: -1) The Chef Executive Office Z.P.Thane  
2) The Executive Engineer, Irrigation Dept. Z.P.Thane  
3) Sub. Divisional Engineer (IGR) Z.P.Sub.Division Plaghar  
4) The Sarpanch, Gram Panchayat, Savata, Saravali, Ashgad

## 7. Benefits

# Benefits

- q Increase in ground water table
- q Increase in vegetation cover in the near by area
- q Round the year availability of drinking water from dam holding
- q Stoppage of salty sea backwater intrusion

# Watershed Management Program with community

## Replicability

- q All over India scenario same as Dahanu
- q Adequate rainfall –But no storage facility
- q Scarcity of water –8 months
- q Low ground water table
- q Less yield agriculture
- q Health induced Poverty
- q Impediment in progress
- q To overcome these problem Water conservation storage facilities
- q Conventional dams requires Huge investment, issues like Envi. Clearances,
- q Solution for all above Problem- Small check Dam
- q Dahanu TPS Shown Demonstrative project-easily replicated in all over country

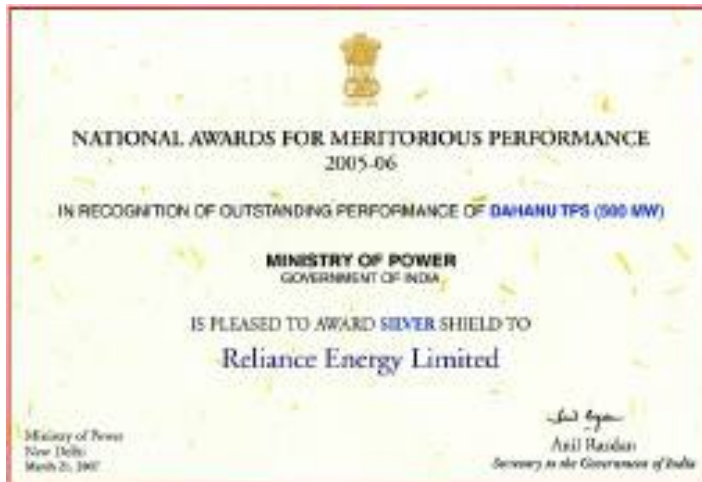
## Summary of water management programmes

Month	Project	Beneficiaries	Expenditure (Rs.)
<b>2005-06</b>			
Nov'05	Repair of Vamrao Bandhara at 3 Villages	3 Villages	9000.00
Mar'06	Construction of water storage check dam under water conservation programme	24 Villages	2000000.00
			<b>2009000.00</b>
<b>2006-07</b>			
Mar'06 to May 07	Construction Hand pumps& bore well (145 no.)for drinking water in village area	42 Villages	<b>30,99,000.00</b>
Nov'06	Construction of Vanrai Bandhara (8 Nos.)	3 Villages	<b>49000.00</b>
Mar 07	Construction of water storage check dam under water conservation programme	3 Villages	<b>14,97,000.00</b>



## 8. Awards & Recognition

# Awards



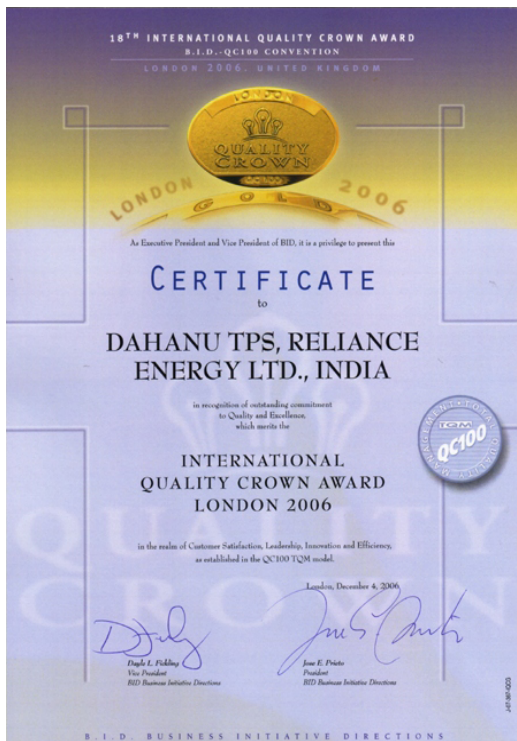
National Award for Meritorious Performance :  
2004-05 & 2005-06 By GOI, MOP

# Awards



International Diamond Globe for Quality award-2007

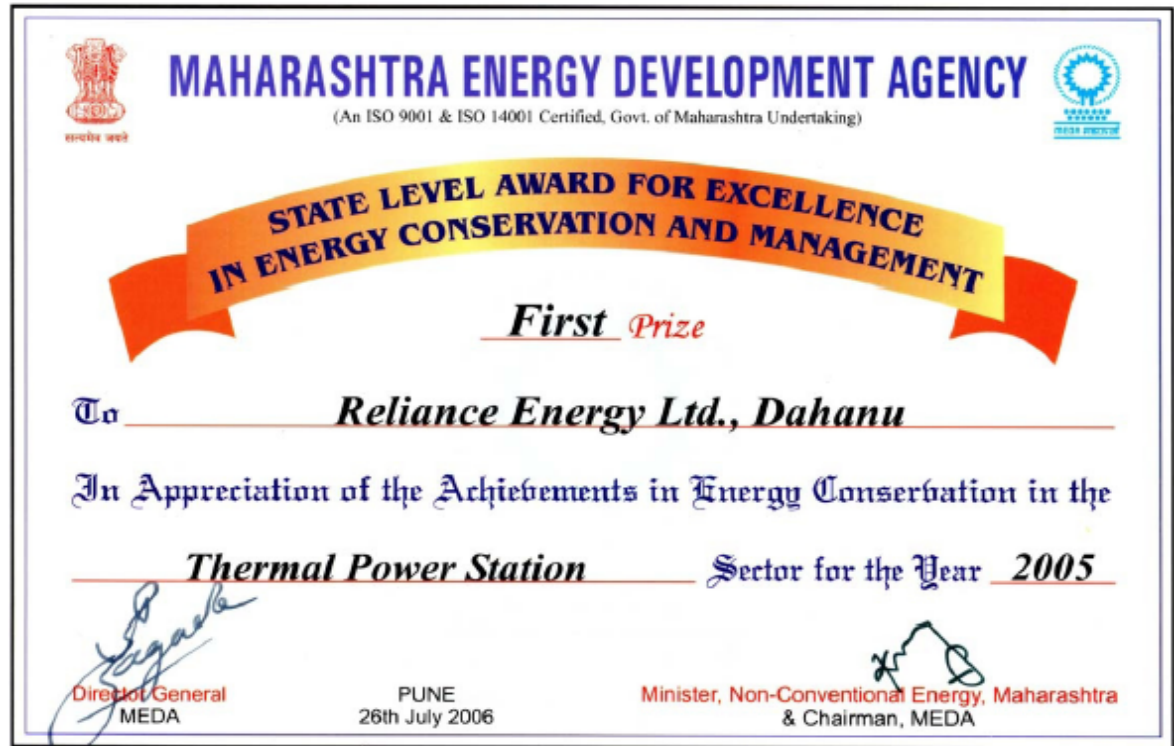
# Awards



International Quality Crown-2006  
Award in Gold Category by BID, London



# Awards



State level award for Excellence in Energy Conservation and Management 2005 - MEDA

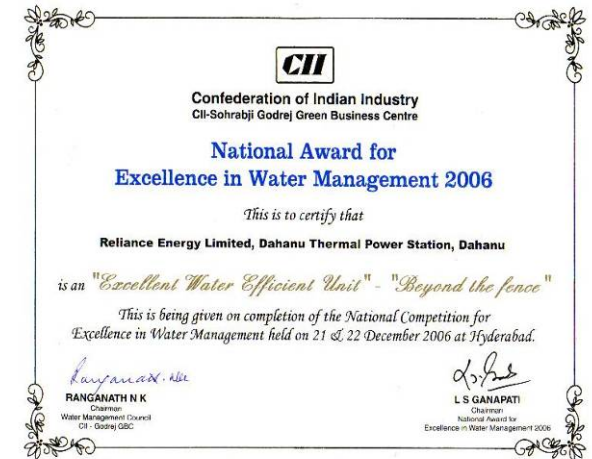
# Awards



CII National Award for Excellence in Energy Management - 2006



# Awards



CII-National Award for Excellence in Water Mgt (Within Fence) 2006

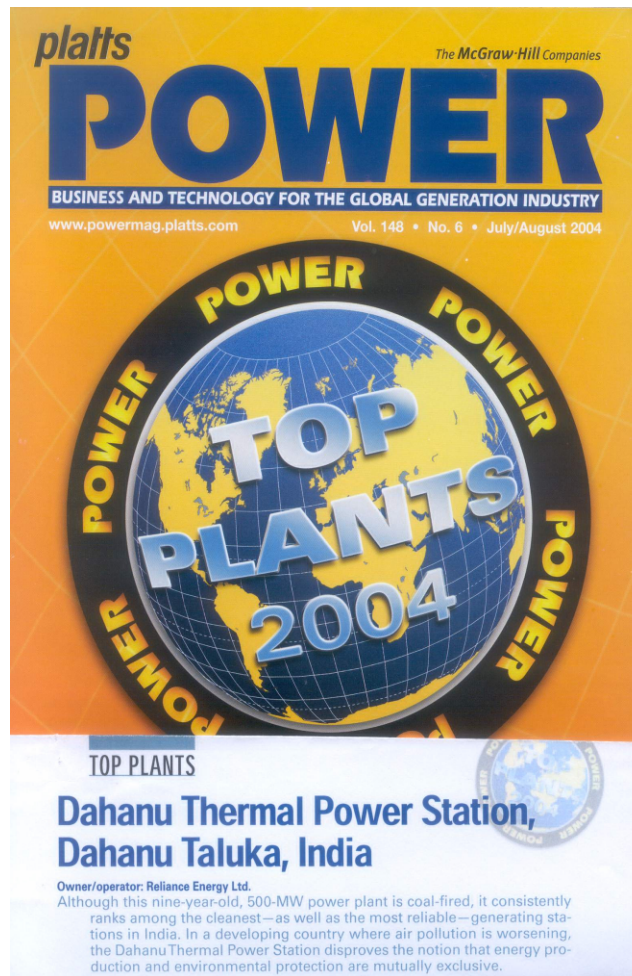
CII-National Award for Excellence in Water Mgt (Beyond Fence) 2006

# Awards



**CII-National Award for Excellence  
in Energy and Water Mgt. 2005**

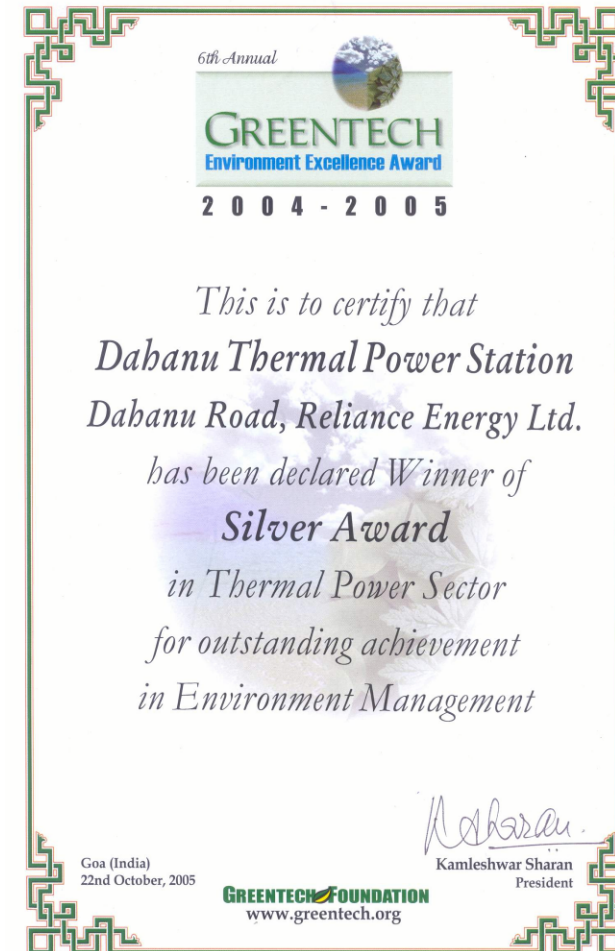
# Awards



**Top Plant of World – 2004**  
By Platts Power Magazine.



# Awards

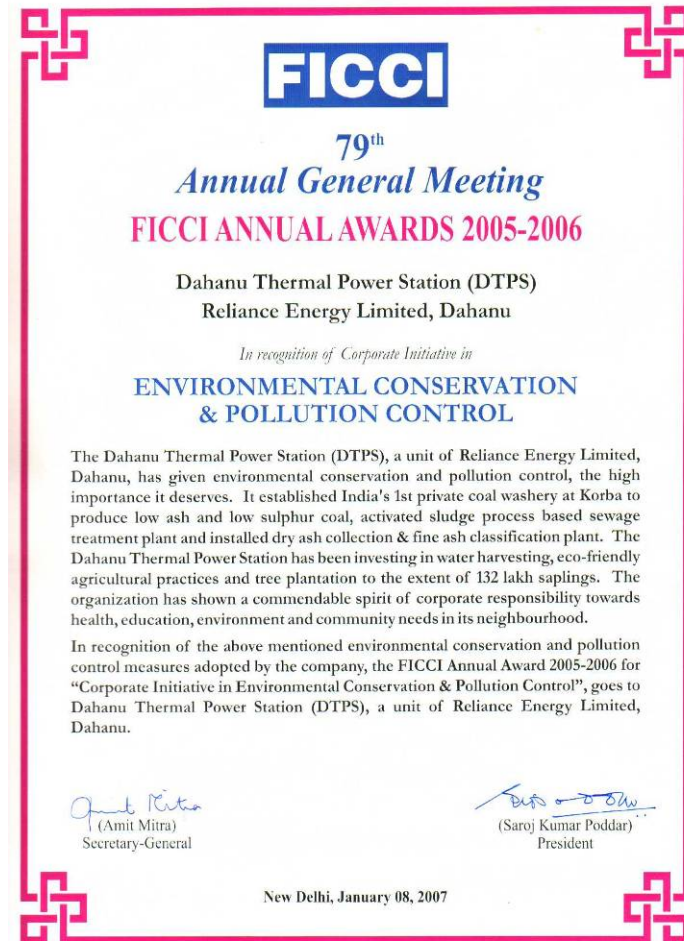


Greentech Environment Excellence Award 2004-05

# Awards



Qimpro Benchmark award in Service Category- 2004



FICCI Environmental Conservation & Pollution control award 2005-06



# Awards

## Five Star Health and Safety Management Audit System 2004



Thank you

---