

**Review Workshop
on
Centers of Excellence of MoUD**

Presentation on the current progress of deliverables

26th July 2010

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CSE

Centre of Excellence in Sustainable Water Management

Programme & Objectives

Research

Capacity
Building

Knowledge
Centre



CSE – Background

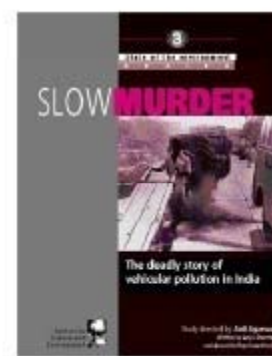
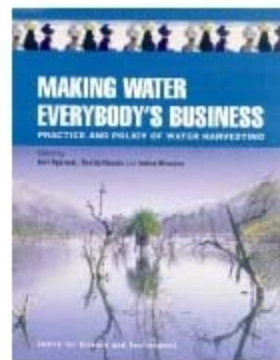
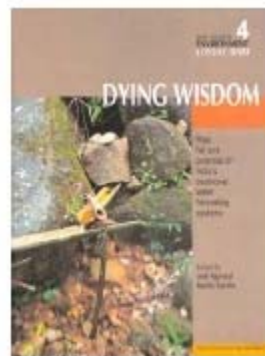
Set up in 1980. A public interest research and policy advocacy organization.

It promotes **sustainable development with equity , participation and democracy** through –

- knowledge based activism
- policy research combined with public awareness

Areas of work –

Water, Forest Management, Air Pollution, Climate change, Industry, Health and Environmental Education.



CSE Water Programme

Knowledge Creation
and
Capacity Building

- Research to understand nature of problems and develop solutions
- To enable institutions and people undertake actions in managing water / wastewater and implementation of best practices.

(technical advisory, training workshops, training manuals)

Building knowledge
Networks

- To strengthen all those who are involved in managing their water - governments, community/ individual

(newsletter, model projects, rain centres and Paani Yatras)

Awareness Creation

To make households, industries, institutions, villages and urban *mohallas*, all recognize the importance and value of Water.

(reports, articles, films, exhibitions, lectures, website)



Programme & Objective

1. Research

Secure **sustainability** in urban **water management**

2. Capacity building

Improved capacities and understanding about issues of augmenting water supply through **rainwater harvesting** and **treatment and reuse of wastewater**

Increased knowledge about **best practices** on rainwater harvesting and treatment and reuse of wastewater

3. Knowledge centre

Made available **up-to-date** and relevant information related to urban water management and **dissemination through website**



RESEARCH

- Septage Management
- Rainwater Harvesting
- Water Efficiency



1) Policy paper on Septage Management

- The **current status** of sewage management in Indian cities
- **Role of septic tanks** in sewage management in Indian cities in unconnected areas.
- To come out with **improved technology** for efficient handling of septage at municipal level
- Comparative study of global and **Indian Policy intervention or regulations required.**



Focus Area: Shimla city

- **Survey conducted** to assess the current water and sewage profile.
- Identification of **unsewered zones** dependent on the conventional septic tank system.
- Proposal to take up **pilot projects** in the identified sites which are not covered under the sewerage system & are not part of the DPR submitted by the Shimla Municipal Corporation (SMC).



Implementation of Pilot Projects – Shimla

- **Action Plan submitted** (27 April'10) to SMC for Septage management include techno-economic feasibility for the pilot projects.
- Proposed pilot projects sites surveyed and **selected alongwith SMC engineers** based on the report
- Sites for pilot projects implementation finalised by SMC
 1. Police Colony/blocks, Bharari (**Est cost:Rs 8 lakhs**)
 2. Group Housing Society, Bharari (**Est cost:Rs 6 lakhs**)
- HIMUDA has requested CSE for technical support for the implementation of DEWATS project at **Parwanoo (HP) in addition to Shimla.**



Status and work plan for the future

- Baseline survey in the city of Shimla to assess the current water and sewage profile in the city, performance of operational STPs and extent of decentralized treatment systems in place (**Completed**)
- Implementation of pilot projects in Shimla to demonstrate the performance of improved decentralized septage treatment technologies (**Proposal submitted & accepted by State Govt. – SMC needs funds approx. 14 lakhs** for implementation of pilot projects)



Research - Output

- Implementation of pilot projects in Shimla to **demonstrate the performance of improved decentralised septage treatment technologies (December 2010)**
- **Policy paper** on septage handling, treatment (to reuse and disposal standards) and disposal – Indian and global case studies **(January–March 2011)**
- **It will showcase efficient septage management in other town / cities across India - to start with all hill towns, peri-urban area/ areas in transition can implement this.**



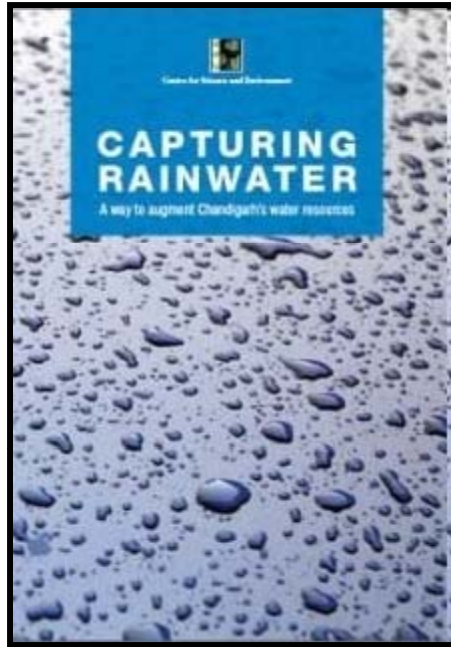
2) City Level Rainwater Harvesting Plan Focus Area - Chandigarh

Research – Why and What ?

- To ensure **long-term sustainability** of water sources in cities – case study of Chandigarh city
- **Growing demand** of water due to
 - Increase in population,
 - Increase in commercial and industrial activities
- No surface water source of its own
- Why is **water supply unsustainable?**
 - Punjab is reluctant to provide water for Phase V,VI.
 - Deep tube wells which do not get recharged naturally
 - resulting in steep decline in the groundwater level



Research Output and Action Plan



As a part of COE's work report **"Capturing rainwater: A way to augment Chandigarh's water resources"** has been published and released **(Completed)**

- Presentation of report to city and advocacy / lobbying for implementation of city level RWH, **July 2010 – March 2011.**
- This will be **India's first and only initiative that uses the storm water drain network for city-level RWH**
'Chandigarh will be a trendsetter for the other cities'.



2. Policy Paper on Household Water Utilization Efficiency

Objective: Rating system for water efficient fixtures

- Paper will look at **global best practices**, global policies and regulations in place, survey existing **Indian market for feasibility**
- Determine categories of fixtures for rating, develop policies, rules and laws, specifications, guidelines that define water efficiency etc.
- Policies and financial incentives **to mainstream implementation of water efficient fixtures** (especially retrofit incentives).
- **Guiding principles:** can it be implemented across the country, can the cost be recovered, will the performance be maintained, is it measurable, verifiable, will the labelling be visible, motivate people to go for it.



Status and work plan for the future

The paper will include –

- Nature of water use in household buildings
- Type of water use fixtures, characteristics & technology in use
- Nature of potential water savings
- Sanitary ware market scenario in India
- Existing regulations and International case studies on rating systems
- Prospects & challenges towards introducing rating system in India
- Way forward

Work in progress – to be completed by August 2010



Action Plan

- Water use analysis, market and industry research, global best practices, laws and regulations – **July to August 2010**
- Consult with stakeholders to develop consensus on issues such as (1) what should be rated; (2) what will be the unit of efficiency (3) testing protocols (4) inspection systems etc - **by end September 2010**
- Gather data on actual current water use of various fixtures during - **September – October 2010**
- Analyze data to develop test rating models, **October – November 2010**
- Stakeholder meetings; discussion, changes, finalise rating specifications; **by December 2010**
- **Output –**
Paper for Efficient Household Water Utilization / Rating of Appliances– **by March 2011**



Capacity Building



Capacity Building - focus area and target groups

Focus Area

- Urban Rainwater Harvesting
- Decentralised Wastewater Treatment and Reuse
both techniques and policy brief.

Target Group

- Engineers, Planners, Architects and other Municipal functionaries involved in the water management
(6 Training workshops in a year - 4/5 days each with 20 participants from different cities)
- Decision makers and policy planners
(2 Policy briefing workshop in a year - 2 day)



Capacity Building Workshops – Status (till date)

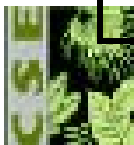
	Workshop Details	Target Two Year	Target 2009-10 (till date)	Completed
1.	Training Workshops	12	6	8
2.	Policy Workshops	4	2	Nil *

•CSE is coming out with a book on ‘Current Status of Water and Wastewater Management in Indian cities’. We plan to do the policy workshops along with the of release of book in 2010-11.



DWWT (Decentralized Waste Water Treatment) Training

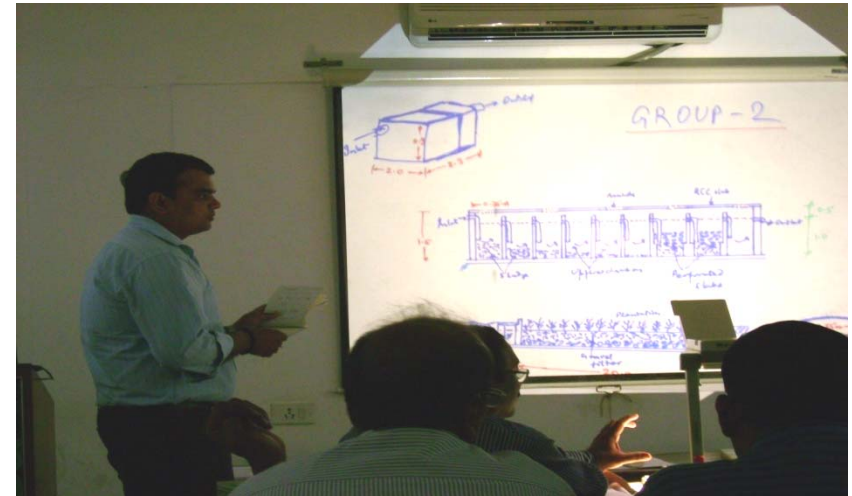
S. No.	Date of Training Programme	Number of participants	Participating States
1.	Sept 21-25, 2009	27	Assam (2),Gujarat(3), Haryana (2), H.P.(1), Jharkhand (1),M.P.(11) Rajasthan (2), T.N. (3) W.B.(2).
2.	Dec 14-18, 2009	27	Maharashtra (17), M.P. (5), U.P.(5).
3.	May 11-14,2010	25	Delhi (6), H.P.(7), J&K(1), M.P.(2), Orissa (3), U.P.(6).
4.	July 6-9,2010	19	Delhi (3), Haryana(6), Rajasthan (3), U.P.(7).



Training programme for DWWTR May 11-14,2010



Classroom lectures



Presentations by participants



Field visits



Practical exercises



Urban Rainwater Harvesting

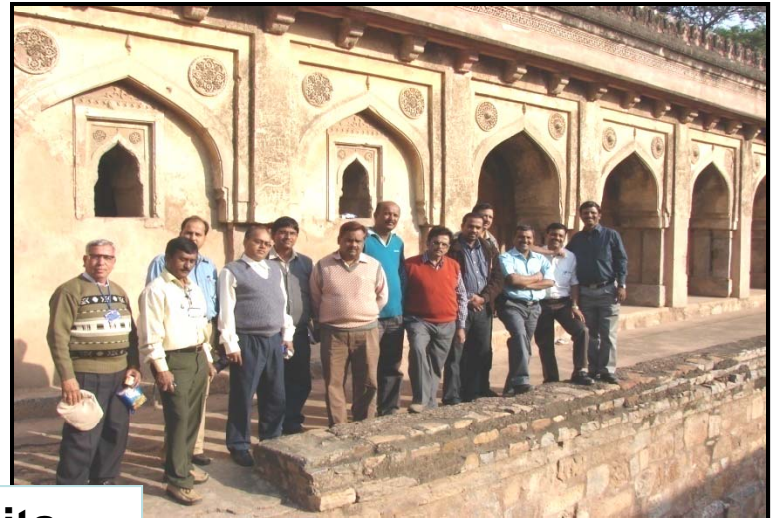
S. No.	Date of Training Programme	Number of participants	Participating States
1.	Nov 17-21, 2009	14	Bihar(2), Karnataka(4), M.P.(4), Maharashtra(3), Uttranchal (1).
2.	Jan 19-23, 2010	14	Bihar(2), H.P.(2), M.P.(2), Maharashtra (2), Sikkim (1), Rajasthan (2), U.P.(3)
3.	May 18-21, 2010	24	Assam (2), Delhi(3), Haryana(3), Jharkhand(4), M.P.(8), W.B.(4).
4.	June 15-18, 2010	31	Delhi (2), Haryana (8), Rajasthan (12), Manipur (1), U.P.(7), Chandigarh (1).



Training programme for RWH Jan 19-23, 2010



Classroom lectures

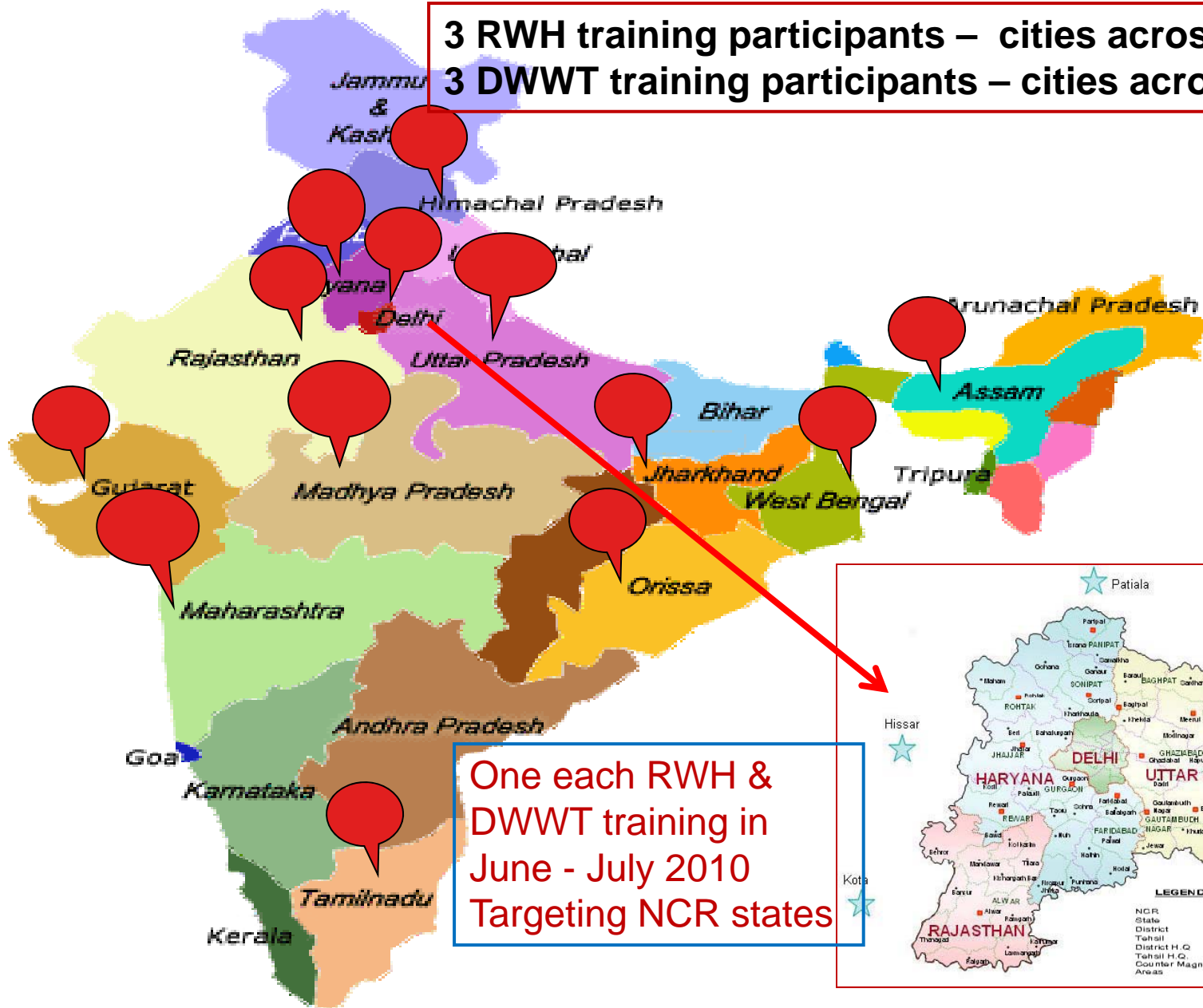


Field visits



Geographical Distribution of Participants – till date

3 RWH training participants – cities across India
3 DWWT training participants – cities across India



One each RWH & DWWT training in June - July 2010 Targeting NCR states



Capacity Building and Training – Future Plans

- Three **DWWT** technical training(s) : July, October and December, 2010.
- Two **DWWT policy workshops** : November 2010 & February 2011.
- Three **RWH training(s)**: August & November 2010 and February 2011
- Two **RWH policy workshop(s)**: November 2010 & February 2011
- **Target cities training (2010-11) – South & North Eastern States and DMA (Delhi, Gurgaon, Faridabad, Noida).**
- **Policy Workshops** – 2 in Delhi / NCR and two outstation (tbc)



Knowledge Centre



CSE website has dedicated interactive online information – on water management and in particular COE activities.

- Rainwater Harvesting
- Decentralised Wastewater Treatment

Collation of information related to urban water management and dissemination through website



Work Overview

The fundamental principle underlying CSE's water management programme is that the looming water crisis facing the country is not primarily due to a lack of water, but rather arises from mismanagement of water resources. The centralised management paradigm has kept the citizens out and taken away their sense of responsibility towards managing their water.

[Read More](#)

Latest Clippings

[Australie pushes for environment, labour, IPR in trade pact with India](#)
The proposed free trade agreement between India and Australia has hit rough waters with the latter insisting that issues including environment, labour, intellectual property, government procurement and competition policy be part of the negotiations. [read more](#)

Updates

Water Management

Capturing Rainwater

A way to augment Chandigarh's water resources
Tags: Chandigarh, CSE, Groundwater Recharge, Rainwater Harvesting, Story, Water Management



Water Management

Decentralised Waste Water Treatment

The water and sewage management in cities will determine the growth of cities in India. Most cities are today water stressed, unable to cope with the water demand of the growing urban populations and to treat the resulting wastewater. Cities are continually coping with different forms of crisis - water scarcity in summer, floods in monsoons and water pollution throughout the year.

Tags: Decentralised Waste Water Treatment, Story, Water Management

Water Management

Rain Water Harvesting

Centre for Science and Environment has been working on promotion of the concept of water harvesting for more than a decade now. CSE started its campaign with the research on traditional systems of water harvesting systems existing across the country. The research was followed by the publication of the book, Dying Wisdom: Rice, Paddy and Potential of India's Traditional Water Harvesting Systems.

Tags: Rain Water Harvesting, Story, Water Management

Water Management

River Pollution

With growing urbanisation and industrialisation India faces the challenge of providing clean and safe drinking water to all citizens. In the name of economic growth most rivers and streams are turning into sewers. As more and more rivers are getting polluted, the municipalities are finding it difficult to treat river water to safe levels and supply it to citizens.

Visit [River Pollution](#) section

Tags: Story, Water Management, Water Management



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Decentralised Waste Water Treatment

[Decentralised Waste Water Treatment Home](#) [Story](#) [User](#)

Work Overview

The urban water and sewage challenge:
The water and sewage management in cities will determine the growth of cities in India. Most cities are today water stressed, unable to cope with the water demand of the growing urban populations and to treat the resulting wastewater. Cities are continually coping with different forms of crisis - water scarcity in summer, floods in monsoons and water pollution throughout the year.

[Read More](#)

Products

[RAINWATER HARVESTING](#)

River Pollution

[River Pollution Home](#)

Work Overview

With growing urbanisation and industrialisation India faces the challenge of providing clean and safe drinking water to all citizens. In the name of economic growth most rivers and streams are turning into sewers. As more and more rivers are getting polluted, the municipalities are finding it difficult to treat river water to safe levels and supply it to citizens.

[Read More](#)

Latest Clippings

[Jordan river is likely to die by 2011](#)
The once mighty Jordan river, where Christians believe Jesus was baptised, is now little more than a polluted stream that could die next year unless the decay is halted, environmentalists said on Monday. [read more](#)

[How to Clean the Yamuna](#)
While the Delhi government has been dabbling on what needs to be done to clean the river, the pollution levels have only worsened.

[Sustainable Urban Water Management](#)
CSE is organising trainings with government officials (engineers, architects, urban planners) on rainwater harvesting and decentralised wastewater treatment.

Per date and contact info, read [MOUD Trainings Brochure](#)

Rainwater Harvesting

[Rainwater Harvesting Home](#) [Story](#) [User](#) [Story](#) [User](#) [Story](#) [User](#) [Story](#) [User](#)

Work Overview

CSE started its work on water issues way back in the 80s, when it was becoming apparent that the water management paradigm based on exploitation of surface and groundwater resources even as it neglected capturing rain to recharge or for direct use would lead the country to a huge water crisis. CSE first focused on pushing for policy reforms in the water sector to mainstream harvesting rainwater in both urban and rural areas.

[Read More](#)

How to do RWH?

- Step by Step Process
- Technology
- Costs
- Who can do it for you?
- Laws and policy
- Best Practices
- Maintenance and Monitoring
- FAQ

Latest Clippings

[Rainwater harvesting must for smaller houses](#)
Paul John, TNM Ahmedabad: The state urban development department is planning to make rainwater harvesting compulsory for even smaller houses. It has been consulting across municipal corporations in the state on the issue. [read more](#)

[1,000 roofs ready to harvest rain](#)
[Make Every drop count](#)

Announcements

[Training Programme on Urban Rainwater Harvesting](#)
Date: July 27 - 31, 2010
Every summer, there is a big

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[Support environment](#)

RAINWATER HARVESTING

Do it yourself

SIGN UP For CSE Newsletter

- It's to help clean Ganga
- Jagan Ramesh trees fresh air, at Ashok Chavan the time
- Once more, with technology
- Pending road, Ghana river plan yet to file
- WORLD looks at new ways to rid West of smog

[This Issue](#) [Down To Earth](#) [India Environment](#)

Salient Features :

- Made available a **central repository of information** on all aspects to do with **sustainable urban water management** and also offered easy to use and convenient informational services.
- Informational services: **directory listing of people** and organisations working on this issue; **statistical data**; e-newsletters to keep people **updates** regularly; announcements of events such as conferences, seminars etc; parliament questions and answers; **progress of cities under JNNURM** in the area of urban water management
- Information gathered from news clippings, books, e-documents policy documents, articles.
- **No fee charged for dissemination of information**



Knowledge centre

- CSE is **compiling a nationwide database of people involved in urban rainwater harvesting**. The database gives the list of individuals, government, non government agencies designing and implementing the rainwater harvesting system.
- **Rainfall data of 27 cities have been compiled**. The data gives average annual rainfall and number of rainy days for the last twenty five years. Graphical interpretations of **http://www.rainwaterharvesting.org/rainfall_index.htm**
- the data are also available.
- **National and international legislations and financial incentives** on rainwater harvesting are available.
- **International rainwater harvesting case studies** (traditional, urban and rural) are available.



Knowledge centre

- Due to the growth of urban population, Delhi is fetching water from far and far away distances. The sewage carried from the city to the Yamuna river has converted it into a drain.

http://www.rainwaterharvesting.org/delhi_water_v4.htm

- Excess groundwater exploitation has led to saline intrusion in the city of Chennai.

http://www.rainwaterharvesting.org/chennai_water_V6.htm



Knowledge centre

- CSE has prepared an interactive database on the **threatened water bodies** of India.
- The **database** gives the case studies of different wetlands both natural and artificial.
- The details of researchers, government departments institutions/individuals (petitioners) related to the wetlands are available here.
- Links to **related articles** are available on this site.
- Links to few outstanding **judgments and petitions** filed to save the water bodies are available.

http://www.rainwaterharvesting.org/public_interest.htm



Thank You.

