

## PROLOGUE

Celebration of World Environment Day 2014 !

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## INTERESTING LINK

Interesting infographic on the lack of sanitation around the world



Participants of the DEWATS™ Engineers Training at CASS, Bangalore, May 2014

## PROLOGUE

Greetings from CDD Society !

We are pleased to bring you the July 2014 issue of e-Disha. The issue presents updates on the events held on occasion on World Environment Day, 2014.

Every year on World Environment Day, CDD Society celebrates the day to remind us to protect and preserve our planet. On this occasion, we thank our partners and supporters for joining hands in contributing to the conservation of environment.

If you wish to comment on any article or submit articles for the next issue please forward them to [bangalore@cddindia.org](mailto:bangalore@cddindia.org)

e-Disha

Editorial Team



## PICTURE OF THE MONTH

### World Environment Day Activities for School Children, Agara, Bangalore



CDD Society conducted an orientation programme on School Sanitation and Environment supported by Wipro Technologies Ltd., an IT firm in Bangalore. The event was intended to encourage school children to protect and prevent environmental pollution on the occasion of World Environment Day.

The event was held on 6th June at the Government High School, Agara, Bangalore. A total of 650 students of Classes 8th, 9th and 10th participated in the event.

## PROJECT FACT SHEET

### DEWATS™ for a Slaughter House, Fish Market and Public Toilet Umred - Nagpur

#### Project background

A DEWATS™ unit was installed in a slaughter house, fish market and the public toilet complex in Umred, Nagpur. Umred, 45 km away from Nagpur, is a small township in Maharashtra, with a population of over 25,000. The wastewater generated from the slaughter house was earlier disposed off into the near by lake, which is of environmental concern to the Umred Municipal Council (UMC). The Project is funded by UMC.

Type of Project	: DEWATS™ SME for Slaughter House
Funding Agency	: Umred Municipal Council.
Executed By	: CDD-Regional Office, Nagpur.
Construction Cost	: Rs. 24.17 Lakhs
Start of Operation	: March 2012

#### Salient Features

Source	Slaughter House, Fish Market and Public Toilet
Design capacity	22 m <sup>3</sup> /d
No of users	600
Peak flow	8 h

#### Purpose

To reduce the level of pollution through wastewater discharged into water

#### System in Brief

The wastewater from the public toilet complex is collected in a settler for retaining heavier (settleable solids) and lighter particles (scum).

The wastewater from the slaughter house is conveyed to a biogas settler, wherein the settleable solids settle at the bottom as sludge. Besides the settling of solids, bacteria degrade the organics present in the wastewater and the sludge is digested anaerobically. The anaerobic digestion leads to production of biogas.

The wastewater from the biogas settler and settler is conveyed to an equalization tank. The wastewater from the equalization tank is further conveyed to an anaerobic baffled reactor (ABR) and anaerobic filter (AF). The ABR treatment modules which consist of a series of chambers ensure anaerobic degradation of suspended and dissolved solids. The baffle pipes of the reactor direct the wastewater stream between individual chambers from top to bottom.

The anaerobic filter comprises of filter beds for treatment of dissolved organic matter in the wastewater. The wastewater comes in contact with an active bacterial mass which grows on filter material and on the walls of the reactor. The filters are filled with special filter media such as gravel, rocks, slag or plastic pieces.

The wastewater is further conveyed to the planted gravel filter which is an aerobic tertiary treatment unit where the pollutants (mostly nutrients) in the wastewater are degraded aerobically. The treated wastewater is disposed into the nearby lake.

#### Modules adopted

##### Biogas Settler

Volume	: 10.10 m <sup>3</sup>
Area of construction	: 12.2 m <sup>2</sup>

##### Settler

Volume	: 10.10 m <sup>3</sup>
Area of construction	: 12.2 m <sup>2</sup>

##### Baffle Reactor with Anaerobic Filter

Volume	: 33.60 m <sup>3</sup>
Area of construction	: 38.0 m <sup>2</sup>

##### Planted Gravel Filter

Volume	: 115.0 m <sup>3</sup>
Area of construction	: 243.0 m <sup>2</sup>



DEWATS™ unit, Umred - Nagpur



Construction Stages of DEWATS unit at Slaughter House, Fish Market and Public Toilet Umred - Nagpur

## RESEARCH ON SANITATION

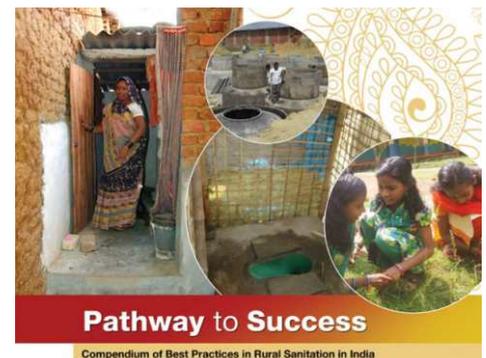
### Pathway to Success: Compendium of Best Practices in Rural Sanitation in India

The Ministry of Drinking Water and Sanitation, with the assistance of the Water and Sanitation Program (WSP) of The World Bank, has compiled a second volume on Compendium of Best Practices on Rural Sanitation titled

The 16 success stories documented in the Compendium are lessons of inspiration and serve as models for various Gram Panchayats, Districts and States across India. These documents help overcome hurdles and obstacles in aspects of program implementation for addressing issues related to sanitation.

*Discover more...*

[http://mdws.gov.in/sites/upload\\_files/ddws/files/Pathway\\_to\\_Success\\_0.pdf](http://mdws.gov.in/sites/upload_files/ddws/files/Pathway_to_Success_0.pdf)



## INTERVIEW

### Mr. Mahesh K. R., Executive Engineer, Mysore Urban Development Authority(MUDA), shares his experiences during the Engineering Training Programme on DEWATS™ , 26th to 30th May 2014

Considering the growth of Mysore city in recent years and the spatial expansion of the city is largely contiguous and relatively compact. MUDA/ private developers have been in the process of developing new layouts. Besides, the residential layouts the private developers have lined up an array of proposals for constructions there are a definite need to oversee the sanitation infrastructures.

Six officials of MUDA participated in the Engineering Training Programme on DEWATS™ to understand the construction, implementation and operation and maintenance of DEWATS™.



Mr. Mahesh K.R, Executive Engineer, (MUDA)

### Did you find the training useful?

I gained adequate knowledge and learned about DEWATS™ approach. As of now MUDA is trying to bring together strategies and capacities for improving sanitation infrastructure and to overcome the land availability issues for having STPs. Following the training programme we will identify the scope for DEWATS™ implementation.

It was a great experience learning the design and implementation of DEWATS™. I have also gained knowledge on the decentralised approach to wastewater and sanitation issues and now have enough understanding to adopt DEWATS™ approach for managing issues at the implementation level.



Training session on wastewater analysis

### Was the content of the training programme able to meet your expectations?

Yes, the training was good and professionally done so that the participants could also learn about sustainable sanitation approaches apart from DEWATS™.

### What is the scope of implementation of decentralised systems such as DEWATS™ in and around Mysore?

In some situations it is not possible to connect the drainage system of a property to the main drainage systems. With the prevailing growth of the city it is very feasible to implement decentralised systems such as DEWATS™ particularly for private civil constructions such as apartments and housing colonies. Recommending and ensuring to develop and plan decentralised approaches will act as a solution for managing septage.

## NEWS AND VIEWS

### Situational Analysis of Faecal Sludge Management in Kommaghatta, Village by Internship



Internship Students, interviewing the local-sewage vacuum tanker operators

While on a 5-week internship at CDD Society 2 students pursuing their bachelor's in Environmental Science from St. Joseph's College Bangalore conducted a situation analysis of sanitation in general, faecal sludge management in particular in the peri-urban area of Kommaghatta Village, Bangalore and at the way forward to improve the situation.

Semi structured interviews with villagers, panchayat members and the local sewage vacuum tanker operators were conducted to obtain views of people on the infrastructure and the problems existing in the village.

The students have prepared a comprehensive analysis which shows that the main problem with the handling faecal sludge in Kommaghatta Village is that single unlined pits are widely used. 92% of the households have in-house toilets. Grey water is disposed in storm water drains. Due to unlined open pits, effluent infiltrates into the soil and thus contaminate ground water.



## Workshop on Technology Options for Decentralised Wastewater Management, 5<sup>th</sup> June 2014, Bangalore

CDD Society and BORDA in partnership with Rajiv Gandhi Rural Housing Corporation Limited (RGRHCL) conducted a Workshop on Technology Options for Decentralised Wastewater Management - Towards Sustainable Environment, with support from various Government departments of Karnataka (Water and Sanitation) and Confederation of Real Estate Developers' Associations of India (CREDAI).

The workshop was held on 5th June 2014 to commemorate World Environment Day. This Workshop aimed to provide a platform for exchanging knowledge and experience in the field of decentralised wastewater treatment services and



Hon'ble Minister of Housing Department, (GoK), Sri. Ambareesh inaugurating the workshop



Panel Discussion and inputs on 'From Knowing to Implementing – towards sustainable sanitation strategies'

The workshop intended to bring together providers of decentralised wastewater treatment options with service demanders and sanitation experts to share their implementation experience from a technical, financial, and operational perspective. Prof. T. Swaminathan from IIT, Madras moderated the workshop and provided an introductory presentation on domain of wastewater at large and treatment technologies, in particular.

Twelve eminent experts presented the proven effectiveness and sustainability factors of the implemented decentralised systems with case studies and supporting data. There were around 150 participants at the workshop representing government departments, NGOs, entrepreneurs and students.



Participants of workshop interacting at CDD Society's stall



Participants of the workshop visit sanitation exhibition at CASS

## Training programme on EcoSan

CDD Society, in collaboration with BORDA, Germany, RGRHCL, Bangalore, Karnataka and Ecosan Services Foundation, Pune, Maharashtra, will conduct a Training programme on EcoSan.



Training Duration  
14th-16th July 2014

Venue

  
CENTRE FOR ADVANCED  
SANITATION SOLUTIONS  
Kengeri, Bangalore

Medium of Instruction  
English

Seats are limited to  
20 participants

Potential Applicants

Sanitation enthusiasts from  
NGOs  
Government organizations ( rural department)  
Environmental/Sanitation consultants.

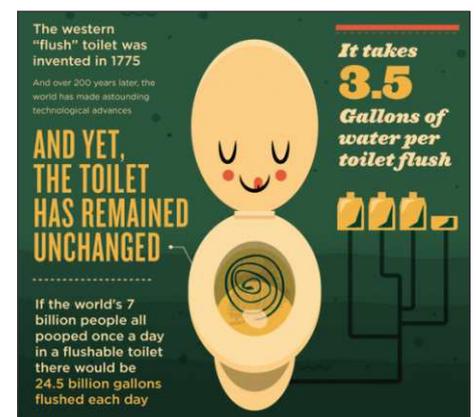
for the Brochure and Registration form for the  
training programme visit  
[www.cddindia.org](http://www.cddindia.org)

## INTERESTING LINK

### Interesting infographic on the lack of sanitation around the world

Take a look at this fun and informative graphic on sanitation situations around the world. Created to support the Water, Sanitation and Hygiene program of the Bill and Melinda Gates Foundation, which challenged 22 universities to submit proposals on how to invent a waterless, hygienic toilet that is safe and affordable for people in the developing world and do not have to be connected to a sewer.

Link : <http://www.freshwateraction.net/content/interesting-infographic-lack-sanitation-around-world>



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