

PROLOGUE

Greetings from CDD!

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Welcoming the batch of 4 Weltwäerts volunteers, 2015-16

Inauguration of FSTP at Devanahalli, Bangalore

INTERESTING LINK

Policy Guidance Manual on Wastewater Management



Open drain at Devanahalli Town, Bangalore

PROLOGUE

This issue brings up CDD Society's recent experiences in Faecal Sludge Management [FSM] and upcoming activities related to FSM. CDD Society also welcomes and introduces the new batch of Weltwaert volunteers for the year 2015-16 through e-Disha.

Access our newsletter articles and flyers online or download at

<http://www.cddindia.org/newsletters.html>

For feedback and comments, write to us at

knowledge-mgt@cddindia.org

e-Disha
Editorial Team

PICTURE OF THE MONTH

CDD propagates DEWATS™ and FSM at this year's IFAT India 2015

CDD participated at the IFAT India 2015, India's Leading Trade Fair for Water, Sewage, Refuse and Recycling, Conference & Innovation Exchange Forum held in Mumbai from 13.10.2015 to 15.10.2015 at the Bombay Exhibition and Convention Centre. There were 123 exhibitors from 18 countries and around 5000 trade visitors at the IFAT.

The Exhibition highlighted

- DEWATS modules and sectors of applications
- City Level FSM and
- Formation of city level association of service providers of the sanitation sector through ADSIS (visit www.totalsan.com)

During the Fair, enquiries were generated from organisations showing keen interest in implementing wastewater projects. Most organisations across the country were interested in collaborating in the implementation of DEWATS™ related projects.

Several exhibitors on sanitation technologies and private organisations interested in implementing sanitation projects were some of the key observers during the exhibition.



Invitation

You are cordially invited to inauguration of "Faecal Sludge Treatment Plant" – Devanahalli

On occasion of World Toilet Day 2015 we are glad to invite you to the inauguration of the first of its kind Faecal Sludge Treatment Plant (FSTP) in India, located in Devanahalli, Karnataka. This decentralised treatment facility treats the faecal matter in a natural, cost effective and energy efficient way, while the operation and maintenance will be very minimal.

The faecal matter accumulated in peri-urban septic tanks/ pits are managed as a Public Private Partnership (PPP) between the Devanahalli Town Municipal Council (TMC) and CDD Society.

As Devanahalli TMC does not have an Under Ground Drainage (UGD) system, most of the households depend on on-site sanitation infrastructure. The vacuum trucks desludge the household septic tanks/ pits and dump the raw faecal matter on adjoining agricultural fields. This common practice causes serious health hazards to farmers in the area, since raw faecal matter is the source for diseases like typhoid, cholera and hepatitis.

The FSTP, constructed in collaboration with CDD Society/ BORDA and Devanahalli TMC, Karnataka, can treat up to 6m³ of sewage, of which the treated wastewater will be used for irrigation of nearby agricultural fields and the dried sludge co-composted with the municipal waste.

November 19, 2015
11:00 am - 1:00 pm
Neergantapalya Gate, NH Road, Devanahalli

Project partners: BORDA, CDD Society, Devanahalli TMC, Karnataka, etc.

Contributing donor: BILLY MELINDA GATES, etc.



October 13-15, 2015
Hall 5, BOMBAY EXHIBITION CENTRE,
MUMBAI



Sanitation service providers, Technology exhibitors, Municipal and Government authorities, equipment manufacturers visited CDD's stall at the IFAT.

PROJECT FACT SHEET

DEWATS™ for Good Earth Malhar, Bangalore

Good Earth Malhar is an office building located off the Bangalore-Mysore Road. There are 250 people working in the office campus.

Kind of Project : SME DEWATS™
 Implementing Agency : Client
 Supporting Organisation: CDD Society
 Construction Period : 6 months
 Construction Cost : 10.0 lakhs
 Start of Operation : 2015

Purpose

Reuse of treated wastewater for gardening and toilet flushing
 To reduce the environmental pollution

System in brief

The wastewater streams are conveyed from the toilet and wash area are collected in a common register near the treatment system, which consists of 3 modules:

Settler, Baffled Reactor and Vortex.

Settler is a sedimentation tank for retaining particles by settling over a specific time frame.

The Baffle Reactor ensures anaerobic degradation of suspended and dissolved solids by mixing fresh wastewater with an active sludge blanket.

Vortex is used as tertiary treatment unit to oxygenate the partially treated wastewater.

Reuse options

The treated wastewater will be used for toilet flushing after the post treatment.

Vortex an alternative to the PGF has its inherent advantages such as elimination of odors, esthetic integration within landscape and very low running cost.

The Vortex system does not occupy much extra land and can be easily integrated into the pump room or on the top slab of the underground modules virtually eliminating the PGF space required.

Modules adopted

Settler

Volume : 8.2 m³
 Area of construction : 7.0 m²
 Anaerobic Baffle reactor
 Volume : 12.00 m³
 Area of construction : 11.50 m²
 No. of chambers : 6

Anaerobic Filter

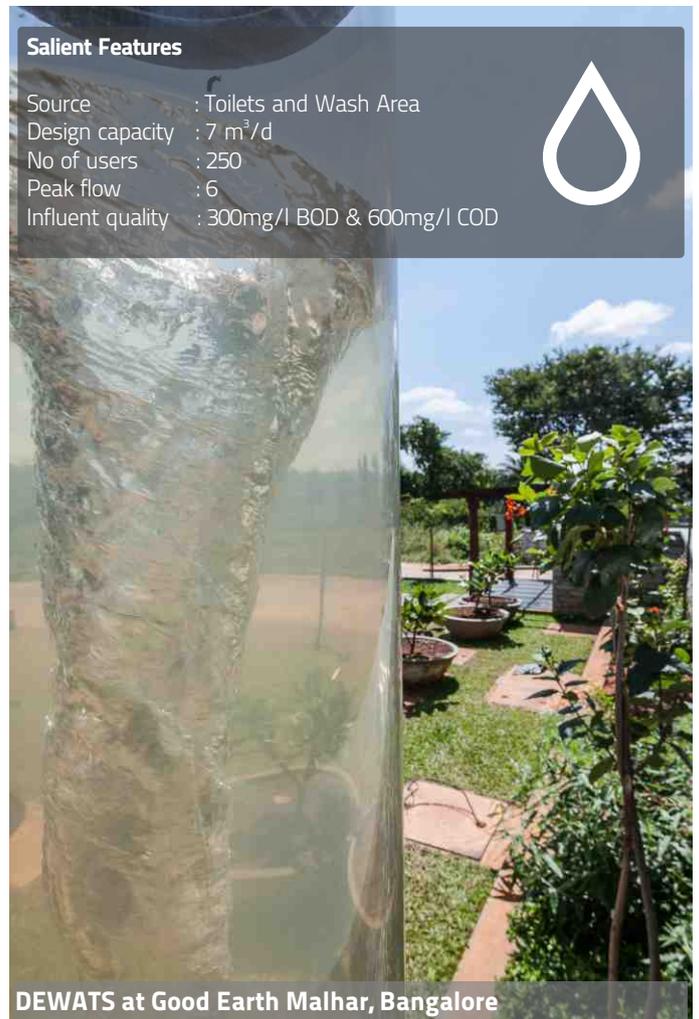
Volume : 3.0 m³
 Area of construction : 3.5 m²
 No. of chambers : 1

Vortex

Area for implementation : 1.5 m²
 No of vortex : 2 Nos
 Dia and height of vortex : 0.3m dia and 2m
 Built up area : 32 m²

Salient Features

Source : Toilets and Wash Area
 Design capacity : 7 m³/d
 No of users : 250
 Peak flow : 6
 Influent quality : 300mg/l BOD & 600mg/l COD



DEWATS at Good Earth Malhar, Bangalore

NEWS AND EVENTS

CDD's Experiences in FSM

About 70% of the Indian population has toilets connected to septic tanks or soak pits. These on-site systems are periodically emptied using "Honey Sucker" trucks. The operators are untrained and do not follow safe practices. Faecal sludge, if not handled and managed properly, has negative implications over time on the urban environment and on public health.

It has been observed that most of the septic tanks and pits are not desludged regularly; and when they are, their contents are dumped indiscriminately into the vicinity due to lack of scientific treatment and disposal facilities. Currently, the untreated fecal sludge is often dumped in remote locations or directly in agricultural fields.

CDD's recent experiences in FSM

Treatment technology for faecal sludge/ septage at Devanahalli, Karnataka

Read More: <http://www.cddindia.org/O&Mproject/articles.html>

Designing IEC campaigns and enabling institutions in 34 towns in Nepal and Bangladesh

Read More: http://www.cddindia.org/recentactivities_150915.html

Sanitation Action Plan and Technology Demonstration(s) for 30 Pourashavas in Bangladesh

The Asian Development Bank, through its program "Third Urban Governance and Infrastructure Improvement Project" (UGIIP-III)", is supporting the Government of Bangladesh to strengthen urban governance and improve urban infrastructure and service delivery in 30 Pourashavas (Urban Local Bodies) to develop them into model towns of the Country.

One of the approaches in making model towns is to develop a sanitation action plan and demonstrate sustainable technology options for sanitation service delivery in the 30 Pourashavas; these could be further replicated or 'program managed' in other urban areas in Bangladesh.

Read More: <http://www.cddindia.org/O&Mproject/articles.html>



Faecal Sludge being dumped in open field, Devanahalli



Survey conducted at a Pourashava, Bangladesh

EVENTS

Inauguration of “Faecal Sludge Treatment Plant” – Devanahalli, Bangalore

On occasion of **World Toilet Day 2015** we are glad to invite you to the inauguration of the **first of its kind Faecal Sludge Treatment Plant (FSTP)** in India, located in **Devanahalli, Karnataka**. This decentralised treatment facility treats the faecal matter in a natural, cost effective and energy efficient way, while the operation and maintenance will be very minimal.

The faecal matter accumulated in peri-urban septic tanks/pits are managed as a Public Private Partnership (PPP) between the Devanahalli Town Municipal Council (TMC) and CDD Society.

As Devanahalli TMC does not have an **Under Ground Drainage (UGD)** system, most of the households depend on on-site sanitation infrastructure. The **vacuum trucks** desludge the household septic tanks/pits and dump the

- A comprehensive survey was conducted over a time span of 5 days across **3743 households** covering a population size of **17384**.
- Survey was conducted to create and analyse the database for onsite sanitation infrastructure and create a **robust FSM model**

raw faecal matter on adjoining agricultural fields. This common practice causes serious health hazards to farmers in the area.

The FSTP, constructed in collaboration with **CDD Society/ BORDA** and **Devanahalli TMC**, Karnataka, can treat up to **6m³** of sewage, of which the treated wastewater will be used for **irrigation** of nearby agricultural fields and the dried sludge co-composted with the municipal waste.



Enthusiastic students of National Institute of Management Studies, Kengeri, were involved in conducting the household-based survey in Devanahalli to understand onsite sanitation systems at Devanahalli TMC as part of FSTP implementation.



Construction site of the FSTP at Devanahalli. The plant can treat up to 6m³ of sewage, of which the treated wastewater will be used for irrigation of nearby agricultural fields and the dried sludge co-composted with the municipal waste.



Consortium for
DEWATS
Dissemination
Society



INTERESTING LINK

Policy Guidance Manual on Wastewater Management

A "Policy Guidance Manual on Wastewater Management" was released on the occasion of the Sixth Asia Pacific Urban Forum (APUF6) at Jakarta, Indonesia on 19 October 2015. Jointly produced by UN ESCAP, UN-Habitat and AIT, the manual is an outcome of a project on "Strengthening Capacity of Policymakers in South-East Asia to promote policies and developing plans for improved wastewater treatment and reuse in urban and peri-urban areas.

The main object of the Project is to support capacity building of policy makers and planners for better wastewater management through different activities at regional and national level. It also expected to establish or strengthen existing institutions which can function as resource center(s) or referral points with expertise on all aspects of DEWATS™. This manual provides a step-by-step guide on

development and implementation of DEWATSTM in developing countries of the region with a set of financial schemes, market opportunities, investment and potential impacts. It has emphasized the importance of the leading role of Governments in development of norms and policy frameworks and in operationalisation of the practical tools to enable business cases. It also addressed the active roles of the communities and private sector in wastewater management and sanitation, with a special emphasis to promote DEWATSTM.

Read More :

http://www.unescap.org/sites/default/files/manual_part1and2_16july15.pdf

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