

EXCRETA MATTERS

CSE's 7th State of India Environment Report, Excreta Matters, was launched, debated and discussed in a seminar on April 12, 2012. The meet was attended by 80 people, including the Huda administrator, municipal commissioner, mayor and deputy mayor of Gurgaon, city councillors, civil society representatives and concerned citizens.

The Administrator, HUDA invited CSE to form a core committee with experts and draft guidelines for teaching their engineers and planners on how to decentralize sewage treatment and improve rainwater collection on an individual, colony and city level. He requested the team to undertake at least 5 model projects in urban Gurgaon, which could be scaled up. This would be in collaboration with HUDA, MCG and RWAs.

Minutes of the proceedings

Mr. Bhawani Shankar Tripathy, Mission Gurgaon Development

- Water Management : Gurgaon has sufficient water (113 LPCD) to provide to its citizens (about 50 lakh people). Close to 272 MLPD is supplied to the entire city barring a few private colonies. HUDA, has admitted (in a study) that there is no system for cleaning and bleaching water tanks (operation and maintenance system is poor). Sewerage pipe leaking is not unknown. This mixes with water supply pipes due to the use of motors (for pumping out water) unapproved by ISI. Most residents are therefore consuming untreated water in some way or the other. This calls for urgent attention.
- Sources: Water sources like lakes and ponds are filled up and given for land development in Gurgaon. This has been the major reason for sources drying out. The logical solution thus attempted is that of storage. 60% of the supplied water is drawn from ground. The issue arises where about 160 unauthorised colonies draw out water by pumps and their 70-80% of daily supply goes to drains. This is sent out through storm-water drains (untreated water) which then mixes with Najafgarh nalla and then eventually finds its way into the Yamuna.
- Saving the catchment area (*Aravalli*): There are cases of land-development in the *Aravallis*. These hills surround Gurgaon in patches of green and need stringent management rules for protection of water resources. If these are not protected, the catchment area for Gurgaon groundwater will become a desert.
- Old wells: Gurgaon has many old wells spread in its area. However, these are not in use now and some are very polluted. This should be seen as an opportunity where they can be remediated and connected to storm-water drains. This would not only enable storage, it would also raise the level of groundwater substantively. (low cost and minimum investment technique)

Mr. Tripathy stated that a holistic approach, keeping in mind all the above mentioned arguments would be required urgently to save Gurgaon from facing challenges as there is huge demand due to industrial growth and increasing population.

Mr. Niranjan Khattri, ITC Group

He stressed on the use of simple innovative technologies that people (residents) must begin from their own homes through simple housekeeping acts. He talked about various ways like retarding the flow of water from taps, car cleaning, motion sensors, moving from showers to

other ways, harvesting water from kitchens to water plants among others. The outlook should move from supply side to demand side management. Gurgaon, he fears, might still repeat Fatehpur Sikri's story from the past. Conservation of water should go beyond talks, facilitated by design with emphasis on planning. He also suggested that HUDA and MCD should look at conducting water audits in urban Haryana to understand the latest consumption pattern. This then should be monitored and then ways should be suggested to reduce its consumption in various sectors. Then he talked about ITC's initiatives – check dams (over 3000) built in rural areas so that has enabled three annual crops for farmers that has brought a check on migration. He suggested that there was a need for de-centralised water system as getting water from as far consumes far more energy through different resource usage.

The book, Excreta Matters, was then released by Gurgaon's mayor Mr. Vimal Yadav, Municipal Councillor, Ms. Nisha Singh and the deputy mayor.

Mr. Vimal Yadav, Mayor of Gurgaon promised to save water at his house. He talked about installing rainwater-harvesting structures at every kilometer in the area to store and recharge groundwater. Madam Councilor talked about water audits and wastewater reduction. Rainwater harvesting was stressed again and stress was laid on creating awareness and saving water.

CSE's presentation provided an overview of the book, and its findings on Gurgaon water and sewage scenario.

Mr .Praveen Kumar, Administrator, HUDA made several observations and comments:

- MCG and HUDA require separate 'Water cells' where engineers work more directly and effectively on water supply matters.
- Look for decentralised techniques
- HUDA engineers are unaware of technology and this hampers their planning for the city. Much guidance is required in terms of protection of natural bodies, exposed groundwater, structure formation, and structure selection based on hydrogeology.
- There are no water management plans yet.
- Motion Sensors and its usage were also discussed. For electric conductivity, breakage of pipes and water flow etc. there are different kinds for industrial and household uses.
- There were talks of introducing incentives for those using water effective technology (household level)

Mr. Lalit Mohan Sharma, IRRAD

Presentation on Green Building of IRRAD. Salient features of the campus:

- 1.1 acre of land/45000sq ft with 4 levels and 100 people capacity
- Solar Energy, RWH, lighting, wastewater recycling, biodiversity.
- Total capacity of 5 lakh litres of water (stored under two buildings) and rest of the water goes to recharge wells. A last for 8 and half months, only around mid-March water supply is taken from HUDA/MCG.

- All pavements are porous, thus enabling more seepage of water
- Waste water: recycled, treated and re-used. (Effective micro-organism strategy, used for water plants and very soon for flushing toilets)
- Solar energy of 35 KW, water heaters
- Use of natural light and ventilation

HUDA Administrator asked for providing guidelines and building a green building.

Mr. Sudhir Rajpal, Commissioner, MCG

- He admitted that there were water related issues in terms of untreated water being let out leading to quality related issues.
- Decline in groundwater level was also an alarming concern for MCG.
- He supported and pushed for the idea of formation of a core committee that would be technically sound and would provide guidelines for implementing water audits, RWH, waste-water treatment, groundwater recharge and water management on the whole.

Chetan Agarwal, Independent Consult

Talked of a balance that is required between regulatory measures and a willingness of people. He highlighted some figures on the usage and consumption pattern of Gurgaon residents. With an overdrawing rate of 300%, all of Gurgaon's groundwater would end by 2017. His core point was to protect the 'natural re-charge zone'. There is an urgent need to zone and then protect them. Most of these are low lying areas, lakes and the Aravalli hills.

This was followed by a Q & A session:

Latika Thukral: What can be done to augment water resources?

Nitya Jacob (CSE) : He gave four points

- I. RWH with immediate implementation would augment supply.
- II. Household level consumption practices could be checked and new, innovative and simple techniques must be introduced at home
- III. Map the groundwater and aquifers and provide legal protection or know of the long-term land use of the area.
- IV. Sewage can be used in innovative ways on land after treatment. (Eg. How Honeysuckers manage the sewage of Bangaluru)

She raised concerns regarding decentralised sewage treatment. STPs from all buildings release sewage to storm-drains.

Someone raised the concern of charging people higher for the water they use. It was argued back that there should be effectiveness in the planning, management and implementation rather than solely increasing the tariff.

Mr. Niranjana Khattri suggested Water Audits to be made mandatory so that consumption is known, monitored and then plans can be made to reduce and manage its usage. A strategy

must be planned for Gurgaon as its terrain would allow only certain type of planning. Overall structures must be made sustainable and planning should be made to reduce usage.

Someone from the audience talked how Singapore drinks all of its water. So why could we not replicate that here. MCD should take STP water and create de-centralised sources and pass it to people. Treat sewage in STP, store and then re-use. If the argument is that STP's are expensive, so are the water tankers that carry water in lean periods to the residents.