

'VOICES FROM THE WATERS' GROUNDWATER CONFERENCE - 29th Aug, 2011

Opening songs (sung in Kannada) x 2

Address by President / Executive Director Svaraj

- Bangalore & Mumbai face severe water shortages ie. poor water management

1. Ms. Vasanthi Srinivasan - President Svajaj Board

- Is there need for regulation?
- Ground water; and all other forms of water
- Self-regulation: Leakage, consumption of personal usage
- How to change the mindsets of people?
- Sensitizing; then, regulation
- Advocacy: How to mobilize communities
- Monitoring and enforcing standards eg. acquire to monitor & track pollution, effluent, etc.
- How to organise to a set cost factor through many communities
- "Be the change you want to see".

2. Dr Prakash - Director KSNDMC

- Missing is 'management' of water
- How to evaluate where water is captured and stored, accurately
- Corruption issues
- Today, issues are different to ten years ago ie. collecting data then, was very different
- A good set of measurements is required, for management to be implemented properly.
- Good measurement is essential; but data must be accurate. Technology is big, but needs to accommodate the complexity of data collection required for accurate science to be implemented.

3. Professor Shekar Muddu - Department of Civil Engineers

- We need a paradigm shift to implement new changes
- India uses much groundwater ie. 25+million wells
- 1/3 is not good (replenishment)
- 2/3 good (replenishment)
- Spot measurements - spatial vs temporal measurements
- Rain gauges, meteorological rainfalls
- Groundwater is not static - it moves underground
- Need to improve our understanding of monitoring strategies ie. maps, quantify discharges.
- Looked at: Monsoon vs. non-monsoon flows
- Groundwater is under some stress ie. not reaching larger systems ie. 80 sq.km per 1 x monitoring station - rocky, soil, land use - microscale vs. macro scale planning
- How is the system working without/with intervention?
- We need judgements depending on SCALE of systems being monitored
- Rainfall patterns/changes have impact on groundwater levels [1980-1990 6yrs good; 6yrs poor rainfall cycles]
- Groundwater is used through rainy season ie. traditional methodologies change
- Extraction of water also must be considered in management practices, along with spatial/ temporal measurements.

- Valleys = good soil = better crops = more wells = more water used = water does not flow to streams.
- 1975 is different to 2011 ie. need better methodologies - paradigm shift
- Recharge + discharge - natural discharge = storage - pumping
- Groundwater: Metropolitan vs Agricultural usage vs Population

4. Dr Venugopal - Local Legislation for Kanartaka (Groundwater)

Water Policy and ground realities: A case study of a Doddaballapura town

- 50% reduction of lack of safe water to all people in India
- Water should be tested twice a year for bacteriological contamination; once per year for chemical contamination (BIS standards for water quality).
- 'Silk City' - entirely dependent on groundwater for drinking water
- 13 slums - 13, 919 people = 22% of total population
- 2009 study: Watsun study
- 1800 households = 10%
- Shortage of 33% = water crisis ie. 9 litres of potable; 43 litres of non-potable per day
- slums 44 lpd; non-slum 55 lpd.
- borewells 500-800ft with levels declining over years
- 300 households harvesting rainwater = 2.3%
- Tankers provide most of the potable water
- 57% of slum community use public taps for drinking water
- Municipality water available only every 4-5 days
- Only 20% satisfied with water 48% not satisfied 32% mod. satisfied (due to high salt taste)
- Free from biological contamination (guinea worm, typhoid, cholera, etc) = safe water
- 50 sources tested, pre-monsoon
- 92% of drinking water tested is not potable
- CMC bore wells = 100% not potable
- Private tankers = 100% not potable
- Packaged water = 4 out of 5 samples 80% not potable
- 37.7 million adults annually/1.5 million children, affected by water bourne diseases
- Inadequate and lack of, integrated approach to management of water resources.
- Unchecked urbanisation, inadequate town planning
- untreated sewerage
- pesticides
- household garbage

RECOMMENDATIONS: URGENTLY EMBRACE NEW WATER ETHOS

- Certification, rebates in property cess, plan sanctions & certification, incentives, penalty's
- Rooftop rainwater harvesting promotions
- Artificial recharge and source protection for bore wells eg. rainwater not next to sewerage
- Sensitisation and inculcation of new water culture and ethos
- Responsible use at homes, schools ie. children (one generation?)
- Stringent, accountable, quantity and quality norms ie. water policy
- Community participation
- Conservation and harvesting and recharge - private/public
- Protection & revitalisation of all water bodies ie. lakes, ponds, streams.