

# Water crisis: A crisis of governance than of scarcity

-D. Johnson Rhenius Jeyaseelan

&

Anand Shekhar



# Present Situation in Water Supply



***TWO OUT OF  
THREE PEOPLE  
IN THE WORLD  
WILL FACE  
WATER SHORTAGE  
BY 2025***



# Reasons for Water Crisis

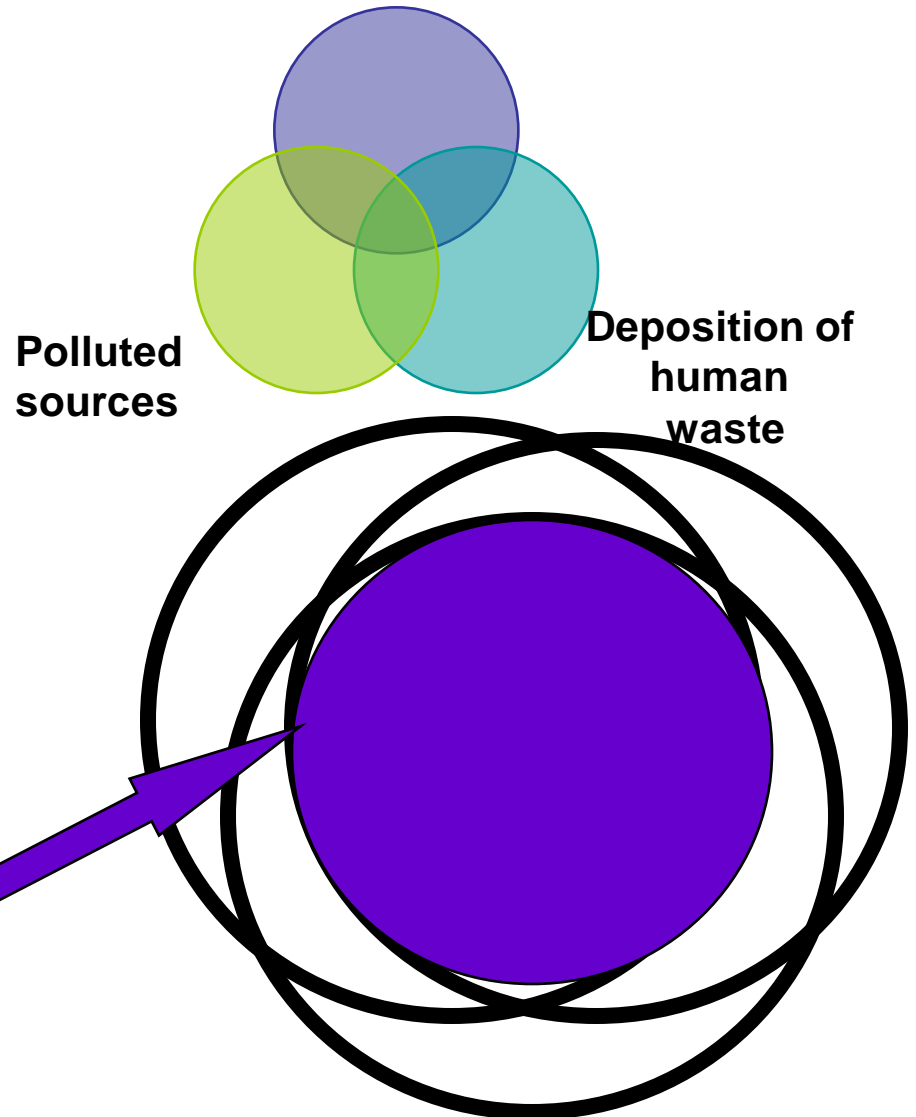
- “Lack of adoption of traditional water harvesting methods”
- “Time will come when they will sell even rain water”
- “India's average annual rainfall is 1170mm – this can sustain our needs but the problem is we do not catch this precious sources but allow it to run off”
- Ground water laws not implemented with spirit



# WRM – The Need

- Poor people suffer most when water services are badly managed.
- Un served poor people pay 10 or more times the price for a liter of water than do their fellow citizens
- Overall impact on poor people especially on poor women is very high
- 2 million tonnes per day of human waste are deposited in water sources
- Half the population of the developing world are exposed to polluted sources of water that increase disease incidence.
- The increase in numbers of people from 6 billion to 9 billion will be the main driver of water resources management for the next 50 years.

## Water Shortages

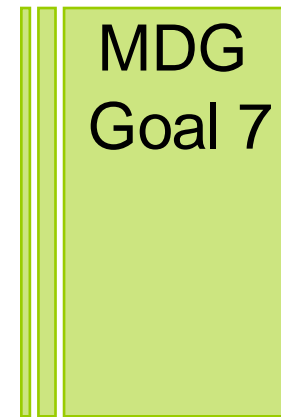


*As overlap increases morbidity, mortality and poverty increases*

# The larger context:

The overall MDG goal of ensuring environmental sustainability (Goal 7) has three specific targets:

- *Target 9:* Integrate the principles of sustainable development into country policies and programs; reverse loss of environmental resources.
- *Target 10:* **Reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation.**
- *Target 11:* Achieve significant improvement in the lives of at least 100 million slum dwellers by 2020.



Clearly, water is a key dimension in achieving each of these three targets.

# Target 10: how are we placed?

- 85% of rural population served by Groundwater
- Protection of GW in conflict with GOI food security objectives and subsidies to agricultural sector
- Seasonal or permanent water fall evident in 1/3<sup>rd</sup> of habitations surveyed by RGNDWM in 1996
- Need to continually replace dried up sources: higher costs up to 1000 to 1500 %
- M&E of resources, abstraction and quality are generally fragmented and driven by interests and objectives of various agencies

## Linkages

Water Security

Sustainability of investment

Sustainability of sources

Quality of water

Preventing Contamination

End use efficiency

Environmental considerations

# Barriers to implementing IWRM in WS&S

- A failure on the behalf of the WATSAN sector to engage meaningfully with the other sectors involved in IWRM
- A lack of models of how to go about integration.
- A critical lack of both policy and the personnel to implement it.
- The difficulty of WATSAN sector to interact meaningfully with the well-organized lobbies of big agriculture and industry.
- The critical need for reliability in domestic supplies not emphasized
- Water management principles



# Recurring drought

Drinking water security especially during times of scarcity:

- Depletion of ground water over the years rapidly
- Water sources like open well, tanks, ponds drying up
- Slippage of water sources from fully functioning to partially functioning and from partially functioning to not functioning due to depletion of ground water in addition to high failure rate of new borewells
- Increased time for collection of water including travelling long distance in search of water
- Sanitation a non starter and usage of HH latrines a challenge
- Poor Practice of safe hygiene behaviours



# How WAI Addressed IWRM

## Community level IWRM through

- Recharge through abandoned borewells
- Recharge through open wells
- Surface water harvesting
- HH roof water harvesting
- Pond deepening and desilting
- Boulder check dams
- Hydro fracturing of borewells
- Deepening of open wells
- Check dams/Gabion



# Process

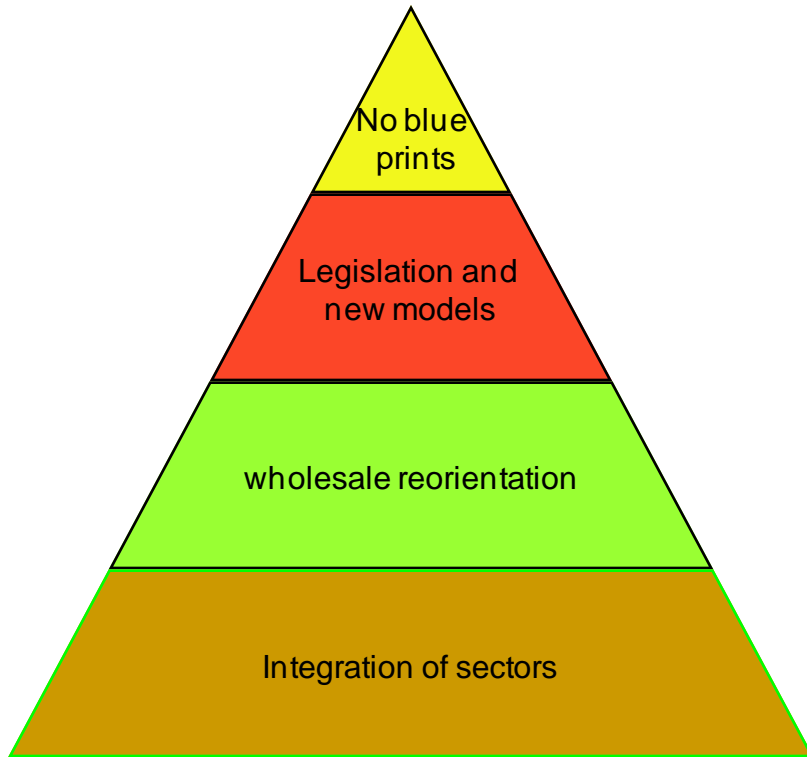
- Awareness to community on IWRM
- Establishing model IWRM to enable people see the changes
- Promoting IWRM at village/block level
- Community participation – VWSC (planning, budgeting and estimation, quotation, purchases, quality control, O & M)
- Linkage with government

# Impact

- Impacts are progressive over the years but the immediate impacts are:
  - Good rains this year recharged the ground water table
  - All recharge structures created good catchment of water and enabled recharge over the months
  - Long term plan of a mini water supply system revived



# Greatest Challenges

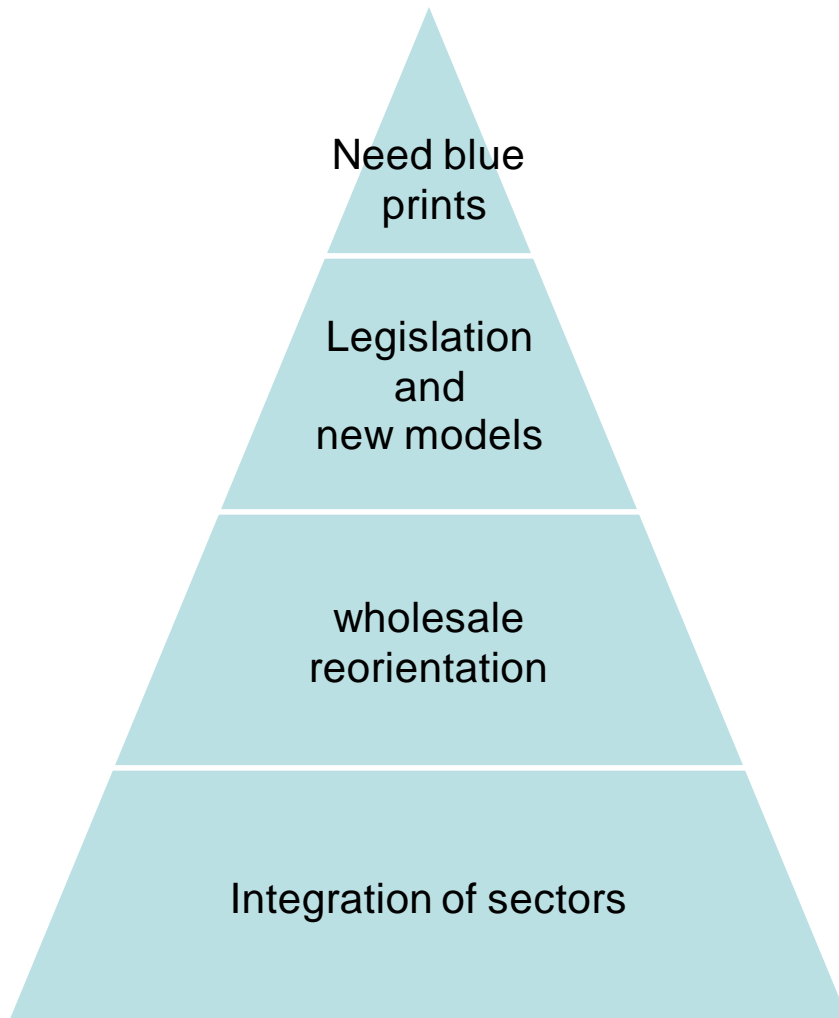


- 'Water and sanitation sector' and WRM should cease to be considered as separate autonomous sectors
- legislation and new models of stakeholder involvement, as well as concerted advocacy.
- need to change to being facilitators, enablers, and regulators
- Stakeholder representation
- There are no blue prints, it's a road less traveled

# Learning's

- Water is an economic and social good and needs to be managed as such in a holistic manner;
- Water availability is not a problem but its governance is the problem. The governance includes promotion of IWRM
- Putting people in the center, particularly women for all social development activities including IWRM, water, sanitation and domestic hygiene intervention may be the only approach for attaining overall sustainable development. Without community getting empowered any schemes like IWRM will fail.
- Community based IWRM is essential for drinking water security and sustainability of water sources to be promoted.
- The cost involved for IWRM is less when it is supported by community. In this case the community not only gave cash contribution but also labour and material contribution. The project broke the myth that people will not be ready to contribute for IWRM
- Management should be focused at the lowest appropriate level, i.e. community level or even at the level of individual water points
- Sanitation programme will be successful in water stress areas unless it is integrated with IWRM

# Learning's



Involve local government and CBOs

Low cost recharge interventions: RWH in schools, Pond desilting

Implementation norms for WS and sanitation

Training to CBOs on water harvesting

Supporting waste water management

Water quality monitoring in regular projects

# Photos





# Photos



THANK YOU

