

“Technology alone cannot deliver everything. Along with it, the role of community is equally essential”

---In conversation with Phanish Sinha, Engineer (Retd.) with the Irrigation Department of Uttar Pradesh, and Consultant, World Bank

Q. How do you water resource engineers visualize the concept of integrated water resource management (IWRM)?

A. Engineers are less interested in water management. Even if they are, their interest is limited to the field of their expertise. IWRM concept is not well perceived by the engineers by and large.

Q.Do you consider engineers’ lack of interest in IWRM a challenge?

A. Yes, it is a challenge indeed. IWRM should be a concern for everyone

Q.What are the other factors considered for successful implementation of IWRM in Uttar Pradesh?

A. Apart from institutional support, exact measurement of work requirements is essential. Equitable distribution of water in different sectors is required keeping in mind the optimization of social and environmental benefits. Firstly, measure the availability of water and then account for its requirements. Quantification of community and technical resources is required.

Q. What is your perspective on the role of technology in IWRM?

A. Technology alone cannot deliver everything. Along with it, the role of community is equally essential. Where technology can be used only for quantification and planning of resources, the community is important for implementation. Therefore role of community is larger since utilization of resources is the end.

Q. What according to you are some of the reforms required in order to make Uttar Pradesh IWRM compliant?

A. Firstly, proper measuring tools for surface water, groundwater and rainwater should be developed. The real challenge lies in assessing the availability of different types of water sources. Secondly, after calculation of available resources, go for planning. Planning can be done with involvement of the community for the implementation of the plans.

Q. What are the current issues that prohibit from collecting relevant and accurate data?

A. Three major issues are non-involvement of community, huge and constantly changing data and difficulty in ascertaining individual household data regarding water usage.

Q. What are your thoughts on demand side management?

A. Demand-supply gap can be met with demand side management. Most of the time, a lot of water is being wasted in irrigation and agricultural sectors.

Q. What is the ideal method to combine the three aspects of IWRM i.e. economic efficiency, social equity and ecological sustainability? How to conserve ecology in this system?

A. Agricultural sector is the major sector utilizing water. Haphazard usage of pesticides and fertilizers leads to more usage of water. These things spoil the ecology. You need to bargain with the community since there is an economic and scientific reason behind the usage of these.

Q. What steps should the community take to make IWRM possible in UP?

A. Firstly, you need to look for the community representative and then set up a dialogue. Look for communities particularly associated with water management and initiate negotiations and share concerns with them.

Q. What is the suitability of Uttar Pradesh as a state for IWRM?

A. Even India is not ready for IWRM, let alone UP. There are a lot of requirements for IWRM such as online available data. Proper and current data is not available even on governmental websites.

How climate change can increase flooding episodes in South Asia?

- May affect the frequency and intensity of cyclones and consequent flooding in the Arabian Sea, Indian Ocean and the Bay of Bengal (AIB) region
- Cyclonic storms and associated storm surge flooding will increase in the coastal districts, which are highly vulnerable to flooding
- Number of wet spells is likely to increase with increases in greenhouse gas concentrations, with a possibility of changes in extreme rainfall and rainfall intensity
- Onset and departure dates of monsoon may be shifted
- Changes in the paths and intensities of depressions and storms, and possible increases in convective activity
- Increased intra-seasonal convective activity during the summer
- Overall increase in the rainy day intensity by 1-4 mm per day and increase in the highest one-day rainfall. This increase could be as high as 20 cm per day