

National Workshop on “Water Resource and Water Quality Management for Sustainable Drinking Water Supply”

Address By  
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It gives me great pleasure to participate in the National Workshop on Water Resource and Water Quality Management for Sustainable Drinking Water Supply and I compliment Tamil Nadu State for organising the Workshop at an appropriate time when the country is facing a serious problem of water crisis.

As you are aware, fresh water is a critical resource in the transition to sustainable future. Water is the lifeblood of human needs, food production, industries and innumerable aquatic eco systems. However, the supply remaining more or less constant, the demand is increasing dramatically due to multitude of human activities often leading to water conflicts and crisis. Global water resources scenario in the 21st century, presents a predominant picture of water scarcity and quality degradation with the concept of equity and reaching the unreached in the water supply, still a long way to go. The situation is more grim in the developing southern hemisphere (Latin America, Africa and Asia). The Global Water Supply and Sanitation Assessment Report – 2000 by UNICEF, WHO and WSSCC indicates that on a global scale about 1.1 billion population lacks access to safe water. Based on this trend, the report adds, that additional 3.0 billion population may join the deprived group in the next two generations. It is a matter of serious concern that biological contamination of water resources continues to be a dominant factor for large scale morbidity and mortality of population including children in the developing countries. The problem gets further compounded by rapid growth of population, particularly in water stress areas. Natural calamities of a recurring nature like flood, drought and earthquake adds another dimension to the problem. All the above throws a heavy responsibility on the international community for coming out with a realistic Integrated Management of water resources for achieving the poverty alleviation on a global scale within the stipulated time frame.

Indian scenario is no different from the global situation. The various constraints listed out in the global situation viz. (i) financial difficulties (ii) institutional problems (iii) inadequate human resources (iv) lack of sector coordination (v) lack of political commitment (vi) insufficient community involvement (vii) inadequate operation and maintenance (viii) lack of hygiene education (ix) poor water quality and (x) insufficient information and communication are equally relevant to Indian context.

The National Agenda of Governance accords high priority for rural water supply for a time bound coverage of all habitations in the country with safe water supply by 2004, for which a four pronged strategy as below, as been evolved.

- i) Achieve full coverage
- ii) Carry out fresh survey to assess the actual magnitude of water quality problem
- iii) Tackle water quality problems, both natural and cost by human intervention

iv) Ensure sustainability of source and system

In tune with the Global Vision Statement, the Government of India has also formulated a Vision Statement for rural water supply. The statement envisages to achieve the mandate given to the Department in three phases, viz. coverage phase, consolidation phase and augmentation phase.

As per the decisions taken in the two-day Conference of State Ministers in-charge of Rural Water Supply (held on 19-20 October 2001), all NC habitations would be covered by 2004. Under the consolidation phase, during the remaining period of 10th Five Year Plan, between 2004-2007, coverage of newly emerging habitations and slippages from FC to PC and PC to NC, if any due to a number of reasons like increasing in population, number of habitations, systems having outlived the utility and defunct nature due to poor O&M or sources going dry to the ground depletion and quality problems would be achieved. The last stage is the augmentation phase aimed at increasing the per capita supply of water from the present 40 lpcd to 70 lpcd commensurate with the growing aspirations of the people and corresponding socio-economic development status of the country. This is expected to be achieved throughout the country by 2015.

As known, bulk of the rural water supply programme is groundwater based. As you all know, groundwater in view of certain inherent advantages in its development, has become the most preferred choice for all the sectors resulting in unplanned and haphazard manner leading to drastic fall in water levels and deterioration in its quality. According to Central Groundwater Board, Ministry of Water Resources, as on 31-3-1998 the country has 310 over-exploited blocks and 160 dark blocks. Further water being a State subject, any initiative for ensuring regulated development of groundwater has to come from the State. In view of enormous delay in enacting suitable legislation by majority of the States, all States are constantly being advised to undertake water harvesting and water conservation on a large scale, fully utilising the special earmarking under ARWSP, PMGY besides the newly launched SGSY.

In recent years, various quality problems of chemical origin has emerged as another major issue in rural water supply. As per the information made available from the States, as on 1.4.99, roughly 15% of the habitations are quality affected by various problems like excess fluoride, arsenic, iron, nitrate and salinity. This estimate of 2,17,211 seems to be conservative and may not reflect the actual ground situation keeping in view the growing severity of various water quality problems. Accordingly, States have been advised to carry out a fresh survey of water quality which is under progress. Reports received from a few States indicate a general increase with nitrate becoming a major problem in a few States including Tamil Nadu. All the States have been advised to complete the survey and submit the report December 2001 along with an Action Plan for coverage of all quality affected habitations.

Protection of water quality and ensuring a sustainable supply of water on equity basis is a major challenge our country facing today. In the absence of a well defined inter sectoral allocation of water and effective institutional mechanism for regulated development of groundwater, access to safe water is becoming increasingly difficult in the rural areas. This calls for adoption of a well thought out strategy for optimal use and management of our water resources for ensuring safe water supply to all and also for overall improvement in the quality of life in the rural set up. It has been clear that in spite of substantial investment in the sector amounting to Rs. 34,000 crores over the last 50 years, drinking water systems and sources are

under severe strain in different parts of the country, causing suffering to unserved and underserved sections of the society. In this connection, I may inform that Government's efforts alone may not be adequate. It is necessary to involve the services of all concerned including reputed non-governmental organisations in successfully facing the uphill task of safe water to all.

All these years a lopsided, top-down approach was adopted resulting in recurring slippages from FC to PC and PC to NC, defying all logic. At the same time, there are a number of success stories of sustainable water supply even during acute scarcity conditions from various parts of the country, involving active community participation. This has been possible through extensive motivation and awareness generation for preparing the community through IEC and capacity building programmes. Further, in view of the resource constraint in the years to come, it may be difficult for Government alone to single handedly make huge investments in this sector. Against this backdrop, participatory management involving stakeholders right from planning stage with provisions for part cost sharing towards capital cost and full responsibility for operation and maintenance of created assets has more or less become imperative for ensuring the sustainable rural water supply. This concept of bottom up approach would result in community developing, a sense of belonging and ownership of the created assets, ensuring sustainable of the systems. Accordingly, sector reforms has been introduced in 63 identified pilot districts in the country with the twin objectives of achieving a community based operation and maintenance for ensuring sustainable of the system and water quality monitoring and surveillance for avoiding contaminated sources for drinking water supply. Community involvement in water quality monitoring and surveillance is proposed to be achieved through a Catchment Area Approach involving all educational and technical institutions by replacing their existing resources and strengthening them by providing additional financial assistance wherever necessary. One of the components is involving the community, especially women in water quality monitoring after adequate training and using standardised field kits for undertaking simple yes or no qualitative test at village level. This approach would also help reduce the huge gap between water sources already tested and remaining to be tested. Similarly, community would also be involved in operation and maintenance of domestic filters. In this regard I am happy to inform that community operated and maintained domestic filters for defluoridation, iron removal and arsenic removal are successfully functioning in a number of habitations in parts of Rajasthan, Karnataka, Tripura and West Bengal respectively.

In view of the finite and fragile nature of fresh groundwater, it becomes urgent to adopt a dual water supply system, in habitations with severe quality problem with limited fresh water potential, by utilising just 10 lpcd for drinking and cooking and using the marginal quality water for other domestic purposes. Similarly, using private fresh water source, wherever accessible is another option for rural water supply in case of habitation with no public source or public source with inadequate supply.

I would urge all the States to come out with Vision Statement for rural water supply indicating phase wise goals and time frame for achievement, covering the problems of sustainability of source, system and water quality in its entirety. It may be an extended version of Comprehensive Action Plan (CAP), already submitted by the States for total coverage in the next five years. But a perspective plan up to the year 2025, taking into account all problems, contingencies and limitations right from village to State level would go a long way in proper appreciation of the problems and prospects in this sector State-wise. In this regard, I am happy to note that the Tamil Nadu State has formulated a fullfledged State

Water Policy indicating clearly the inter-sectoral requirements. I take this opportunity to call upon other States also to evolve appropriate State Water Policy, since availability of water is the starting point for any meaningful rural water supply programme.

To sum up, water availability is bound to be a major constraint. The Ministry of Rural Development, though not a major user of water resource, has initiated Sector reforms in rural water supply sector aiming at, among other things the scarcity value of fresh water and inculcating the concept of water as an economic good with cost sharing. It would go a long way if similar reforms are introduced in the irrigation sector using bulk of the water resources. Large scale community participation may be the right strategy for solving all problems of quantity and quality in the water sector. I am sure that the distinguished delegates participating in the workshop, through mutual sharing of expertise and experiences would come out with a set of concrete and pragmatic recommendations spelling out the strategy for sustainable rural water supply system in the country.