



Regional workshop on 'Water Resources Conservation: Village Ponds and Lakes'



Venue: Magnolia Hall, India Habitat Centre (IHC), Lodhi Road, New Delhi - 110003
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Organised by
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Background

Water is a scarce and precious natural resource to be planned, developed, conserved and managed as such, and on an integrated and environmentally sound basis, keeping in mind the socio-economic aspects of a country. Increasing population is resulting demand for fresh water with every passing day. In particular for rural areas source sustainability of drinking water supply with increasing demand is one of the major concerns. The limited water availability and increasing demand has prompted the need for water conservation and in particular the village ponds and lakes as – 'any resource saved is resource created'.

Defining - Ponds and Lakes

Several technical definitions of 'Pond' and 'Lakes' have met with resistance or disapproval, as the defining characteristics are each difficult to measure or verify. However for this workshop we define as -

Any depression in the ground which collects and retains a sufficient amount of precipitation can be considered as Pond or Lake. Both can catch and conserve rainwater leading to improved percolation and groundwater recharge, to be used for both potable and non potable uses by humans and cattle. In some cases in areas with low rainfall they can also be dry for few months in each year. Such depressions can be formed by a variety of geological, ecological events or can be even manmade.

Like many organizations and researchers in this case we have settled on technical definitions of *pond* and *lake* which rely on size alone and can be defined as –

Pond - a small, quiet body of standing water, usually shallow.

Lake - larger bodies of standing water occupying distinct basins

India gets an average precipitation of 4000 billion cubic meters (BCM) per annum. Precipitation is highly unevenly distributed with respect to time and space, over the country. Village ponds and lakes perform significant environmental, social and economic functions, ranging from being a source of drinking water, recharging ground water, acting as sponges to control flooding, supporting bio-diversity and providing livelihoods. These water bodies, whether man-made or natural, fresh water or brackish play a vital role in

maintaining environmental sustainability.

Historically in India, tanks (*tankas*), ponds (*johads*, *taalab*) and lakes (*taal*) have always played an important role in irrigation, supplying drinking water, ecology, tourism/culture and domestic use. Different methods of water conservation were developed to suit geographical and meteorological conditions of the region in various parts of the country. Water resources in the form of capturing precipitation, still prevalent in villages, is done by using surface storage bodies like lakes, ponds, irrigation/temple tanks that also has a vital role in ground water recharge. A literature review shows some seminal literature on village ponds and lakes in India namely – ‘Dying Wisdom’ by CSE and ‘Aaj Bhi Khare Hain Talaab’ and ‘Rajasthan ki Rajat Boondei’ by Anupam Mishra, Gandhi Peace Foundation. The publications are excellent compilation of the historic significance of ponds and lakes, role of communities in conserving these valuable water resources. But increasingly many of these water bodies are neglected – drying, polluted or encroached due to a number of reasons such as shifting away from community based water system to individual beneficiary oriented ground water dependent system, encroachments, silting, population pressure, multiplicity of agencies responsible for their upkeep, etc.

In recent past several frameworks have been developed under various acts and policies and programme/schemes launched in the 10th and 11th Five year plans aimed at conserving ponds and lakes for sustainable water management. A review of 11th five year plan clearly highlighted the slippages in target achieved in rural drinking water supply and attributed this to source sustainability. The need for rural drinking water security on sustainable basis has been on the forefront with centre and state governments.

The revised (NRDWP) Guidelines 2009-2012 has shifted the focus from ‘source development and installation of water supply system for providing drinking water supply to rural household’ to -

“.....focus on the development of ‘village security plan’ which also includes village safety plan before taking up planning & installation of water supply system to ensure provision of safe and adequate water supply to each rural household at a convenient location on a sustainability basis”.

The increased focus on drinking water security now is emphasizing on –

- *Safe drinking water for all, at all times, in rural India*
- *Ensuring drinking water security through measures to conserve, protect, enhance and manage surface-water and groundwater resources based on village water budgeting and security plan prepared by the community/local government.*
- *Issue of potability, reliability, sustainability, convenience, equity and consumers preference to be the guiding principles while planning for rural water supply system*

The source sustainability highlights the need to adopted integrated approach to conserve traditional sources and systems of water supply for ensuring risk and vulnerability reduction.

- *Harvesting and storage of rainwater that may even be sufficient for the whole year.*
- *For all groundwater based water supply schemes, whether old or new, groundwater recharging mechanism should constitute an integral part of system design.*
- *For ground and surface drinking water sources, it is of utmost importance to protect the catchment to prevent its pollution from human and animal excreta and other sources of bacteriological contamination.*

Basically centre / state led efforts now envisage provision of drinking water as a part of the overall water resource management.

Several other central ministries and agencies with corresponding state level department / agencies have also been involved in both large scale and small scale interventions both community led as well as state led initiatives – to arrest further degradation and shrinkage of water bodies due to encroachment, siltation,

catchment erosion, surface run-off carrying pesticides and fertilizers from agricultural fields, and discharge of domestic sewage and effluents, which resulted in deterioration of water quality, prolific weed growth, decline in biodiversity, decline in groundwater and other associated problems.

The need of convergence of various schemes for example – convergence with the MGNREGS program under Ministry of Rural Development dealing with construction of new ponds and rejuvenation of old ponds, including desilting should be built into system of design and execution of rural drinking water supply schemes under Ministry of Drinking Water Supply and Sanitation for source sustainability.

As India's regional diversity poses unique challenges for water resources conservation, management and governance. Each geographical region has its own socio – economic and agro climatic uniqueness demands water resource management intervention suitable to the people's need and, at the same time offering pragmatic solutions offering balance between environment and development. All stakeholders – government, civil society, international support agencies, researchers and individual experts have been involved in the form of positive cases and example from across the country.

All the above endeavours, whether small or big are step towards achieving MDGs or the overarching goal of water for all. According to the 12th five year plan, one of the main strategic attention is towards restoration of 0.1 million ha. of wetlands/inland lakes/water bodies by 2017. The emphasis is moving towards sustainable solutions towards revival and protection of water bodies and recharging ground water.

Need is to discuss with range of stakeholders – the existing and emerging state led frameworks, discuss issues and challenges, knowledge sharing of successful case studies focusing on conservation of village ponds and lakes – both government and non-government and create enabling environment to take the current efforts to next level as well as incorporate learning from various interventions required to develop a robust framework towards to ensure conservation of village ponds and lakes.

Objectives of the workshop

- 1) Share existing and emerging frameworks, context of the mission i.e. *'provision of drinking water as a part of the overall water resource management and beyond – towards green rural development'*.
- 2) Discuss key gaps and challenges at government, community and institutional level in implementation of the vision.
- 3) Knowledge sharing on best management practices (BMPs) and successful interventions both state led as well as NGO /community-led initiatives.
- 4) Develop administrative, managerial and political commitment for enabling environment.
- 5) Identify capacity building needs of target states to mainstream conservation of village ponds and lakes.

Key themes of the workshop

- Existing and emerging frameworks (both central/state) for conservation ponds /lakes
- Importance of ponds and lakes in water resources and environmental sustainability
- Village ponds/lakes water quality and quantity – Issues and challenges
- Ground water sustainability and village ponds/lakes
- Scientific approaches, tools/techniques for conservation of village ponds and lakes
- Community role and its engagement – Issues and challenges
- Economic benefits in conserving water bodies
- Eco-tourism in village ponds and lakes – Potential and threats

- Issue and challenges in conservation of village ponds and lakes
- Best management practices (BMPs) and case studies – Local, national/international
- Existing capacity of local institution – State/village level functionaries/ practitioners
- Need for capacity building - State/village level functionaries/ practitioners or trainers
- Need for awareness and communication for water conservation in rural areas

The workshop is conceived as a platform for knowledge sharing on the subject with all stakeholders and to highlight the cross-sectoral concerns. The speakers at the workshop will include the key policy makers and practitioners from central/state government agencies (dealing with drinking water and sanitation, rural development, ground water boards, soil and water conservation, irrigation, drainage/flood control sector), representatives of leading NGO's, external aid agencies, think tanks, researchers, academic institutions (IITs, JNU, etc), consultants and experts.

The workshop will be attended by policy makers, PHED engineers, PRI representatives from target states as well as representatives of NGOs/CBOs, practitioners, academicians/researchers and other stakeholders in advocacy for sustainable water management in villages.

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