
C-PACT WATER BULLETIN

CPACT & WSP (Water Science Program) presents a monthly news bulletin of latest news from India and abroad on debates, concerns, and events related to water.

Traditional Water Harvesting Systems of India

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Traditional water harvesting systems are back in fashion! India, after having gone through an extended 50-year phase of constructing big dams and canals, is once again being forced to look at its traditional, small scale water harvesting and management systems; especially amongst grassroots organizations which are working with people to develop cheap water management systems that can be managed by the communities locally (Dying Wisdom Review, 2018). Indian history provides several examples of traditional water harvesting techniques that incorporate not only rainwater and groundwater but also surface water harvesting, such as streams, rivers and even floods (Shanmugam, 2020). For example, the *Arthasastra* provides evidence of the knowledge of rainfall regimes, soil types and appropriate irrigation techniques in different micro-ecologies (Nair, Singh, & Gupta, 2020). The examples show the existence of traditional water harvesting systems as part of well-organized hydraulic systems and well-planned water circulation systems. Of the various traditional water management systems a few core principles stand out as common and critical.

Pic 1: Sangani tank, Sivagangai District, Tamil Nadu (courtesy, Bhavani Seenivasan)



Firstly, they were locally relevant and not based upon the understanding that a ‘one size fits all’ solution could be applicable. Evidence also suggests that developments of harvesting structures were different for different ecological regions, showing an in-depth knowledge of India’s ecological diversity (Dying Wisdom, 1997).

Secondly, local communities maintained the traditional structures. Traditional water-harvesting systems used in rural India played a very important role in empowering local communities, creating economic wealth in poor villages, promoting integrated village ecosystem management – a form of sustainable development which had the potential to alleviate rural poverty and unemployment, and in the overall improvement of the nation's environment (Review Dying Wisdom: Rise, Fall and Potential of India's Traditional Water-harvesting Systems, 2020).

Thirdly, traditionally systems were made to align with the flows in nature – with a fair share for the environment which today we call the e-flows. Whereas, modern systems are yet to find a balance with the way nature works, ancient structures such as these were not built randomly. In fact, behind these water harvesting structures genius engineering was at play. For example, tanks in Karnataka built during colonial times did not allow any water to overflow (Iyengar, 2007).

Another example of such structure is the Dabbehalla tank at Sirsi which is 125 feet in length and eight feet in height and was built by the Shiliga tribe of Uttara Kannada District about 40 years ago. The structure still stands today ensuring water availability throughout the year. This structure was born out of a traditional experience called *Jarukattu*, or allowing free flow of floodwater during the rainy season so that water collected in pits, and could be used during the summers. They offer instances of “success stories” as opposed to instances where modern dams of concrete and iron have been reduced to rubble during heavy rainfall (Kalav, 2007). Apart from this there are other examples where acute water crises due to droughts, floods, rapid urbanization etc. have been tackled through the revival of traditional systems. For example, in Bhap, Rajasthan, a structure called *nadi* built in the 1960s, is a traditional and ancient practice of creating water-harvesting structures. Restored after the region was in a drinking water crisis in 2014, it has proved important for live stocks as well. The restoration project was undertaken by the local Gram Panchayat in collaboration with CAIRN CSR representative of Barmer Unnati (Kumar, 2017).

The revival of traditional water harvesting systems have provided opportunities for solving the ongoing water crisis. Sometimes these methods have fulfilled the requirements of the people in a more effective way, more so as they are simple and easy to carry out by the community. Being highly cost-

effective and sustainable, they also ensure an adequate supply of availability for all which helps us form the basis of development and prosperity. Learning and applying the knowledge from traditional water harvesting systems will eventually lead us to better water security.

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Pic 2: Traditional pond in Madurai district (courtesy, Bhavani Seenivasan)



Latest News

Covid Derails Rejuvenation of Chennai lakes



The ongoing Covid-19 pandemic has delayed rejuvenation of four important lakes and the Buckingham Canal in Chennai.

[Read more at:](#)

Telangana Government Set to Challenge Godavari River Management Board's Objections to Projects at Apex Council



Telangana government is reportedly set to challenge the Godavari River Management Board (GRMB) direction to stop construction of all projects on Godavari river in the Apex Council meeting to be held in June.

[Read more:](#)

Bhakra Beas Management Board Generates 43% Surplus Power during April-May



The Bhakra Beas Management Board (BBMB) has surpassed its power generation target for the first two months of this fiscal by about 43 per cent.

[Read more:](#)

Nature, Not Man, Has Greater Impact on Monsoon, says Study



Work by a team of researchers from China, UK may help unravel mystery over the fluctuating pattern of monsoon

[Read more:](#)

Mumbai gets 50% Rainfall for June in First Fortnight, Shower Expected until Thursday



In the first fortnight of June itself, the Meteorological department at Santacruz observatory recorded 50% of the required rainfall for the month.

[Read more:](#)

PepsiCo Foundation Commits \$3 million for Safe Water in Bengal and Maharashtra



The PepsiCo Foundation has committed to invest \$3 million with the NGO "WaterAid" to provide safe water access to agricultural communities and help women in high water-risk areas in West Bengal and Maharashtra.

[Read more:](#)

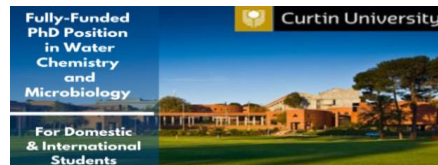
Academic news: scholarships

Rotary Scholarship for Water and Sanitation Professionals



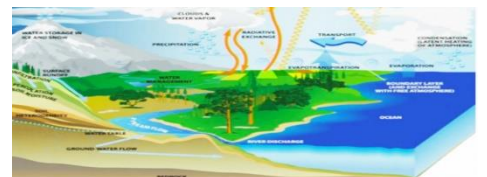
The strategic partnership between The Rotary Foundation (TRF) and IHE Delft Institute for Water Education aims to tackle the world's water and sanitation crisis by increasing the number of trained professionals to devise, plan, and

Fully-Funded International PhD Scholarship in Water Chemistry and Microbiology, Australia



Candidates from all over the world are invited to apply for the Fully-Funded International PhD Scholarship at Curtin University in Australia.

WMO Fellowships



WMO is partnering with IHE Delft to jointly support two to three fellowships a year from developing and least developed countries to

implement solutions in developing and emerging countries.

For MSc programmes starting in October 2021, the application deadline of the Rotary scholarship is 15 April 2021.
[Read more:](#)

Studentship available for pursuing a PhD in Water Chemistry and Microbiology for the academic year 2020-2021
[Read More:](#)

undertake an MSc in one of the agreed IHE Delft programmes.
[Read more:](#)

Conference/ Course/ Training Seminar Workshop/Contest:

Online webinar: Women and Resilience in the Water Sector



The panel included presentations focusing on the importance of women in taking control of discussions and debates regarding their role in the water sector. This included not only their strong voices, but for them to take a more active role in measuring and monitoring.
[Read more:](#)

Online Training on the Basics of Decentralized Wastewater Treatment and Local Reuse



Course Dates: 01 June – 26 June, 2020
Total Study Hours: 24 hours
Commitment: 6 hours a week
[Read more:](#)

ACWADAM's Online Foundation Course on Groundwater Management



Given the COVID-19 crisis and travel restrictions, ACWADAM will continue in its conduct of the foundation course on groundwater through an adapted online version.
[Read more:](#)

Graduating batch of WSP MSc. 2020



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