## For securing Bengaluru's water future, let us look to its past

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This year, climate change is already showing us a glimpse of what the future holds for Bengaluru. The city confronts an unusually hot, early summer, coupled with a prolonged drought. When the rains do eventually arrive, they will probably be weak and sparse.

Bengaluru's water crisis is, of course, a climate crisis. But it is also a crisis of profound local mismanagement. We have destroyed our lakes and wetlands, lavished scarce water on manicured lawns and swimming pools, refused to reuse grey water, and paid lip service to the govt rule on rain water harvesting.

Bengaluru has forgotten its history, and broken its once-strong compact to live within its means — its ecological means. My research — based on ancient stone inscriptions, oral histories, archives, maps and satellite images — shows how early residents systematically transformed this dry and barren region into a richly productive landscape with lakes and trees over several centuries. Then, in just a few decades, we decimated centuries of effort by flooding the city with concrete.



Parched city: View of the dry banks of Nallurahalli lake. Many such lakes and wetlands have been destroyed

Several hundred years ago, the Bengaluru plateau was semi-arid, with sparse rainfall. As new settlers moved in, they created keres, irrigation tanks which have now become urban lakes. An especially beautiful lake inscription from 1307 CE, in Vibhutipura near the old airport, describes how the residents "having cleared the jungle... levelled the ground, built a village, constructed a tank by removing the sand". The Cholas were especially fond of constructing keres, giving them the appellation 'samudra' or 'sandra', meaning a large body of water. (When you pass by Thippasandra, Mallasandra, Singhasandra or Junnasandra, look for the lake that once used to be there. Chances are you won't find it.)

These settlers didn't just create lakes, they engineered landscapes. The wetlands upstream of the lake cleaned up the incoming water, recharging the ground. Large open wells surrounded lakes, providing a plentiful supply of water even in dry summer months. Lakes were connected across a topographical gradient, and excess water flowed through the kaluves (which we now call 'drains') from higher to lower lakes. When lakes overflowed, the village rejoiced with a festival, celebrating Duggalamma, goddess of the lake.

From Kempegowda and his descendants to the Mysore kings and even the British, each new community and ruler expanded the city by creating new keres. This continued until 1892 when the last of these — Sankey tank — was built. Then, drunk on technological prowess, the city decided to stop relying on local water, and to import water from the Arkavathy basin. Until then, residents worshipped the lake goddess Duggalamma, and

assiduously maintained the wells, wetlands, grassy greens and orchards that surrounded the lake. But once we got used to water coming from a pipe, we started to destroy our lakes, calling them cesspools of malaria and filth, filling them in to build malls, bus stands and housing complexes.

Thus, Sampangi was replaced by Kanteerava Stadium, and Shoolay Tank by Garuda Mall. Apart from Ulsoor lake, none of central Bengaluru's keres now survive. There were 1,490 open wells in central Bangaluru — now there are less than 50, of which most are broken and useless. Even restored lakes have lost the wetlands and wells that surrounded them. For instance, original residents tell us that there were once nine large wells surrounding Kaikondrahalli lake, but none are marked on the map, and only one survives today.

Social media and newspapers are now filled with alarm about water scarcity. Of tanker operators who charge exorbitant prices, and of apartment groups counselling residents to use disposable plates and wet wipes to save water. But we need to break the cycle of alarm, and look at what we can actually do.

We can't bring back Sampangi lake and Shoolay tank. But neither can we depend only on water from the distant Cauvery, especially when the city is projected to grow from 12 million to 20 million in the next few years. We need to return to our traditional history of ecological wisdom by protecting lakes and wetlands surrounding the city, bringing back old traditions of prudent water usage and rain water harvesting — with a modern twist.

We need to all sign a manifesto for solving Bengaluru's water crisis. Such a manifesto would ask each of us — each resident, apartment association member, mall use and office goer — to insist that our home, place of recreation and workplace reuse water and invest in rain water harvesting. It would mandate restoration of wells across the city like the million wells movement that Biome Trust is spearheading. Above all, it would involve a restoration of the urban imagination we once had, of living in the city by improving its ecology instead of destroying it — of rekindling our association with Duggalamma, our local goddess of water.