

Course Name: An Introduction To Urban Ecological Heritage: Theories and Applications

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The Jakkur Lake

Jakkur Lake is situated adjacent to Jakkur village at the northern part of Bangalore city. It is one of the 51 lakes that were created artificially during the 16th century over 300 years ago. The lake covers an approximate area of 64 hectares and comprises of three inlets and two outlets. Uneven urbanization in the lake's vicinity had resulted in solid waste filling her feeder channels. This choked the natural watershed so much that the lake resembled a dumping yard. In 2004, a 10 million liters per day capacity sewage treatment plant had been set up by Bangalore water supply and sewerage board on land allotted to it from within the erstwhile lake area.

The treated water from this STP is released into the constructed wetland area of the lake from where it overflows into the rest of the lake. Here comes the role of Jala Poshan, a Bangalore-based citizen organization that adopted the lake in 2014 in an inclusive effort to protect it through sustained management initiatives, practices and involvements. So today we are at a very beautiful and serene lake in Bangalore, one of the, I would say, it's not the biggest lake but one of the biggest lakes in Bangalore. It's the Jakkur Lake where we are standing and with me as you can see is Annapurna Kamath, the founder of Jalapotion, the main trust which looks after and oversees this magnanimous effort that has gone into conserving this big lake.

One very unique feature, I would say historical feature of this lake is that unlike many other lakes in Bangalore which were built during the 15th or the 16th century when Kempe Gowda established the city as his capital, some inscriptions actually say that this lake is actually much older. So it belongs to those lakes which were formed during probably the 5th or the 6th century CE during that time. It's so old. It was also built for the same purpose when some chieftain or some king must have built it to irrigate the agricultural field for the complete purpose of agriculture. But then during specific timelines it suffered the same fate as many other lakes in Bangalore.

It completely got degraded and all. Since 2015 this trust was formed, Jala Poshan as Annapurna with me is here. She will be able to tell a bit more about the inception and what kind of efforts she has put in. Here at Jakkur from the beginning we believed in local communities for local lakes and we have always taken a socio-ecological stand. We are going to have the lake amenities such that there is a reason for every citizen in the community to

come here and get connected with the lake so that there is ownership and then there is a reason to conserve the lake.

So this is how we have worked in Jala Poshan and that has brought us a long way and what you see today is the effort of an entire community with governance and all the stakeholders including the fishermen, the cattle grazers and all other people including scientific organizations and corporates, everything together. So this is one of the most beautiful ways of conserving a community lake by everybody coming together and doing the orbit. So in 2019 we won the National Water Mission Award. That was the first year when the National Water Mission started giving awards. So the second category was promotion of citizen and state action for traditional water body restoration, augmentation and preservation.

And this was mainly because we have been able to work with all the stakeholders and governance and create a community participation model. Then we also won the EGA, Enviro Green Awards. This was for meeting UN sustainability goals. So the lake was able to meet a lot of sustainability goals. And this story was picked up by Central Ground Water Board as one of the success stories for citizen participation in groundwater recharge.

So these kind of things have sent the story beyond Bangalore and even Jal Shakti Abhiyan had identified this as a model lake to be replicated because it was kind of fulfilling all its five objectives. So one was traditional water body rejuvenation, one was rainwater harvesting, one was reuse of treated water, one was afforestation and one was groundwater recharge. So all the 5M's were being met by the lake so they said that lakes are the best way to, you know, I mean solution for a city's water stress problem. So that's how, you know, it also has become kind of a model lake now for various reasons.

There are about 27 lakes in the Yellamallappa chetty Lake series of the Hebbal Valley, including Jakkur, who sits at the Peri-urban equitone of the city.

The lake restoration plans of the Municipal Corporation of Bangalore, known as Bruhat Bengaluru Mahanagara Palike, led to a well-connected and well-maintained series of lakes and all the lakes are connected by concretized outlets known as Rajakaluwe. When the capacity of the lakes exceeds during rainfall, the water overflows through the Rajakaluwe, which generally connects two lakes at its upstream and downstream. One outlet works as an inlet to the other lake and the stormwater drains correspond to these connectors. Further, secondary and tertiary canals transport rainwater from the city's suburbs and villages to the Rajakaluwe. Basic infrastructural restoration that includes construction of stormwater connectors and sedimentation bed was designed and done by Bangalore Development Authority and later by BBMP.

CSR i.e. Corporate Social Responsibility Funds were used to design children's playground and recreational sections around the lake. The lake provides an open learning, the Nature's Gurukul, in which various educational community-based programs such as lake festivals locally known as Kerehabba, plantation, social experiments with design schools such as

Shristi, artists' convergence to share nature-related stories, etc. are organized every month. These programs enable to create connections between people and their lake. A part around the lake has been crafted with the recycled artifacts for children and recreational purposes.

Moreover, there are traditional games which remind of how people used to socialize around the lakes earlier. Every year during monsoon, the plantation festival or Vanamahatsava involved the local communities as well as other custodians of the lake in planting some saplings of trees.

So you will see a heart on the seed. So that also indicates it's a cardio-friendly seed. So it's used for heart diseases.

But how have they done it? The BBMP is one of the custodians of the lake, whereas Solid Waste Department of BBMP looks after the management of solid waste around the lake. A stormwater unit of BBMP regulates the stormwater drainage for the lake. The sewage treatment plant is run by Bangalore Water Supply and Sewerage Board, a unit of BBMP. On the other hand, the stakeholders include fishers, grasscutters, women's self-help groups, residents who maintain the lake using CSR grants from the corporates. The scientific ideas and understandings are received from scientific institutions.

Local inhabitants in the 10 km radius around the lake is considered as part of the lake restoration team, Jala Poshan. The community as a part of the lake conservation initiatives place the ideas and aspirations on protecting the lake. Most importantly, there is no social hierarchy among the groups whose common goal is to maintain the lake. So there is a coordinated, chain-like lake maintenance arrangement in which each group of stakeholders contributes separately yet inclusively to maintain the lake and contribute to providing a unique environmental support to all living beings including humans. Jala Poshan, in retaining the spirit of Jakkur as a social-ecological system, facilitates such a focused coordination so that the stakeholders sensibly and responsibly participate in protecting and restoring the common lake.