Lake Management Strategies for Jakkur Lake, Bengaluru, India

Country: India  
Landuse:  
Scale: Neighbourhood  
Objectives:  
Ownership: Govt.  
Intervention: Project

Location

North Bengaluru, Karnataka  
Lake Catchment: 3 streams flowing from Yelahanka, Agrahara and Shivanahalli  
Waterbody Area: 160 Acres; 1.5 km long

Background

Jakkur lake is located in northern Bengaluru and receives rain water from three storm water drains which used to feed the lake starting from Yelahanka, Agrahara and Shivanahalli. Due to urbanization and increase in population, the catchment area is highly encroached. The quantity of the stormwater reaching the lake has decreased making the streams dry. Instead, the lake started receiving sewage from nearby 12,500 households surrounding the lake. With the effort made by the state government, local governing bodies, fishermen, end users (domestic purposes), lake revival groups & bird watching enthusiasts, the lake has now revived. This project ensures the regular supply of treated water to the lake which in turn acts as a water source for its Sustainability.
Strategies and Interventions

There is an STP built by Bangalore Water Supply and Sewerage Board (BWSSB) near the lake that treats sewage and has a capacity of about 8 million litres. This ensures that the lake has regular supply of treated water entering the lake and will not let it dry. Near the entry point wetland plantation is done, which further filters the water by a natural process as soon as it enters the lake. The wetland helps in maintaining and improving the quality of water let into the lake. As a result the water that enters the lake is fairly clean and there is enough water in the lake that recharges the ground water, increases the water table and fills up the bore-wells and old open wells around this area.

For maintenance, Jalaposhana, a citizens’ group from around the lake, signed a MoU with the Bruhat Bengaluru Mahanagara Palike (BBMP) in May to undertake lake maintenance. However, the basic infrastructure and security is provided by the BBMP. And the monitoring of the lake is done by BBMP in collaboration with Bangalore Water Suppy and Sewerage Board (BWSSB) and Karnataka State Pollution Control Board (KSPCB).

For revival of the lake, the following steps were taken:

- It was fenced and de-silted.
- Islands were created and trees were planted along the sides of the lake for creating bird habitation and to maintain natural flora and fauna.
- Social sustainability is achieved through community ownership.
- The legal standards for the STP are maintained by the local governing body.
- Separate tank built for Ganesha immersion during Ganesh Chaturthy or similar religious/cultural festivities that require immersions into a water body.

Outcomes of the Project:

Performance of an urban lake management practice lies in its maintenance that sustains the water body. At Jakkur Lake, challenges are many but it has proven as a good example for lake management as it has attained involvement of all stakeholders, provided them ownership and benefits as an outcome. The following are the visible benefits:

- Jakkur lake provides for livelihood to fishermen, on a normal day, they are able to collect at least 100 kilograms of various kinds of fish.
- Each day, 100,000 liters of water is drawn from the biggest step well near the lake for agricultural purposes.
- Has improved the biodiversity of the surrounding area.
• Land price of nearby property has significantly increased.
• Increased awareness of the nearby residents

Roles and Responsibilities of the Stakeholders

Figure: Roles and responsibilities of all actors in Jakkur Lake, Bengaluru, India

Source: Compiled by CSE, 2020

Additional information:

Source:

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