



St Berchmans College

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REPORT OF NAVODAKAM



A humble but meaningful initiative...NAVODAKAM

Poovakkattu Chira: A Precious Freshwater resource

Near to the college, at the heart of Changanassery city, there is a 9.5 acre Public Pond called Poovakkattu chira. The pond has been an important source of water to the locals. Earlier it was connected to rivers flowing through the outskirts of the city. As a result of unscientific construction works it got separated from the rivers.

The freshwater resource turning into a waste dumping yard.

A few years ago the pond was in a miserable state of neglect. Residents around the pond used it as a waste dumping yard. The pond was filled with household waste, slaughter house waste and waste from nearby automobile workshops. As the organic waste content increased aquatic weeds and grasses started to flourish and cover the pond and literally the pond changed to a grass covered ground.

Department of Botany intervening

Ever since 2006 the department of Botany of SB College has given petitions to Chief Minister and district and municipal authorities stressing the need to clean up and conserve the water body. However, none of the efforts bore fruits.

Without losing hope we continuously pressurized them and finally in 2016 the municipal council decided to desilt the pond. It took several months and several lakhs of rupees to complete the work. During the next monsoon the pond became filled with water. We were happy and we thought that the municipal authorities definitely will take some steps to ensure the cleanliness of the pond. But our hopes were short living. People started to dump waste again and the municipal authorities did not take any initiative in preventing it. The net result was that in a few months the pond became covered with waste and aquatic weeds.



The condition of the surroundings of the pond in 2016

Initiation of Navodakam Project

Witnessing the helplessness of the government machinery in fulfilling the essential follow up of its own project, we brainstormed for a solution. Through our brainstorming sessions we conceived the idea of Navodakam (New Water), a voluntary initiative to adopt and eco-restore the pond with the involvement of students and teachers of the department.

Again in January, 2017 we approached the municipal authorities and intimated them our readiness to adopt the pond. We tried to convince them that the authorities alone cannot not take up the herculean task of keeping it clean round the year and without the cooperation of a committed team of volunteers it will end up like the government projects inaugurated on environment days every year and like the trees planted on road sides – uncared for and never followed up. After several rounds of discussions we could convince the municipal authorities and finally the Municipal Chairman authorized us to do the up keeping of the pond.

Through the Navodakam project the department envisaged the following,

- Cleaning the pond and surroundings at least once in a week through the joint efforts of students, teachers and the public
- Making the public aware of the significance of wetlands and water bodies
- Involving the public in the conservation of wetlands and water bodies
- Periodically testing the quality of water in the pond and seeking expert opinion in improving the quality of water
- Presenting the ‘Government–Higher Education Institution–Public’ collaborative model of environmental conservation to other institutions and the state at large.
- Cleaning the other water bodies in the city through the model

Gift from our former students

Knowing about the project former students of the department gifted a beautiful fiber boat for the regular patrolling in the pond. Another aluminous designed a cute logo for the project.



The boat and the logo

Inauguration of Navodakam

The project was inaugurated on 5 June 2017, the World Environment Day. Municipal Chairman in his inaugural speech congratulated the department for the perseverance it showed in getting the project sanctioned and hoped that other institutions in the city will come forward with similar projects in the near future.



Municipal chairman inaugurated the project by handing over the ore of the boat to the head of the department.

MODE OF OPERATION

Blissful rebirth of the Pond

Regular cleaning of the pond by the students and teachers started immediately after the inauguration. Even though we initially planned to clean the pond once in a week, after experiencing the ground reality we changed it to twice a week. On every Tuesday and Friday team of fifteen students and three teachers spend their valuable time after the class to clean up the contaminated water body. We collect the wastes and aquatic weeds using specially designed nets. At the end of a cleaning day we sort the wastes and the plastic waste materials are handed over to a waste vendor. We are doing the regular cleaning, uninterrupted, for the last three years.



Cleaning in progress





Cleaning in progress



Our initial Navodakam Team

Through the sincere and consistent work of the Navodakam team the pond gradually became a tidy and clean water body. The best part is that water birds such as Indian cormorant, whistling geese, darters and kingfishers came back to the pond in flocks. Regular visit of water birds is an indication of the health of the water body.



Water birds came back

Student volunteers were given initial training on the importance of water bodies and wetlands. Trained student volunteers continuously educate the public about the importance of a water body like Poovakkattu chira and its significant influence on the ground water table .

We could initiate a residents association in the area around the pond. As per the byelaw of the association one of the faculty members of the Botany department will be a special invitee in all their Executive Meetings. We are using the general body meetings of the residents association as a platform for creating awareness in the residents near to the pond.

Through the well planned and concerted efforts team Navodakam could bring the pond back into a blissful life.



The clean pond

Initial testing of the water revealed that the water is highly contaminated with coliforms. When investigated further we learned that there are nomadic and local residents who used to defecate directly into the pond and two sewage outlets from the city are opening into the pond. With the help of Police and the Residents Association we could check the practice of directly polluting the pond through defecation. But the sewage outlets are still contaminating the pond to an extent. We have already submitted a representation to the municipal chairman urging him to take the necessary steps to redirect the sewage outlets so that the stagnant water of the pond is saved.

Major Outcomes of the Navodakam Project

- As envisaged we could bring back the pond into a clean state. Now the pond is devoid of aquatic weeds and floating wastes.
- Aquatic birds started to visit the pond regularly
- Initiated the formation of a Residents Association in the vicinity of the pond

- Brought out the tri-party collaboration, government-Higher Education Institution-Public, as a practical model for environmental conservation
- Prevented open defecation into the pond with the help of the Police and the Residents Association
- Created awareness among the student about the importance of conserving our environment.
- Created awareness among the students about the duties of the citizens.
- Created awareness among the public, at least those residing in the vicinity of the pond, about the significance of water body and wetland conservation.
- Created a meaningful platform for the students to act upon local issues
- Trained the students in dealing with local issues and the highly heterogeneous public opinions
- Ground water table enriched. It is evident from the increase in the level of water in the wells in the vicinity of the pond.

Challenges faced

- Attached to the pond is the Municipal Park and Town Hall. Visitors to both the places are the major culprits in contaminating the pond now. There is no mechanism to ensure that the visitors to the park and town hall are not throwing any waste into the pond.
- Two sewage ducts are opening into the pond. Even though feeble, the sewage flow could contaminate the pond.
- Lack of sufficient number of student volunteers during study holidays and examination season.
- Lack of fund to provide refreshments to the student volunteers. At present the teacher volunteers are sponsoring the refreshments.

Future Plans

- Establishing a herbal garden around the pond
- Labeling the trees in the vicinity of the pond
- Pressurizing the authorities to divert the sewage outlets opening into the pond

Conclusion

Water covers 70% of our planet, and it is easy to think that it will always be plentiful. However, freshwater is extremely rare. Only 3% of the world's water is fresh water, and two-thirds of that is locked in frozen glaciers or otherwise unavailable for our use. Many of the water systems that keep ecosystems thriving and feed a growing human population have become stressed. Rivers, lakes and aquifers are drying up or becoming too polluted to use. More than half the world's wetlands have disappeared. Climate change is altering patterns of weather and water around the world, causing shortages and droughts in some areas and floods in others. At the current consumption rate, this situation will only get worse. By 2025, two-thirds of the world's population may face water shortages. And ecosystems around the world will suffer even more. (<https://www.worldwildlife.org/threats/water-scarcity>). This is a warning published by the wwf and it shows the importance of conserving the available water resources. Let our model inspire others to take up similar conservation challenges.