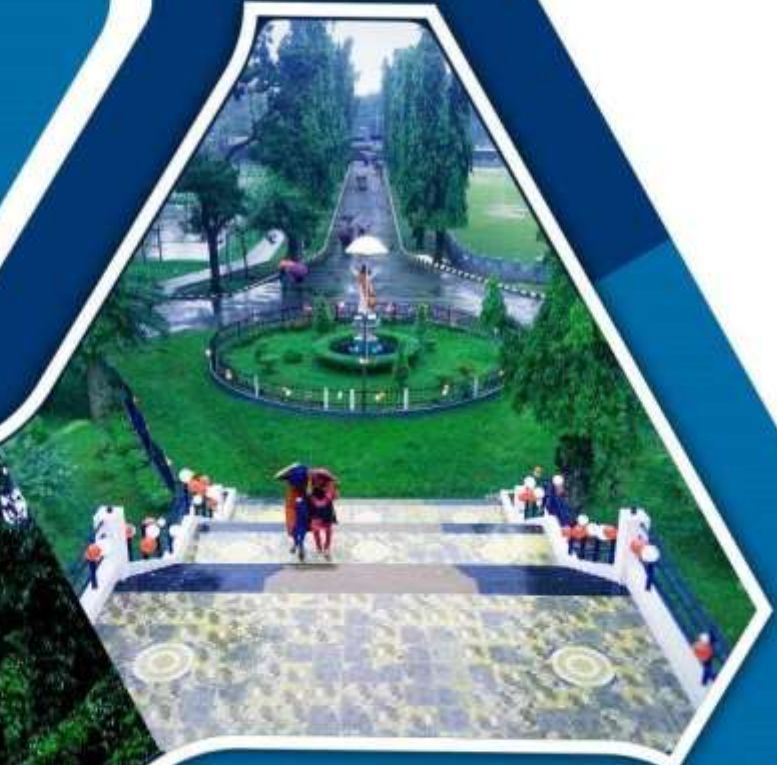


FATIMA MATA NATIONAL COLLEGE

AUTONOMOUS

(Reaccredited with 'A' Grade by NAAC)

Affiliated to University of Kerala



2.3.1

Ecologically sensitive area visit

IQAC INTERNAL QUALITY ASSURANCE CELL

VISIT TO A ECOLOGICALLY SENSITIVE AREA

Ashtamudi Lake: a collapsing Ramsar site

Pollution is any undesirable change in physical, chemical or biological characteristics of air, land, water or soil. Agents that bring about such an undesirable change are called as pollutants. Pollutants can be solid, liquid or gaseous substances present in greater concentration than in natural abundance and are produced due to human activities or due to natural happenings. Pollution currently poses one of the greatest public health and human rights challenges, disproportionately affecting the poor and the vulnerable. Pollution is not just an environmental issue, but affects the health and well-being of entire societies.

Despite the huge impacts on human health and the global economy, and the opportunity to apply simple and affordable solutions, pollution has been undercounted and insufficiently addressed in national policies and international development agendas. Pollution of all kinds can have negative effects on the environment and wildlife and often impacts human health and well-being.

A visit conducted to investigate and assess the pollution in Kollam by the students of 1st MSc Botany (Semester 2) of Fatima Mata National College, Kollam on 16th November 2021. The destination was Ashtamudi Lake near the KSRTC stand in the heart of the city. The purpose of the visit was to identify the extent and nature of the pollution at the site and propose potential remediation measures.



A gateway to the backwaters, Ashtamudi Lake is the most popular place in Kollam, which is surrounded by lush green trees and swaying coconut palms. This 16 km long lake is the second largest lake in Kerala, which has found its way into the sea through the Neendakara estuary. This place is so beautiful that tourists from different parts of the country and abroad, visit this natural paradise to catch a glimpse of one of many splendours of Ashtamudi. A lot of tourists come here to experience boat ride, which gives a glimpse of village life, natural habitat, and abundant flora. This lake is known for its panoramic beauty and eight channels that connects to one lake. It is because of its eight 'arms' or channels, that the lake is named Ashtamudi.



The Ashtamudi lake has become a victim of urban pollutants as the water body shares a major portion of the Kollam corporation. Studies have revealed that biological oxygen demand in the lake was 9 mg per litre, which is nearly three times the standard set by the Central Pollution Control Board (CPCB) for outdoor bathing. Dissolved oxygen was as low as 1mg per litre -- just one-sixth of the standards. While the Union Ministry of Environment and Forest had sanctioned funds since 2005 for three years, it was spent on unscientific purposes including construction of concrete boundary walls.



Environment activists say wanton reclamation, pollution, and sand-mining have destroyed Ashtamudi Lake. The pollution factor includes hydro-carbon discharge from over 1,000 mechanized fishing boats that operate through vast portions of the lake. The lake has also become a solid waste dumping ground of Kollam city. Restaurants, hospitals, and industrial and commercial establishments discharge solid and liquid waste, including toilet waste, into sewers which find their way into the lake, creating a stink in certain sections. "The hospitals near the lake have no storage tanks for sewage. They also lack proper treatment plants. Sewage including biomedical waste flows into the lake either through canals or by disposing it in tankers," a source said.

Threats to the lake:

- Oil spillage from motorboats affecting the fish population.
- Lack of proper sewage treatment and runoff from agriculture is causing eutrophication.
- Waste dumping from Kollam town and houseboats is reducing dissolved oxygen.
- Small-scale industries like coconut husk retting contribute to organic pollution.
- The loss of mangrove forests surrounding the lake has destabilized the shoreline.
- Rampant sand mining has taken the fish population of the lake to near extinction as it destroys the spawning grounds of the lake's fish.
- Huge tracts of the lake had been encroached upon for tourism activities.



“Very pathetic” is how the Kerala State Legal Services Authority’s (KELSA) report to the High Court describes the condition of the lake spread over an area of around 1,700 sq km and surrounded by swaying coconut groves and palm trees and spotted by several small islands.



On August 19, 2022, it has past 20 years since the brackish water Ashtamudi Lake with eight creeks was declared a Ramsar site by designating it as a wetland of international importance. The lake was recommended by the Ramsar Convention's partner organisations as a wetland of 61.4 sq km. And the lake entered the Ramsar list as site number 1,204. The main purpose of declaring an important wetland as Ramsar site is to enable its conservation through local and national-level action with international cooperation for achieving sustainable development. Even after 10 years, no signboards have been put up on its banks to indicate that it is a Ramsar site. Vast areas of the lake have been reclaimed for so-called development projects and more areas have been earmarked for upcoming projects. The District Tourism Promotion Council employs people to collect plastic from the lake, rather than prevent it using a trap.



In 2007, some earnest efforts were made by the district administration to recover huge tracts of the lake that had been encroached upon. More than 100 hectares of the lake that had been reclaimed through landfill process was identified. However, no steps have been taken to recover such land.

A massive drive has been launched by the Kerala Government to clean and conserve the state's once scenic Ashtamudi Lake which is highly polluted due to dumping of sewage and encroachments.

In the previous budget, Rs 500 crore was allocated in the first phase for rejuvenating water bodies across the state and a portion of this fund was used for cleaning and rejuvenating the Ashtamudi lake facing the risk of permanent damage due to dumping of waste. But still, we cannot visualize any possible improvement in the process.

Necessary steps have to be taken to combat this problem and protect the lake in order to raise it up to the standards of a Ramsar site. I personally wish to see great changes taking place in the form of new initiatives, more rules and regulations so that Ashtamudi Lake can take a breathe of fresh air, regain its beauty and get back to its past glory.