

Drying hopes

Land sharks, effluents choking Bellandur lake, finds study

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BANGALORE: The City's biggest water body, Bellandur lake, faces the threat of extinction finds a study by the Energy and Wetland Research Centre (EWRC) and Centre for Ecological Sciences (CES) of the Indian Institute of Science (IISc). The lake is being dried up to pave the way for concrete structures (residential complexes).

The day is not far when nearly one fourth of the people in the City are forced to consume highly contaminated water. A study by Dr T V Ramachandra - senior scientist, EWRC, CES, IISc - says that the lake (which acted as a natural sewage treatment plant due to the presence of a large number of aquatic plants along its wetland) is now counting its days. This, warns the study, will eventually lead to the death of the entire water body.

According to Ramachandra, there is a drastic decline in the wetland (a low-lying area of land which is covered with marsh, swamps, and bogs) and catchment areas of the lake, which is being monitored constantly over the past three years.

"Several buildings have come up on its catchment ar-



SLOW DEATH A view of the Bellandur lake. DH photo

reas and if the wetland vanishes it will be a disaster," he said. The report, based on remote sensing data and direct study, says that the water body is being filled up in most places.

Urban water bodies such as lakes are very crucial not only for maintaining a good water balance, but also to ensure that the city enjoys a pleasant climate. Lakes also act as detoxifiers, removing pollutants released from domestic and industrial sources.

"Due to rapid and unplanned urbanisation, these

water bodies are threatened. The catchments are increasingly being converted into urban landscapes, adding to the stress on the water bodies."

Major accumulator

The study finds that Bellandur Lake has become a major accumulator of all categories of solid and liquid waste discharges. Most of the stormwater drains carry mostly untreated sewage directly into the lake and some of the sewage partially treated by the

(STP) in the vicinity.

The report says that the lake's ability to remove pollutants has decreased to a large extent. "This is mainly due to the anthropogenic activities, which include conversion of the watershed area into residential and commercial layouts. The conversion of the nearby wetlands and alteration of the landscape topology by filling up the low-lying areas and levelling them has affected the hydrologic regime of the lake," says the report.

The solid wastes include debris of demolished buildings, domestic solid wastes and garbage, which are being presently dumped near the shore lines, stormwater drains and outlets of the lake, thus damaging the integrity and ecology of the system, besides hampering the quality and reducing the quantity of water severely.

Direct discharge of liquid waste (sewage) into the lake by means of sewage tankers and exhaustive dumping of solid waste has choked the flow of water (solid wastes can be seen near the bund area, resulting in stagnation).

It has also been found that the lake is witnessing heavy metal contamination due to the direct discharge of effluents by electroplating industries. If the contaminated lake water is used for agriculture, it can lead to disastrous consequences, the report warns.

Lake dimension

The lake spreads over an area of 361 hectares, with its catchment area covering 290 sq km. It receives waste water mainly from three stormwater drains - one originating in the north (in Jayamahal). The second originates in the central part of the city, K R Market, and the third in south west.

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