

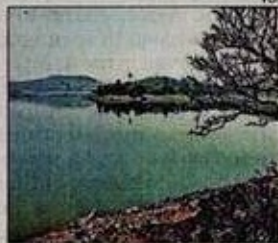
CIFT study: Sasthamcotta Lake meets drinking water standards

TIMES NEWS NETWORK

Kochi: Indicating that rivers and lakes can be kept clean if taken care of, a study by Central Institute of Fisheries Technology (CIFT) has shown that drinking water standards in Sasthamcotta Lake in Kollam are safe.

A team of scientists and researchers led by principal scientist Toms C Joseph carried out microbiological testing of water samples collected from various places in the lake. Microbial quality of water from Sasthamcotta Lake was within the limits of drinking water standards set by the central pollution control board (CPCB).

Sasthamcotta Lake in Kollam district is the largest



Sasthamcotta Lake

freshwater lake in the state, which is spring-fed and is also a Ramsar notified site. The lake is a source of drinking water for more than half a million people in that district. The study is very encouraging as due to rapid urbanization, industrialization and environmental degradation, surface water quality of most freshwater lakes

around the world has deteriorated. Moreover, anthropogenic discharges like domestic sewage can make water unsuitable for drinking.

Microbiological limits are set for water meant for drinking purposes by CPCB in India. Microbiological quality of water is based on the presence of indicator bacteria. Generally, coliforms and *E. coli* or thermotolerant coliforms, found in human and animal intestine, are considered indicator organisms. Water is designated for use based on water quality parameters and categorized from A to E.

Water belonging to category A can be used for drinking without conventional treatment but with disinfection.

The study revealed that microbiological water quality for indicator bacteria (coliform bacteria) in Sasthamcotta lake at all the locations studied were within the limit of 50 most probable number (MPN) coliform in 100mL set for class A type of water. As per the European Union (EU) standards, water can be rated as excellent quality (*E. coli* <500 colony-forming unit (cfu)/100mL).

CIFT director Leela Edwin opined that even though the survey revealed excellent microbiological quality of water from Sasthamcotta Lake, there is a need for continuous monitoring to initiate remedial measures if there is a drop in water quality.