

ABSTRACT

“In this study we aimed to assess the quality of water of Lake Chilika in Odisha, India using different indices like Normalized Suspended Material Index (NSMI), Chlorophyll-A, Turbidity, Total Phosphate and Secchi Disk Depth (SDD). Then using these parameters with the help of satellite data the geospatial layers were created and then using MCDM technique we analysed the parameters and then using the Entropy Water Quality Index (EWQI) model the weightages were given to the factors. Then with the help of the weighted overlay technique the EWQI was derived to assess the temporal and seasonal water quality change in the lake over the span of 20 years (2002 - 2022) in pre monsoon and post monsoon. Thus, from the generated water quality index map the areas in the lake with bad water quality can be determined for the awareness of the growing population so that precautions can be taken to keep the lake water clean for future for the marine lives and humanity as well.”