

ABSTRACT

Chari K.B., 2002. *Application of GIS and remote sensing in the environmental assessment of two wetlands of peninsular India*, PhD thesis, Pondicherry University, India.

In the present work, an attempt has been made to assess the environmental quality of two wetlands of peninsular India - Oussudu and Kaliveli - using remote sensing and GIS, supported by extensive on-the-ground studies and analysis.

Several features of the lakes: hydrology, ecology, and other environmental factors were studied to assess the precise factors causing their degradation. These findings were synthesized into a comprehensive computer-based GIS.

The strategies devised for the sustainable utilization and conservation of these lakes would be helpful in the protection and management of other wetlands as well.

Also, GIS add-on software tools were developed which would not only enhance the performance of the software in terms of analytical ability but also are user friendly.

Key words: *Wetlands, lakes, GIS, remote sensing, environment, biodiversity, fresh water, estuary.*