

# Pollution Status and Conservation of Lakes in Coimbatore, Tamil Nadu, India



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# Study Area

- Coimbatore:  $10^{\circ}57'$  and  $11^{\circ}02'N$ ,  $76^{\circ}56'$  and  $77^{\circ}02'E$
- Second largest city of Tamil Nadu
- 2,462 industrial units within city limits
- 22 lakes mostly fed by river Noyyal
- Lakes studied: 04



Ukkadam lake(L1), Perur lake (L2), Kuruchi lake (L3) and Chinnakulam lake (L4)

# Objectives

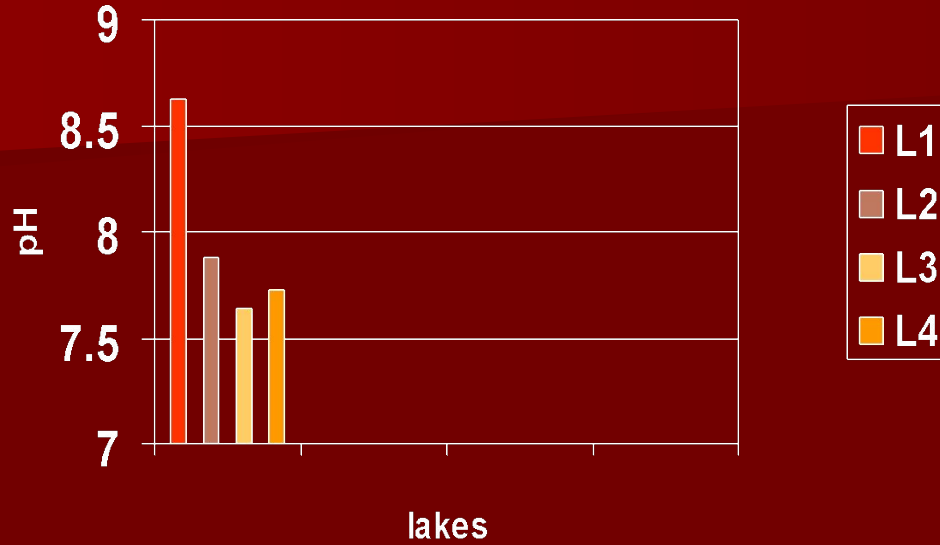
- To assess the pollution status of wetlands
- To assess the changes in the water quality with its a decade back status
- To evaluate the various conservation measures

# Methodology

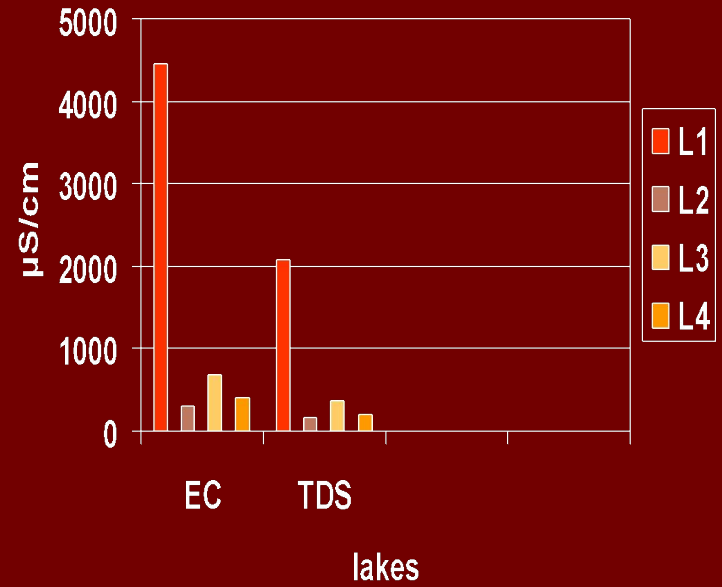
- Four lakes were selected on the basis of extent of expected pollution.
- Of 4 lakes, 2 lakes previously assessed by Mohanraj et al (2000) were selected to examine the present status of the wetlands
- Samples in triplicates from each lakes
- Parameters analyzed (*APHA1992*): pH, Electrical Conductivity (EC,  $\mu\text{S}/\text{cm}$ ), Total Dissolved Solids (TDS, mg/l), Dissolved Oxygen (mg/l), Biochemical Oxygen Demand (BOD, mg/L), Chemical Oxygen Demand (COD, mg/L), Alkalinity (mg/l), Chlorides (mg/L), Phosphate (mg/L), Sulphate (mg/L), Ammonia (mg/L) and Nitrite (mg/L)

# Results

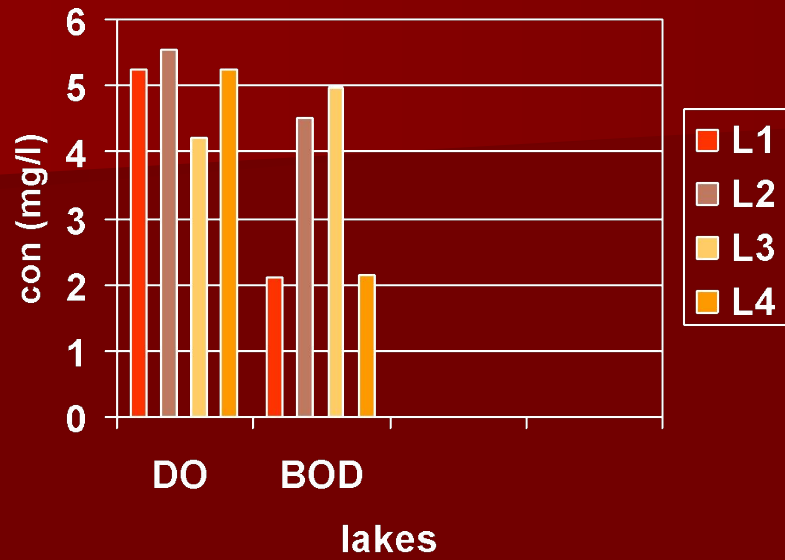
pH



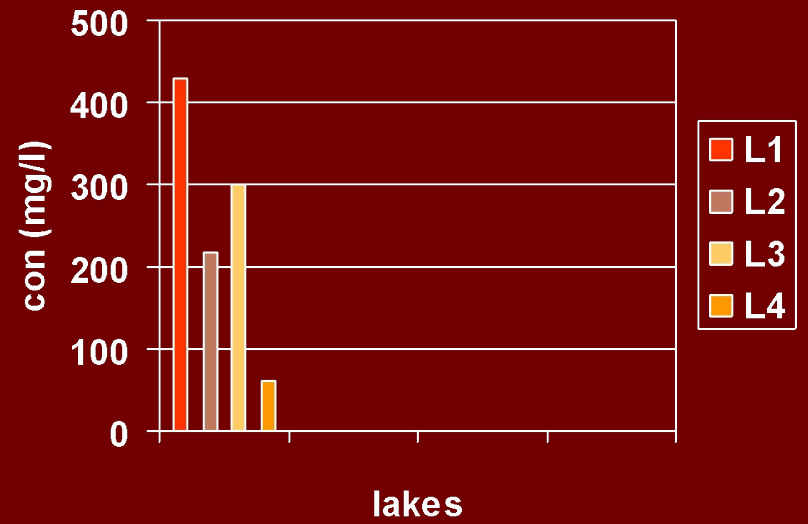
EC & TDS



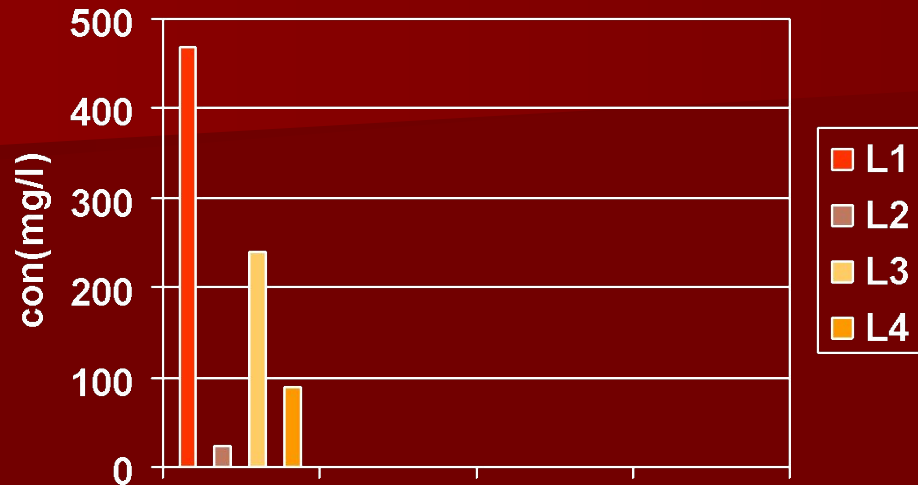
## DO & BOD



## COD

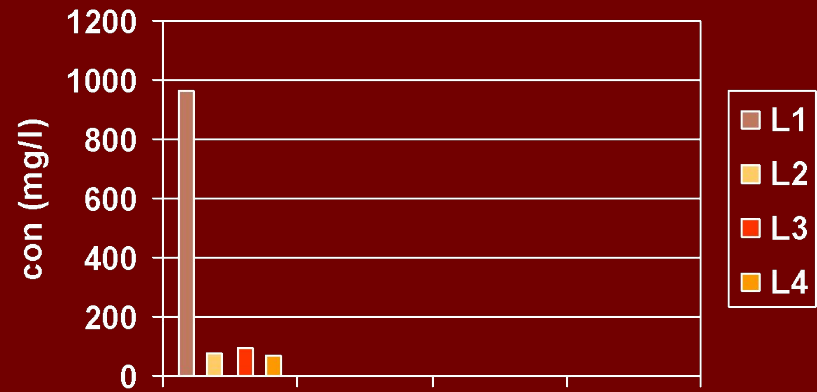


## Alkalinity



lakes

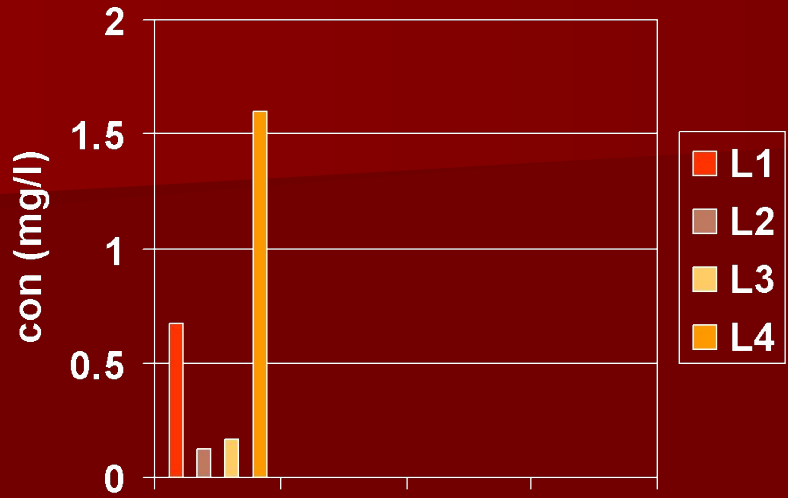
## chloride



lakes

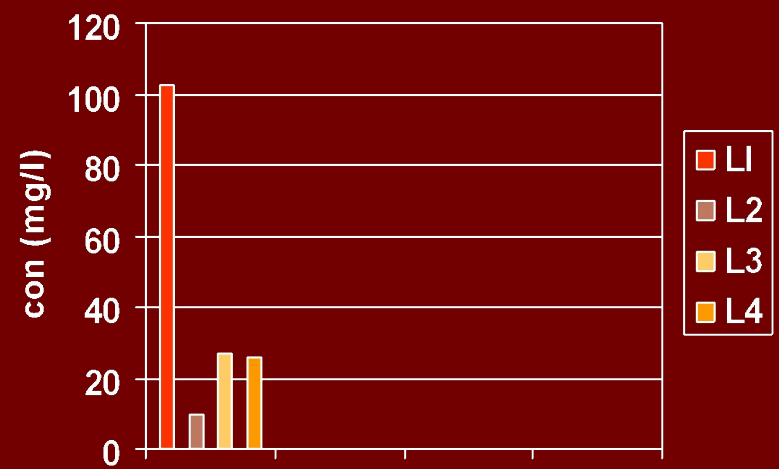


# phosphate



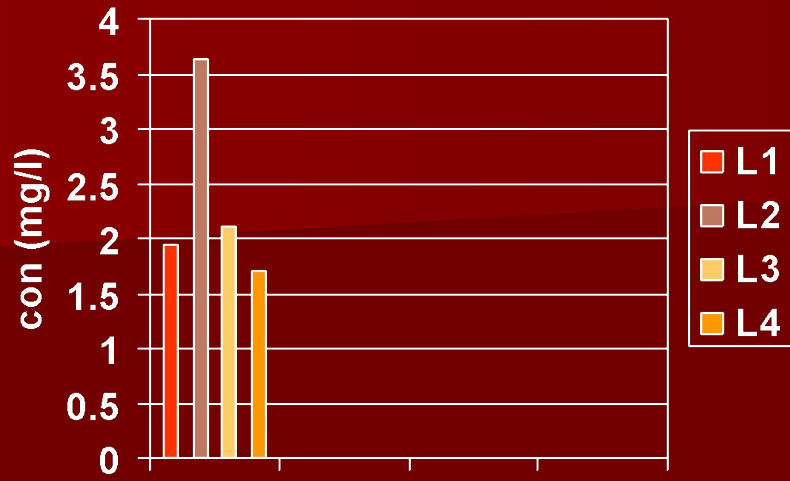
lakes

# sulphate



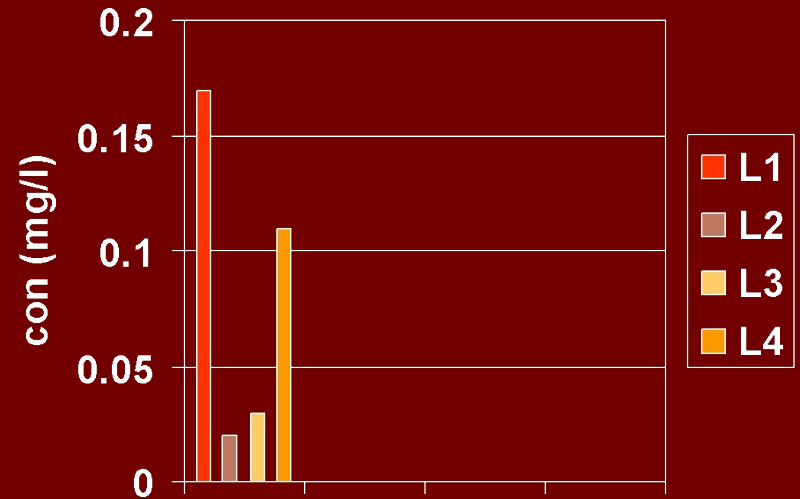
lakes

# Ammonia



lakes

# Nitrite



lakes

# Pollution causative

- Industrial effluents
- Domestic sewage



Cont....

Cont....

- Municipal Solid Waste (MSW)



- Intrusion of linking canals



# Conservation measures

- Regulatory measures
  - Community reserves
  - Buffer area formation
- Establishment of Effluent Treatment Plant
- Regular monitoring of the lakes

# Conclusion

- Most of the parameters recorded showed higher values for Ukkadam lake
- Perur water quality degraded when compared with previous data
- Perur to be declared as bird sanctuary
- Regular monitoring of water quality

Thank you

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