

# **WATER QUALITY ANALYSIS AND EFFECT OF WATER POLLUTION ON AQUATIC AND WETLAND FLORA OF CALICUT DISTRICT**

## **Executive Summary of UGC Minor Project**

(MRP(S)-0214/12-13/KLCA034/UGC-SWRO dated 23.9.2013)

Water quality of various water resources in Kozhikode district was analysed during the period September 2014 to March 2015. Water samples were collected randomly from various water bodies including wells, ponds, streams, canals and wetlands from different regions of the district. Analysis of quality for some physical and chemical and bacteriological parameters of water such as colour, odour, pH, chloride, fluoride, nitrate, iron, conductivity, dissolved oxygen, biological oxygen demand, presence of coliform bacteria etc. were conducted. Samples were collected during three seasons during one complete year – pre monsoon, monsoon and monsoon seasons from the same sites. Many of the samples analysed were found to have varying pH levels ranging from 5 to 7. The values below 6 are considered to be above permissible limit. Some other parameters analysed like turbidity, suspended solids etc. were also found to be varying from sample to sample. Other parameters stood below the permissible limit in almost all the samples except the water collected from Canoli canal. Turbidity was more frequently observed during monsoon season. Presence of coliform bacteria was detected in many of the sampling sites. High rate of water pollution was detected from Cannoli canal running through the heart of the Kozhikode city which is presently disturbed by very high rate of sewage deposition. Water quality was not a serious issue as far as the physicochemical parameters were concerned in the wells, rivers and streams. But the presence of coliform bacteria was detected in about 20% - 25% of the samples analysed during different seasons. The effect of pollution on the morphology, anatomy and chemical contents of the aquatic and wetland plants associated with these water bodies was also analysed. No major variations in the morphology, anatomy and chemical contents were noticed.

### **Publications**

Deena M J (2014) Water Quality of Wetland Ecosystems - A Sample Study from Kozhikode District, Kerala. *Indian Journal of Applied Research* 4(10): 259-262.