

## Analysis of Physico-Chemical Parameters and Bacterial Population in Kaveri River of Tamilnadu

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**ABSTRACT:**

The evaluation of Physico-chemical parameters and bacterial populations of Kaveri River from five stations of Dharmapuri District of Tamil Nadu were studied. The pH of the water samples from five stations were varied from 6.2 to 8.7. The TDS of the water samples was ranged from  $321.25 \pm 11.8$  to  $519.25 \pm 20.8$  in different stations. The temperature, rainfall, turbidity, TA, Cl, TH, Conductivity, Ca, Mg,  $SO_4$ ,  $PO_4$  and F were also varied at different stations. The maximum ( $20.25 \times 10^7$  CFU ml<sup>-1</sup>) bacterial population was found in the station-Pili kundu and the minimum ( $61.7 \times 10^5$  CFU ml<sup>-1</sup>) was recorded in station-Ootamalai. The statistical analysis, Correlation coefficient, multiple regression analysis and multiple linear regression analysis for bacterial population were compared with variables showed at 0.01 and 0.05 level significant. The quality of water was determined by the environmental conditions and physiochemical parameters.

**Keywords:**

Pollution, bacterial population, physicochemical parameters, River Kaveri.