

## ASSESSMENT OF CLASS OF WATER IN RIVER BRAHMANI, ODISHA: A CASE STUDY

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### ABSTRACT

The present investigation is aimed at assessing the current water quality standard and Class of water along the stretch of Brahmani River in terms of physico-chemical parameters. In the selected study area the River Brahmani is receiving a considerable amount of industrial wastes and witnessing a considerable amount of human and agricultural activities. Twelve samples were collected along the entire stretches of the river basin during the period from January-2000 to December-2015 on the first working day of every month. In the selected research area, the Brahmani River is receiving the domestic, industrial, and municipal waste waters/effluents all along its course. Various physico-chemical parameters like pH, Nitrate (NO<sub>3</sub>), Total Dissolved Solids (TDS), Boron, Alkalinity, Calcium, Magnesium, Turbidity, Chloride (Cl<sup>-</sup>), Sulphate (SO<sub>4</sub><sup>2-</sup>), Fluoride (F<sup>-</sup>) and Iron (Fe) etc. were analysed. The present study indicates that the water quality of Brahmani River is well within tolerance limit taking the physico-chemical parameters into considerations.

**Keywords:** Brahmani River, Physico-chemical parameters, pH, TDS, Alkalinity, Class of Water, Tolerance limit.