

Heavy Metal Pollution Status in the Water of River Benue along Ibi, Taraba State, Nigeria

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Abstract : This study was aimed at the assessment of heavy metal pollution of the water in river Benue along Ibi, Taraba State, Nigeria. Water samples were collected at ten sampling points over a distance of 100 meters each. The following water quality parameters were determined: TDS, copper, zinc, chromium, iron, mercury, nickel, and manganese, and the results were compared with the Nigerian Standard for Drinking Water Quality (NSDWQ) and WHO maximum permitted limits. The water quality analysis was conducted using the atomic absorption spectrophotometer (Model: 01-0960-00) at 510 nm. The mean value concentrations of copper, zinc, chromium, nickel, mercury, and mercury are within the permissible limits, while that of iron is above the limit. The summary of ANOVA single-factor statistics with a specified rejection level at α 0.05 is insignificant. The study concludes that the quality of water from river Benue along Ibi is deteriorating and unfit for human consumption. It was recommended that residents of the study area should be enlightened on the effects of indiscriminate dumping of waste and the proper handling and application of fertilizer and herbicides, as some of these end up in the river via surface runoff.

Keywords : heavy, metal, pollution, river, Ibi

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