

Status of Physical, Chemical and Biological Attributes of Isheri, Ogun River, in Relation to the Surrounding Anthropogenic Activities of Kara Abattoir, South West Nigeria

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Abstract : A study on the physical, chemical and biological parameters of the lower course of Ogun River, Isheri-Olofin was carried out between January and December 2014 in order to determine the effects of the anthropogenic activities of the Kara abattoir and domestic waste depositions on the quality of the water. Water samples were taken twice each month at three selected stations A, B and C (based on characteristic features or activity levels) along the water course. Samples were analysed using standard methods for chemical and biological parameters the same day in the laboratory while physical parameters were determined in-situ with water parameters kit. Generally, results of Transparency, Dissolved Oxygen, Nitrates, TDS and Alkalinity fall below the permissible limits of WHO and FEPA standards for drinking and fish production. Results of phosphates, lead and cadmium were also low but still within the permissible limit. Only Temperature and pH were within limit. Low plankton community, (phytoplankton, zooplankton), which ranges from 3, 5 to 40, 23 were as a result of low levels of DO, transparency and phosphate. The presence of coliform bacteria of public health importance like *Escherichia coli*, *Proteus vulgaris*, *Aeromonas sp.*, *Shigella sp*, *Enterobacter aerogenes* as well as gram negative bacteria *Proteus morgani* are mainly indicators of faecal pollution. Fish and other resources obtained from this water stand the risk of being contaminated with these organisms and man is at the receiving end. The results of the physical, chemical and some biological parameters of Isheri, Ogun River, according to this study showed that the live forms of aquatic and fisheries resources there are dwelling under stress as a result of deposition of bones, horns, faecal components, slurry of suspended solids, fat and blood into the water. Government should therefore establish good monitoring system against illegal waste depositions and create education programmes that will enlighten the community on the social, ecological and economic values of the river.

Keywords : water parameters, Isheri Ogun river, anthropogenic activities, Kara abattoir

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