

# COMPARATIVE STUDIES OF MODELS FOR THE ASSESSMENT OF ENVIRONMENTAL POLLUTION: A CASE STUDY OF THE BONNY ESTUARY IN THE NIGER DELTA, NIGERIA

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## ABSTRACT

Three models (Bhargava, 1983; Erundu & Nduka, 1993; Onuoha & Nduka, 2004) were applied to physico-chemical data collected from the Bonny estuary, Niger Delta (Nigeria) for the classification of the aquatic system for various beneficial uses (fishing, bathing, public water supplies, etc.). Standardized sensitivity functions were used in determining the Water Quality Index (WQI) for various beneficial uses. The exponential models (Erundu and Nduka, 1993; Onuoha and Nduka, 2004) are considered more apposite for the classification of the Nigerian aquatic environments, especially the overburdened waters of the Niger Delta. The models will find useful application in monitoring and control of aquatic pollution

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