

Surface water pollution from industrial, agricultural, municipal, and transportation sources constitutes a serious menace to ecological functioning. In the developing countries of Africa, rapidly emerging urban centers like Lagos, Ibadan Bamako, Niamey, and Nairobi, lack of appropriate wastewater disposal, and treatment facilities feature commonly on prominent river basins. Public health and the adjoining and distal terrestrial and aquatic ecosystems are usually at the receiving end of the resultant malevolent impacts. Several mathematical models have been designed to address surface water pollution problems such as eutrophication, heavy metal toxicity, nutrient contamination, etc. Most of these models are too theoretical and do not consider the multifaceted interactions that are associated with ever increasing anthropogenic activities. This informs the