

An environmental pollution investigation was carried out to determine the concentrations of aluminum (Al), arsenic (As), cadmium (Cd), and mercury (Hg) (heavy metals) in the surface water and river water bed sediments of lagoons and estuaries along the coastal belt of Ghana. The study assessed the environmental pollution situation and evaluated their sources and distribution of these metals. The total concentrations of Al, As, Cd, and Hg were determined by the neutron activation analysis technique. Water and sediment samples were collected from the Benya, Fosu, and Narkwa lagoons in the Central Region and from the Pra estuary in the western part of Ghana. Some indices, such as contamination factor, pollution-load index, contamination degree, and geoaccumulation index, were used to assess eco-environmental quality of the sampling sites. The analysis indicated that the Fosu lagoon was fairly polluted with Cd. The investigation indicated a highly localized distribution pattern closely associated with the two pollution sources (garbage/solid waste dumps and industrial activities) along the coastal belt. The resulting environmental deterioration required a concerted evaluative effort by all stakeholders.