Anthropogenic Pollution in the Dar es Salaam Harbour Area, Tanzania

By

John F. Machiwa

Abstract

Man-made pollutants, namely, petroleum hydrocarbons, polychlorinated biphenyls (PCBs), and heavy metals as well as microbial pollution in the sediments of the harbour channel have been evaluated. Petroleum hydrocarbons, PCBs and heavy metals (Fe, Pb, Cu, and Zn) are at elevated levels in the port area used for loading and unloading activities. The concentration of the chemicals decreases further offshore, with the exception of cadmium which, surprisingly, is enriched in the sediments at the ship outer anchorage zone. The concentration-depth profile of the sediment core samples show that in general metals are uniformly distributed with depth in the sediment. The between station variation of Mn, Cr and Ni is strongly influenced by grain size differences. Total and faecal coliform bacteria are few in the port area but are extremely abundant at the fish landing beach and close to the sewer outfall.

Keywords

Anthropogenic pollution; Environment pollution; harbour area; Tanzania