Marine Pollution along the Dar Es Salaam City Coast: Case Study, Central Business Area

Mato, Rubhera RAM.

Department of Environmental Engineering, University College of Lands & Architectural Studies, Dar Salaam, Tanzania

Dar es Salaam City is the largest urban centre in Tanzania with a population exceeding 3 Million. The City is found on the Indian Ocean's coast in East African region. It has more than 30km coastline consisting of natural beaches, mangrove patches, and bays. The Msimbazi River Bay and the Dar es Salaam harbour bound the Central Business District (CBD). Fishing and recreation are among the daily activities characterizing the coast environment in the city. However, for many years, the quality of the coastal waters and beaches has been deteriorating, particularly due to incessant discharge of wastes and dynamite fishing. The results have been elevated levels of pollutants in the coastal waters, strong pungent smells of rotting algae, filthy beaches, acute erosion and loss of biological habitats. Pollution originates from land based activities within the CBD and few other areas. The Msimbazi River and Kizinga River bring into the coastal waters huge loads of waste (including industrial effluents), that concentrate within 6km of the coastline bordering the CBD. A sea outfall, which was constructed more than 40 years ago, discharge raw wastewater within 800m from the shoreline. In addition, major constructed stormwater drainage channels collect enormous wastes from diffuse sources and discharge them in the same coast reach. Studies done along the CBD's coastal waters for the past 15 years indicate high levels of heavy metals (lead and cadmium) and gross faecal pollution, such that swimming and other activities in this environment have become hygienically dangerous. In addition, serious beach erosion is threatening infrastructure and other properties along the coastlines. Beach sited hotels (e.g. Kunduchi Beach and Bahari Beach) are spending huge sums of money to install erosion control. All the efforts made to alleviate the situation are fragmented and adhoc, in many times being frustrated by inadequate funds. Integrated waste management for land-based activities and community involvement are key factors to consider in sustainable management of our coastal waters. Such approach may lead to friendly co-existence between coast and people. This paper discusses marine pollution issues in urban centres in developing countries like Tanzania, with a focus of involving communities in caring for the resource.