

Developing urban geochemical maps for environmental information and planning in Nigeria

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Nigerian cities have grown into urban settlements without requisite planning leading to deteriorating quality of environmental media. This work outlines the development of geochemical maps for potentially harmful elements (Cu, Pb, Zn, Cr, etc.) in selected cities in Nigeria. These maps were developed from geochemical analyses of samples from environmental media that are usually the most impacted (soils, sediments and road dusts). The maps were prepared by plotting the concentrations of the analysed elements on base maps derived from a combination of city maps and satellite imageries in a GIS format.

The maps generated showed vivid relationship among spatial distributions of these PHEs, the type of underlying geologic materials as well as the effects of the various anthropogenic activities within the urban environments. *Hotspots* were identified to be areas with huge population, routes with huge traffic concentrations and snags, isolated waste dumps sites as well as industrial layouts. These maps thus become veritable information tool for planning, monitoring and policy formulation as well as basis for evaluating potential impacts on human health.