

Assessment of Trace Metal Concentration of Soils Contaminated with Carbide in Abraka, Delta State, Nigeria

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Abstract : An investigation was carried out on trace metal concentration of soils contaminated with carbide in Abraka, Delta State, Nigeria in 2014 with a view to providing baseline formation on their status relative to the control plants and to the tolerable limits recommended by World standard bodies including WHO and FAO. The metals were analyzed using the Atomic Absorption Spectrophotometer which showed an elevated level when compared with the control plots. High level of metals including Fe, Pb, Zn, Cu, Cd, Ni, Cr and arsenic were recorded and these values were significantly different ($P < 0.05$) from values obtained from the control plots. These results are indicative of the fact that carbide polluted soil had higher level of trace metals and because these metals are non-biodegradable elements in the ecosystem, a rise to their lethal levels in food chains is envisaged due to the interdependency of plants and animals stemming from soil-water organisms interrelationship.

Keywords : bio-concentration, carbide contaminated soils, heavy metals, trace metals

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