



Changes in Some Physical and Chemical Properties of Soils as Influenced by Okpella Cement Factory

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Abstract: The study assessed some of the physical and chemical properties of soils at the vicinity of Okpella Cement Factory. A total of 72 soil samples were collected from 0-10 cm, 10-20 cm, 20-30 cm and 30-40 cm depths around the factory and 36 samples collected at the control site. The soil samples were subjected to various routine laboratory analyses. Results showed that the soils around the factory and control sites were sandy loam with high level of sand followed by clay and then silt. Higher levels of Fe, Cu, Zn, Pb and Cd were achieved around the vicinity of the cement factory compared to the control. The Fe, Cu and Zn content of the studied sites were however below critical level while the Pb and Cd were above the critical level needed in the soils. Similarly, higher levels of P, K, Ca, Mg, Na, organic carbon, organic matter and soil pH were recorded in the soils around the cement factory than that of the control site. The N content of the control site soil was however higher than the soils around the cement factory.

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