Road traffic induced pollution of roadside soil: A case study of Sango-Ota, Ogun State, Nigeria

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Abstract
This study examined the influence of road traffic on the accumulation of heavy metals in roadside soil located at Sango-Ota, Ogun State, Nigeria were selected on the basis of their high and low concentration of vehicular traffic. Standard methods were used in digesting the soil samples (experimental and control) taken from the roadsides and in determining some heavy metals (Cu, Zn, Pb, Mn, Ni, Fe, Cr and Ag) presence using atomic absorption spectrophotometer. The ranges of concentrations of the heavy metals found in the samples were 3.2 - 52.6, 23.9 - 232.5, 9.8 - 51.3, 16.4 - 89.3, 7.9 - 24.5, 59.4 - 573.5, 12.4 - 89.2 and 0.00 - 0.12 mg/kg for Cu, Zn, Pb, Mn, Ni, Fe, Cr and Ag, respectively. These values were observed to be relatively lower than that stipulated by European Union standard expect Ag that was not specified in the standard. This study revealed the relatively low level of roadside soil pollution due to vehicular movement on the roads in the area of study. Improved traffic flow, good maintenance of vehicles and stringent policy on emission control are amongst possible measures suggested to curb pollution of roadside soil due to road traffic.

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