

Vol. 13 (1): 219-224 (2023)

ASSESSMENT OF THE LEVELS OF HEAVY METAL POLLUTION IN ROADSIDE SOILS OF TIARET CITY, ALGERIA

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Received November 2022; Accepted December 2022; Published January 2023;

DOI: <https://doi.org/10.31407/ijeess13.128>

ABSTRACT

The present study concerns an investigation of heavy metals (Pb, Zn) levels in the roadside's soils of Tiaret city, Algeria; an expanding city subject to a heavy automobile traffic. Sixteen locations were chosen for this study near the main roads of the city. The results revealed high lead (Pb) and zinc (Zn) levels, that varies considerably between the sampling points. Lead levels ranged from 87 to 2580 $\mu\text{g}\cdot\text{g}^{-1}$, and zinc from 146 to 2260 $\mu\text{g}\cdot\text{g}^{-1}$, showing that lead and zinc pollution is linked to road traffic. The highest Pb concentration ($2580\pm 40 \mu\text{g}\cdot\text{g}^{-1}$) was observed in location S15, as well as that of Zn with a concentration of ($2260\pm 660 \mu\text{g}\cdot\text{g}^{-1}$) were we notice a high traffic activity, compared to the location S11 find to be the only unpolluted soil sample for both Pb and Zn. The extent of soil contamination by heavy metals is quite significant in the city of Tiaret, which should be monitored regularly to study its evolution and propose solutions to reduce the risks associated with this traffic linked pollution.

Keywords: Roadside Soil, Pollution, Road traffic, Lead, Zinc.