

**HEAVY METAL CONCENTRATIONS IN ROADSIDE SURFACE
SOILS**

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ABSTRACT

HEAVY METAL CONCENTRATIONS IN ROADSIDE SURFACE SOILS

The heavy metals in semi-urban soil can give effect to human through inhalation, dermal contact and ingestion when exposed to this soil directly. In this study, a total of 15 soil samples were collected at the roadside of Jalan Jengka-Temerloh, Pahang. This study aims to investigate the concentration of selected heavy metals at the roadside surface soils, and analyse the health risk assessment (HRA) from different pathways which are via inhalation and dermal contact. The concentration of Cd (0.01 mg/kg) in the roadside surface soil was almost similar with control soil value (0.00 mg/kg), while the concentration of Cr (0.35 mg/kg), Pb (0.43 mg/kg) and Zn (0.23 mg/kg) were quite higher when compared with control soil. The Hazard Index (HI) and Life Time Cancer Risk (LCR) were used to estimate the value for both non-carcinogenic and carcinogenic. In this study, the study area can be considered as safe zone and place because the value is within the acceptable value. For further study, it is recommended to analyse other type of heavy metal, for instance arsenic, mercury and copper which may also give an adverse health effect to human especially when they exposed in higher concentration.