

# Heavy metal contamination at dumpsites at Eldoret, Kenya, in the Lake Victoria Basin

*Sandra Khatiebi, Donald Siamba, Zedekiah Onyando, Chrispinus Mulmbala, Martha Konje*

## Abstract

This study assessed the heavy metals concentrations in municipal solid wastes at Eldoret Mwenderi dumpsites located at the shores of river Sosiani within the Lake Victoria Basin, Kenya. Concentrations of the three heavy metals analysed (lead, arsenic and cadmium) in water and leachate were higher than the WHO acceptable standards. Lead concentrations in solid wastes were slightly above East African acceptable standards but well above the US EPA compost standards. The wastes dumped in this site are not sorted and the dumpsite lacks a leachate collection and removal system. Lack of composite liners at the bottom and side of the dumpsite allow leachates to move into the ground water around the dumpsite. These metals are a potential threat to Lake Victoria and regular monitoring of ground and surface water of the surrounding area should be done to detect any heavy metals escaping the dumpsite.