

Impact of Municipal Solid Waste on Heavy Metals of Soils collected near Landfill Sites of Visakhapatnam City

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ABSTRACT

The survey was conducted during the year 2021-2022 at the Regional Agricultural Research Station, Anakapalle, Andhra Pradesh to know the “effect of municipal solid waste on soil properties in Visakhapatnam city” and to assess the nutrient status of the soils near landfill sites of Visakhapatnam city as the farmers are using municipal solid waste as compost to repair the deteriorated soils. Soil samples were collected from seven dump yards at a distance of 10, 50 and 100 m from each landfill site at surface (0-30 cm) and sub surface (30-60 cm) and were analyzed for heavy metals of soils. The study clearly revealed the impact of municipal wastes on heavy metals of soil properties. The heavy metals, lead, cadmium and chromium content decreased in soil samples with increase in depth and with increase in distance from landfill sites. The distribution of nickel increase or decrease in soil did not follow any specific pattern with change in depth of soil and distance from landfill. The result of modified degree of contamination due to heavy metals indicated that the area was considerably polluted and deteriorated in terms of its quality.

Key words: *Dumpsite, Heavy metals, Landfill site, Municipal solid waste and Soil properties*