

(ID 319)

Valuing the Disamenity of Karadiyana Open Dumpsite in Sri Lanka: Application of Hedonic Pricing Method

Wanniarachchi, G.V.^{1*}, Gunawardena, U.A.D.P.²

¹*Faculty of Graduate Studies, University of Sri Jayewardenepura Nugegoda, Sri Lanka*

²*Department of Forestry and Environmental Science, University of Sri Jayewardenepura, Nugegoda Sri Lanka*

**viyathmawanniarachchi@gmail.com*

Abstract

The way municipal solid waste (MSW) is managed differs from country to country and is largely dependent on the financial situation of the country. For a large part of Asia, open disposal is the most common way of disposing of municipal solid waste. The open disposal of waste can pose environmental and health risks to people, and these problems are aggravated with rapid urbanisation. When making decisions on MSW management, the externalities posed by open dumping are often overlooked. However, there are few studies that attempt to identify or calculate the cost of externalities caused by open dumps. The study therefore aims to adopt a hedonic model to assess the disamenity value of the Karadiyana open-dump site, which is said to be the most polluted dumpsite in Sri Lanka. A pre-tested questionnaire was administered to the local community living near the dump site, using stratified random sampling. The households were chosen from distances of 100 m, 200 m, 300 m, 500 m, and 700 m in three directions. The survey was conducted in June 2022, and a total of 153 households were surveyed. The findings demonstrate that the worth of the property increases by 2% for every 100 meters away from the edge of the dumpsite. Additionally, the odour and visibility of the dumpsite had a negative effect on the property values. The mean willingness to pay for restoring the site is LKR 6,000.00 per household. In conclusion, the results suggest a significant welfare consequence on local wealth and the surrounding communities.

Keywords: Open dumpsite, Hedonic Pricing Model, Disamenity