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This journal is dedicated to the late Professor Graeme Hugo

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Lakshman Dissanayake

When is Sri Lanka Reaching Replacement Level of Fertility?

Gaminiratne Wijsekere

Changing Patterns of Food Consumption in Sri Lanka from 1985-2009 Based on Food Disappearance Data

K.A.P. Siddhisena and M.D.A.L. Ranasinghe

Women on the Move: Human Trafficking in Sri Lanka

Ruwan Jayathilaka

Socio-Economic and Demographic Characteristics of Poor Alcohol Consumers in Sri Lanka

S.P. Premaratne

Intra-Household Expenditure Sharing by Elderly Couples: A Collective Model

Fareena Ruzaik

An Assessment of Health Hazards of Open Dump of Solid Waste in the Colombo Municipal Council Area

Pabasara Jayathilaka and Prabhu Subasinghe

Work Stress and Job Performance in Relation to Gender and Years of Employment

Gayani Ranasinghe and Ranjana U.K. Piyadasa

Socio Economic Elements that Affect Flood Vulnerability

I.R. Bandara

Factors Affecting Contraceptive Use of Women in Sri Lanka

Priya Sharma and Navaid Ali Khan

Prevalence and Determinants of Foetal Wastage in India

Gayathri Abeywickrama

Fertility Decision Making by Women in Shanties in Colombo District

Book Review

AN ASSESSMENT OF HEALTH HAZARDS OF OPEN DUMP OF SOLID WASTE IN THE COLOMBO MUNICIPAL COUNCIL AREA

Fareena Ruzaik*

Abstract: Colombo Municipal Council (CMC) disposes an average of 800 MT/day. Generally, the practice of disposing solid waste is open dumping and burning, which creates multifarious health issues to the dwellers of CMC area. Prime objective of this study is to evaluate the health hazards of open dump of solid waste in the Colombo Municipal Council area. An area of 7,069m² around the Colombo dumpsite was incorporated for this study, selecting 378 samples randomly from 15,400 households. Majorly, 23 types of health issues were identified from all three rings. Accordingly, the first ring (0-500 m) shows 54.0% of health issues and second (500-1000m) and third (1000-1500 m) rings recorded 32.4% and 13.6% respectively. Therefore, the p-value becomes significant (1.40562E-10). This study found that the nature, effects, size and volume of issues are varied; according to the distance, direction and location of the residences from the dumpsites and has a negative relationship between health issues and distance. Accordingly, this study recommends implementing an integrated system to manage the solid waste in its territory, consolidating all stakeholders into a single administrative point.

Keywords: Open disposal, health issues, environmental terrorism, integrated management system

Introduction

Colombo district, as the commercial and administrative capital of Sri Lanka, has a direct link with all part of the Island. All the operations in terms of local trade, imports, exports, financial services, political and other socio-economic activities of the country are functioned, based on Colombo as a hub. Therefore, the probability of discharging unwanted items to the environment is very high, due to the interaction of both permanent and floating population. The Colombo Municipal Council (CMC) collects such unwanted items in the form of domestic, industrial, hospital, commercial waste etc., which is amounting to daily average of 800 MT (CMC, 2014). It is challenging for the CMC to productively manage such a high volume in its territory; due to the increasing trend of population density, unplanned settlement patterns, volume of daily floating population, improper waste management practices, lack of bear land for waste disposal and other constraints. On the other hand, both households and CMC practice open dumping and burning methods for disposing its waste, without any proper system. Therefore, this has become a large threat to the urban environment and public health; creating multifarious health issues, majorly vector borne (dengue, malaria, chicken guinea, rabies and skin rashes) and respiratory (asthma, breathing difficulties and wheezing) diseases (Ministry of Health, 2014).

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