



Solid waste management and health in Accra, Ghana

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FOREWORD

One of the best means of improving health through preventive action is through the improvement of household and community environments in developing countries (World Resources Institute, UNEP, UNDP and WB, 1998: ix).¹ Other studies have shown that improving household environments could avert the annual loss of almost 80 million “disability free” years of human life in developing countries – more than the feasible improvement attributable to all identified environmental measures combined such as unsafe workplace conditions, ambient air pollution and traffic injuries (McGranahan et al., 1996: 111; World Bank, 1993).^{2,3} Some of these problems in our human settlements, especially large metropolitan areas such as the Greater Accra Metropolitan Area, include: inadequate potable water supply, unsanitary conditions, uncollected rubbish and waste, among others. A water, sanitation and hygiene (WASH) focus has been dominant under WASH programmes but little attention has been given to solid waste management and health.

This gap is being addressed for Accra in this study using various scenarios focusing on the air pollution, health and climate change impacts of different solid waste management practices. It seeks to direct the attention of policy-makers to the implications of various technological options for solid waste management on health. Although this is quite innovative, much greater benefits could accrue from more detailed intra-urban analysis given the increasing inequalities in wealth, solid waste management and health in Accra. This was not immediately possible because of inadequacies in the available data.

With its focus on modelling the impact of different solid waste management practices, this study should be of great interest to those planning and managing the metropolis, given the impact improvements could make to the quality of life of all its citizens.

Professor Jacob Songsore
Ghana Academy of Arts and Sciences

7 December 2020

¹ World Resources Institute, UNEP, UNDP and WB (1998). *A guide to the global environment*. Oxford: Oxford University Press.

² McGranahan G, Songsore J, Kjellen M (1996). *Sustainability, poverty and urban environmental transitions*. In: Cedric Pugh (ed.). *Sustainability, the environment and urbanization*. London: Earthscan; 103–133.

³ World Bank (1993). *World development report: investing in health*. Oxford: Oxford University Press.



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ABBREVIATIONS

ACaRP	Accra Composting and Recycling Plant
AMA	Accra Metropolitan Assembly
BAU	business-as-usual
BC	black carbon
CCAC	Climate and Clean Air Coalition
CH ₄	methane
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
EPA-Ghana	Environmental Protection Agency Ghana
GAMA	Greater Accra Metropolitan Area
GHG	greenhouse gas
HFCs	hydrofluorocarbons
HIA	health impact assessment
IPCC	Intergovernmental Panel on Climate Change
MLGRD	Ministry of Local Government and Rural Development
MMDAs	metropolitan, municipal and district assemblies
NO _x	nitrogen oxide
PAHs	polycyclic aromatic hydrocarbons
PM	particulate matter
PMWMD	Phase Model of Waste Management Development
RUWM	Robust Uniform World Model
SDG	Sustainable Development Goal
SLCPs	short-lived climate pollutants
SWEET	Solid Waste Emissions Estimation Tool
SWM	solid waste management

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