

SOLID WASTE ON THE ENVIRONMENT AFFECTING HEALTH AND PRODUCTIVITY IN CHENNAI CITY

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Urban poor living in slums undergo strenuous life with poor access to clean water, improper sanitation and absence of sanitary waste disposal. With limited resources to deal with these risks, they always bear an unfair burden of health risks. Undisposed wastes make slums the breeding grounds for insects, rodents and a variety of biological pathogens, causing vector-borne diseases such as malaria, yellow fever, filaria etc. The pathogens cause health problems when people are in contact with toxic and faecal wastes rampant in slum environment. Cumulative exposure of the pollutants through inhalation, ingestion and dermal absorption to Volatile Organic Compounds (VOC) decides the extent of health risk of the slum dwellers. Waterborne diseases spread due to inadequate sewage disposal facilities and waste matter mixing with open water resources. The slum dwellers live all along the banks of water ways in the city, under life threatening and health threatening homes and environment of poor sanitation and polluted water.

The study examines the prevailing conditions of slum environment, degraded due to the accumulation of undisposed solid wastes and the absence of sanitary facilities which influence the health and productivity of slum dwellers in Chennai city. The estimation of health and productivity involves the measurement of morbidity and mortality. Binary logic regression model has been used to estimate the impact of the undisposed solid wastes on the health and productivity of slum dwellers by using the dose-response measure. Damage functions are based on dose response data to estimate the economic cost of environmental change which is further converted into economic values. Human capital method has been used to estimate the cost of bad health owing to the impact of environmental degradation on the productivity of the worker.

The economic cost of illness shows that the cost of sickness is many times higher than the cost of keeping the city clean. The problems due to undisposed solid waste are a unique problem and it acts as a vital factor for urban disamenity especially in the slums in Chennai city. Moreover, awareness of health problems due to degraded living environment would reduce the sufferings of the slum dwellers socially and economically.

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