

ABSTRACT

The Southwest Nigeria has witnessed tremendous increase in output of municipal wastes in the recent years. Non availability of government policy on solid wastes management or its lack of effectiveness where it exists makes unabated open burning the predominant means of municipal solid waste disposal in the region. Open burning of municipal wastes being a major source of anthropogenic air emissions was investigated for atmospheric loading of some hazardous organic pollutants using emission inventory method. The specific pollutants considered in this study were volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), polychlorinated dibenzo -p- dioxin (PCDDs) and polychlorinated dibenzo furan (PCDF). The estimated release of VOCs, PAHs, PCBs, PCDD and PCDF from open burning of municipal wastes in the region over the 5- year period investigated were 64000 tonnes, 988 tonnes, 43 tonnes, 0.56 tonnes and 0.2 tonnes respectively. Giving the serious human health implications associated with these hazardous organic pollutants, the study suggested conversion of wastes to energy as a possible solution since the region also has energy challenges.